

Module Catalogue

for the Module studies (Bachelor)

Biology

Examination regulations version: 2019 Responsible: Faculty of Biology

JMU Würzburg • generated 19-Apr-2025 • exam. reg. data record MB|026|-|-|H|2019



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Abbreviations used

Course types: $\mathbf{E} = \text{field trip}$, $\mathbf{K} = \text{colloquium}$, $\mathbf{O} = \text{conversatorium}$, $\mathbf{P} = \text{placement/lab course}$, $\mathbf{R} = \text{project}$, $\mathbf{S} = \text{seminar}$, $\mathbf{T} = \text{tutorial}$, $\ddot{\mathbf{U}} = \text{exercise}$, $\mathbf{V} = \text{lecture}$

Term: **SS** = summer semester, **WS** = winter semester

Methods of grading: **NUM** = numerical grade, **B/NB** = (not) successfully completed

Regulations: **(L)ASPO** = general academic and examination regulations (for teaching-degree programmes), **FSB** = subject-specific provisions, **SFB** = list of modules

Other: A = thesis, LV = course(s), PL = assessment(s), TN = participants, VL = prerequisite(s)

Conventions

Unless otherwise stated, courses and assessments will be held in German, assessments will be offered every semester and modules are not creditable for bonus.

Notes

Should there be the option to choose between several methods of assessment, the lecturer will agree with the module coordinator on the method of assessment to be used in the current semester by two weeks after the start of the course at the latest and will communicate this in the customary manner.

Should the module comprise more than one graded assessment, all assessments will be equally weighted, unless otherwise stated below.

Should the assessment comprise several individual assessments, successful completion of the module will require successful completion of all individual assessments.

In accordance with

the general regulations governing the degree subject described in this module catalogue:

associated official publications (FSB (subject-specific provisions)/SFB (list of modules)):

15-May-2019 (2019-36)

27-Jun-2019 (2019-41)

14-Nov-2019 (2019-52)

22-Jan-2020 (2020-13)

o6-May-2020 (2020-39)

22-Jul-2020 (2020-57)

17-Dec-2020 (2020-110)

10-Mar-2021 (2021-17)



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o9-Jun-2021 (2021-58)
22-Dec-2021 (2021-85)
05-Jul-2022 (2022-52)
31-Jan-2023 (2022-86)
15-Jun-2023 (2023-58)
13-Dec-2023 (2023-107)
07-Aug-2024 (2024-82)
22-Jan-2025 (2025-1)
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This module handbook seeks to render, as accurately as possible, the data that is of statutory relevance according to the examination regulations of the degree subject. However, only the FSB (subject-specific provisions) and SFB (list of modules) in their officially published versions shall be legally binding. In the case of doubt, the provisions on, in particular, module assessments specified in the FSB/SFB shall prevail.



Summer Term 2019

(ECTS credits)



Module title					Abbreviation
Career Perspectives, Personal Competence and Communication Skills			07-SQF-KEB-152-m01		
Module coordinator Module offered by					by '
Coordi	nator B	ioCareers	Faculty of Biology		
ECTS	ECTS Method of grading Only after succ. compl. of module(s)				
5	nume	rical grade			
Duration Module level Other prerequisites		1			
1 semester undergraduate					
Combando					

This module will provide students with information on potential areas of employment for life scientists and will address the topic of job application and staff selection. It will discuss methods for analysing personality types and will acquaint students with criteria for developing personal and social skills. Building on this, the module will develop fundamental criteria for working in groups and teams. The fundamental principles of a project-oriented approach to work and of communication (incl. rhetoric and body language) will be discussed. Students will also receive advice on how to design and structure talks.

Intended learning outcomes

Students know what it takes to succeed in the job market. They are familiar with current developments in the job market, know how to go job hunting, and are familiar with recruitment practices of employers. Students have developed a fundamental knowledge of personality assessment methods and are familiar with conflict management methods. They are able to work in a team-based environment and have developed a fundamental knowledge of project management methods and approaches. Students have enhanced their teaching skills and are proficient in the theory and practice of communication. They know how to design and structure talks as well as to present data in both oral and written form. Students are aware of what body language may communicate.

Courses (type, number of weekly contact hours, language — if other than German)

V(1) + S(2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

written examination (approx. 30 to 60 minutes) Language of assessment: German and/or English creditable for bonus

Allocation of places

120 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subjects Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they ha-



ve achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, places will be allocated according to the selection process of group 1.

Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title				Abbreviation		
Organisation and Safety in Biosciences			07-SQF-OSB-152-m01			
Module coordinator				Module offered by		
Coordi	Coordinator BioCareers Faculty of Biology					
ECTS Method of grading Only after succ. com		mpl. of module(s)				
5	numerical grade					
Duration Module level Other prerequisites		5				
1 semester undergraduate						
Contor	Contents					

Safety procedures in the biosciences, in particular radiation protection, handling of genetically modified organisms, hygiene procedures and hazardous substances, working with lab animals. Fundamental concepts that help ensure an effective and efficient workflow in the biosciences. Structure and organisation of institutions in the bioscience/biotech sector. Process-based project management. HR management in the biosciences, responsibilities of managers/supervisors, appraisal interviews, target agreements, management styles.

Intended learning outcomes

Students have developed a fundamental knowledge of the regulations governing work in the bioscience sector and are familiar with fundamental organisational principles that are relevant for work in research and production. They are also familiar with fundamental principles of process-based project work in the biosciences.

Courses (type, number of weekly contact hours, language — if other than German)

V(1) + S(2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

written examination (60 minutes)

Language of assessment: German and/or English

creditable for bonus

Allocation of places

120 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking.



Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 150 h Teaching cycle $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module title					Abbreviation
Fungi: One kingdom, many faces			07-SQF-FUNGI-182-m01		
Module coordinator				Module offered by	y
holder of the Chair of Biotechnology and Biophysics Faculty of Bio			Faculty of Biology		
ECTS Method of grading Only after succ. co		compl. of module(s)			
5	nume	rical grade			
Duration Module level Other prerequisites		ites			
1 semester undergraduate					
Contents					

The course provides a concise overview of fungal systematics, cell biology, fungal genetics, plant pathogenicity, medical mycology, stimulus processing, and fungi in biotechnology. In the seminar current research topics will be presented and discussed. The exercise includes the microscopy of selected fungi / cultivation and preparation of media / day excursion "mushroom" and determination of collected material. The excursion depends on weather conditions.

Intended learning outcomes

The students are able to identify key characteristics of fungi and classify them accordingly. In addition, they possess knowledge on mushroom biology.

Courses (type, number of weekly contact hours, language - if other than German)

Ü (4)

Module taught in: German and/or English

 $\textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language}) \ (\textbf{type}, \textbf{language}) \$ module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle

Teaching cycle: every year, summer semester

Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title				Abbreviation	
Computer languages and programming 3			07-SQF-PRO3-182-m01		
Module coordinator				Module offered by	
chairperson of examination committee Biologie (Biologie)			Biologie (Biology)	Faculty of Biology	
ECTS Method of grading Only after succ. compl. of module		npl. of module(s)			
3	(not)	successfully completed	ully completed		
Duration Module level Other prerequisites					
1 seme	1 semester undergraduate				

Computer languages and programming using one or more computer languages like Java, C, C++, C#, Python, PHP.

Intended learning outcomes

The participants know the basics about computer languages and programming.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 90 h Teaching cycle $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Modul	e title	,			Abbreviation
Compu	ıter lan	guages and programmin	g 5		07-SQF-PRO5-182-m01
Modul	e coord	inator		Module offered by	
chairp	erson o	f examination committee	Biologie (Biology)	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites	i	
1 seme	ester	undergraduate			
Contor			,		

Computer languages and programming using one or more computer languages like Java, C, C++, C#, Python, PHP.

Intended learning outcomes

The participants know the basics about computer languages and programming.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (3)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 150 h Teaching cycle $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module	e title				Abbreviation
Legal a	nd Eth	ical Aspects in Biologi	cal Sciences		07-SQF-RETH-152-m01
Module	e coord	inator		Module offered by	-
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)	
5	nume	rical grade			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	undergraduate	exercises (minimun	n 80%) and successf	exercises. Regular attendance of ful completion of the respective rerequisites for admission to as-
Conten	ts		,		
animal	testing		in agriculture, biodivers		ch, cloning, transgenic animals, ervation, biotechnology and mi-
Intend	ed lear	ning outcomes			
ding st sity an	em cell d natur	research, cloning, tra e conservation, biotec	nsgenic animals, anima	al testing, genetic en ogy, medicine and ne	miliar with legal aspects surroun- gineering in agriculture, biodiver- eurogenetics and are able to eva- n and critically discuss these to-
Course	S (type, r	number of weekly contact hou	rs, language — if other than Ge	rman)	
V (1) +	Ü (1)				
		sessment (type, scope, lan ble for bonus)	guage — if other than German,	examination offered — if no	ot every semester, information on whether
	ige of a	nation (approx. 30 to 6 ssessment: German a bonus			
Allocat	ion of _I	olaces			
Additio	nal inf	ormation			
Worklo	ad				
150 h					
Teachi	ng cycl	e			

Teaching cycle: every year, summer semester

 $\textbf{Referred to in LPO I} \ \ (\text{exam} \underline{\quad } \text{ination regulations for teaching-degree programmes})$



Modul	e title				Abbreviation
Statist	ics 3				07-SQF-STAT3-182-m01
Modul	e coord	inator		Module offered by	
degree	progra	mme coordinator Biologi	e (Biology)	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. cor	npl. of module(s)	
3	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites	1	
1 seme	ester	undergraduate			
C 4					

Usage of specific statistical methods on practical examples

Intended learning outcomes

The participants know how to evaluate data statistically and how to use statistic methods in practical examples.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 90 h Teaching cycle $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module	e title	·			Abbreviation
Statist	ics 5				07-SQF-STAT5-182-m01
Modul	e coord	inator		Module offered by	
degree	progra	mme coordinator Biologi	e (Biology)	Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)	
5	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Contor	nt c		•		

Usage of specific statistical methods on practical examples

Intended learning outcomes

The participants know how to evaluate data statistically and how to use statistic methods in practical examples.

Courses (type, number of weekly contact hours, language — if other than German)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 150 h **Teaching cycle** $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Modul	e title					Abbreviation
Taxon	omy an	d Biology of Butterflies	i			07-SQF-BUFLY-182-m01
Modul	e coord	inator			Module offered by	
degree	progra	mme coordinator Biolo	gie (Biology)		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ.	. com	pl. of module(s)	
5	nume	rical grade				
Duratio	on	Module level	Other prerequis	sites		
1 seme	ester	undergraduate				
Conter	nte	•				

Taxonomy of butterflies and moth. Preparation of butterflies. Ecology and relevance. Developmental biology and developmental strategies of butterflies. Field excursions. Development of wingcolors. Species determination of moth using light traps. Exotic butterflies.

Intended learning outcomes

Students are able to recognize butterfly families and species and are able to estimate the relevance of butterflies as bioindicators.

Courses (type, number of weekly contact hours, language - if other than German)

Ü (4)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle

Teaching cycle: every year, summer semester

 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module title			Abbreviation		
Enviro	nmenta	l Education in the Botan	ic Garden of Würzbur	g University	07-SQF-UBG-152-m01
Modul	e coord	linator		Module offered	by
head o	f Botar	nical Garden		Faculty of Biolo	gy
ECTS	Method of grading Only after succ. co		Only after succ. com	mpl. of module(s)	
2	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ıts				

The Botanical Garden of the University of Würzburg is primarily used for teaching and research-related activities. In addition, it is used for activities in the area of general environmental education with the plants in the different sections and collections being used to inform interested members of the public about topics in the areas of botany, ecology and gardening. In this module, students will develop appropriate educational concepts for imparting, in a comprehensible way, specialist knowledge to interested laypersons. They will practise designing and using appropriate aids (information boards, leaflets etc.) and applying methodological approaches (guidelines) for the comprehensible presentation of complex concepts. Students will be organised into teams to complete the following tasks: develop contents tailored to the needs of selected target groups, acquire the specialist knowledge necessary for presenting these contents, select appropriate methods for presenting these contents.

Intended learning outcomes

Students will be able to communicate concepts in ecology and botany to a lay audience. They will be able to tailor contents to a target audience, selecting and using appropriate aids and techniques. Students will have acquired an overview of the sectors of the Botanical Garden and will be able to prepare information material on individual sections. They will have developed both botanical knowledge and teaching skills that will enable them to guide tours through the Botanical Garden, imparting knowledge in a way that is tailored to their target audience.

Courses (type, number of weekly contact hours, language - if other than German)

Ü (0.5) + E (0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (or preparing educational materials and materials for demonstrations) (approx. 10 to 20 pages) Language of assessment: German and/or English creditable for bonus

Allocation of places

6 places.

Additional information

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Workload

60 h

Teaching cycle

--

 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Modul	e title	,			Abbreviation
Publis	hing Sc	ientific Data			07-SQF-WIP-152-m01
Modul	e coord	linator		Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)	
3	nume	rical grade			
Duratio	on	Module level	Other prerequisites	5	
1 seme	ester	undergraduate			
C 4					

Either alone or in small groups of two or three persons, students will select several journal articles from the field of life sciences. These will serve as the basis for a review article to be prepared by students. With two or three "core publications" as a basis, students will search data bases (e. g. PubMed) for literature that is directly related to these articles. The most important current original publications will be summed up in a review article; where applicable, students may also use their own raw data. The structure of this review article will comply with the standards of the scientific community as defined in the instructions to authors of a scientific journal. The article will contain at least one figure, one table as well as one schematic representation of the contents and will be divided up into the following sections: title, abstract, introduction and/or hypothesis/problem to be investigated, summary of results as well as current developments and discussion thereof. The article will also contain citations in the specified format. Students will also deliver a presentation on the contents of the article.

Intended learning outcomes

Students will have learned to conduct a literature search on a specific topic. They will know how to get an overview of recent publications on a specific topic and will be familiar with basic rules for summing up original publications in a review article complying with the standards of the scientific community. Students will be familiar with the standards regarding the structure of reviews and will be able to properly cite sources. They will thus know what to keep in mind when writing scientific articles. In addition, students will be able to prepare and deliver an oral presentation on raw scientific data.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (approx. 5 to 10 pages) and presentation (approx. 15 minutes), weighted 2:1 Language of assessment: German and/or English creditable for bonus

Allocation of places

30 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.



A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1.
Additional information
Workload
90 h
Teaching cycle
Referred to in LPO I (examination regulations for teaching-degree programmes)



Module t	itle	Abbreviation		
Addition	al Qualification outside Natur	al Sciences 2		07-SQF-ZQA2-152-m01
Module o	coordinator		Module offered by	
Coordina	tor BioCareers	Faculty of Biology		
ECTS N	Method of grading	Only after succ. con	npl. of module(s)	
2 (not) successfully completed			
Duration	Module level	Other prerequisites		
1 semest	semester undergraduate			
Contents		*		

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include 2 to 3 all-day courses.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

60 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title			Abbreviation		
Additio	onal Qu	alification outside Natur	al Sciences 3		07-SQF-ZQA3-152-m01
Modul	e coord	inator		Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Method of grading Only after succ. compl. of me		npl. of module(s)		
3	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ıts		•		

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include courses with 1 weekly contact hour.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V (0.5) + S (1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title			Abbreviation		
Additio	onal Qu	alification outside Natur	al Sciences 4		07-SQF-ZQA4-152-m01
Modul	e coord	inator		Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
4	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites	i	
1 seme	ster	undergraduate			
Conter	nte	•			

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include one week of all-day courses.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

Courses (type, number of weekly contact hours, language - if other than German)

V(0.5) + S(1.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

120 h

Teaching cycle

Referred to in LPO I (examination regulations for teaching-degree programmes)



dditional Qualification outside Nat	ıral Sciences 5				
	Additional Qualification outside Natural Sciences 5				
Nodule coordinator		Module offered by			
oordinator BioCareers		Faculty of Biology			
CTS Method of grading	Only after succ. con	npl. of module(s)			
(not) successfully completed					
uration Module level	Other prerequisites				
1 semester undergraduate					
ontents	•				

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include courses with 2 weekly contact hours.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	e title	Abbreviation 07-SQF-ZQA6-152-m01			
Additio	onal Qu				
Modul	e coord	inator		Module offered by	
Coordi	inator Bi	ioCareers		Faculty of Biology	
ECTS	Metho	od of grading Only after succ. o		ompl. of module(s)	
5	numei	erical grade			
Durati	Ouration Module level		Other prerequisites		
1 semester		undergraduate			
Conter	nts				
Course	es in the	natural sciences no	t offered as part of the po	ool of general transfe	erable skills (ASQ) that ϵ

dents with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title		Abbreviation		
Additio	onal Qu	alification in Natural Sci	ences 2		07-SQF-ZQN2-152-m01
Module	e coord	inator		Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	ıpl. of module(s)	
2	(not)	successfully completed			
Duration		Module level	Other prerequisites		
1 semester		undergraduate			
Conten	te		•		

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

V(0.5) + S(0.5) + Ü(0.5)

Module taught in: German and/or English

 $\textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language}) \ (\textbf{type}, \textbf{language}) \$ module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

60 h

Teaching cycle

Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additio	Additional Qualification in Natural Sciences 3				07-SQF-ZQN3-152-m01	
Module coordinator				Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
3	(not)	successfully completed				
Duratio	Duration Module level		Other prerequisites			
1 semester undergraduate						
Conter	Contents					

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

 $V(0.5) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additional Qualification in Natural Sciences 4					07-SQF-ZQN4-152-m01	
Module coordinator				Module offered by		
Coordinator BioCareers				Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
4	(not)	successfully completed				
Duration Module level		Other prerequisites				
1 semester undergraduate						
Conter	Contents					

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(0.5) + S(2) + \ddot{U}(2)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

120 h

Teaching cycle



Module title					Abbreviation
Additional Qualification in Natural Sciences 5					07-SQF-ZQN5-152-m01
Module coordinator				Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate					
Contents					

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(1) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle



Modul	e title		Abbreviation			
Additional Qualification in Natural Sciences 6					07-SQF-ZQN6-152-m01	
Module coordinator				Module offered by		
Coordi	nator B	BioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)		
5	nume	erical grade				
Duration Module level Other prerequi		Other prerequisites	;			
1 semester undergraduate						
Contor	Contents					

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(1) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Winter Term 2019

(ECTS credits)



Modul	e title		Abbreviation			
Career	Perspe	ectives, Personal Con	07-SQF-KEB-152-m01			
Module coordinator N				Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
5	nume	rical grade				
Duration Module level Other		Other prerequisites	Other prerequisites			
1 seme	1 semester undergraduate					
Conton	Contanto					

This module will provide students with information on potential areas of employment for life scientists and will address the topic of job application and staff selection. It will discuss methods for analysing personality types and will acquaint students with criteria for developing personal and social skills. Building on this, the module will develop fundamental criteria for working in groups and teams. The fundamental principles of a project-oriented approach to work and of communication (incl. rhetoric and body language) will be discussed. Students will also receive advice on how to design and structure talks.

Intended learning outcomes

Students know what it takes to succeed in the job market. They are familiar with current developments in the job market, know how to go job hunting, and are familiar with recruitment practices of employers. Students have developed a fundamental knowledge of personality assessment methods and are familiar with conflict management methods. They are able to work in a team-based environment and have developed a fundamental knowledge of project management methods and approaches. Students have enhanced their teaching skills and are proficient in the theory and practice of communication. They know how to design and structure talks as well as to present data in both oral and written form. Students are aware of what body language may communicate.

Courses (type, number of weekly contact hours, language — if other than German)

V(1) + S(2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

written examination (approx. 30 to 60 minutes) Language of assessment: German and/or English creditable for bonus

Allocation of places

120 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subjects Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they ha-



ve achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, places will be allocated according to the selection process of group 1.

Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	e title	-	Abbreviation			
Organisation and Safety in Biosciences					07-SQF-OSB-152-m01	
Modul	e coord	inator		Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)		
5	nume	rical grade				
Duration Module level		Other prerequisites	Other prerequisites			
1 semester undergraduate						
Cantar	Contanta					

Safety procedures in the biosciences, in particular radiation protection, handling of genetically modified organisms, hygiene procedures and hazardous substances, working with lab animals. Fundamental concepts that help ensure an effective and efficient workflow in the biosciences. Structure and organisation of institutions in the bioscience/biotech sector. Process-based project management. HR management in the biosciences, responsibilities of managers/supervisors, appraisal interviews, target agreements, management styles.

Intended learning outcomes

Students have developed a fundamental knowledge of the regulations governing work in the bioscience sector and are familiar with fundamental organisational principles that are relevant for work in research and production. They are also familiar with fundamental principles of process-based project work in the biosciences.

Courses (type, number of weekly contact hours, language — if other than German)

V(1) + S(2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

written examination (60 minutes)

Language of assessment: German and/or English

creditable for bonus

Allocation of places

120 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking.



Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 150 h Teaching cycle $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Modul	e title		Abbreviation			
Fungi: One kingdom, many faces					07-SQF-FUNGI-182-m01	
Modul	e coord	linator		Module offered by	y	
holder	of the	Chair of Biotechnolog	gy and Biophysics	Faculty of Biology	Faculty of Biology	
ECTS	Meth	od of grading	Only after succ.	compl. of module(s)		
5	nume	rical grade				
Duration Module level Other prere		Other prerequis	ites			
1 semester undergraduate						
Conte	Contents					

The course provides a concise overview of fungal systematics, cell biology, fungal genetics, plant pathogenicity, medical mycology, stimulus processing, and fungi in biotechnology. In the seminar current research topics will be presented and discussed. The exercise includes the microscopy of selected fungi / cultivation and preparation of media / day excursion "mushroom" and determination of collected material. The excursion depends on weather conditions.

Intended learning outcomes

The students are able to identify key characteristics of fungi and classify them accordingly. In addition, they possess knowledge on mushroom biology.

Courses (type, number of weekly contact hours, language - if other than German)

Ü (4)

Module taught in: German and/or English

 $\textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language}) \ (\textbf{type}, \textbf{language}) \$ module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle

Teaching cycle: every year, summer semester



Modul	e title				Abbreviation
Compu	ıter lan	guages and programmin	g 3		07-SQF-PR03-182-m01
Module coordinator				Module offered by	
chairp	erson o	f examination committee	Biologie (Biology)	Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)	
3	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 seme	ester	undergraduate			
<i>c</i> .	Combanda				

Computer languages and programming using one or more computer languages like Java, C, C++, C#, Python, PHP.

Intended learning outcomes

The participants know the basics about computer languages and programming.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 90 h **Teaching cycle** $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Modul	e title				Abbreviation
Compu	ıter lan	guages and programmin	g 5		07-SQF-PR05-182-m01
Modul	e coord	inator		Module offered by	
chairp	erson o	f examination committee	Biologie (Biology)	Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)	
5	(not)	successfully completed			
Duratio	Duration Module level		Other prerequisites		
1 seme	ester	undergraduate			
<i>~</i> .	Combanda				

Computer languages and programming using one or more computer languages like Java, C, C++, C#, Python, PHP.

Intended learning outcomes

The participants know the basics about computer languages and programming.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (3)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 150 h **Teaching cycle** $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module	e title			Abbreviation		
Legal a	nd Eth	ical Aspects in Biologi		07-SQF-RETH-152-m01		
Module	e coord	inator		Module offered by		
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)		
5	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate	exercises (minimun	Admission prerequisite to assessment: exercises. Regular attendance of exercises (minimum 80%) and successful completion of the respective exercises (approx. 25 to 30 hours) are prerequisites for admission to assessment		
Conten	ts		`			
animal	testing		in agriculture, biodivers		ch, cloning, transgenic animals, ervation, biotechnology and mi-	
Intend	ed lear	ning outcomes				
ding st sity an	em cell d natur	research, cloning, tra e conservation, biotec	nsgenic animals, anima	al testing, genetic en ogy, medicine and ne	miliar with legal aspects surroun- gineering in agriculture, biodiver- eurogenetics and are able to eva- n and critically discuss these to-	
Course	S (type, r	number of weekly contact hou	rs, language — if other than Ge	rman)		
V (1) +	Ü (1)					
		sessment (type, scope, lan ble for bonus)	guage — if other than German,	examination offered — if no	ot every semester, information on whether	
	ige of a	nation (approx. 30 to 6 ssessment: German a bonus				
Allocat	ion of _I	olaces				
Additional information						
Workload						
150 h						
Teachi	Teaching cycle					

Teaching cycle: every year, summer semester

 $\textbf{Referred to in LPO I} \ \ (\text{exam} \underline{\quad \text{ination regulations for teaching-degree programmes}})$



Module title					Abbreviation	
Statist	ics 3				07-SQF-STAT3-182-m01	
Module	e coord	inator		Module offered by		
degree	progra	mme coordinator Biologi	e (Biology) Faculty of Biology			
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
3	(not)	successfully completed				
Duration Module level			Other prerequisites			
1 semester undergraduate						
<i>c</i> .	Ct.					

Usage of specific statistical methods on practical examples

Intended learning outcomes

The participants know how to evaluate data statistically and how to use statistic methods in practical examples.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 90 h **Teaching cycle** $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module	e title	,			Abbreviation
Statist	Statistics 5				07-SQF-STAT5-182-m01
Modul	e coord	inator		Module offered by	
degree	progra	mme coordinator Biologi	e (Biology)	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 seme	ester	undergraduate			
Contor	Contonts				

Usage of specific statistical methods on practical examples

Intended learning outcomes

The participants know how to evaluate data statistically and how to use statistic methods in practical examples.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (3)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 150 h **Teaching cycle** $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module title					Abbreviation	
Taxonomy and Biology of Butterflies					07-SQF-BUFLY-182-m01	
Modul	e coord	linator		Module offered	Module offered by	
degree	progra	ımme coordinator Bio	ologie (Biology)	Faculty of Biolo	Faculty of Biology	
ECTS	Meth	od of grading	Only after succ.	compl. of module(s)	
5	nume	rical grade				
Duration Module level (Other prerequis	Other prerequisites			
1 semester undergraduate						
Contar	te	•	•			

Taxonomy of butterflies and moth. Preparation of butterflies. Ecology and relevance. Developmental biology and developmental strategies of butterflies. Field excursions. Development of wingcolors. Species determination of moth using light traps. Exotic butterflies.

Intended learning outcomes

Students are able to recognize butterfly families and species and are able to estimate the relevance of butterflies as bioindicators.

Courses (type, number of weekly contact hours, language - if other than German)

Ü (4)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle

Teaching cycle: every year, summer semester

 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module title					Abbreviation	
Environmental Education in the Botanic Garden of Würzburg University					07-SQF-UBG-152-m01	
Module coordinator Module o					offered by	
head o	f Botan	ical Garden		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	mpl. of module(s)		
2	(not)	successfully completed				
Duration Module level		Other prerequisites				
1 semester undergraduate						
Contents						

The Botanical Garden of the University of Würzburg is primarily used for teaching and research-related activities. In addition, it is used for activities in the area of general environmental education with the plants in the different sections and collections being used to inform interested members of the public about topics in the areas of botany, ecology and gardening. In this module, students will develop appropriate educational concepts for imparting, in a comprehensible way, specialist knowledge to interested laypersons. They will practise designing and using appropriate aids (information boards, leaflets etc.) and applying methodological approaches (guidelines) for the comprehensible presentation of complex concepts. Students will be organised into teams to complete the following tasks: develop contents tailored to the needs of selected target groups, acquire the specialist knowledge necessary for presenting these contents, select appropriate methods for presenting these contents.

Intended learning outcomes

Students will be able to communicate concepts in ecology and botany to a lay audience. They will be able to tailor contents to a target audience, selecting and using appropriate aids and techniques. Students will have acquired an overview of the sectors of the Botanical Garden and will be able to prepare information material on individual sections. They will have developed both botanical knowledge and teaching skills that will enable them to guide tours through the Botanical Garden, imparting knowledge in a way that is tailored to their target audience.

Courses (type, number of weekly contact hours, language - if other than German)

 \ddot{U} (0.5) + E (0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (or preparing educational materials and materials for demonstrations) (approx. 10 to 20 pages) Language of assessment: German and/or English creditable for bonus

Allocation of places

6 places.

Additional information

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Workload

60 h

Teaching cycle

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 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Modul	e title			Abbreviation		
Publis	hing Sc	ientific Data			07-SQF-WIP-152-m01	
Modul	e coord	inator		Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)		
3	nume	rical grade				
Durati	Duration Module level		Other prerequisites	Other prerequisites		
1 seme	1 semester undergraduate					
- ·						

Either alone or in small groups of two or three persons, students will select several journal articles from the field of life sciences. These will serve as the basis for a review article to be prepared by students. With two or three "core publications" as a basis, students will search data bases (e. g. PubMed) for literature that is directly related to these articles. The most important current original publications will be summed up in a review article; where applicable, students may also use their own raw data. The structure of this review article will comply with the standards of the scientific community as defined in the instructions to authors of a scientific journal. The article will contain at least one figure, one table as well as one schematic representation of the contents and will be divided up into the following sections: title, abstract, introduction and/or hypothesis/problem to be investigated, summary of results as well as current developments and discussion thereof. The article will also contain citations in the specified format. Students will also deliver a presentation on the contents of the article.

Intended learning outcomes

Students will have learned to conduct a literature search on a specific topic. They will know how to get an overview of recent publications on a specific topic and will be familiar with basic rules for summing up original publications in a review article complying with the standards of the scientific community. Students will be familiar with the standards regarding the structure of reviews and will be able to properly cite sources. They will thus know what to keep in mind when writing scientific articles. In addition, students will be able to prepare and deliver an oral presentation on raw scientific data.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (approx. 5 to 10 pages) and presentation (approx. 15 minutes), weighted 2:1 Language of assessment: German and/or English creditable for bonus

Allocation of places

30 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.



A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1.
Additional information
Workload
90 h
Teaching cycle
Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additional Qualification outside Natural Sciences 2					07-SQF-ZQA2-152-m01	
Module	e coord	linator		Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	ompl. of module(s)		
2	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 semester undergraduate		undergraduate				
Conten	its					
Course	s in are	eas other than the natura	l sciences that are no	t offered as part of t	he pool of general transferabl	

dit transfer to be made by examination committee. Will include 2 to 3 all-day courses. **Intended learning outcomes**

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on cre-

Courses (type, number of weekly contact hours, language - if other than German)

V(0.5) + S(0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

60 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title		Abbreviation		
Additional Qualification outside Natural Sciences 3					07-SQF-ZQA3-152-m01
Module	e coord	inator		Module offered by	I
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	mpl. of module(s)	
3	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 semester undergraduate					
Contents					
Course	s in are	eas other than the natura	l sciences that are no	t offered as part of t	he pool of general transferable

skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include courses with 1 weekly contact hour.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

Courses (type, number of weekly contact hours, language - if other than German)

V (0.5) + S (1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additio	onal Qu	alification outside Natur	07-SQF-ZQA4-152-m01			
Module	e coord	inator		Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. co	ompl. of module(s)		
4	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ı semester undergraduate					
Conten	nts		•			

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include one week of all-day courses.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

Courses (type, number of weekly contact hours, language - if other than German)

V(0.5) + S(1.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

120 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additional Qualification outside Natural Sciences 5					07-SQF-ZQA5-152-m01	
Module coordinator				Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. compl. of module(s)			
5	(not)	successfully completed				
Duration Module level		Other prerequisites				
1 semester undergraduate						
Contents						

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include courses with 2 weekly contact hours.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Additional Qualification outside Natural Sciences 6					07-SQF-ZQA6-152-m01
Modul	e coord	linator		Module offered by	
Coordi	inator B	lioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)	
5	nume	rical grade			
Duration Module level		Module level	Other prerequisites		
1 semester undergraduate		undergraduate			
Conto	ntc	•	•		

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle



Module title					Abbreviation
Additio	onal Qu	alification in Natural Sci		07-SQF-ZQN2-152-m01	
Modul	e coord	inator		Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
2	(not)	successfully completed			
Duration Module level		Module level	Other prerequisites		
1 semester undergraduate					
Conter	ıtc	-	•		

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

V(0.5) + S(0.5) + Ü(0.5)

Module taught in: German and/or English

 $\textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language}) \ (\textbf{type}, \textbf{language}) \$ module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

60 h

Teaching cycle



Module title					Abbreviation	
Additio	onal Qu	alification in Natural Sci		07-SQF-ZQN3-152-m01		
Modul	e coord	inator		Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
3	(not)	successfully completed				
Duratio	Duration Module level		Other prerequisites			
1 seme	1 semester undergraduate					
Conten	Contents					

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

 $V(0.5) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Additio	onal Qu	alification in Natural Sci		07-SQF-ZQN4-152-m01	
Modul	e coord	inator		Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
4	(not)	successfully completed			
Duration Module level		Module level	Other prerequisites		
1 semester undergraduate					
Conter	te	•	•		

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(0.5) + S(2) + \ddot{U}(2)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

120 h

Teaching cycle



Modul	e title		Abbreviation		
Additio	onal Qu	alification in Natural Sci	ences 5		07-SQF-ZQN5-152-m01
Module coordinator				Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Meth	nod of grading Only after suc		npl. of module(s)	
5	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester		undergraduate			
Conter	te	•	•		

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(1) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle



Modul	e title		Abbreviation		
Additio	onal Qu	ialification in Natural	Sciences 6		07-SQF-ZQN6-152-m01
Modul	e coord	linator		Module offered by	
Coordinator BioCareers				Faculty of Biology	
ECTS	Meth	nod of grading Only after succ. co		npl. of module(s)	
5	nume	erical grade			
Duration		Module level	Other prerequisites		
1 semester		undergraduate			
Contor	at c	•			

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(1) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle



Summer Term 2020

(ECTS credits)



Modul	e title		Abbreviation				
Career	Perspe	ectives, Personal Con	ation Skills	07-SQF-KEB-152-m01			
Modul	e coord	linator		Module offered by			
Coordinator BioCareers				Faculty of Biology			
ECTS	Meth	od of grading Only after succ. con		npl. of module(s)			
5	nume	erical grade					
Duration		Module level	Other prerequisites	Other prerequisites			
1 semester		undergraduate					
Control							

This module will provide students with information on potential areas of employment for life scientists and will address the topic of job application and staff selection. It will discuss methods for analysing personality types and will acquaint students with criteria for developing personal and social skills. Building on this, the module will develop fundamental criteria for working in groups and teams. The fundamental principles of a project-oriented approach to work and of communication (incl. rhetoric and body language) will be discussed. Students will also receive advice on how to design and structure talks.

Intended learning outcomes

Students know what it takes to succeed in the job market. They are familiar with current developments in the job market, know how to go job hunting, and are familiar with recruitment practices of employers. Students have developed a fundamental knowledge of personality assessment methods and are familiar with conflict management methods. They are able to work in a team-based environment and have developed a fundamental knowledge of project management methods and approaches. Students have enhanced their teaching skills and are proficient in the theory and practice of communication. They know how to design and structure talks as well as to present data in both oral and written form. Students are aware of what body language may communicate.

Courses (type, number of weekly contact hours, language — if other than German)

V(1) + S(2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

written examination (approx. 30 to 60 minutes) Language of assessment: German and/or English creditable for bonus

Allocation of places

120 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subjects Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they ha-



ve achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, places will be allocated according to the selection process of group 1.

Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Organi	Organisation and Safety in Biosciences				07-SQF-OSB-152-m01
Module coordinator				Module offered by	
Coordi	Coordinator BioCareers			Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)	
5	nume	rical grade			
Duration Module level		Other prerequisites	Other prerequisites		
1 seme	1 semester undergraduate				
Contor	Contonte				

Safety procedures in the biosciences, in particular radiation protection, handling of genetically modified organisms, hygiene procedures and hazardous substances, working with lab animals. Fundamental concepts that help ensure an effective and efficient workflow in the biosciences. Structure and organisation of institutions in the bioscience/biotech sector. Process-based project management. HR management in the biosciences, responsibilities of managers/supervisors, appraisal interviews, target agreements, management styles.

Intended learning outcomes

Students have developed a fundamental knowledge of the regulations governing work in the bioscience sector and are familiar with fundamental organisational principles that are relevant for work in research and production. They are also familiar with fundamental principles of process-based project work in the biosciences.

Courses (type, number of weekly contact hours, language — if other than German)

V(1) + S(2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

written examination (60 minutes)

Language of assessment: German and/or English

creditable for bonus

Allocation of places

120 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subjects Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking.



Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, places will be allocated according to the selection process of group 1.

Additional information -Workload 150 h Teaching cycle -Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Fungi: One kingdom, many faces					07-SQF-FUNGI-182-m01	
Module coordinator				Module offered by		
holder	holder of the Chair of Biotechnology and Biophysics			Faculty of Biology	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. o	compl. of module(s)		
5	nume	rical grade				
Duratio	Duration Module level		Other prerequisites			
1 seme	1 semester undergraduate					
Contents						

The course provides a concise overview of fungal systematics, cell biology, fungal genetics, plant pathogenicity, medical mycology, stimulus processing, and fungi in biotechnology. In the seminar current research topics will be presented and discussed. The exercise includes the microscopy of selected fungi / cultivation and preparation of media / day excursion "mushroom" and determination of collected material. The excursion depends on weather conditions.

Intended learning outcomes

The students are able to identify key characteristics of fungi and classify them accordingly. In addition, they possess knowledge on mushroom biology.

Courses (type, number of weekly contact hours, language - if other than German)

Ü (4)

Module taught in: German and/or English

 $\textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language}) \ (\textbf{type}, \textbf{language})$ module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle

Teaching cycle: every year, summer semester



Module title					Abbreviation
Computer languages and programming 3					07-SQF-PR03-182-m01
Module coordinator				Module offered by	
chairp	chairperson of examination committee Biologie (Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
3	(not)	successfully completed			
Duratio	Duration Module level		Other prerequisites		
1 seme	1 semester undergraduate				

Computer languages and programming using one or more computer languages like Java, C, C++, C#, Python, PHP.

Intended learning outcomes

The participants know the basics about computer languages and programming.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, places will be allocated according to the selection process of group 1

ces will be allocated according to the selection process of group 1. Additional information - Workload 90 h Teaching cycle - Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Computer languages and programming 5					07-SQF-PR05-182-m01
Module coordinator				Module offered by	
chairperson of examination committee Biologie (Bio			Biologie (Biology)	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate					

Computer languages and programming using one or more computer languages like Java, C, C++, C#, Python, PHP.

Intended learning outcomes

The participants know the basics about computer languages and programming.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (3)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subjects Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 150 h Teaching cycle $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module	title				Abbreviation	
Legal a	Legal and Ethical Aspects in Biological Sciences 07-SQF-RETH-152-mo1					
Module	coord	inator		Module offered by		
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	pl. of module(s)		
5	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate	exercises (minimum	80%) and successf	exercises. Regular attendance of ful completion of the respective rerequisites for admission to as-	
Conten	ts					
animal	testing		agriculture, biodivers	_	ch, cloning, transgenic animals, ervation, biotechnology and mi-	
Intende	ed lear	ning outcomes				
ding st	em cell d natur	research, cloning, trans e conservation, biotechn	genic animals, anima ology and microbiolo	l testing, genetic eng gy, medicine and ne	niliar with legal aspects surroun- gineering in agriculture, biodiver- eurogenetics and are able to eva- n and critically discuss these to-	
Course	S (type, r	number of weekly contact hours,	anguage — if other than Ger	man)		
V (1) +	Ü (1)					
		sessment (type, scope, langua le for bonus)	ge — if other than German, o	examination offered — if no	ot every semester, information on whether	
Langua	written examination (approx. 30 to 60 minutes) Language of assessment: German and/or English creditable for bonus					
Allocation of places						
Additio	Additional information					
Worklo	Workload					
150 h			,			

Teaching cycle

Teaching cycle: every year, summer semester

 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module title					Abbreviation
Statistics 3					07-SQF-STAT3-182-m01
Module coordinator				Module offered by	
degree	progra	mme coordinator Biologi	e (Biology)	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
3	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 seme	1 semester undergraduate				

Usage of specific statistical methods on practical examples

Intended learning outcomes

The participants know how to evaluate data statistically and how to use statistic methods in practical examples.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 90 h Teaching cycle $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module title				Abbreviation	
Statistics 5					07-SQF-STAT5-182-m01
Module coordinator				Module offered by	
degree programme coordinator Biologie			e (Biology)	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 seme	1 semester undergraduate				
Combanto					

Usage of specific statistical methods on practical examples

Intended learning outcomes

The participants know how to evaluate data statistically and how to use statistic methods in practical examples.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (3)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 150 h Teaching cycle $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module title					Abbreviation	
Taxonomy and Biology of Butterflies				07-SQF-BUFLY-182-m01		
Module coordinator				Module offered by		
degree	degree programme coordinator Biologie (Biology)			Faculty of Biology	Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. co	ompl. of module(s)		
5	nume	rical grade				
Duratio	Duration Module level		Other prerequisit	Other prerequisites		
1 seme	1 semester undergraduate					
Contents						

Taxonomy of butterflies and moth. Preparation of butterflies. Ecology and relevance. Developmental biology and developmental strategies of butterflies. Field excursions. Development of wingcolors. Species determination of moth using light traps. Exotic butterflies.

Intended learning outcomes

Students are able to recognize butterfly families and species and are able to estimate the relevance of butterflies as bioindicators.

Courses (type, number of weekly contact hours, language - if other than German)

Ü (4)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle

Teaching cycle: every year, summer semester

 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module title	Abbreviation				
Environmental Education in the Bot	07-SQF-UBG-152-m01				
Module coordinator	by				
head of Botanical Garden	F	Faculty of Biology			
ECTS Method of grading	Only after succ. comp	l. of module(s)			
2 (not) successfully complete	ed				
Duration Module level	Other prerequisites	Other prerequisites			
1 semester undergraduate					
Contents					

The Botanical Garden of the University of Würzburg is primarily used for teaching and research-related activities. In addition, it is used for activities in the area of general environmental education with the plants in the different sections and collections being used to inform interested members of the public about topics in the areas of botany, ecology and gardening. In this module, students will develop appropriate educational concepts for imparting, in a comprehensible way, specialist knowledge to interested laypersons. They will practise designing and using appropriate aids (information boards, leaflets etc.) and applying methodological approaches (guidelines) for the comprehensible presentation of complex concepts. Students will be organised into teams to complete the following tasks: develop contents tailored to the needs of selected target groups, acquire the specialist knowledge necessary for presenting these contents, select appropriate methods for presenting these contents.

Intended learning outcomes

Students will be able to communicate concepts in ecology and botany to a lay audience. They will be able to tailor contents to a target audience, selecting and using appropriate aids and techniques. Students will have acquired an overview of the sectors of the Botanical Garden and will be able to prepare information material on individual sections. They will have developed both botanical knowledge and teaching skills that will enable them to guide tours through the Botanical Garden, imparting knowledge in a way that is tailored to their target audience.

Courses (type, number of weekly contact hours, language - if other than German)

Ü (0.5) + E (0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (or preparing educational materials and materials for demonstrations) (approx. 10 to 20 pages) Language of assessment: German and/or English creditable for bonus

Allocation of places

6 places.

Additional information

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Workload

60 h

Teaching cycle

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 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module title					Abbreviation
Publishing Scientific Data					07-SQF-WIP-152-m01
Module coordinator				Module offered by	
Coordi	Coordinator BioCareers			Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)	
3	nume	rical grade			
Duratio	Duration Module level		Other prerequisites	Other prerequisites	
1 seme	1 semester undergraduate				
Contor	Contonts				

Either alone or in small groups of two or three persons, students will select several journal articles from the field of life sciences. These will serve as the basis for a review article to be prepared by students. With two or three "core publications" as a basis, students will search data bases (e. g. PubMed) for literature that is directly related to these articles. The most important current original publications will be summed up in a review article; where applicable, students may also use their own raw data. The structure of this review article will comply with the standards of the scientific community as defined in the instructions to authors of a scientific journal. The article will contain at least one figure, one table as well as one schematic representation of the contents and will be divided up into the following sections: title, abstract, introduction and/or hypothesis/problem to be investigated, summary of results as well as current developments and discussion thereof. The article will also contain citations in the specified format. Students will also deliver a presentation on the contents of the article.

Intended learning outcomes

Students will have learned to conduct a literature search on a specific topic. They will know how to get an overview of recent publications on a specific topic and will be familiar with basic rules for summing up original publications in a review article complying with the standards of the scientific community. Students will be familiar with the standards regarding the structure of reviews and will be able to properly cite sources. They will thus know what to keep in mind when writing scientific articles. In addition, students will be able to prepare and deliver an oral presentation on raw scientific data.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (approx. 5 to 10 pages) and presentation (approx. 15 minutes), weighted 2:1 Language of assessment: German and/or English creditable for bonus

Allocation of places

30 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.



A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1.
Additional information
Workload
90 h
Teaching cycle
Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Additional Qualification outside Natural Sciences 2				07-SQF-ZQA2-152-m01	
Module coordinator				Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
2	(not)	successfully completed			
Duratio	Duration Module level		Other prerequisites		
1 seme	1 semester undergraduate				
Contents					

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include 2 to 3 all-day courses.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

Courses (type, number of weekly contact hours, language - if other than German)

V(0.5) + S(0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

60 h

Teaching cycle



Module	e title		Abbreviation		
Additio	onal Qu	alification outside Natur	al Sciences 3		07-SQF-ZQA3-152-m01
Module coordinator				Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
3	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate					
Contents					

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include courses with 1 weekly contact hour.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V (0.5) + S (1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Additional Qualification outside Natural Sciences 4					07-SQF-ZQA4-152-m01
Modul	e coord	inator		Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
4	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate					
Contents					

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include one week of all-day courses.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(1.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

120 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title		Abbreviation			
Additional Qualification outside Natural Sciences 5					07-SQF-ZQA5-152-m01	
Modul	e coord	inator		Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
5	(not)	successfully completed				
Duration Module level O		Other prerequisites				
1 semester undergraduate						
Conter	Contents					

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include courses with 2 weekly contact hours.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

Courses (type, number of weekly contact hours, language - if other than German)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle



Modul	e title		Abbreviation		
Additional Qualification outside Natural Sciences 6					07-SQF-ZQA6-152-m01
Modul	e coord	linator		Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)	
5	nume	rical grade			
Duration Module level Other pro		Other prerequisites	3		
1 semester undergraduate					
Contents					

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle



Module title					Abbreviation
Additio	onal Qu	alification in Natural Sci	ences 2		07-SQF-ZQN2-152-m01
Modul	e coord	inator		Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	ıpl. of module(s)	
2	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate					
Contents					

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

V(0.5) + S(0.5) + Ü(0.5)

Module taught in: German and/or English

 $\textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language}) \ (\textbf{type}, \textbf{language}) \$ module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

60 h

Teaching cycle



Module title					Abbreviation	
Additio	Additional Qualification in Natural Sciences 3				07-SQF-ZQN3-152-m01	
Modul	e coord	inator		Module offered by		
Coordinator BioCareers				Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
3	(not)	successfully completed				
Duration Module level		Other prerequisites				
1 semester undergraduate						
Conter	Contents					

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(0.5) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

90 h

Teaching cycle



Modul	e title	Abbreviation			
Additio	onal Qu		07-SQF-ZQN4-152-m01		
Modul	e coord	inator		Module offered by	J.
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
4	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate					
Conter		•	-		

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

 $V(0.5) + S(2) + \ddot{U}(2)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

120 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additio	Additional Qualification in Natural Sciences 5				07-SQF-ZQN5-152-m01	
Module coordinator				Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
5	(not)	successfully completed				
Duration Module level		Other prerequisites				
1 semester undergraduate						
Conter	Contents					

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(1) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additional Qualification in Natural Sciences 6					07-SQF-ZQN6-152-m01	
Modul	e coord	linator		Module offered by		
Coordinator BioCareers				Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)		
5	nume	erical grade				
Duration Module level Other prerequis		Other prerequisites	;			
1 semester undergraduate						
Contor	Contents					

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(1) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title		Abbreviation			
How to	How to excel in the Bioscience				07-ASQ-eBio-152-m01	
Module	Module coordinator			Module offered by		
Dean o	Dean of Studies Biologie (Biology)			Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	mpl. of module(s)		
5	(not)	successfully completed				
Duratio	Duration Module level		Other prerequisites			
1 seme	ster	undergraduate				
Conten	Contents					

Series of workshops on a variety of topics in the area of transferable skills: What does it take to succeed at university? What skills (both subject-specific and transferable) do you need to be successful in a STEM career once you have completed your BSc/MSc degree: ability to define and achieve goals (good self and time management); How do you develop a research question/hypothesis, how do you structure a coherent analysis? How do you integrate your own findings into a bigger picture? Concrete transferable skills that will help you launch a successful career: a team player with leadership skills needs assertiveness, negotiation and conflict management skills and the ability to structure workflows. The importance of writing/English writing skills in science: an English writing lab will provide you with an opportunity to enhance your writing skills. Most of the workshops will be taught by Ms Rapp-Galmiche and qualified student tutors, but we might also invite external experts to deliver talks.

Intended learning outcomes

Students have acquired skills that will help them succeed at university and decide what career to pursue: They are able to define goals, know what interdisciplinary skills they need for a successful career in the biosciences and are familiar with techniques that will help them develop these skills. Students are able to describe projects, research findings and scientific issues in English in a clear and convincing style.

Courses (type, number of weekly contact hours, language — if other than German)

V (2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (approx. 30 minutes) or
- b) portfolio (approx. 20 pages)

Language of assessment: German and/or English

Allocation of places

max. 20 places (lottery)

Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title		Abbreviation			
Basics and Trends in the Biotechnologies / Biosciences (not für students of Bioscientific curricula)					07-ASQ-GTB-182-m01	
Module	e coord	linator		Module offered by		
holder	of the	Chair of Biotechnology		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	ıpl. of module(s)		
3	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 semester undergraduate						
Contents						
		·	•		trument-based methods in bio- uss modern methods for the ana	

Intended learning outcomes

Students will gain an overview of key methods in biotechnology and their respective advantages and disadvantages. They will learn to decide what method is most suitable for addressing a particular issue.

lysis of biological matter on the molecular and cellular level. These methods include light microscopy, fluore-scence spectroscopy, electron microscopy, atomic force microscopy, flow cytometry and microfluidics.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

presentation (20 to 30 minutes)

Language of assessment: German and/or English

Allocation of places

min. 5, max. 20 places (lot)

Additional information

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Workload

90 h

Teaching cycle

Teaching cycle: every year, summer semester

Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Writing Effectively in English - MINT/STEM and Medical Faculties 07-ASQ-WEE-1					07-ASQ-WEE-181-m01	
Modul	e coord	linator		Module offered by		
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
5	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	its					
lish. Up	on req	juest, students will also b	e given the opportur	nity to enhance their	ommon writing mistakes in Eng- r presentation skills in English. y be invited to speak on specific	
Intend	ed lear	ning outcomes	,			
and hy ESL (Er	pothes nglish a	es effectively and convin	cingly in English. Stu	dents can create an	escriptions as well as lab results outline and are aware of common andle general writing problems,	
Course	S (type, r	number of weekly contact hours,	anguage — if other than Ger	rman)		
S (2) Module	e taugh	it in: German and/or Engl	ish			
		sessment (type, scope, langua ble for bonus)	ge — if other than German,	examination offered — if n	ot every semester, information on whether	
b) port	folio (a	on (approx. 30 minutes) o pprox. 20 pages) Issessment: German and				
Allocat	ion of	places				
max. 15 places (lottery)						
Additional information						
Workload						
150 h						
Teachi	ng cycl	e				



Modul	Module title Abbreviation						
Scienc	Science experiments 07-ASQ-NIE-201-m01						
Modul	e coord	inator		Module offered by			
				Faculty of Biology			
ECTS	S Method of grading Only after succ. compl. of module(s)						
5	(not)	successfully completed					
Duratio	on	Module level	Other prerequisites				
1 seme	ester						
Conter	nts						
Intend	ed lear	ning outcomes					
Course	S (type, i	number of weekly contact hours,	anguage — if other than Ger	rman)			
Ü (3)							
		sessment (type, scope, langua ole for bonus)	ge — if other than German,	examination offered — if no	ot every semester, information on whether		
		rox. 15 pages) iffered: Once a year, wint	er term				
Allocat	tion of	places					
min. 5,	max. 2	o places (Lottery)					
Additio	onal inf	ormation					
Workload							
150 h							
Teaching cycle							
Teachi	ng cycl	e: every year, winter sem	ester				
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)						



Modul	Module title Abbreviation						
Experi	Experience nature outdoors 07-ASQ-NIF-201-m01						
Module	e coord	inator		Module offered by			
-				Faculty of Biology			
ECTS	S Method of grading Only after succ. compl. of module(s)						
5	(not)	successfully completed					
Duratio	on	Module level	Other prerequisites				
1 seme	ster						
Conter	its		,				
Intend	ed lear	ning outcomes					
			,				
Course	S (type, r	number of weekly contact hours, l	anguage — if other than Ger	rman)			
Ü (3)							
		sessment (type, scope, langua le for bonus)	ge — if other than German, o	examination offered — if no	ot every semester, information on whether		
		rox. 15 pages) ffered: Once a year, sum	mer term				
Allocat	ion of p	olaces					
min. 5,	max. 2	o places (Lottery)					
Additio	onal inf	ormation					
Worklo	Workload						
150 h							
Teaching cycle							
Teachi	ng cycle	e: every year, summer se	mester				
Referre	ed to in	LPO I (examination regulation	s for teaching-degree progra	mmes)			



Module	Module title Abbreviation						
Nature	Nature Conservation Biology 07-ASQ-NCB-201-m01						
Module	coord	inator		Module offered by			
				Faculty of Biology			
ECTS	TS Method of grading Only after succ. compl. of module(s)						
5	(not)	successfully completed					
Duratio	n	Module level	Other prerequisites				
1 seme	ster						
Conten	ts						
Intende	ed lear	ning outcomes					
Course	S (type, r	number of weekly contact hours, l	anguage — if other than Ger	rman)			
V (1) + I Module		t in: German and/or Engl	ish				
		sessment (type, scope, langua le for bonus)	ge $-$ if other than German, ϵ	examination offered — if no	ot every semester, information on whether		
		approx. 30 minutes) ssessment: German and	or English				
Allocat	ion of p	olaces					
max. 20	o place	s (Lottery)					
Additio	nal inf	ormation					
Worklo	Workload						
150 h	150 h						
Teachi	Teaching cycle						
Referre	d to in	LPO I (examination regulation	s for teaching-degree progra	mmes)			
		-					



Module	Module title Abbreviation						
	Orientation/Review of inorganic Chemistry for students in Biology and MINT o7-ASQ-VAC-201-m01 studyprograms						
Module	Module coordinator Module offered by						
				Faculty of Biology			
ECTS	ECTS Method of grading Only after succ. compl. of module(s)						
5	(not)	successfully completed					
Duratio	on	Module level	Other prerequisites				
1 seme	ster						
Conten	its						
Intend	ed lear	ning outcomes					
Course	S (type, i	number of weekly contact hours,	language — if other than Ger	rman)			
	-						
			m age-if other than German,	examination offered $-$ if n	ot every semester, information on whether		
module is	s creditab	ole for bonus)					
Allocat	ion of	places					
Additio	onal inf	ormation					
							
	Workload						
150 h							
Teaching cycle							
	Teaching cycle: every year, winter semester						
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)						
							



Orientation/Review of Statistics for students in Biology and MINT studyprograms Module coordinator Faculty of Biology ECTS Method of grading Only after succ. compl. of module(s) Module level Other prerequisites I semester Contents Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes)	Module	Module title Abbreviation						
Module coordinator								
Faculty of Biology ECTS Method of grading Only after succ. compl. of module(s) (not) successfully completed								
ECTS Method of grading Only after succ. compl. of module(s) 5					† ·			
Teaching cycle Teac	ECTS							
Intended learning outcomes Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	5				•			
Contents Intended learning outcomes Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle		on	Module level	Other prerequisites	i			
Intended learning outcomes Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	1 seme	ster						
Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	Conten	its						
Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle								
Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	Intend	ed lear	ning outcomes					
Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle								
Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	Course	S (type, i	number of weekly contact hours,	language — if other than Ge	rman)			
module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	Ü (2)							
Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle				ge — if other than German,	examination offered — if n	not every semester, information on whether		
max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	portfol	io (app	rox. 20 hours total)					
Additional information Workload 150 h Teaching cycle	Allocat	tion of	olaces					
Workload 150 h Teaching cycle	max. 2	o place	s (Lottery)					
Teaching cycle	Additio	onal inf	ormation					
Teaching cycle								
Teaching cycle	Worklo	Workload						
	150 h							
Referred to in LPO I (examination regulations for teaching-degree programmes)	Teaching cycle							
Referred to in LPO I (examination regulations for teaching-degree programmes)								
	Referred to in LPO I (examination regulations for teaching-degree programmes)							



Module	Module title Abbreviation							
Orienta	Orientation/Review of Mathematics for students in Biology and MINT study- 07-ASQ-VM-201-m01							
progra	programs							
Module	Module coordinator Module offered by							
			F	Faculty of Biology				
ECTS	Meth	od of grading	f grading Only after succ. compl. of module(s)					
5	(not)	successfully completed						
Duratio	on	Module level	Other prerequisites					
1 seme	ster							
Conten	its							
Intende	ed lear	ning outcomes						
Course	S (type, ı	number of weekly contact hours,	anguage — if other than Ger	rman)				
	-							
Metho	d of as	sessment (type, scope, langua	${f ge-if}$ other than German, ${f German}$	examination offered $-$ if n	ot every semester, information on whether			
module is	s creditab	ole for bonus)						
Allocat	ion of	places						
Additio	nal inf	ormation						
	-							
	Workload							
150 h								
Teaching cycle								
Teaching cycle: every year, winter semester								
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)							



Module	e title				Abbreviation		
	Orientation/Review of organic Chemistry for students in Biology and MINT stu- dyprograms						
Module	Module coordinator Module offered by						
				Faculty of Biology			
ECTS	Meth	od of grading	Only after succ. com	pl. of module(s)			
5	(not)	successfully completed					
Duratio	n	Module level	Other prerequisites				
1 seme	ster						
Conten	ts						
Intend	ed lear	ning outcomes					
Course	S (type, r	number of weekly contact hours,	language — if other than Ger	man)			
Ü (2)							
		sessment (type, scope, langua le for bonus)	${\sf ge-if}$ other than German, ${\sf e}$	examination offered — if no	t every semester, information on whether		
		rox. 20 hours total) ffered: Once a year, sum	mer term				
Allocat	ion of	olaces					
max. 2	o place	s (Lottery)	-				
Additio	nal inf	ormation					
Workload							
150 h							
Teaching cycle							
Teachi	Teaching cycle: every year, summer semester						
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)						



Winter Term 2020

(ECTS credits)



Module	e title				Abbreviation
How to	excel i	in the Bioscience			07-ASQ-eBio-152-mo1
Module	e coord	inator		Module offered by	
Dean of Studies Biologie (Biology)				Faculty of Biology	
ECTS	Method of grading Only a		Only after succ. con	er succ. compl. of module(s)	
5	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ıts				
Series	of work	shops on a variety of top	oics in the area of trar	nsferable skills: Wha	nt does it take to succee

Series of workshops on a variety of topics in the area of transferable skills: What does it take to succeed at university? What skills (both subject-specific and transferable) do you need to be successful in a STEM career once you have completed your BSc/MSc degree: ability to define and achieve goals (good self and time management); How do you develop a research question/hypothesis, how do you structure a coherent analysis? How do you integrate your own findings into a bigger picture? Concrete transferable skills that will help you launch a successful career: a team player with leadership skills needs assertiveness, negotiation and conflict management skills and the ability to structure workflows. The importance of writing/English writing skills in science: an English writing lab will provide you with an opportunity to enhance your writing skills. Most of the workshops will be taught by Ms Rapp-Galmiche and qualified student tutors, but we might also invite external experts to deliver talks.

Intended learning outcomes

Students have acquired skills that will help them succeed at university and decide what career to pursue: They are able to define goals, know what interdisciplinary skills they need for a successful career in the biosciences and are familiar with techniques that will help them develop these skills. Students are able to describe projects, research findings and scientific issues in English in a clear and convincing style.

Courses (type, number of weekly contact hours, language — if other than German)

V (2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (approx. 30 minutes) or
- b) portfolio (approx. 20 pages)

Language of assessment: German and/or English

Allocation of places

max. 20 places (lottery)

Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	e title	,			Abbreviation
Scienc	e expei	riments			07-ASQ-NIE-201-m01
Modul	e coord	inator		Module offered by	
				Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ester				
Conter	ıts				
Intend	ed lear	ning outcomes			
Course	es (type, r	number of weekly contact hours, l	anguage — if other than Ger	rman)	
Ü (3)					
		sessment (type, scope, langua le for bonus)	ge — if other than German,	examination offered — if no	ot every semester, information on whether
		rox. 15 pages) ffered: Once a year, wint	er term		
Allocat	tion of p	olaces			
min. 5,	max. 2	o places (Lottery)			
Additio	onal inf	ormation			
Worklo	oad				
150 h					
Teachi	ng cycl	е			
Teachi	ng cycle	e: every year, winter sem	ester		
Referre	ed to in	LPO I (examination regulation	s for teaching-degree progra	ımmes)	



Modul	e title	<u>, </u>			Abbreviation
Organi	isation	and Safety in Bioscie	ences		07-SQF-OSB-152-m01
Modul	e coord	linator		Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)	
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites	1	
1 seme	ester	undergraduate			
Contor		,	•		

Contents

Safety procedures in the biosciences, in particular radiation protection, handling of genetically modified organisms, hygiene procedures and hazardous substances, working with lab animals. Fundamental concepts that help ensure an effective and efficient workflow in the biosciences. Structure and organisation of institutions in the bioscience/biotech sector. Process-based project management. HR management in the biosciences, responsibilities of managers/supervisors, appraisal interviews, target agreements, management styles.

Intended learning outcomes

Students have developed a fundamental knowledge of the regulations governing work in the bioscience sector and are familiar with fundamental organisational principles that are relevant for work in research and production. They are also familiar with fundamental principles of process-based project work in the biosciences.

Courses (type, number of weekly contact hours, language — if other than German)

V(1) + S(2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

written examination (60 minutes)

Language of assessment: German and/or English

creditable for bonus

Allocation of places

120 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking.



Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, places will be allocated according to the selection process of group 1.

ces will be allocated according to the selection process of group 1. Additional information - Workload 150 h Teaching cycle - Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title				Abbreviation
Enviro	nmenta	l Education in the Botan	ic Garden of Würzbur	g University	07-SQF-UBG-152-m01
Modul	e coord	inator		Module offered by	
head o	f Botan	ical Garden		Faculty of Biology	
ECTS	Metho	Method of grading Only after succ. compl. of module(s)			
2	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conter	nts				

The Botanical Garden of the University of Würzburg is primarily used for teaching and research-related activities. In addition, it is used for activities in the area of general environmental education with the plants in the different sections and collections being used to inform interested members of the public about topics in the areas of botany, ecology and gardening. In this module, students will develop appropriate educational concepts for imparting, in a comprehensible way, specialist knowledge to interested laypersons. They will practise designing and using appropriate aids (information boards, leaflets etc.) and applying methodological approaches (guidelines) for the comprehensible presentation of complex concepts. Students will be organised into teams to complete the following tasks: develop contents tailored to the needs of selected target groups, acquire the specialist knowledge necessary for presenting these contents, select appropriate methods for presenting these contents.

Intended learning outcomes

Students will be able to communicate concepts in ecology and botany to a lay audience. They will be able to tailor contents to a target audience, selecting and using appropriate aids and techniques. Students will have acquired an overview of the sectors of the Botanical Garden and will be able to prepare information material on individual sections. They will have developed both botanical knowledge and teaching skills that will enable them to guide tours through the Botanical Garden, imparting knowledge in a way that is tailored to their target audience.

Courses (type, number of weekly contact hours, language - if other than German)

 \ddot{U} (0.5) + E (0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (or preparing educational materials and materials for demonstrations) (approx. 10 to 20 pages) Language of assessment: German and/or English creditable for bonus

Allocation of places

6 places.

Additional information

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Workload

60 h

Teaching cycle

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 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module	e title				Abbreviation
Orienta	ation/R	Review of inorganic Chem	istry for students in	Biology and MINT	07-ASQ-VAC-201-m01
studyp	rogran	15			
Module	e coord	linator		Module offered by	
			F	Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites	i	
1 seme	ster				
Conten	its				
			,		
Intend	ed lear	ning outcomes			
Course	S (type, i	number of weekly contact hours,	anguage — if other than Ger	rman)	
			${\sf ge-if}$ other than ${\sf German,}$	examination offered — if n	ot every semester, information on whether
module is	s creditab	ole for bonus)			
Allocat	ion of	places			
Additio	nal inf	ormation			
Worklo	ad				
150 h					
Teachi					
		e: every year, winter sem			
Referre	ed to in	LPO I (examination regulation	s for teaching-degree progra	immes)	



Modul	e title	,			Abbreviation
Publis	hing Sc	cientific Data			07-SQF-WIP-152-m01
Modul	e coord	linator		Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. cor	npl. of module(s)	
3	nume	rical grade			
Durati	on	Module level	Other prerequisites	;	
1 seme	ester	undergraduate			
C 4					

Contents

Either alone or in small groups of two or three persons, students will select several journal articles from the field of life sciences. These will serve as the basis for a review article to be prepared by students. With two or three "core publications" as a basis, students will search data bases (e. g. PubMed) for literature that is directly related to these articles. The most important current original publications will be summed up in a review article; where applicable, students may also use their own raw data. The structure of this review article will comply with the standards of the scientific community as defined in the instructions to authors of a scientific journal. The article will contain at least one figure, one table as well as one schematic representation of the contents and will be divided up into the following sections: title, abstract, introduction and/or hypothesis/problem to be investigated, summary of results as well as current developments and discussion thereof. The article will also contain citations in the specified format. Students will also deliver a presentation on the contents of the article.

Intended learning outcomes

Students will have learned to conduct a literature search on a specific topic. They will know how to get an overview of recent publications on a specific topic and will be familiar with basic rules for summing up original publications in a review article complying with the standards of the scientific community. Students will be familiar with the standards regarding the structure of reviews and will be able to properly cite sources. They will thus know what to keep in mind when writing scientific articles. In addition, students will be able to prepare and deliver an oral presentation on raw scientific data.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (approx. 5 to 10 pages) and presentation (approx. 15 minutes), weighted 2:1 Language of assessment: German and/or English creditable for bonus

Allocation of places

30 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.



A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1.
Additional information
Workload
90 h
Teaching cycle
Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title				Abbreviation
Writing	g Effect	ively in English - MINT/S	TEM and Medical Fac	ulties	07-ASQ-WEE-181-m01
Module	e coord	inator		Module offered by	
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts		•		
lish. Up	on req	uest, students will also b	e given the opportur	ity to enhance their	mmon writing mistakes in Eng- presentation skills in English. y be invited to speak on specific
Intende	ed lear	ning outcomes			
and hy ESL (En	pothes iglish a	es effectively and convin	cingly in English. Stu	dents can create an	scriptions as well as lab results outline and are aware of common ndle general writing problems,
Course	S (type, r	number of weekly contact hours,	anguage — if other than Ger	rman)	
S (2) Module	e taugh	t in: German and/or Engl	ish		
		Sessment (type, scope, langua le for bonus)	ge — if other than German, o	examination offered — if no	ot every semester, information on whether
b) porti	folio (a	n (approx. 30 minutes) o pprox. 20 pages) ssessment: German and			
Allocat	ion of p	olaces			
max. 15	place:	s (lottery)			
Additio	nal inf	ormation			
Worklo	ad				
150 h	_				

Teaching cycle



Module	e title				Abbreviation	
Additio	onal Qu	alification outside Natur	al Sciences 2		07-SQF-ZQA2-152-m01	
Module	e coord	inator		Module offered by	l	
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	CTS Method of grading Only after succ.		Only after succ. con	ompl. of module(s)		
2	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	nts		•			
Course	s in are	eas other than the natura	l sciences that are no	ot offered as part of t	he pool of general transferab	

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on cre-

Courses (type, number of weekly contact hours, language - if other than German)

V(0.5) + S(0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or

dit transfer to be made by examination committee. Will include 2 to 3 all-day courses.

- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

60 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	Module title Abbreviation			Abbreviation	
Additio	onal Qu	alification outside Natur	al Sciences 3		07-SQF-ZQA3-152-m01
Modul	e coord	inator		Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS Method of grading Only after			Only after succ. con	npl. of module(s)	
3	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites	i	
1 seme	ster	undergraduate			
Conter	ıts		•		

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include courses with 1 weekly contact hour.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

Courses (type, number of weekly contact hours, language — if other than German)

V (0.5) + S (1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title				Abbreviation
Additio	onal Qu	alification outside Natur	al Sciences 4		07-SQF-ZQA4-152-m01
Modul	e coord	inator		Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Metho	ethod of grading Only after succ. compl. of module(s)			
4	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites	1	
1 seme	ester	undergraduate			
Conten	ıts		•		

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include one week of all-day courses.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(1.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

120 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title			Abbreviation		
Additional Qualif	07-SQF-ZQA5-152-m01				
Module coordina	tor		Module offered by	<u></u>	
Coordinator BioC	areers		Faculty of Biology		
ECTS Method	of grading	Only after succ. compl. of module(s)			
5 (not) suc	cessfully completed				
Duration Me	Duration Module level		Other prerequisites		
1 semester undergraduate					
Contents		•			

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include courses with 2 weekly contact hours.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	e title		Abbreviation			
Additional Qualification outside Natural Sciences 6					07-SQF-ZQA6-152-m01	
Module coordinator				Module offered by	I.	
Coordinator BioCareers				Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)		
5	nume	erical grade				
Duration Module level		Module level	Other prerequisites			
1 semester undergraduate		undergraduate				
Contents						

Contents

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle



Module title					Abbreviation
Additional Qualification in Natural Sciences 2					07-SQF-ZQN2-152-m01
Module coordinator				Module offered by	
Coordinator BioCareers				Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
2	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate		undergraduate			
Contents					

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(0.5) + Ü(0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

60 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Additional Qualification in Natural Sciences 3					07-SQF-ZQN3-152-m01
Module coordinator				Module offered by	
Coordinator BioCareers				Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
3	(not)	successfully completed			
Duratio	Duration Module level		Other prerequisites		
1 semester undergraduate					
Contents					

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(0.5) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

90 h

Teaching cycle



Module	e title		Abbreviation			
Additional Qualification in Natural Sciences 4					07-SQF-ZQN4-152-m01	
Module coordinator				Module offered by		
Coordinator BioCareers				Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	ucc. compl. of module(s)		
4	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 semester undergraduate		undergraduate				
Conten	its					
Course	s in the	e natural sciences not off	ered as part of the po	ol of general transfe	rable skills (ASQ) that equip s	

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

 $V(0.5) + S(2) + \ddot{U}(2)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

120 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additio	onal Qu	alification in Natural Sci	ences 5		07-SQF-ZQN5-152-m01	
Module coordinator				Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
5	(not)	successfully completed				
Duratio	Duration Module level		Other prerequisites			
1 semester undergraduate						
Contents						

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

 $V(1) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additional Qualification in Natural Sciences 6					07-SQF-ZQN6-152-m01	
Module coordinator				Module offered by	I.	
Coordinator BioCareers				Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. co	mpl. of module(s)		
5	nume	rical grade				
Duration Module level		Module level	Other prerequisites			
1 semester undergraduate		undergraduate				
Contor	ntc					

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(1) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle



Module	e title		Abbreviation		
Methods and tools for Nature- and Environmental Education 1					07-LLG-M1-202-m01
Modul	e coord	inator		Module offered by	
head of group Didactics of Biology				Botanical Garden	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
3	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate					
Contents					

Chalk and talk teaching, carousel activities, unguided experimentation. There are many ways to communicate knowledge to groups of pupils. Out-of-classroom learning has been gaining in importance. In interdisciplinary contexts, it is particularly important to draw attention to the fact that looking at a topic from a "different" point of view may facilitate learning. This course will provide students with a practical introduction to knowledge-based and experience-based learning methods. Some of these methods will be adapted to be appropriate for specific topics and will be implemented with groups of pupils. This course will present students with an opportunity to find out what methods they feel comfortable with and whether students like or dislike the respective methods.

Intended learning outcomes

Students are familiar with practical methods for teaching groups in an effective and lively way.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot; A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Methods and tools for Nature- and Environmental Educa Module coordinator	o7-LLG-M2-202-m01 Module offered by					
Module coordinator	Module offered by					
	<u> </u>					
head of group Didactics of Biology	Botanical Garden					
ECTS Method of grading Only after succ. of	compl. of module(s)					
3 (not) successfully completed						
Duration Module level Other prerequisit	Other prerequisites					
1 semester undergraduate						
Contents						

Chalk and talk teaching, carousel activities, unguided experimentation. There are many ways to communicate knowledge to groups of pupils. Out-of-classroom learning has been gaining in importance. In interdisciplinary contexts, it is particularly important to draw attention to the fact that looking at a topic from a "different" point of view may facilitate learning. This course will provide students with a practical introduction to knowledge-based and experience-based learning methods. Some of these methods will be adapted to be appropriate for specific topics and will be implemented with groups of pupils. This course will present students with an opportunity to find out what methods they feel comfortable with and whether students like or dislike the respective methods.

Intended learning outcomes

Students are familiar with practical methods for teaching groups in an effective and lively way.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title		Abbreviation			
	al Expe	erience in transfer of kno	07-LLG-P1-202-m01			
Module coordinator Modu				Module offered by		
head o	head of group Didactics of Biology			Botanical Garden		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
3	(not)	successfully completed				
Duratio	Duration Module level		Other prerequisites			
1 seme	1 semester undergraduate					
Conten	Contents					

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This course will provide students with an opportunity to take on the role of teacher and work with real groups of pupils. Particular emphasis will be placed on the presentation of topics; in many cases the presentation will be accompanied by a demonstration to illustrate the topics. Students will either teach existing topics they adapted to fit the needs of their target groups or will develop new topics.

Intended learning outcomes

Students are able to teach groups, communicating in practice what they have learned in theory.

 $\textbf{Courses} \ (\textbf{type}, \, \textbf{number of weekly contact hours, language} - \textbf{if other than German})$

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Praction ning-G	•	erience in transfer of kno 2	07-LLG-P2-202-m01		
Module coordinator Module offered to					
head o	f group	Didactics of Biology	E	Botanical Garden	
ECTS	Metho	od of grading	Only after succ. comp	ol. of module(s)	
3	(not)	successfully completed			
Duratio	Duration Module level		Other prerequisites		
1 seme	1 semester undergraduate				
Contents					

This course will provide students with an opportunity to take on the role of teacher and work with real groups of pupils. Particular emphasis will be placed on the presentation of topics; in many cases the presentation will be accompanied by a demonstration to illustrate the topics. Students will either teach existing topics they adapted to fit the needs of their target groups or will develop new topics.

Intended learning outcomes

Students are able to teach groups, communicating in practice what they have learned in theory.

 $\textbf{Courses} \ (\textbf{type}, \, \textbf{number of weekly contact hours, language} - \textbf{if other than German})$

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

Workload

90 h

Teaching cycle



Summer Term 2021

(ECTS credits)



Module title					Abbreviation	
How to	excel i	in the Bioscience			07-ASQ-eBio-152-m01	
Module	e coord	inator		Module offered by		
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. compl. of module(s)			
5	(not)	successfully completed				
Duratio	Duration Module level		Other prerequisites			
1 seme	1 semester undergraduate					
Conten	Contents					

Series of workshops on a variety of topics in the area of transferable skills: What does it take to succeed at university? What skills (both subject-specific and transferable) do you need to be successful in a STEM career once you have completed your BSc/MSc degree: ability to define and achieve goals (good self and time management); How do you develop a research question/hypothesis, how do you structure a coherent analysis? How do you integrate your own findings into a bigger picture? Concrete transferable skills that will help you launch a successful career: a team player with leadership skills needs assertiveness, negotiation and conflict management skills and the ability to structure workflows. The importance of writing/English writing skills in science: an English writing lab will provide you with an opportunity to enhance your writing skills. Most of the workshops will be taught by Ms Rapp-Galmiche and qualified student tutors, but we might also invite external experts to deliver talks.

Intended learning outcomes

Students have acquired skills that will help them succeed at university and decide what career to pursue: They are able to define goals, know what interdisciplinary skills they need for a successful career in the biosciences and are familiar with techniques that will help them develop these skills. Students are able to describe projects, research findings and scientific issues in English in a clear and convincing style.

Courses (type, number of weekly contact hours, language — if other than German)

V (2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (approx. 30 minutes) or
- b) portfolio (approx. 20 pages)

Language of assessment: German and/or English

Allocation of places

max. 20 places (lottery)

Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title		Abbreviation			
Basics and Trends in the Biotechnologies / Biosciences (not für students of Bioscientific curricula)					07-ASQ-GTB-182-m01	
Modul	e coord	inator		Module offered by		
holder	of the (Chair of Biotechnology		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
3	(not)	successfully completed				
Duratio	Duration Module level		Other prerequisites			
1 seme	1 semester undergraduate					
Conter	Contents					

This module (lecture and seminar) will provide students with an overview of instrument-based methods in biotechnology and biomedicine and the underlying physical principles. It will discuss modern methods for the analysis of biological matter on the molecular and cellular level. These methods include light microscopy, fluorescence spectroscopy, electron microscopy, atomic force microscopy, flow cytometry and microfluidics.

Intended learning outcomes

Students will gain an overview of key methods in biotechnology and their respective advantages and disadvantages. They will learn to decide what method is most suitable for addressing a particular issue.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)

 $\textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \\ \textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \\ \textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \\ \textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination of the every semester)} \\ \textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination of the every semester)} \\ \textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination of the every semester)} \\ \textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination of the every semester)} \\ \textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination of the every semester)} \\ \textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination of the every semester)} \\ \textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination of the every semester)} \\ \textbf{Method of assessment} \ (\textbf{type}, \textbf{language} - \textbf{langua$ module is creditable for bonus)

presentation (20 to 30 minutes)

Language of assessment: German and/or English

Allocation of places

min. 5, max. 20 places (lot)

Additional information

Workload

90 h

Teaching cycle

Teaching cycle: every year, summer semester



Module title					Abbreviation	
Career	Perspe	ectives, Personal Con	07-SQF-KEB-152-m01			
Modul	Module coordinator Module offered by					
Coordi	Coordinator BioCareers			Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
5	nume	rical grade				
Duration Module level			Other prerequisites	ites		
1 semester undergraduate						
Contor	Contonte					

Contents

This module will provide students with information on potential areas of employment for life scientists and will address the topic of job application and staff selection. It will discuss methods for analysing personality types and will acquaint students with criteria for developing personal and social skills. Building on this, the module will develop fundamental criteria for working in groups and teams. The fundamental principles of a project-oriented approach to work and of communication (incl. rhetoric and body language) will be discussed. Students will also receive advice on how to design and structure talks.

Intended learning outcomes

Students know what it takes to succeed in the job market. They are familiar with current developments in the job market, know how to go job hunting, and are familiar with recruitment practices of employers. Students have developed a fundamental knowledge of personality assessment methods and are familiar with conflict management methods. They are able to work in a team-based environment and have developed a fundamental knowledge of project management methods and approaches. Students have enhanced their teaching skills and are proficient in the theory and practice of communication. They know how to design and structure talks as well as to present data in both oral and written form. Students are aware of what body language may communicate.

Courses (type, number of weekly contact hours, language — if other than German)

V(1) + S(2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

written examination (approx. 30 to 60 minutes) Language of assessment: German and/or English creditable for bonus

Allocation of places

120 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subjects Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they ha-



ve achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, places will be allocated according to the selection process of group 1.

Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Methods and tools for Nature- and Environmental Education 1					07-LLG-M1-202-m01	
Module	e coord	inator	Module offered by	Module offered by		
head o	head of group Didactics of Biology			Botanical Garden		
ECTS	Metho	Method of grading Only after succ. co		npl. of module(s)		
3	(not)	successfully completed				
Duration Module level			Other prerequisites			
1 semester undergraduate						
Conten	Contents					

Chalk and talk teaching, carousel activities, unguided experimentation. There are many ways to communicate knowledge to groups of pupils. Out-of-classroom learning has been gaining in importance. In interdisciplinary contexts, it is particularly important to draw attention to the fact that looking at a topic from a "different" point of view may facilitate learning. This course will provide students with a practical introduction to knowledge-based and experience-based learning methods. Some of these methods will be adapted to be appropriate for specific topics and will be implemented with groups of pupils. This course will present students with an opportunity to find out what methods they feel comfortable with and whether students like or dislike the respective methods.

Intended learning outcomes

Students are familiar with practical methods for teaching groups in an effective and lively way.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot; A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Methods and tools for Nature- and Environmental Education 2					07-LLG-M2-202-m01
Modul	e coord	inator	Module offered by		
head of group Didactics of Biology				Botanical Garden	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
3	(not)	ot) successfully completed			
Duration Module level			Other prerequisites	es	
1 semester undergraduate					
Contents					

Chalk and talk teaching, carousel activities, unguided experimentation. There are many ways to communicate knowledge to groups of pupils. Out-of-classroom learning has been gaining in importance. In interdisciplinary contexts, it is particularly important to draw attention to the fact that looking at a topic from a "different" point of view may facilitate learning. This course will provide students with a practical introduction to knowledge-based and experience-based learning methods. Some of these methods will be adapted to be appropriate for specific topics and will be implemented with groups of pupils. This course will present students with an opportunity to find out what methods they feel comfortable with and whether students like or dislike the respective methods.

Intended learning outcomes

Students are familiar with practical methods for teaching groups in an effective and lively way.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title Abbreviation							
Experience nature outdoors 07-ASQ-NIF-201-m01							
Module	e coord	inator		Module offered by			
-				Faculty of Biology			
ECTS	TS Method of grading Only after succ. com		npl. of module(s)				
5	(not)	successfully completed					
Duratio	on	Module level	Other prerequisites				
1 seme	ster						
Conter	its		,				
Intend	ed lear	ning outcomes					
			,				
Course	S (type, r	number of weekly contact hours, l	anguage — if other than Ger	rman)			
Ü (3)							
		sessment (type, scope, langua le for bonus)	ge — if other than German, o	examination offered — if no	ot every semester, information on whether		
		rox. 15 pages) ffered: Once a year, sum	mer term				
Allocat	ion of p	olaces					
min. 5,	max. 2	o places (Lottery)					
Additio	onal inf	ormation					
Worklo	ad						
150 h							
Teaching cycle							
Teaching cycle: every year, summer semester							
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)						



Module title					Abbreviation	
Fungi: One kingdom, many faces					07-SQF-FUNGI-182-m01	
Modul	e coord	linator		Module offered by	1	
holder	holder of the Chair of Biotechnology and Biophysics			Faculty of Biology	Faculty of Biology	
ECTS	Meth	od of grading	Only after succ.	compl. of module(s)		
5	nume	erical grade				
Duration Module level Oth			Other prerequis	ites		
1 semester undergraduate						
Conto	Contents					

Contents

The course provides a concise overview of fungal systematics, cell biology, fungal genetics, plant pathogenicity, medical mycology, stimulus processing, and fungi in biotechnology. In the seminar current research topics will be presented and discussed. The exercise includes the microscopy of selected fungi / cultivation and preparation of media / day excursion "mushroom" and determination of collected material. The excursion depends on weather conditions.

Intended learning outcomes

The students are able to identify key characteristics of fungi and classify them accordingly. In addition, they possess knowledge on mushroom biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

Ü (4)

Module taught in: German and/or English

 $\textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language}) \ (\textbf{type}, \textbf{language})$ module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle

Teaching cycle: every year, summer semester



Module title					Abbreviation	
Practical Experience in transfer of knowledge obtained in the Teaching-Learning-Garden 1					07-LLG-P1-202-m01	
Module coordinator Module offered b						
head o	head of group Didactics of Biology			Botanical Garden		
ECTS	Meth	od of grading	Only after succ. comp	ol. of module(s)		
3	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 semester undergraduate		undergraduate				
Conter	Contents					

This course will provide students with an opportunity to take on the role of teacher and work with real groups of pupils. Particular emphasis will be placed on the presentation of topics; in many cases the presentation will be accompanied by a demonstration to illustrate the topics. Students will either teach existing topics they adapted to fit the needs of their target groups or will develop new topics.

Intended learning outcomes

Students are able to teach groups, communicating in practice what they have learned in theory.

 $\textbf{Courses} \ (\textbf{type}, \, \textbf{number of weekly contact hours, language} - \textbf{if other than German})$

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

Workload

90 h

Teaching cycle



Module title					Abbreviation	
Practical Experience in transfer of knowledge obtained in the Teaching-Learning-Garden 2					07-LLG-P2-202-m01	
Module coordinator Module offered						
head o	head of group Didactics of Biology			Botanical Garden		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
3	(not)	successfully completed				
Duration Module level			Other prerequisites	5		
1 semester undergraduate						
Conter	Contents					

This course will provide students with an opportunity to take on the role of teacher and work with real groups of pupils. Particular emphasis will be placed on the presentation of topics; in many cases the presentation will be accompanied by a demonstration to illustrate the topics. Students will either teach existing topics they adapted to fit the needs of their target groups or will develop new topics.

Intended learning outcomes

Students are able to teach groups, communicating in practice what they have learned in theory.

 $\textbf{Courses} \ (\textbf{type}, \, \textbf{number of weekly contact hours, language} - \textbf{if other than German})$

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

Workload

90 h

Teaching cycle



Modul	e title				Abbreviation	
Compu	ıter lan	guages and programmin	g 3		07-SQF-PRO3-182-m01	
Modul	e coord	inator		Module offered by		
chairp	erson o	f examination committee	Biologie (Biology)	Faculty of Biology		
ECTS	Method of grading Only after succ. co			npl. of module(s)		
3	(not) successfully completed					
Duration Module level			Other prerequisites	5		
1 semester undergraduate						

Contents

Computer languages and programming using one or more computer languages like Java, C, C++, C#, Python, PHP.

Intended learning outcomes

The participants know the basics about computer languages and programming.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 90 h Teaching cycle $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Modul	e title		Abbreviation		
Compu	ıter lan	guages and programmin	g 5		07-SQF-PR05-182-m01
Module coordinator				Module offered by	
chairp	chairperson of examination committee Biologie (Biology)			Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 seme	1 semester undergraduate				
Contracts					

Contents

Computer languages and programming using one or more computer languages like Java, C, C++, C#, Python, PHP.

Intended learning outcomes

The participants know the basics about computer languages and programming.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (3)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 150 h Teaching cycle $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module	e title			,	Abbreviation
Legal a	nd Eth	ical Aspects in Biologi	cal Sciences		07-SQF-RETH-211-m01
Module	e coord	inator		Module offered by	
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. cor	npl. of module(s)	
5	nume	rical grade			
Duratio	n	Module level	Other prerequisites	3	
1 seme	ster	undergraduate	exercises (minimun	n 80%) and successf	exercises. Regular attendance of ful completion of the respective rerequisites for admission to as-
Conten	ts				
animal	testing		in agriculture, biodivers		ch, cloning, transgenic animals, ervation, biotechnology and mi-
Intende	ed lear	ning outcomes			
ding st	em cell d natur	research, cloning, tra e conservation, biotec	nsgenic animals, anima	al testing, genetic en ogy, medicine and ne	miliar with legal aspects surroun- gineering in agriculture, biodiver- eurogenetics and are able to eva- n and critically discuss these to-
Course	S (type, r	number of weekly contact hou	rs, language — if other than Ge	rman)	
V (1) +	Ü (1)				
		sessment (type, scope, lan ble for bonus)	guage — if other than German,	examination offered — if no	ot every semester, information on whether
	ige of a	ssessment: German a	so minutes) or portfolio nd/or English		
Allocat	ion of _l	olaces			
Additio	nal inf	ormation			
Worklo	ad				
150 h					
Teachi	ng cycl	е			

Teaching cycle: every year, summer semester

 $\textbf{Referred to in LPO I} \ \ (\text{exam} \underline{\quad } \text{ination regulations for teaching-degree programmes})$



Module title					Abbreviation
Statistics 3					07-SQF-STAT3-182-m01
Module coordinator				Module offered by	
degree programme coordinator Biologie (e (Biology)	Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. cor	mpl. of module(s)	
3	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate					
Cantar		-	•		

Contents

Usage of specific statistical methods on practical examples

Intended learning outcomes

The participants know how to evaluate data statistically and how to use statistic methods in practical examples.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, places will be allocated according to the selection process of group 1.

ces will be allocated according to the selection process of group 1. Additional information - Workload 90 h Teaching cycle - Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title	,			Abbreviation
Statist	ics 5				07-SQF-STAT5-182-m01
Module	e coord	inator		Module offered by	
degree programme coordinator Biologie			e (Biology)	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate					
Control					

Contents

Usage of specific statistical methods on practical examples

Intended learning outcomes

The participants know how to evaluate data statistically and how to use statistic methods in practical examples.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (3)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 150 h Teaching cycle $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Modul	Module title					Abbreviation
Taxon	Taxonomy and Biology of Butterflies					07-SQF-BUFLY-182-m01
Modul	Module coordinator				Module offered by	
degree	progra	mme coordinator Biolo	gie (Biology)		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ.	. com	pl. of module(s)	
5	nume	rical grade				
Duration Module level		Other prerequis	Other prerequisites			
1 semester undergraduate						
Contents						

Taxonomy of butterflies and moth. Preparation of butterflies. Ecology and relevance. Developmental biology and developmental strategies of butterflies. Field excursions. Development of wingcolors. Species determination of moth using light traps. Exotic butterflies.

Intended learning outcomes

Students are able to recognize butterfly families and species and are able to estimate the relevance of butterflies as bioindicators.

Courses (type, number of weekly contact hours, language - if other than German)

Ü (4)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle

Teaching cycle: every year, summer semester

 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module	e title	-	Abbreviation		
Enviro	nmenta	l Education in the Botan	g University	07-SQF-UBG-152-m01	
Module coordinator M			Module offered by		
head o	f Botan	ical Garden		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
2	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 seme	ı semester undergraduate				
Contents					

The Botanical Garden of the University of Würzburg is primarily used for teaching and research-related activities. In addition, it is used for activities in the area of general environmental education with the plants in the different sections and collections being used to inform interested members of the public about topics in the areas of botany, ecology and gardening. In this module, students will develop appropriate educational concepts for imparting, in a comprehensible way, specialist knowledge to interested laypersons. They will practise designing and using appropriate aids (information boards, leaflets etc.) and applying methodological approaches (guidelines) for the comprehensible presentation of complex concepts. Students will be organised into teams to complete the following tasks: develop contents tailored to the needs of selected target groups, acquire the specialist knowledge necessary for presenting these contents, select appropriate methods for presenting these contents.

Intended learning outcomes

Students will be able to communicate concepts in ecology and botany to a lay audience. They will be able to tailor contents to a target audience, selecting and using appropriate aids and techniques. Students will have acquired an overview of the sectors of the Botanical Garden and will be able to prepare information material on individual sections. They will have developed both botanical knowledge and teaching skills that will enable them to guide tours through the Botanical Garden, imparting knowledge in a way that is tailored to their target audience.

Courses (type, number of weekly contact hours, language - if other than German)

Ü (0.5) + E (0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (or preparing educational materials and materials for demonstrations) (approx. 10 to 20 pages) Language of assessment: German and/or English creditable for bonus

Allocation of places

6 places.

Additional information

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Workload

60 h

Teaching cycle

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 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module title					Abbreviation	
Orientation/Review of inorganic Chemistry for students in Biology and MIN studyprograms					07-ASQ-VAC-201-m01	
Modul	e coord	inator		Module offered by		
				Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
5	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ster					
Conten	its					
	,					
Intend	ed lear	ning outcomes				
Course	S (type, r	number of weekly contact hours,	language — if other than Ger	rman)		
			age — if other than German,	examination offered — if no	ot every semester, information on whether	
	s creditab	le for bonus)				
		1				
Allocat	ion of _I	olaces				
 A 1 1'4'	1					
Additio	onal inf	ormation				
 W1-1-			-			
Worklo	aa					
150 h						
	ng cycl					
		e: every year, winter sem				
Keferre	Referred to in LPO I (examination regulations for teaching-degree programmes)					



Orientation/Review of Statistics for students in Biology and MINT studyprograms Module coordinator Module offered by Faculty of Biology ECTS Method of grading Only after succ. compl. of module(s) [Total successfully completed Other prerequisites] I semester	Modul	e title				Abbreviation
Module coordinator						
Faculty of Biology ECTS Method of grading Only after succ. compl. of module(s) (not) successfully completed		e coord	inator		Module offered by	
ECTS Method of grading Only after succ. compl. of module(s) 5		,			† ·	
5	ECTS	Meth	od of grading	Only after succ. con		
Intended learning outcomes Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	5				•	
Contents Intended learning outcomes Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle		on .	Module level	Other prerequisites	i	
Intended learning outcomes Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	1 seme	ster				
Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	Conter	its				
Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle						
Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	Intend	ed lear	ning outcomes			
Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle						
Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	Course	S (type, 1	number of weekly contact hours,	language — if other than Ge	rman)	
module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	Ü (2)	-				
Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle				ge — if other than German,	examination offered — if n	not every semester, information on whether
max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	portfol	io (app	rox. 20 hours total)			
Additional information Workload 150 h Teaching cycle	Allocat	ion of	places			
Workload 150 h Teaching cycle	max. 2	o place	s (Lottery)			
Teaching cycle	Additio	nal inf	ormation			
Teaching cycle						
Teaching cycle	Worklo	ad				
	150 h	-				
Referred to in LPO I (examination regulations for teaching-degree programmes)	Teachi	ng cycl	e			
Referred to in LPO I (examination regulations for teaching-degree programmes)						
	Referred to in LPO I (examination regulations for teaching-degree programmes)					



Modul	e title				Abbreviation
Orientation/Review of Mathematics for students in Biology and MINT study- programs 07-ASQ-VM-201-m01					
Modul	e coord	inator		Module offered by	
				Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites	i .	
1 seme	ster				
Conter	its				
Intend	ed lear	ning outcomes			
Course	S (type, 1	number of weekly contact hours,	language — if other than Ge	rman)	
			m age-if other than German,	examination offered — if n	ot every semester, information on whether
module i	s creditab	le for bonus)			
Allocat	ion of	places			
			,		
Additio	nal inf	ormation			
Worklo	ad				
150 h					
Teachi					
		e: every year, winter sem			
Referre	ed to in	LPO I (examination regulation	s for teaching-degree progra	ammes)	



Module	e title				Abbreviation
Orienta dyprog		eview of organic Chemis	try for students in Bio	ology and MINT stu-	07-ASQ-VOC-201-m01
Module	e coord	inator		Module offered by	
				Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. com	pl. of module(s)	
5	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster				
Conten	its				
Intend	ed lear	ning outcomes			
Course	S (type, r	number of weekly contact hours,	language — if other than Ger	man)	
Ü (2)					
		sessment (type, scope, langua le for bonus)	${\sf ge-if}$ other than German, ${\sf e}$	examination offered — if no	t every semester, information on whether
		rox. 20 hours total) ffered: Once a year, sum	mer term		
Allocat	ion of	olaces			
max. 2	o place	s (Lottery)	-		
Additio	nal inf	ormation			
Worklo	ad				
150 h					
Teachi	ng cycl	e			
Teachi	ng cycl	e: every year, summer se	mester		
Referre	ed to in	LPO I (examination regulation	s for teaching-degree progra	mmes)	



Modul	e title			Abbreviation	
Publis	hing So	cientific Data			07-SQF-WIP-152-m01
Modul	Module coordinator			Module offered by	
Coordi	Coordinator BioCareers			Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. co	mpl. of module(s)	
3	nume	rical grade			
Duration Module level		Other prerequisites	Other prerequisites		
1 seme	1 semester undergraduate				
C 4	_4_				

Contents

Either alone or in small groups of two or three persons, students will select several journal articles from the field of life sciences. These will serve as the basis for a review article to be prepared by students. With two or three "core publications" as a basis, students will search data bases (e. g. PubMed) for literature that is directly related to these articles. The most important current original publications will be summed up in a review article; where applicable, students may also use their own raw data. The structure of this review article will comply with the standards of the scientific community as defined in the instructions to authors of a scientific journal. The article will contain at least one figure, one table as well as one schematic representation of the contents and will be divided up into the following sections: title, abstract, introduction and/or hypothesis/problem to be investigated, summary of results as well as current developments and discussion thereof. The article will also contain citations in the specified format. Students will also deliver a presentation on the contents of the article.

Intended learning outcomes

Students will have learned to conduct a literature search on a specific topic. They will know how to get an overview of recent publications on a specific topic and will be familiar with basic rules for summing up original publications in a review article complying with the standards of the scientific community. Students will be familiar with the standards regarding the structure of reviews and will be able to properly cite sources. They will thus know what to keep in mind when writing scientific articles. In addition, students will be able to prepare and deliver an oral presentation on raw scientific data.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (approx. 5 to 10 pages) and presentation (approx. 15 minutes), weighted 2:1 Language of assessment: German and/or English creditable for bonus

Allocation of places

30 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.



A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1.
Additional information
Workload
90 h
Teaching cycle
Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title Abbreviation							
Writing	Nriting Effectively in English - MINT/STEM and Medical Faculties 07-ASQ-WEE-181-mo1						
Module	e coord	inator		Module offered by	y		
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology	,		
ECTS	Meth	od of grading	Only after succ. con	ipl. of module(s)			
5	(not)	successfully completed					
Duratio	on	Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	its						
topics.		nd seminars will be taugh ning outcomes	nt by trained tutors. Ex	kternal lecturers m	ay be invited to speak on specific		
such as	s writer	is a second language) mi ''s block. number of weekly contact hours,			andle general writing problems,		
S (2) Module	e taugh	t in: German and/or Engl	ish				
		sessment (type, scope, langua ble for bonus)	age — if other than German,	examination offered — if	not every semester, information on whether		
b) port	folio (a	n (approx. 30 minutes) o pprox. 20 pages) ssessment: German and					
Allocat	ion of p	places					
max. 1	5 place	s (lottery)					
Additional information							
Worklo	ad						
150 h			-				
Teachi	ng cycl	е					



Module	e title		Abbreviation			
Additional Qualification outside Natural Sciences 2					07-SQF-ZQA2-152-m01	
Module coordinator				Module offered by		
Coordi	nator B	ioCareers	Faculty of Biology			
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
2	(not)	successfully completed				
Duratio	Duration Module level		Other prerequisites			
1 seme	ster	undergraduate				
Conter	Contents					

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include 2 to 3 all-day courses.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

Courses (type, number of weekly contact hours, language - if other than German)

V(0.5) + S(0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

60 h

Teaching cycle



Module title					Abbreviation		
Additional Qualification outside Natural Sciences 3					07-SQF-ZQA3-152-m01		
Module coordinator				Module offered by			
Coordi	nator B	ioCareers		Faculty of Biology			
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)			
3	(not)	successfully completed					
Duration Module level		Other prerequisites					
1 semester undergraduate							
Conter	Contents						

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include courses with 1 weekly contact hour.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

Courses (type, number of weekly contact hours, language — if other than German)

V (0.5) + S (1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	e title		Abbreviation		
Additional Qualification outside Natural Sciences 4					07-SQF-ZQA4-152-m01
Module coordinator				Module offered by	
Coordi	nator B	ioCareers	Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
4	(not)	successfully completed			
Duratio	Duration Module level		Other prerequisites		
1 semester undergraduate					
Contents					

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include one week of all-day courses.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(1.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

120 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Additional Qualification outside Natural Sciences 5					07-SQF-ZQA5-152-m01
Module coordinator				Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duratio	Duration Module level		Other prerequisites		
1 seme	1 semester undergraduate				
Conter	Contents				

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include courses with 2 weekly contact hours.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	e title		Abbreviation		
Additional Qualification outside Natural Sciences 6					07-SQF-ZQA6-152-m01
Modul	e coord	linator	Module offered by		
Coordinator BioCareers				Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. cor	mpl. of module(s)	
5	nume	erical grade			
Duration Module level Oth		Other prerequisites	Other prerequisites		
1 semester undergraduate					
Contor	ntc		•		

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle



Module title					Abbreviation	
Additional Qualification in Natural Sciences 2					07-SQF-ZQN2-152-m01	
Module coordinator				Module offered by		
Coordinator BioCareers				Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
2	(not)	successfully completed				
Duration Module level		Other prerequisites				
1 semester undergraduate						
Conter	Contents					

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

V(0.5) + S(0.5) + Ü(0.5)

Module taught in: German and/or English

 $\textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language}) \ (\textbf{type}, \textbf{language}) \$ module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

60 h

Teaching cycle



Module title					Abbreviation	
Additional Qualification in Natural Sciences 3					07-SQF-ZQN3-152-m01	
Modul	e coord	inator		Module offered by		
Coordinator BioCareers			Faculty of Biology			
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
3	(not)	successfully completed				
Duratio	Duration Module level		Other prerequisites			
1 semester undergraduate						
Conter	Contents					

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language — if other than German)

 $V(0.5) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

90 h

Teaching cycle



Module	e title		Abbreviation		
Additional Qualification in Natural Sciences 4					07-SQF-ZQN4-152-m01
Module coordinator				Module offered by	
Coordinator BioCareers			Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
4	(not)	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 semester undergraduate					
Contents					

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

 $V(0.5) + S(2) + \ddot{U}(2)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

120 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additional Qualification in Natural Sciences 5					07-SQF-ZQN5-152-m01	
Modul	e coord	inator		Module offered by		
Coordinator BioCareers				Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
5	(not)	successfully completed				
Duration Module level		Other prerequisites				
1 semester undergraduate						
Contor	Contents					

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(1) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle



Module title					Abbreviation	
Additional Qualification in Natural Sciences 6					07-SQF-ZQN6-152-m01	
Modul	e coord	linator		Module offered by		
Coordinator BioCareers				Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)		
5	nume	erical grade				
Duration Module level Othe		Other prerequisites	Other prerequisites			
1 semester undergraduate						
Contor	Contents					

Contents

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(1) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle



Winter Term 2021

(ECTS credits)



Module title					Abbreviation	
How to excel in the Bioscience					07-ASQ-eBio-152-m01	
Module	e coord	inator		Module offered by		
Dean o	f Studi	es Biologie (Biology)	Faculty of Biology			
ECTS	Metho	od of grading	Only after succ. compl. of module(s)			
5	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	1 semester undergraduate					
Conten	Contents					

Series of workshops on a variety of topics in the area of transferable skills: What does it take to succeed at university? What skills (both subject-specific and transferable) do you need to be successful in a STEM career once you have completed your BSc/MSc degree: ability to define and achieve goals (good self and time management); How do you develop a research question/hypothesis, how do you structure a coherent analysis? How do you integrate your own findings into a bigger picture? Concrete transferable skills that will help you launch a successful career: a team player with leadership skills needs assertiveness, negotiation and conflict management skills and the ability to structure workflows. The importance of writing/English writing skills in science: an English writing lab will provide you with an opportunity to enhance your writing skills. Most of the workshops will be taught by Ms Rapp-Galmiche and qualified student tutors, but we might also invite external experts to deliver talks.

Intended learning outcomes

Students have acquired skills that will help them succeed at university and decide what career to pursue: They are able to define goals, know what interdisciplinary skills they need for a successful career in the biosciences and are familiar with techniques that will help them develop these skills. Students are able to describe projects, research findings and scientific issues in English in a clear and convincing style.

Courses (type, number of weekly contact hours, language — if other than German)

V (2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (approx. 30 minutes) or
- b) portfolio (approx. 20 pages)

Language of assessment: German and/or English

Allocation of places

max. 20 places (lottery)

Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Methods and tools for Nature- and Environmental Education 1				07-LLG-M1-202-m01		
Module coordinator Module o					ule offered by	
head of group Didactics of Biology				Botanical Garden		
ECTS	Metho	ethod of grading Only after succ.		npl. of module(s)		
3	(not)	not) successfully completed				
Duration Module level		Other prerequisites				
1 semester undergraduate						
Contents						

Chalk and talk teaching, carousel activities, unguided experimentation. There are many ways to communicate knowledge to groups of pupils. Out-of-classroom learning has been gaining in importance. In interdisciplinary contexts, it is particularly important to draw attention to the fact that looking at a topic from a "different" point of view may facilitate learning. This course will provide students with a practical introduction to knowledge-based and experience-based learning methods. Some of these methods will be adapted to be appropriate for specific topics and will be implemented with groups of pupils. This course will present students with an opportunity to find out what methods they feel comfortable with and whether students like or dislike the respective methods.

Intended learning outcomes

Students are familiar with practical methods for teaching groups in an effective and lively way.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot; A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Methods and tools for Nature- and Environmental Education 2					07-LLG-M2-202-m01	
Modul	e coord	inator	Module offered by			
head o	head of group Didactics of Biology			Botanical Garden		
ECTS	Meth	thod of grading Only after suc		npl. of module(s)		
3	(not)	t) successfully completed				
Duratio	Duration Module level		Other prerequisites			
1 seme	1 semester undergraduate					
Conter	Contents					

Chalk and talk teaching, carousel activities, unguided experimentation. There are many ways to communicate knowledge to groups of pupils. Out-of-classroom learning has been gaining in importance. In interdisciplinary contexts, it is particularly important to draw attention to the fact that looking at a topic from a "different" point of view may facilitate learning. This course will provide students with a practical introduction to knowledge-based and experience-based learning methods. Some of these methods will be adapted to be appropriate for specific topics and will be implemented with groups of pupils. This course will present students with an opportunity to find out what methods they feel comfortable with and whether students like or dislike the respective methods.

Intended learning outcomes

Students are familiar with practical methods for teaching groups in an effective and lively way.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (2)

 $\textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language}) \ (\textbf{type}, \textbf{language})$ module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

Workload

90 h

Teaching cycle



Module title					Abbreviation		
Science experiments					07-ASQ-NIE-201-m01		
Modul	e coord	inator		Module offered by	Module offered by		
				Faculty of Biology			
ECTS	ECTS Method of grading Only after suc			npl. of module(s)			
5	(not) successfully completed						
Duratio	on	Module level	Other prerequisites	Other prerequisites			
1 seme	ester						
Conter	ıts						
Intend	ed lear	ning outcomes					
Course	es (type, r	number of weekly contact hours, l	anguage — if other than Ger	rman)			
Ü (3)							
		sessment (type, scope, langua le for bonus)	ge — if other than German,	examination offered — if no	ot every semester, information on whether		
	Portfolio (approx. 15 pages) Assessment offered: Once a year, winter term						
Allocat	Allocation of places						
min. 5,	min. 5, max. 20 places (Lottery)						
Additio	onal inf	ormation					
Workload							
150 h							
Teaching cycle							
Teachi	Teaching cycle: every year, winter semester						
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)						



Modul	e title		Abbreviation		
Organisation and Safety in Biosciences					07-SQF-OSB-152-m01
Modul	e coord	inator	Module offered by		
Coordinator BioCareers				Faculty of Biology	
ECTS	Meth	Method of grading Only after succ. co		npl. of module(s)	
5	nume	umerical grade			
Duration Module level		Other prerequisites	Other prerequisites		
1 seme	1 semester undergraduate				

Contents

Safety procedures in the biosciences, in particular radiation protection, handling of genetically modified organisms, hygiene procedures and hazardous substances, working with lab animals. Fundamental concepts that help ensure an effective and efficient workflow in the biosciences. Structure and organisation of institutions in the bioscience/biotech sector. Process-based project management. HR management in the biosciences, responsibilities of managers/supervisors, appraisal interviews, target agreements, management styles.

Intended learning outcomes

Students have developed a fundamental knowledge of the regulations governing work in the bioscience sector and are familiar with fundamental organisational principles that are relevant for work in research and production. They are also familiar with fundamental principles of process-based project work in the biosciences.

Courses (type, number of weekly contact hours, language — if other than German)

V(1) + S(2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

written examination (60 minutes)

Language of assessment: German and/or English

creditable for bonus

Allocation of places

120 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking.



Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 150 h Teaching cycle $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module	e title		Abbreviation		
Practical Experience in transfer of knowledge obtained in the Teaching-Learning-Garden 1					07-LLG-P1-202-m01
Module coordinator Module offered b					
head of group Didactics of Biology				Botanical Garden	
ECTS	Metho	nod of grading Only after succ. co		npl. of module(s)	
3	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester		undergraduate			
Contents					

This course will provide students with an opportunity to take on the role of teacher and work with real groups of pupils. Particular emphasis will be placed on the presentation of topics; in many cases the presentation will be accompanied by a demonstration to illustrate the topics. Students will either teach existing topics they adapted to fit the needs of their target groups or will develop new topics.

Intended learning outcomes

Students are able to teach groups, communicating in practice what they have learned in theory.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Practical Experience in transfer of knowledge obtained in the Teaching-Learning-Garden 2					07-LLG-P2-202-m01	
Module coordinator Module offered						
head o	head of group Didactics of Biology			Botanical Garden		
ECTS	Meth	ethod of grading Only after s		pl. of module(s)		
3	(not)	successfully completed				
Duratio	Duration Module level		Other prerequisites			
1 seme	1 semester undergraduate					
Conten	Contents					

This course will provide students with an opportunity to take on the role of teacher and work with real groups of pupils. Particular emphasis will be placed on the presentation of topics; in many cases the presentation will be accompanied by a demonstration to illustrate the topics. Students will either teach existing topics they adapted to fit the needs of their target groups or will develop new topics.

Intended learning outcomes

Students are able to teach groups, communicating in practice what they have learned in theory.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Environmental Education in the Botanic Garden of Würzburg University					07-SQF-UBG-152-m01
Module coordinator Module offered by					by
head of	Botan	ical Garden		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
2	(not) s	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 semes	ster	undergraduate			
Contents					

The Botanical Garden of the University of Würzburg is primarily used for teaching and research-related activities. In addition, it is used for activities in the area of general environmental education with the plants in the different sections and collections being used to inform interested members of the public about topics in the areas of botany, ecology and gardening. In this module, students will develop appropriate educational concepts for imparting, in a comprehensible way, specialist knowledge to interested laypersons. They will practise designing and using appropriate aids (information boards, leaflets etc.) and applying methodological approaches (guidelines) for the comprehensible presentation of complex concepts. Students will be organised into teams to complete the following tasks: develop contents tailored to the needs of selected target groups, acquire the specialist knowledge necessary for presenting these contents, select appropriate methods for presenting these contents.

Intended learning outcomes

Students will be able to communicate concepts in ecology and botany to a lay audience. They will be able to tailor contents to a target audience, selecting and using appropriate aids and techniques. Students will have acquired an overview of the sectors of the Botanical Garden and will be able to prepare information material on individual sections. They will have developed both botanical knowledge and teaching skills that will enable them to guide tours through the Botanical Garden, imparting knowledge in a way that is tailored to their target audience.

Courses (type, number of weekly contact hours, language - if other than German)

Ü (0.5) + E (0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (or preparing educational materials and materials for demonstrations) (approx. 10 to 20 pages) Language of assessment: German and/or English creditable for bonus

Allocation of places

6 places.

Additional information

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Workload

60 h

Teaching cycle

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 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module title					Abbreviation	
Publishing Scientific Data					07-SQF-WIP-152-m01	
Module coordinator				Module offered by		
Coordi	Coordinator BioCareers			Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)		
3	nume	rical grade				
Duration Module level Other		Other prerequisites	;			
1 semester undergraduate						

Either alone or in small groups of two or three persons, students will select several journal articles from the field of life sciences. These will serve as the basis for a review article to be prepared by students. With two or three "core publications" as a basis, students will search data bases (e. g. PubMed) for literature that is directly related to these articles. The most important current original publications will be summed up in a review article; where applicable, students may also use their own raw data. The structure of this review article will comply with the standards of the scientific community as defined in the instructions to authors of a scientific journal. The article will contain at least one figure, one table as well as one schematic representation of the contents and will be divided up into the following sections: title, abstract, introduction and/or hypothesis/problem to be investigated, summary of results as well as current developments and discussion thereof. The article will also contain citations in the specified format. Students will also deliver a presentation on the contents of the article.

Intended learning outcomes

Students will have learned to conduct a literature search on a specific topic. They will know how to get an overview of recent publications on a specific topic and will be familiar with basic rules for summing up original publications in a review article complying with the standards of the scientific community. Students will be familiar with the standards regarding the structure of reviews and will be able to properly cite sources. They will thus know what to keep in mind when writing scientific articles. In addition, students will be able to prepare and deliver an oral presentation on raw scientific data.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (approx. 5 to 10 pages) and presentation (approx. 15 minutes), weighted 2:1 Language of assessment: German and/or English creditable for bonus

Allocation of places

30 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.



A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1.
Additional information
Workload
90 h
Teaching cycle
Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation		
Writing	g Effect	ively in English - MINT/S	ulties	07-ASQ-WEE-181-m01			
Module	Module coordinator			Module offered by			
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology			
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)			
5	(not)	successfully completed					
Duratio	n	Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	ts						
lish. Up Worksh topics.	oon rec nops ar	quest, students will also l nd seminars will be taugh	oe given the opportur	nity to enhance their	ommon writing mistakes in Eng- r presentation skills in English. y be invited to speak on specific		
Intende	ed lear	ning outcomes	,				
and hy ESL (Er	pothes Iglish a	es effectively and convin	cingly in English. Stu	dents can create an	escriptions as well as lab results outline and are aware of commor andle general writing problems,		
Course	S (type, i	number of weekly contact hours,	language — if other than Ger	rman)			
S (2) Module	e taugh	nt in: German and/or Engl	lish				
		sessment (type, scope, langua ole for bonus)	age — if other than German,	examination offered — if n	ot every semester, information on whether		
a) presentation (approx. 30 minutes) or b) portfolio (approx. 20 pages) Language of assessment: German and/or English							
Allocation of places							
max. 15 places (lottery)							
Additional information							
Worklo	ad						
150 h							
Teachi	ng cycl	le					



Module title					Abbreviation	
Additional Qualification outside Natural Sciences 2					07-SQF-ZQA2-152-m01	
Module coordinator				Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
2	(not)	successfully completed				
Duratio	Duration Module level		Other prerequisites			
1 semester undergraduate						
Conten	Contents					

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include 2 to 3 all-day courses.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

60 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Additional Qualification outside Natural Sciences 3					07-SQF-ZQA3-152-m01
Module coordinator				Module offered by	
Coordi	Coordinator BioCareers			Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
3	(not)	successfully completed			
Duratio	Duration Module level		Other prerequisites		
1 seme	1 semester undergraduate				
Conter	Contents				

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include courses with 1 weekly contact hour.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

Courses (type, number of weekly contact hours, language - if other than German)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

90 h

Teaching cycle



Module title					Abbreviation	
Additional Qualification outside Natural Sciences 4					07-SQF-ZQA4-152-m01	
Module coordinator				Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
4	(not)	successfully completed				
Duration Module level		Other prerequisites				
1 semester undergraduate						
Conter	Contents					

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include one week of all-day courses.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(1.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

120 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



07-SQF-ZQA5-152-m01	
ered by	
Faculty of Biology	
ompl. of module(s)	

skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include courses with 2 weekly contact hours.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additional Qualification outside Natural Sciences 6					07-SQF-ZQA6-152-m01	
Module coordinator				Module offered by	I.	
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. co	mpl. of module(s)		
5	nume	rical grade				
Duration Module level Ot		Other prerequisites	Other prerequisites			
1 semester undergraduate -						
Contor	Contents					

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle



Module title					Abbreviation
Additional Qualification in Natural Sciences 2					07-SQF-ZQN2-152-m01
Module coordinator				Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	ıpl. of module(s)	
2	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate					
Conton	Contents				

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

V(0.5) + S(0.5) + Ü(0.5)

Module taught in: German and/or English

 $\textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language}) \ (\textbf{type}, \textbf{language}) \$ module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

60 h

Teaching cycle



Module title					Abbreviation
Additional Qualification in Natural Sciences 3					07-SQF-ZQN3-152-m01
Module coordinator				Module offered by	l.
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
3	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate					
Conter	Contents				

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language — if other than German)

V(0.5) + S(1) + Ü(1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

90 h

Teaching cycle



Module title					Abbreviation
Additio	Additional Qualification in Natural Sciences 4				07-SQF-ZQN4-152-m01
Module coordinator				Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
4	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate					
Conter	Contents				

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(0.5) + S(2) + \ddot{U}(2)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

120 h

Teaching cycle



Module title					Abbreviation	
Additional Qualification in Natural Sciences 5					07-SQF-ZQN5-152-m01	
Modul	e coord	inator		Module offered by		
Coordi	nator B	ioCareers	Faculty of Biology			
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
5	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 semester undergraduate -						
Conter	Contents					

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

 $V(1) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	e title		Abbreviation			
Additional Qualification in Natural Sciences 6					07-SQF-ZQN6-152-m01	
Modul	e coord	linator		Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. cor	npl. of module(s)		
5	nume	rical grade				
Durati	Duration Module level Other prerequi		Other prerequisites	5		
1 seme	1 semester undergraduate					
Conte	Contents					

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(1) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle



Summer Term 2022

(ECTS credits)



Module	e title		Abbreviation		
How to excel in the Bioscience				07-ASQ-eBio-152-m01	
Modul	e coord	inator		Module offered by	
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 semester undergraduate					
Contents					

Series of workshops on a variety of topics in the area of transferable skills: What does it take to succeed at university? What skills (both subject-specific and transferable) do you need to be successful in a STEM career once you have completed your BSc/MSc degree: ability to define and achieve goals (good self and time management); How do you develop a research question/hypothesis, how do you structure a coherent analysis? How do you integrate your own findings into a bigger picture? Concrete transferable skills that will help you launch a successful career: a team player with leadership skills needs assertiveness, negotiation and conflict management skills and the ability to structure workflows. The importance of writing/English writing skills in science: an English writing lab will provide you with an opportunity to enhance your writing skills. Most of the workshops will be taught by Ms Rapp-Galmiche and qualified student tutors, but we might also invite external experts to deliver talks.

Intended learning outcomes

Students have acquired skills that will help them succeed at university and decide what career to pursue: They are able to define goals, know what interdisciplinary skills they need for a successful career in the biosciences and are familiar with techniques that will help them develop these skills. Students are able to describe projects, research findings and scientific issues in English in a clear and convincing style.

Courses (type, number of weekly contact hours, language — if other than German)

V (2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (approx. 30 minutes) or
- b) portfolio (approx. 20 pages)

Language of assessment: German and/or English

Allocation of places

max. 20 places (lottery)

Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title		Abbreviation			
		ends in the Biotechnolog curricula)	07-ASQ-GTB-182-m01			
Module	coord	inator		Module offered by		
holder	of the	Chair of Biotechnology		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	mpl. of module(s)		
3	(not)	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Contents						
		·	•		trument-based methods in bio- uss modern methods for the ana-	

scence spectroscopy, electron microscopy, atomic force microscopy, flow cytometry and microfluidics. **Intended learning outcomes**

Students will gain an overview of key methods in biotechnology and their respective advantages and disadvantages. They will learn to decide what method is most suitable for addressing a particular issue.

lysis of biological matter on the molecular and cellular level. These methods include light microscopy, fluore-

Courses (type, number of weekly contact hours, language — if other than German)

S (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

presentation (20 to 30 minutes)

Language of assessment: German and/or English

Allocation of places

min. 5, max. 20 places (lot)

Additional information

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Workload

90 h

Teaching cycle

Teaching cycle: every year, summer semester

Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	e title		Abbreviation				
Career	Perspe	ectives, Personal Cor	07-SQF-KEB-152-m01				
Modul	e coord	linator	M	odule offered I	py		
Coordi	inator B	lioCareers	Fa	Faculty of Biology			
ECTS	Meth	od of grading	Only after succ. compl	. of module(s)			
5	nume	rical grade					
Duration Module level Other prerequisite		Other prerequisites					
1 seme	1 semester undergraduate						
C 4							

This module will provide students with information on potential areas of employment for life scientists and will address the topic of job application and staff selection. It will discuss methods for analysing personality types and will acquaint students with criteria for developing personal and social skills. Building on this, the module will develop fundamental criteria for working in groups and teams. The fundamental principles of a project-oriented approach to work and of communication (incl. rhetoric and body language) will be discussed. Students will also receive advice on how to design and structure talks.

Intended learning outcomes

Students know what it takes to succeed in the job market. They are familiar with current developments in the job market, know how to go job hunting, and are familiar with recruitment practices of employers. Students have developed a fundamental knowledge of personality assessment methods and are familiar with conflict management methods. They are able to work in a team-based environment and have developed a fundamental knowledge of project management methods and approaches. Students have enhanced their teaching skills and are proficient in the theory and practice of communication. They know how to design and structure talks as well as to present data in both oral and written form. Students are aware of what body language may communicate.

Courses (type, number of weekly contact hours, language — if other than German)

V(1) + S(2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

written examination (approx. 30 to 60 minutes) Language of assessment: German and/or English creditable for bonus

Allocation of places

120 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subjects Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they ha-



ve achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, places will be allocated according to the selection process of group 1.

Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title		Abbreviation		
Metho	ds and	tools for Nature- and Env	vironmental Educatio	n 1	07-LLG-M1-202-m01
Module	e coord	linator		Module offered by	Į.
head o	f group	Didactics of Biology		Botanical Garden	
ECTS	Meth	od of grading	Only after succ. con	ompl. of module(s)	
3	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
		•			re many ways to communicate

Chalk and talk teaching, carousel activities, unguided experimentation. There are many ways to communicate knowledge to groups of pupils. Out-of-classroom learning has been gaining in importance. In interdisciplinary contexts, it is particularly important to draw attention to the fact that looking at a topic from a "different" point of view may facilitate learning. This course will provide students with a practical introduction to knowledge-based and experience-based learning methods. Some of these methods will be adapted to be appropriate for specific topics and will be implemented with groups of pupils. This course will present students with an opportunity to find out what methods they feel comfortable with and whether students like or dislike the respective methods.

Intended learning outcomes

Students are familiar with practical methods for teaching groups in an effective and lively way.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot; A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title			Abbreviation		
Metho	ds and	tools for Nature- and Env	n 2	07-LLG-M2-202-m01		
Modul	e coord	inator		Module offered by		
head o	f group	Didactics of Biology		Botanical Garden		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
3	(not)	successfully completed				
Duratio	Duration Module level		Other prerequisites			
1 semester undergraduate						
Conter	Contents					

Chalk and talk teaching, carousel activities, unguided experimentation. There are many ways to communicate knowledge to groups of pupils. Out-of-classroom learning has been gaining in importance. In interdisciplinary contexts, it is particularly important to draw attention to the fact that looking at a topic from a "different" point of view may facilitate learning. This course will provide students with a practical introduction to knowledge-based and experience-based learning methods. Some of these methods will be adapted to be appropriate for specific topics and will be implemented with groups of pupils. This course will present students with an opportunity to find out what methods they feel comfortable with and whether students like or dislike the respective methods.

Intended learning outcomes

Students are familiar with practical methods for teaching groups in an effective and lively way.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (2)

 $\textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language}) \ (\textbf{type}, \textbf{language}) \$ module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

Workload

90 h

Teaching cycle



Module title Abbreviation					Abbreviation	
Experience nature outdoors 07-ASQ-NIF-201-m01					07-ASQ-NIF-201-m01	
Module	coord	inator		Module offered by		
				Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
5	(not)	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 seme	ster					
Conten	ts					
Intende	ed lear	ning outcomes				
Course	S (type, r	number of weekly contact hours, l	anguage — if other than Ger	rman)		
Ü (3)						
		sessment (type, scope, langua vle for bonus)	ge — if other than German,	examination offered — if no	ot every semester, information on whether	
		rox. 15 pages) ffered: Once a year, sum	mer term			
Allocat	ion of p	olaces				
min. 5,	max. 2	o places (Lottery)				
Additio	nal inf	ormation				
Worklo	ad					
150 h						
Teaching cycle						
Teachir	Teaching cycle: every year, summer semester					
Referred to in LPO I (examination regulations for teaching-degree programmes)						



Modul	e title		Abbreviation			
Fungi:	One kii	ngdom, many faces			07-SQF-FUNGI-182-m01	
Modul	e coord	inator		Module offered by		
holder	of the	Chair of Biotechnology	and Biophysics	Faculty of Biology	Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. o	compl. of module(s)		
5	nume	rical grade				
Durati	Duration Module level Other prere			tes		
1 seme	1 semester undergraduate					
Conto	Contants					

The course provides a concise overview of fungal systematics, cell biology, fungal genetics, plant pathogenicity, medical mycology, stimulus processing, and fungi in biotechnology. In the seminar current research topics will be presented and discussed. The exercise includes the microscopy of selected fungi / cultivation and preparation of media / day excursion "mushroom" and determination of collected material. The excursion depends on weather conditions.

Intended learning outcomes

The students are able to identify key characteristics of fungi and classify them accordingly. In addition, they possess knowledge on mushroom biology.

 $\textbf{Courses} \ (\textbf{type, number of weekly contact hours, language} - \textbf{if other than German})$

Ü (4)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

Teaching cycle: every year, summer semester

Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title		Abbreviation		
Practical Experience in transfer of knowledge obtained in the Teaching-Lear- ning-Garden 1					07-LLG-P1-202-m01
Module	coord	inator		Module offered by	
head o	f group	Didactics of Biology		Botanical Garden	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
3	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites	;	
1 semester undergraduate					
Contents					

This course will provide students with an opportunity to take on the role of teacher and work with real groups of pupils. Particular emphasis will be placed on the presentation of topics; in many cases the presentation will be accompanied by a demonstration to illustrate the topics. Students will either teach existing topics they adapted to fit the needs of their target groups or will develop new topics.

Intended learning outcomes

Students are able to teach groups, communicating in practice what they have learned in theory.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	e title		Abbreviation			
Practical Experience in transfer of knowledge obtained in the Teaching-Learning-Garden 2					07-LLG-P2-202-m01	
Modul	e coord	inator	N	Nodule offered by		
head o	f group	Didactics of Biology	В	otanical Garden		
ECTS	Metho	od of grading	Only after succ. comp	l. of module(s)		
3	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ester	undergraduate				
Conter	Contents					

This course will provide students with an opportunity to take on the role of teacher and work with real groups of pupils. Particular emphasis will be placed on the presentation of topics; in many cases the presentation will be accompanied by a demonstration to illustrate the topics. Students will either teach existing topics they adapted to fit the needs of their target groups or will develop new topics.

Intended learning outcomes

Students are able to teach groups, communicating in practice what they have learned in theory.

 $\textbf{Courses} \ (\textbf{type}, \, \textbf{number of weekly contact hours, language} - \textbf{if other than German})$

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

Workload

90 h

Teaching cycle



Module title					Abbreviation
Compu	ıter lan	guages and programmin	g 3		07-SQF-PRO3-182-m01
Modul	e coord	inator		Module offered by	
chairp	erson o	f examination committee	Biologie (Biology)	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
3	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 seme	ester	undergraduate	-		

Computer languages and programming using one or more computer languages like Java, C, C++, C#, Python, PHP.

Intended learning outcomes

The participants know the basics about computer languages and programming.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 90 h Teaching cycle $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Modul	e title				Abbreviation
Compu	Computer languages and programming 5				07-SQF-PRO5-182-m01
Modul	e coord	inator		Module offered by	
chairp	erson o	f examination committee	Biologie (Biology)	Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)	
5	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites	}	
1 seme	ester	undergraduate			
<u> </u>					

Computer languages and programming using one or more computer languages like Java, C, C++, C#, Python, PHP.

Intended learning outcomes

The participants know the basics about computer languages and programming.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (3)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 150 h Teaching cycle $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



		O N ELONDADO		
Module title	,			Abbreviation
Legal and Ethica	al Aspects in Biologica	l Sciences		07-SQF-RETH-211-m01
Module coordin	ator		Module offered by	
Dean of Studies	Biologie (Biology)		Faculty of Biology	
ECTS Method	of grading	Only after succ. com	ıpl. of module(s)	
5 numerio	cal grade			
Duration N	Module level	Other prerequisites		
1 semester u	ındergraduate	exercises (minimum	80%) and successf	exercises. Regular attendance of ful completion of the respective rerequisites for admission to as-
Contents				
animal testing,		agriculture, biodivers	_	ch, cloning, transgenic animals, ervation, biotechnology and mi-
Intended learni	ng outcomes			
ding stem cell re sity and nature	esearch, cloning, trans conservation, biotechn	genic animals, anima ology and microbiolo	l testing, genetic eng gy, medicine and ne	niliar with legal aspects surroun- gineering in agriculture, biodiver- eurogenetics and are able to eva- n and critically discuss these to-
Courses (type, nur	mber of weekly contact hours, I	anguage — if other than Ger	man)	
V (1) + Ü (1)				
Method of asses		ge — if other than German, o	examination offered — if no	ot every semester, information on whether
	ation (approx. 30 to 60 sessment: German and onus	•		
Allocation of pla	aces			
Additional infor	mation			
Workload				
150 h				
Teaching cycle				

Teaching cycle: every year, summer semester

 $\textbf{Referred to in LPO I } \ (\text{examination regulations for teaching-degree programmes})$



Module	e title	<u> </u>		_	Abbreviation
Statistics 3					07-SQF-STAT3-182-m01
Module	e coord	inator		Module offered by	
degree	progra	mme coordinator Biologi	e (Biology)	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
3	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conton					

Usage of specific statistical methods on practical examples

Intended learning outcomes

The participants know how to evaluate data statistically and how to use statistic methods in practical examples.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 90 h Teaching cycle $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module	e title	·			Abbreviation
Statistics 5					07-SQF-STAT5-182-m01
Modul	e coord	inator		Module offered by	
degree	progra	mme coordinator Biologi	e (Biology)	Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)	
5	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites	1	
1 seme	ster	undergraduate			
Contor	tc		•		

Usage of specific statistical methods on practical examples

Intended learning outcomes

The participants know how to evaluate data statistically and how to use statistic methods in practical examples.

Courses (type, number of weekly contact hours, language — if other than German)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 150 h Teaching cycle $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module	title	'				Abbreviation
Taxonomy and Biology of Butterflies					07-SQF-BUFLY-182-m01	
Module	coord	inator			Module offered by	
degree	progra	mme coordinator Biol	ogie (Biology)		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ	. com	pl. of module(s)	
5	nume	rical grade				
Duratio	n	Module level	Other prerequi	sites		
1 seme	ster	undergraduate				
Conten	ts					

Taxonomy of butterflies and moth. Preparation of butterflies. Ecology and relevance. Developmental biology and developmental strategies of butterflies. Field excursions. Development of wingcolors. Species determination of moth using light traps. Exotic butterflies.

Intended learning outcomes

Students are able to recognize butterfly families and species and are able to estimate the relevance of butterflies as bioindicators.

Courses (type, number of weekly contact hours, language - if other than German)

Ü (4)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

Teaching cycle: every year, summer semester

 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



07-SQF-UBG-152-m01
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The Botanical Garden of the University of Würzburg is primarily used for teaching and research-related activities. In addition, it is used for activities in the area of general environmental education with the plants in the different sections and collections being used to inform interested members of the public about topics in the areas of botany, ecology and gardening. In this module, students will develop appropriate educational concepts for imparting, in a comprehensible way, specialist knowledge to interested laypersons. They will practise designing and using appropriate aids (information boards, leaflets etc.) and applying methodological approaches (guidelines) for the comprehensible presentation of complex concepts. Students will be organised into teams to complete the following tasks: develop contents tailored to the needs of selected target groups, acquire the specialist knowledge necessary for presenting these contents, select appropriate methods for presenting these contents.

Intended learning outcomes

Students will be able to communicate concepts in ecology and botany to a lay audience. They will be able to tailor contents to a target audience, selecting and using appropriate aids and techniques. Students will have acquired an overview of the sectors of the Botanical Garden and will be able to prepare information material on individual sections. They will have developed both botanical knowledge and teaching skills that will enable them to guide tours through the Botanical Garden, imparting knowledge in a way that is tailored to their target audience.

Courses (type, number of weekly contact hours, language - if other than German)

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Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (or preparing educational materials and materials for demonstrations) (approx. 10 to 20 pages) Language of assessment: German and/or English creditable for bonus

Allocation of places

6 places.

Additional information

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Workload

60 h

Teaching cycle

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 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module	Module title Abbreviation						
Orientation/Review of inorganic Chemistry for students in Biology and MINT studyprograms 07-ASQ-VAC-201-m01							
Module	Module coordinator Mo						
				Faculty of Biology			
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)			
5	(not)	successfully completed					
Duratio	on	Module level	Other prerequisites				
1 seme	ster						
Conten	its						
Intend	ed lear	ning outcomes					
Course	S (type, i	number of weekly contact hours,	language — if other than Ger	rman)			
	-						
			m age-if other than German,	examination offered $-$ if n	ot every semester, information on whether		
module is	s creditab	ole for bonus)					
Allocat	ion of	places					
Additio	nal inf	ormation					
Worklo	ad						
150 h							
	Teaching cycle						
Teaching cycle: every year, winter semester							
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)						
							



Orientation/Review of Statistics for students in Biology and MINT studyprograms Module coordinator Module offered by Faculty of Biology ECTS Method of grading Only after succ. compl. of module(s) [Total successfully completed Other prerequisites] I semester	Modul	Module title Abbreviation						
Module coordinator								
Faculty of Biology ECTS Method of grading Only after succ. compl. of module(s) (not) successfully completed								
ECTS Method of grading Only after succ. compl. of module(s) 5		,			† ·			
5	ECTS	Meth	od of grading	Only after succ. con				
Intended learning outcomes Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	5				•			
Contents Intended learning outcomes Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle		on .	Module level	Other prerequisites	i			
Intended learning outcomes Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	1 seme	ster						
Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	Conter	its						
Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle								
Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	Intend	ed lear	ning outcomes					
Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle								
Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	Course	S (type, 1	number of weekly contact hours,	language — if other than Ge	rman)			
module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	Ü (2)	-						
Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle				ge — if other than German,	examination offered — if n	not every semester, information on whether		
max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	portfol	io (app	rox. 20 hours total)					
Additional information Workload 150 h Teaching cycle	Allocat	ion of	places					
Workload 150 h Teaching cycle	max. 2	o place	s (Lottery)					
Teaching cycle	Additio	nal inf	ormation					
Teaching cycle								
Teaching cycle	Worklo	ad						
	150 h	150 h						
Referred to in LPO I (examination regulations for teaching-degree programmes)	Teaching cycle							
Referred to in LPO I (examination regulations for teaching-degree programmes)								
	Referred to in LPO I (examination regulations for teaching-degree programmes)							



Modul	Module title Abbreviation						
Orientation/Review of Mathematics for students in Biology and MINT study- programs 07-ASQ-VM-201-m01							
Modul	e coord	inator	Module offered by				
				Faculty of Biology			
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)			
5	(not)	successfully completed					
Duratio	on	Module level	Other prerequisites	i .			
1 seme	ster						
Conter	its						
Intend	ed lear	ning outcomes					
Course	S (type, 1	number of weekly contact hours,	language — if other than Ge	rman)			
			m age-if other than German,	examination offered — if n	ot every semester, information on whether		
module i	s creditab	le for bonus)					
Allocat	ion of	places					
			,				
Additio	nal inf	ormation					
Worklo	ad						
150 h							
	Teaching cycle						
Teaching cycle: every year, winter semester							
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)						
							



Module	Module title Abbreviation						
Orientation/Review of organic Chemistry for students in Biology and MINT stu- dyprograms							
Module coordinator Module offered by							
				Faculty of Biology			
ECTS	Meth	od of grading	Only after succ. com	pl. of module(s)			
5	(not)	successfully completed					
Duratio	on	Module level	Other prerequisites				
1 seme	ster						
Conten	its						
Intend	ed lear	ning outcomes					
Course	S (type, r	number of weekly contact hours,	language — if other than Ger	man)			
Ü (2)							
		sessment (type, scope, langua le for bonus)	${\sf ge-if}$ other than German, ${\sf e}$	examination offered — if no	t every semester, information on whether		
		rox. 20 hours total) ffered: Once a year, sum	mer term				
Allocat	ion of	olaces					
max. 2	o place	s (Lottery)	-				
Additio	nal inf	ormation					
Worklo	ad						
150 h							
Teaching cycle							
Teaching cycle: every year, summer semester							
Referred to in LPO I (examination regulations for teaching-degree programmes)							
							



Modul	e title		Abbreviation			
Publishing Scientific Data					07-SQF-WIP-152-m01	
Modul	e coord	inator		Module offered by		
Coordi	inator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)		
3	nume	rical grade				
Duration Module level			Other prerequisites	Other prerequisites		
1 seme	ester	undergraduate				
1 semester undergraduate						

Contents

Either alone or in small groups of two or three persons, students will select several journal articles from the field of life sciences. These will serve as the basis for a review article to be prepared by students. With two or three "core publications" as a basis, students will search data bases (e. g. PubMed) for literature that is directly related to these articles. The most important current original publications will be summed up in a review article; where applicable, students may also use their own raw data. The structure of this review article will comply with the standards of the scientific community as defined in the instructions to authors of a scientific journal. The article will contain at least one figure, one table as well as one schematic representation of the contents and will be divided up into the following sections: title, abstract, introduction and/or hypothesis/problem to be investigated, summary of results as well as current developments and discussion thereof. The article will also contain citations in the specified format. Students will also deliver a presentation on the contents of the article.

Intended learning outcomes

Students will have learned to conduct a literature search on a specific topic. They will know how to get an overview of recent publications on a specific topic and will be familiar with basic rules for summing up original publications in a review article complying with the standards of the scientific community. Students will be familiar with the standards regarding the structure of reviews and will be able to properly cite sources. They will thus know what to keep in mind when writing scientific articles. In addition, students will be able to prepare and deliver an oral presentation on raw scientific data.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (approx. 5 to 10 pages) and presentation (approx. 15 minutes), weighted 2:1 Language of assessment: German and/or English creditable for bonus

Allocation of places

30 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.



A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1.
Additional information
Workload
90 h
Teaching cycle
Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title Abbreviation						
Writing Effectively in English - MINT/STEM and Medical Faculties 07-ASQ-WEE-181-mo1						
Module coordinator				Module offered by		
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
5	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conter	its					
lish. U	oon req nops ar	uest, students will also b	e given the opportur	ity to enhance their	mmon writing mistakes in Eng- presentation skills in English. y be invited to speak on specific	
Intend	ed lear	ning outcomes				
and hy ESL (Er	pothes nglish a	es effectively and convin	cingly in English. Stu	dents can create an	scriptions as well as lab results outline and are aware of common andle general writing problems,	
Course	S (type, r	number of weekly contact hours,	anguage — if other than Ger	rman)		
S (2) Module	e taugh	t in: German and/or Engl	ish			
		Sessment (type, scope, langua	ge — if other than German, o	examination offered — if n	ot every semester, information on whether	
b) port	folio (a	n (approx. 30 minutes) o pprox. 20 pages) ssessment: German and				
Allocat	ion of p	olaces				
max. 15 places (lottery)						
Additional information						
Workload						
150 h						

 ${\bf Teaching}\,{\bf cycle}$



Modul	e title		Abbreviation			
Additio	onal Qu	alification outside Natur	al Sciences 2		07-SQF-ZQA2-152-m01	
Module coordinator M				Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	c. compl. of module(s)		
2	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 semester undergraduate		undergraduate				
Conter	nts					
Course	s in are	eas other than the natura	l sciences that are no	ot offered as part of t	he pool of general transferab	

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include 2 to 3 all-day courses.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

60 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additio	onal Qu	alification outside Natur		07-SQF-ZQA3-152-m01		
Modul	e coord	inator		Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. compl. of module(s)			
3	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ester	undergraduate				
Conter	Contents					

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include courses with 1 weekly contact hour.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V (0.5) + S (1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additional Qualification outside Natural Sciences 4					07-SQF-ZQA4-152-m01	
Module coordinator				Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. compl. of module(s)			
4	(not)	successfully completed				
Duration Module level		Other prerequisites				
1 semester undergraduate						
Conter	Contents					

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include one week of all-day courses.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(1.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

120 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additional Qualification outside Natural Sciences 5					07-SQF-ZQA5-152-m01	
Modul	e coord	inator		Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	c. compl. of module(s)		
5	(not)	successfully completed				
Duration Module level			Other prerequisites			
1 seme	ster	undergraduate				
Conter	Contents					

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include courses with 2 weekly contact hours.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

Courses (type, number of weekly contact hours, language - if other than German)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle



Module title					Abbreviation
Additional Qualification outside Natural Sciences 6					07-SQF-ZQA6-152-m01
Modul	e coord	linator		Module offered by	
Coordi	inator B	lioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. co	mpl. of module(s)	
5	nume	rical grade			
Duration Module level		Other prerequisites	Other prerequisites		
1 semester undergraduate					
Contents					

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language — if other than German)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle



Module title					Abbreviation
Additional Qualification in Natural Sciences 2					07-SQF-ZQN2-152-m01
Module coordinator				Module offered by	l.
Coordinator BioCareers				Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	mpl. of module(s)	
2	(not)	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 semester undergraduate					
Contents					
Course	s in the	e natural sciences not off	ered as part of the po	ool of general transfe	erable skills (ASQ) that equip s

nation committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

dents with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by exami-

Courses (type, number of weekly contact hours, language - if other than German)

V(0.5) + S(0.5) + Ü(0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

60 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Additional Qualification in Natural Sciences 3					07-SQF-ZQN3-152-m01
Module coordinator				Module offered by	
Coordinator BioCareers				Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	ıpl. of module(s)	
3	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate					
Contents					

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language — if other than German)

 $V(0.5) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

90 h

Teaching cycle



Module title					Abbreviation
Additional Qualification in Natural Sciences 4					07-SQF-ZQN4-152-m01
Module coordinator				Module offered by	
Coordinator BioCareers				Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
4	(not)	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 semester undergraduate					
Contents					

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

 $V(0.5) + S(2) + \ddot{U}(2)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

120 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title		Abbreviation			
Additional Qualification in Natural Sciences 5					07-SQF-ZQN5-152-m01	
Module coordinator				Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
5	(not)	successfully completed				
Duratio	Duration Module level		Other prerequisites			
1 seme	ster	undergraduate				
Conter	Contents					

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(1) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle



Module title					Abbreviation
Additional Qualification in Natural Sciences 6					07-SQF-ZQN6-152-m01
Module coordinator Mo				Module offered by	
Coordi	Coordinator BioCareers			Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)	
5	nume	rical grade			
Duratio	Duration Module level Ot		Other prerequisites	Other prerequisites	
1 semester undergraduate					
Contonts					

Contents

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

 $V(1) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Winter Term 2022

(ECTS credits)



Module title					Abbreviation
How to excel in the Bioscience					o7-ASQ-eBio-152-mo1
Module coordinator				Module offered by	
Dean of Studies Biologie (Biology)				Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. compl. of module(s)		
5	(not)	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 semester undergraduate					
Contents					

Series of workshops on a variety of topics in the area of transferable skills: What does it take to succeed at university? What skills (both subject-specific and transferable) do you need to be successful in a STEM career once you have completed your BSc/MSc degree: ability to define and achieve goals (good self and time management); How do you develop a research question/hypothesis, how do you structure a coherent analysis? How do you integrate your own findings into a bigger picture? Concrete transferable skills that will help you launch a successful career: a team player with leadership skills needs assertiveness, negotiation and conflict management skills and the ability to structure workflows. The importance of writing/English writing skills in science: an English writing lab will provide you with an opportunity to enhance your writing skills. Most of the workshops will be taught by Ms Rapp-Galmiche and qualified student tutors, but we might also invite external experts to deliver talks.

Intended learning outcomes

Students have acquired skills that will help them succeed at university and decide what career to pursue: They are able to define goals, know what interdisciplinary skills they need for a successful career in the biosciences and are familiar with techniques that will help them develop these skills. Students are able to describe projects, research findings and scientific issues in English in a clear and convincing style.

Courses (type, number of weekly contact hours, language — if other than German)

V (2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (approx. 30 minutes) or
- b) portfolio (approx. 20 pages)

Language of assessment: German and/or English

Allocation of places

max. 20 places (lottery)

Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Methods and tools for Nature- and Environmental Education 1					07-LLG-M1-202-m01	
Module coordinator				Module offered by		
head of group Didactics of Biology				Botanical Garden		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
3	(not)	successfully completed				
Duratio	Duration Module level		Other prerequisites			
1 semester undergraduate						
Conter	Contents					

Chalk and talk teaching, carousel activities, unguided experimentation. There are many ways to communicate knowledge to groups of pupils. Out-of-classroom learning has been gaining in importance. In interdisciplinary contexts, it is particularly important to draw attention to the fact that looking at a topic from a "different" point of view may facilitate learning. This course will provide students with a practical introduction to knowledge-based and experience-based learning methods. Some of these methods will be adapted to be appropriate for specific topics and will be implemented with groups of pupils. This course will present students with an opportunity to find out what methods they feel comfortable with and whether students like or dislike the respective methods.

Intended learning outcomes

Students are familiar with practical methods for teaching groups in an effective and lively way.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot; A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title	Abbreviation				
Methods and tools for Nature- and En	07-LLG-M2-202-m01				
Module coordinator	Module offered by	J.			
head of group Didactics of Biology		Botanical Garden			
ECTS Method of grading	Only after succ. con	npl. of module(s)			
(not) successfully completed					
Duration Module level	Other prerequisites				
ı semester undergraduate					
Contents					

Chalk and talk teaching, carousel activities, unguided experimentation. There are many ways to communicate knowledge to groups of pupils. Out-of-classroom learning has been gaining in importance. In interdisciplinary contexts, it is particularly important to draw attention to the fact that looking at a topic from a "different" point of view may facilitate learning. This course will provide students with a practical introduction to knowledge-based and experience-based learning methods. Some of these methods will be adapted to be appropriate for specific topics and will be implemented with groups of pupils. This course will present students with an opportunity to find out what methods they feel comfortable with and whether students like or dislike the respective methods.

Intended learning outcomes

Students are familiar with practical methods for teaching groups in an effective and lively way.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title Abbreviation							
Science experiments					07-ASQ-NIE-201-m01		
Modul	Module coordinator						
				Faculty of Biology			
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)			
5	(not)	successfully completed					
Duratio	on	Module level	Other prerequisites				
1 seme	ester						
Conter	ıts						
Intend	ed lear	ning outcomes					
Course	es (type, r	number of weekly contact hours, l	anguage — if other than Ger	rman)			
Ü (3)							
		sessment (type, scope, langua le for bonus)	ge — if other than German,	examination offered — if no	ot every semester, information on whether		
		rox. 15 pages) ffered: Once a year, wint	er term				
Allocat	tion of p	olaces					
min. 5,	max. 2	o places (Lottery)					
Additio	onal inf	ormation					
Worklo	oad						
150 h	150 h						
Teachi	Teaching cycle						
Teachi	Teaching cycle: every year, winter semester						
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)						



Modul	e title		Abbreviation		
Organisation and Safety in Biosciences					07-SQF-OSB-152-m01
Module coordinator Module				Module offered by	I.
Coordinator BioCareers				Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. co	mpl. of module(s)	
5	nume	rical grade			
Duration Module level Other		Other prerequisites	5		
1 semester undergraduate					
Combando					

Contents

Safety procedures in the biosciences, in particular radiation protection, handling of genetically modified organisms, hygiene procedures and hazardous substances, working with lab animals. Fundamental concepts that help ensure an effective and efficient workflow in the biosciences. Structure and organisation of institutions in the bioscience/biotech sector. Process-based project management. HR management in the biosciences, responsibilities of managers/supervisors, appraisal interviews, target agreements, management styles.

Intended learning outcomes

Students have developed a fundamental knowledge of the regulations governing work in the bioscience sector and are familiar with fundamental organisational principles that are relevant for work in research and production. They are also familiar with fundamental principles of process-based project work in the biosciences.

Courses (type, number of weekly contact hours, language — if other than German)

V(1) + S(2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

written examination (60 minutes)

Language of assessment: German and/or English

creditable for bonus

Allocation of places

120 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking.



Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, places will be allocated according to the selection process of group 1.

Additional information -Workload 150 h Teaching cycle -Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	e title		Abbreviation			
Practical Experience in transfer of knowledge obtained in the Teaching-Lear- ning-Garden 1					07-LLG-P1-202-m01	
Modul	e coord	linator		Module offered by		
head of group Didactics of Biology				Botanical Garden		
ECTS	Meth	od of grading	Only after succ. con	. compl. of module(s)		
3	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 semester undergraduate		undergraduate				
Conter	nts					
		-			ther and work with real groups of	

pupils. Particular emphasis will be placed on the presentation of topics; in many cases the presentation will be accompanied by a demonstration to illustrate the topics. Students will either teach existing topics they adapted to fit the needs of their target groups or will develop new topics.

Intended learning outcomes

Students are able to teach groups, communicating in practice what they have learned in theory.

 $\textbf{Courses} \ (\textbf{type}, \, \textbf{number of weekly contact hours, language} - \textbf{if other than German})$

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title		Abbreviation			
Practical Experience in transfer of knowledge obtained in the Teaching-Learning-Garden 2					07-LLG-P2-202-m01	
Module coordinator Module offered by						
head o	f group	Didactics of Biology		Botanical Garden		
ECTS	Meth	od of grading	Only after succ. com	pl. of module(s)		
3	(not)	successfully completed				
Duratio	Duration Module level		Other prerequisites			
1 seme	ster	undergraduate				
Conten	Contents					

This course will provide students with an opportunity to take on the role of teacher and work with real groups of pupils. Particular emphasis will be placed on the presentation of topics; in many cases the presentation will be accompanied by a demonstration to illustrate the topics. Students will either teach existing topics they adapted to fit the needs of their target groups or will develop new topics.

Intended learning outcomes

Students are able to teach groups, communicating in practice what they have learned in theory.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

Workload

90 h

Teaching cycle



Module title					Abbreviation	
Environmental Education in the Botanic Garden of Würzburg University					07-SQF-UBG-152-m01	
Module coordinator Module offer				Module offered by		
head of Botanical Garden			Faculty of Biology			
ECTS	Metho	od of grading	Only after succ. con	pl. of module(s)		
2	(not)	successfully completed				
Duration Module level		Other prerequisites				
1 semester undergraduate						
Conten	Contents					

The Botanical Garden of the University of Würzburg is primarily used for teaching and research-related activities. In addition, it is used for activities in the area of general environmental education with the plants in the different sections and collections being used to inform interested members of the public about topics in the areas of botany, ecology and gardening. In this module, students will develop appropriate educational concepts for imparting, in a comprehensible way, specialist knowledge to interested laypersons. They will practise designing and using appropriate aids (information boards, leaflets etc.) and applying methodological approaches (guidelines) for the comprehensible presentation of complex concepts. Students will be organised into teams to complete the following tasks: develop contents tailored to the needs of selected target groups, acquire the specialist knowledge necessary for presenting these contents, select appropriate methods for presenting these contents.

Intended learning outcomes

Students will be able to communicate concepts in ecology and botany to a lay audience. They will be able to tailor contents to a target audience, selecting and using appropriate aids and techniques. Students will have acquired an overview of the sectors of the Botanical Garden and will be able to prepare information material on individual sections. They will have developed both botanical knowledge and teaching skills that will enable them to guide tours through the Botanical Garden, imparting knowledge in a way that is tailored to their target audience.

Courses (type, number of weekly contact hours, language - if other than German)

Ü (0.5) + E (0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (or preparing educational materials and materials for demonstrations) (approx. 10 to 20 pages) Language of assessment: German and/or English creditable for bonus

Allocation of places

6 places.

Additional information

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Workload

60 h

Teaching cycle

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 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module title					Abbreviation
Publishing Scientific Data					07-SQF-WIP-152-m01
Module coordinator				Module offered by	
Coordinator BioCareers				Faculty of Biology	
ECTS	Method of grading Only after succ. co			npl. of module(s)	
3	3 numerical grade				
Duration Module level		Other prerequisites	Other prerequisites		
1 semester undergraduate					
Contor	Contonts				

Contents

Either alone or in small groups of two or three persons, students will select several journal articles from the field of life sciences. These will serve as the basis for a review article to be prepared by students. With two or three "core publications" as a basis, students will search data bases (e. g. PubMed) for literature that is directly related to these articles. The most important current original publications will be summed up in a review article; where applicable, students may also use their own raw data. The structure of this review article will comply with the standards of the scientific community as defined in the instructions to authors of a scientific journal. The article will contain at least one figure, one table as well as one schematic representation of the contents and will be divided up into the following sections: title, abstract, introduction and/or hypothesis/problem to be investigated, summary of results as well as current developments and discussion thereof. The article will also contain citations in the specified format. Students will also deliver a presentation on the contents of the article.

Intended learning outcomes

Students will have learned to conduct a literature search on a specific topic. They will know how to get an overview of recent publications on a specific topic and will be familiar with basic rules for summing up original publications in a review article complying with the standards of the scientific community. Students will be familiar with the standards regarding the structure of reviews and will be able to properly cite sources. They will thus know what to keep in mind when writing scientific articles. In addition, students will be able to prepare and deliver an oral presentation on raw scientific data.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (approx. 5 to 10 pages) and presentation (approx. 15 minutes), weighted 2:1 Language of assessment: German and/or English creditable for bonus

Allocation of places

30 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.



A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1.
Additional information
Workload
90 h
Teaching cycle
Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	Module title Abbreviation					
Writing	Vriting Effectively in English - MINT/STEM and Medical Faculties 07-ASQ-WEE-181-mo1					
Modul	e coord	inator		Module offered by		
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
5	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conter	its					
lish. U	oon req nops ar	uest, students will also b	e given the opportur	nity to enhance their	mmon writing mistakes in Eng- presentation skills in English. y be invited to speak on specific	
Intend	ed lear	ning outcomes				
and hy ESL (Er	pothes nglish a	es effectively and convin	cingly in English. Stu	dents can create an	scriptions as well as lab results outline and are aware of common ndle general writing problems,	
Course	S (type, r	number of weekly contact hours,	anguage — if other than Ger	rman)		
S (2) Module	e taugh	t in: German and/or Engl	ish			
		Sessment (type, scope, langua	ge — if other than German, o	examination offered — if n	ot every semester, information on whether	
b) port	a) presentation (approx. 30 minutes) or b) portfolio (approx. 20 pages) Language of assessment: German and/or English					
Allocation of places						
max. 15 places (lottery)						
Additional information						
Workload						
150 h						

 ${\bf Teaching}\,{\bf cycle}$



Module title					Abbreviation	
Additional Qualification outside Natural Sciences 2					07-SQF-ZQA2-152-m01	
Modul	e coord	inator		Module offered by		
Coordinator BioCareers			Faculty of Biology			
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
2	(not)	successfully completed				
Duration Module level		Other prerequisites				
1 semester undergraduate						
Conter	Contents					

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include 2 to 3 all-day courses.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

60 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additional Qualification outside Natural Sciences 3					07-SQF-ZQA3-152-m01	
Modul	e coord	inator		Module offered by		
Coordinator BioCareers			Faculty of Biology			
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
3	(not)	successfully completed				
Duration Module level		Other prerequisites				
1 semester undergraduate						
Conter	Contents					

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include courses with 1 weekly contact hour.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V (0.5) + S (1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Additional Qualification outside Natural Sciences 4					07-SQF-ZQA4-152-m01
Modul	e coord	inator	Module offered by		l .
Coordinator BioCareers			Faculty of Biology		
ECTS	Method of grading Only after succ. o			npl. of module(s)	
4	4 (not) successfully completed				
Duration Module level		Other prerequisites			
1 semester undergraduate					
Contents					

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include one week of all-day courses.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

Courses (type, number of weekly contact hours, language - if other than German)

V(0.5) + S(1.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

120 h

Teaching cycle



dditional Qualification outside Nat	ıral Sciences 5				
	Additional Qualification outside Natural Sciences 5				
Nodule coordinator		Module offered by			
oordinator BioCareers		Faculty of Biology			
CTS Method of grading	Only after succ. con	npl. of module(s)			
(not) successfully completed					
uration Module level	Other prerequisites				
semester undergraduate					
ontents	•				

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include courses with 2 weekly contact hours.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Additional Qualification outside Natural Sciences 6					07-SQF-ZQA6-152-m01
Module coordinator N				Module offered by	I.
Coordinator BioCareers				Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)	
5	nume	erical grade			
Duration Module level Other p		Other prerequisites	,		
1 semester undergraduate -					
Contents					

Contents

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle



Module title					Abbreviation
Additional Qualification in Natural Sciences 2				07-SQF-ZQN2-152-m01	
Module coordinator				Module offered by	
Coordinator BioCareers			Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
2	(not) successfully completed				
Duration Module level		Other prerequisites			
1 semester undergraduate					
Conten	Contents				

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(0.5) + Ü(0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

--

Workload

60 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	e title		Abbreviation		
Additional Qualification in Natural Sciences 3					07-SQF-ZQN3-152-m01
Modul	e coord	inator		Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
3	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate					
Contents					

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

 $V(0.5) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

--

Additional information

--

Workload

90 h

Teaching cycle

--

Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	e title		Abbreviation		
Additional Qualification in Natural Sciences 4					07-SQF-ZQN4-152-m01
Modul	e coord	inator		Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
4	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 seme	ster	undergraduate			
Contents					

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(0.5) + S(2) + \ddot{U}(2)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

120 h

Teaching cycle



Modul	e title		Abbreviation		
Additional Qualification in Natural Sciences 5				07-SQF-ZQN5-152-m01	
Modul	e coord	inator		Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 seme	ester	undergraduate			
Contor	Contents				

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(1) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle



Modul	e title		Abbreviation		
Additional Qualification in Natural Sciences 6					07-SQF-ZQN6-152-m01
Modul	e coord	inator		Module offered by	I.
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. co	npl. of module(s)	
5	nume	rical grade			
Duration Module level Other prerequisi		Other prerequisites	3		
1 seme	1 semester undergraduate				
Contents					

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(1) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle



Summer Term 2023

(ECTS credits)



Modul	Module title Abbreviation						
Geneti	ics, Neı	ırobiology, Behaviour			07-2A2GENV-152-m01		
Modul	e coord	linator		Module offered by	L		
Dean o	of Studi	es Biologie (Biology)		Faculty of Biology			
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)			
5	nume	erical grade					
Durati	on	Module level	Other prerequisites				
1 seme	ester	undergraduate	(minimum 80%) and		exercises. Regular attendance tion of exercises (approx. 25 to on to assessment.		
Conte	nts						
Funda	mental	principles of genetics, ne	urobiology and beha	vioural biology.			
Intend	ed lear	ning outcomes					
	l in anir				al mechanisms and processes in- olecular and formal bases of in-		
Course	es (type,	number of weekly contact hours, I	anguage — if other than Ger	rman)			
V (3)							
		sessment (type, scope, langua ble for bonus)	ge — if other than German, o	examination offered — if no	ot every semester, information on whether		
	n exami able for	nation (approx. 60 to 90 bonus	minutes)				
Alloca	tion of	places					
-							
Additio	onal inf	ormation					
Workle	oad						
150 h							
Teachi	Teaching cycle						
Referred to in LPO I (examination regulations for teaching-degree programmes)							
§ 61 l N	§ 61 Nr. 2 (2 ECTS credits) § 61 Nr. 3 (1 ECTS credits) § 61 Nr. 4 (1 ECTS credits)						



Modul	e title		Abbreviation		
How to excel in the Bioscience				07-ASQ-eBio-152-m01	
Modul	e coord	inator		Module offered by	
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duratio	Duration Module level		Other prerequisites	i	
1 seme	ster	undergraduate			
Conter	Contents				

Series of workshops on a variety of topics in the area of transferable skills: What does it take to succeed at university? What skills (both subject-specific and transferable) do you need to be successful in a STEM career once you have completed your BSc/MSc degree: ability to define and achieve goals (good self and time management); How do you develop a research question/hypothesis, how do you structure a coherent analysis? How do you integrate your own findings into a bigger picture? Concrete transferable skills that will help you launch a successful career: a team player with leadership skills needs assertiveness, negotiation and conflict management skills and the ability to structure workflows. The importance of writing/English writing skills in science: an English writing lab will provide you with an opportunity to enhance your writing skills. Most of the workshops will be taught by Ms Rapp-Galmiche and qualified student tutors, but we might also invite external experts to deliver talks.

Intended learning outcomes

Students have acquired skills that will help them succeed at university and decide what career to pursue: They are able to define goals, know what interdisciplinary skills they need for a successful career in the biosciences and are familiar with techniques that will help them develop these skills. Students are able to describe projects, research findings and scientific issues in English in a clear and convincing style.

Courses (type, number of weekly contact hours, language — if other than German)

V (2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (approx. 30 minutes) or
- b) portfolio (approx. 20 pages)

Language of assessment: German and/or English

Allocation of places

max. 20 places (lottery)

Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title			Abbreviation	
		ends in the Biotechnolog curricula)	o7-ASQ-GTB-182-mo1		
Module	e coord	inator		Module offered by	
holder	of the	Chair of Biotechnology		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
3	(not)	successfully completed			
Duratio	Duration Module level Other pr				
1 seme	1 semester undergraduate				
Conten	Contents				

This module (lecture and seminar) will provide students with an overview of instrument-based methods in biotechnology and biomedicine and the underlying physical principles. It will discuss modern methods for the analysis of biological matter on the molecular and cellular level. These methods include light microscopy, fluorescence spectroscopy, electron microscopy, atomic force microscopy, flow cytometry and microfluidics.

Intended learning outcomes

Students will gain an overview of key methods in biotechnology and their respective advantages and disadvantages. They will learn to decide what method is most suitable for addressing a particular issue.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

presentation (20 to 30 minutes)

Language of assessment: German and/or English

Allocation of places

min. 5, max. 20 places (lot)

Additional information

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Workload

90 h

Teaching cycle

Teaching cycle: every year, summer semester

Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title Abbreviation					Abbreviation		
Experie	ence na	ture outdoors			07-ASQ-NIF-201-m01		
Module	e coord	inator		Module offered by			
				Faculty of Biology			
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)			
5	(not)	successfully completed					
Duratio	on	Module level	Other prerequisites				
1 seme	ster						
Conten	ts						
Intend	ed lear	ning outcomes					
Course	S (type, 1	number of weekly contact hours, I	anguage — if other than Ger	rman)			
Ü (3)							
		sessment (type, scope, langua ole for bonus)	ge — if other than German, o	examination offered — if no	ot every semester, information on whether		
		rox. 15 pages) iffered: Once a year, sum	mer term				
Allocat	ion of	places					
min. 5,	max. 2	o places (Lottery)					
Additio	nal inf	ormation					
Worklo	Workload						
150 h							
Teaching cycle							
Teachi	Teaching cycle: every year, summer semester						
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)						



Module	Module title Abbreviation						
	Orientation/Review of inorganic Chemistry for students in Biology and MINT o7-ASQ-VAC-201-m01 o7-ASQ-VAC-201-m01						
Module	Module coordinator Module offered by						
				Faculty of Biology			
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)			
5	(not)	successfully completed					
Duratio	on	Module level	Other prerequisites				
1 seme	ster						
Conten	its						
Intend	ed lear	ning outcomes					
Course	S (type, i	number of weekly contact hours,	language — if other than Ger	rman)			
	-						
			m age-if other than German,	examination offered $-$ if n	ot every semester, information on whether		
module is	s creditab	ole for bonus)					
Allocat	ion of	places					
Additio	nal inf	ormation					
Worklo	ad						
150 h							
Teaching cycle							
Teaching cycle: every year, winter semester							
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)						



Modul	Module title Abbreviation						
	Orientation/Review of Mathematics for students in Biology and MINT study- orograms						
Modul	e coord	inator		Module offered by			
				Faculty of Biology			
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)			
5	(not)	successfully completed					
Duratio	on	Module level	Other prerequisites	i .			
1 seme	ster						
Conter	its						
Intend	ed lear	ning outcomes					
Course	S (type, 1	number of weekly contact hours,	language — if other than Ge	rman)			
			m age-if other than German,	examination offered — if n	ot every semester, information on whether		
module i	s creditab	le for bonus)					
Allocat	ion of	places					
			,				
Additio	nal inf	ormation					
Worklo	ad						
150 h							
	Teaching cycle						
Teaching cycle: every year, winter semester							
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)						



Module	Module title Abbreviation							
	Orientation/Review of organic Chemistry for students in Biology and MINT stu- dyprograms							
Module	Module coordinator Module offered by							
				Faculty of Biology				
ECTS	Meth	od of grading	Only after succ. com	pl. of module(s)				
5	(not)	successfully completed						
Duratio	on	Module level	Other prerequisites					
1 seme	ster							
Conten	its							
Intend	ed lear	ning outcomes						
Course	S (type, r	number of weekly contact hours,	language — if other than Ger	man)				
Ü (2)								
		sessment (type, scope, langua le for bonus)	${\sf ge-if}$ other than German, ${\sf e}$	examination offered — if no	t every semester, information on whether			
		rox. 20 hours total) ffered: Once a year, sum	mer term					
Allocat	ion of	olaces						
max. 2	o place	s (Lottery)	-					
Additio	nal inf	ormation						
Workload								
150 h								
Teaching cycle								
Teaching cycle: every year, summer semester								
Referred to in LPO I (examination regulations for teaching-degree programmes)								



Orientation/Review of Statistics for students in Biology and MINT studyprograms Module coordinator Module offered by Faculty of Biology ECTS Method of grading Only after succ. compl. of module(s) [Total successfully completed Other prerequisites] I semester	Modul	Module title Abbreviation							
Module coordinator									
Faculty of Biology ECTS Method of grading Only after succ. compl. of module(s) (not) successfully completed									
ECTS Method of grading Only after succ. compl. of module(s) 5		,			† ·				
5	ECTS	Meth	od of grading	Only after succ. con					
Intended learning outcomes Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	5				•				
Contents Intended learning outcomes Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle		on .	Module level	Other prerequisites	i				
Intended learning outcomes Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	1 seme	ster							
Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	Conter	its							
Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle									
Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	Intend	ed lear	ning outcomes						
Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle									
Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	Course	S (type, 1	number of weekly contact hours,	language — if other than Ge	rman)				
module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	Ü (2)	-							
Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle				ge — if other than German,	examination offered — if n	not every semester, information on whether			
max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	portfol	io (app	rox. 20 hours total)						
Additional information Workload 150 h Teaching cycle	Allocat	ion of	places						
Workload 150 h Teaching cycle	max. 2	o place	s (Lottery)						
Teaching cycle	Additio	nal inf	ormation						
Teaching cycle									
Teaching cycle	Worklo	ad							
	150 h								
Referred to in LPO I (examination regulations for teaching-degree programmes)	Teaching cycle								
Referred to in LPO I (examination regulations for teaching-degree programmes)									
	Referred to in LPO I (examination regulations for teaching-degree programmes)								



Module title Abbrev					Abbreviation	
Writing	Writing Effectively in English - MINT/STEM and Medical Faculti				07-ASQ-WEE-181-m01	
Module	e coord	inator		Module offered by		
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. com	npl. of module(s)		
5	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	its					
Worksh topics.	nops ar	nd seminars will be taugh			presentation skills in English. y be invited to speak on specific	
		ning outcomes			scriptions as well as lab results	
ESL (Er such a	nglish a s writer		stakes. Students hav	e learned how to ha	outline and are aware of common ndle general writing problems,	
S (2) Module	e taugh	t in: German and/or Engl	ish			
		sessment (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	ot every semester, information on whether	
b) port	folio (a	n (approx. 30 minutes) o pprox. 20 pages) ssessment: German and				
Allocat	-					
max. 1	5 place:	s (lottery)				
Additional information						
Workload						
150 h						
Teachi	Feaching cycle					
	-					



Module title					Abbreviation
Basics in Biology					07-GBio-212-m01
Modul	e coord	inator		Module offered by	
Ricarda	a Schei	ner		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conter	ıts				
Introdu	ıction iı	nto basic aspects in biolo	ogy		
Intend	ed lear	ning outcomes			
biologi Course	ical exa				rules and can recognize them in
V (4)					
		sessment (type, scope, langua ele for bonus)	ge — if other than German, o	examination offered — if no	ot every semester, information on whether
written	exami	nation (approx. 60 minut	es)		
Allocat	tion of p	olaces			
	,				
Additio	onal inf	ormation	,		
Workload					
150 h					
Teaching cycle					
Teaching cycle: every semester					
Referred to in LPO I (examination regulations for teaching-degree programmes)					
	.				



Module title					Abbreviation	
Basic H	luman I	Biology I - GY			07-LA-HUBIO-1-152-m01	
Module	coord	inator		Module offered by		
Dean of	f Studie	es Biologie (Biology)		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	pl. of module(s)		
6	numei	rical grade	-			
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
• h • h s	uman puman of tory of	genetics (genetic disease ohysiology (human senso developmental physiolog modern humans). ning outcomes	ory physiology, nutrit		vsical health), development, evolutionary hi-	
		ity with the fundamental	principles of human	genetics		
		umber of weekly contact hours, l	· · · · · · · · · · · · · · · · · · ·	-		
V (3)						
		eessment (type, scope, langua le for bonus)	ge — if other than German, o	examination offered — if no	ot every semester, information on whether	
written credita		nation (approx. 60 to 90 bonus	minutes)			
Allocat	ion of p	olaces				
Additional information						
Workload						
180 h						
Teachir	Teaching cycle					

Referred to in LPO I (examination regulations for teaching-degree programmes)

§ 61 l Nr. 5



Module title					Abbreviation	
Metho	ds and	tools for Nature- and Env	vironmental Educatio	n 1	07-LLG-M1-202-m01	
Modul	e coord	inator		Module offered by		
head o	f group	Didactics of Biology		Botanical Garden		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
3	(not)	successfully completed				
Duratio	Duration Module level		Other prerequisites			
1 semester undergraduate						
Conter	Contents					

Chalk and talk teaching, carousel activities, unguided experimentation. There are many ways to communicate knowledge to groups of pupils. Out-of-classroom learning has been gaining in importance. In interdisciplinary contexts, it is particularly important to draw attention to the fact that looking at a topic from a "different" point of view may facilitate learning. This course will provide students with a practical introduction to knowledge-based and experience-based learning methods. Some of these methods will be adapted to be appropriate for specific topics and will be implemented with groups of pupils. This course will present students with an opportunity to find out what methods they feel comfortable with and whether students like or dislike the respective methods.

Intended learning outcomes

Students are familiar with practical methods for teaching groups in an effective and lively way.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot; A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Methods and tools for Nature- and Environmental Education 2					07-LLG-M2-202-m01
Modul	e coord	inator		Module offered by	
head o	f group	Didactics of Biology		Botanical Garden	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
3	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate					
Contents					

Chalk and talk teaching, carousel activities, unguided experimentation. There are many ways to communicate knowledge to groups of pupils. Out-of-classroom learning has been gaining in importance. In interdisciplinary contexts, it is particularly important to draw attention to the fact that looking at a topic from a "different" point of view may facilitate learning. This course will provide students with a practical introduction to knowledge-based and experience-based learning methods. Some of these methods will be adapted to be appropriate for specific topics and will be implemented with groups of pupils. This course will present students with an opportunity to find out what methods they feel comfortable with and whether students like or dislike the respective methods.

Intended learning outcomes

Students are familiar with practical methods for teaching groups in an effective and lively way.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	e title		Abbreviation		
Practical Experience in transfer of knowledge obtained in the Teaching-Lear- ning-Garden 1					07-LLG-P1-202-m01
Modul	e coord	inator		Module offered by	
head o	f group	Didactics of Biology		Botanical Garden	
ECTS	Metho	od of grading	Only after succ. con	mpl. of module(s)	
3	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 semester undergraduate					
Contents					
This co	urse w	ill provide students with	an opportunity to tak	e on the role of teac	her and work with real groups of

pupils. Particular emphasis will be placed on the presentation of topics; in many cases the presentation will be accompanied by a demonstration to illustrate the topics. Students will either teach existing topics they adapted to fit the needs of their target groups or will develop new topics.

Intended learning outcomes

Students are able to teach groups, communicating in practice what they have learned in theory.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title		Abbreviation		
Practic ning-G	-	erience in transfer of kno 2	07-LLG-P2-202-m01		
Module	e coord	inator		Module offered by	
head o	f group	Didactics of Biology		Botanical Garden	
ECTS	Meth	od of grading	Only after succ. com	pl. of module(s)	
3	(not)	successfully completed			
Duratio	Duration Module level		Other prerequisites		
1 seme	1 semester undergraduate				
Conten	Contents				

This course will provide students with an opportunity to take on the role of teacher and work with real groups of pupils. Particular emphasis will be placed on the presentation of topics; in many cases the presentation will be accompanied by a demonstration to illustrate the topics. Students will either teach existing topics they adapted to fit the needs of their target groups or will develop new topics.

Intended learning outcomes

Students are able to teach groups, communicating in practice what they have learned in theory.

 $\textbf{Courses} \ (\textbf{type}, \, \textbf{number of weekly contact hours, language} - \textbf{if other than German})$

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Taxono	omy an	d Biology of Butterflie	07-SQF-BUFLY-182-m01			
Modul	e coord	inator		Module offered by	Module offered by	
degree	progra	mme coordinator Bio	logie (Biology)	Faculty of Biology	Faculty of Biology	
ECTS	Meth	od of grading	Only after succ.	compl. of module(s)		
5	nume	rical grade				
Duratio	Duration Module level		Other prerequisi	Other prerequisites		
1 semester undergraduate						
Contents						

Taxonomy of butterflies and moth. Preparation of butterflies. Ecology and relevance. Developmental biology and developmental strategies of butterflies. Field excursions. Development of wingcolors. Species determination of moth using light traps. Exotic butterflies.

Intended learning outcomes

Students are able to recognize butterfly families and species and are able to estimate the relevance of butterflies as bioindicators.

Courses (type, number of weekly contact hours, language - if other than German)

Ü (4)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

Teaching cycle: every year, summer semester

 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module title					Abbreviation	
Fungi:	One kii	ngdom, many faces			07-SQF-FUNGI-182-m01	
Modul	e coord	inator		Module offered by		
holder	of the	Chair of Biotechnology	and Biophysics	Faculty of Biology	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ.	compl. of module(s)		
5	nume	rical grade				
Duration Module level			Other prerequisi	Other prerequisites		
1 seme	ester	undergraduate				
Contar	Contents					

The course provides a concise overview of fungal systematics, cell biology, fungal genetics, plant pathogenicity, medical mycology, stimulus processing, and fungi in biotechnology. In the seminar current research topics will be presented and discussed. The exercise includes the microscopy of selected fungi / cultivation and preparation of media / day excursion "mushroom" and determination of collected material. The excursion depends on weather conditions.

Intended learning outcomes

The students are able to identify key characteristics of fungi and classify them accordingly. In addition, they possess knowledge on mushroom biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

Ü (4)

Module taught in: German and/or English

 $\textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language}) \ (\textbf{type}, \textbf{language}) \$ module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle

Teaching cycle: every year, summer semester



Modul	e title		Abbreviation			
Career Perspectives, Personal Competence and Communication Skills					07-SQF-KEB-152-m01	
Modul	e coord	linator	M	odule offered I	py	
Coordinator BioCareers Faculty			aculty of Biolog	ology		
ECTS	Meth	od of grading	Only after succ. compl	. of module(s)		
5	nume	rical grade				
Duration Module level Other prerequ		Other prerequisites				
1 semester undergraduate						
C 4	Control					

This module will provide students with information on potential areas of employment for life scientists and will address the topic of job application and staff selection. It will discuss methods for analysing personality types and will acquaint students with criteria for developing personal and social skills. Building on this, the module will develop fundamental criteria for working in groups and teams. The fundamental principles of a project-oriented approach to work and of communication (incl. rhetoric and body language) will be discussed. Students will also receive advice on how to design and structure talks.

Intended learning outcomes

Students know what it takes to succeed in the job market. They are familiar with current developments in the job market, know how to go job hunting, and are familiar with recruitment practices of employers. Students have developed a fundamental knowledge of personality assessment methods and are familiar with conflict management methods. They are able to work in a team-based environment and have developed a fundamental knowledge of project management methods and approaches. Students have enhanced their teaching skills and are proficient in the theory and practice of communication. They know how to design and structure talks as well as to present data in both oral and written form. Students are aware of what body language may communicate.

Courses (type, number of weekly contact hours, language — if other than German)

V(1) + S(2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

written examination (approx. 30 to 60 minutes) Language of assessment: German and/or English creditable for bonus

Allocation of places

120 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subjects Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have



ve achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, places will be allocated according to the selection process of group 1.

Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	e title	,		Abbreviation	
Compu	ıter lan	guages and programmin	g 3		07-SQF-PRO3-182-m01
Modul	e coord	inator		Module offered by	
chairp	erson o	f examination committee	Biologie (Biology)	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
3	(not)	successfully completed			
Duratio	Duration Module level		Other prerequisites		
1 seme	ester	undergraduate			
Cantan	Contonto				

Computer languages and programming using one or more computer languages like Java, C, C++, C#, Python, PHP.

Intended learning outcomes

The participants know the basics about computer languages and programming.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 90 h Teaching cycle $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Modul	e title				Abbreviation
Compu	ıter lan	guages and programmin	g 5		07-SQF-PR05-182-m01
Modul	e coord	inator		Module offered by	
chairp	erson o	f examination committee	Biologie (Biology)	Biology) Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)	
5	(not)	successfully completed			
Duratio	Duration Module level		Other prerequisites		
1 seme	ester	undergraduate			
<i>~</i> .	Combonida				

Computer languages and programming using one or more computer languages like Java, C, C++, C#, Python, PHP.

Intended learning outcomes

The participants know the basics about computer languages and programming.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (3)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 150 h Teaching cycle $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module title					Abbreviation
Legal a	nd Eth	ical Aspects in Biologi	cal Sciences		07-SQF-RETH-211-m01
Module coordinator				Module offered by	
Dean of Studies Biologie (Biology)				Faculty of Biology	
ECTS					
5	nume	rical grade			
Duration Module level		Other prerequisites			
1 semester undergraduate		undergraduate	Admission prerequisite to assessment: exercises. Regular attendance of exercises (minimum 80%) and successful completion of the respective exercises (approx. 25 to 30 hours) are prerequisites for admission to assessment.		
Conten	ts		,		
animal	testing		in agriculture, biodivers		ch, cloning, transgenic animals, ervation, biotechnology and mi-
Intend	ed lear	ning outcomes			
ding st sity an	em cell d natur	research, cloning, tra e conservation, biotec	nsgenic animals, anima	al testing, genetic en ogy, medicine and ne	miliar with legal aspects surroun- gineering in agriculture, biodiver- eurogenetics and are able to eva- n and critically discuss these to-
Course	S (type, r	number of weekly contact hou	rs, language — if other than Ge	rman)	
V (1) +	Ü (1)				
		sessment (type, scope, lan ble for bonus)	guage — if other than German,	examination offered — if no	ot every semester, information on whether
	ige of a	ssessment: German a	o minutes) or portfolio nd/or English		
Allocat	ion of p	places			
	,				
Additio	nal inf	ormation			
Worklo	ad				
150 h					
Teachi	ng cycl	e			

Teaching cycle: every year, summer semester

 $\textbf{Referred to in LPO I} \ \ (\text{exam} \underline{\quad \text{ination regulations for teaching-degree programmes}})$



Module title				_	Abbreviation
Statistics 3					07-SQF-STAT3-182-m01
Module coordinator				Module offered by	
degree programme coordinator Biologie (Bi			e (Biology)	Faculty of Biology	
ECTS	Metho	hod of grading Only after succ. co		npl. of module(s)	
3	(not)	successfully completed	fully completed		
Duration Module level		Other prerequisites			
1 semester undergraduate					
Conton	Contents				

Usage of specific statistical methods on practical examples

Intended learning outcomes

The participants know how to evaluate data statistically and how to use statistic methods in practical examples.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 90 h Teaching cycle $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module title					Abbreviation	
Statistics 5					07-SQF-STAT5-182-m01	
Module coordinator				Module offered by		
degree programme coordinator Biologie (Biology)			e (Biology)	Faculty of Biology		
ECTS	Metho	thod of grading Only after succ. cor		npl. of module(s)		
5	(not)	successfully completed				
Duration Module level		Other prerequisites				
1 semester undergraduate						
Contor	,tc	Contents				

Usage of specific statistical methods on practical examples

Intended learning outcomes

The participants know how to evaluate data statistically and how to use statistic methods in practical examples.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (3)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, places will be allocated according to the selection process of group 1

ces will be allocated according to the selection process of group 1. Additional information - Workload 150 h Teaching cycle - Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title				Abbreviation		
Environmental Education in the Botanic Garden of Würzburg University				07-SQF-UBG-152-m01		
Module coordinator Mo			Module offered by			
head of Botanical Garden				Faculty of Biology		
ECTS	Metho	nod of grading Only after succ. compl. of modu		npl. of module(s)	(s)	
2	(not)	successfully completed				
Duration Module level		Other prerequisites				
1 semester undergraduate						
Conten	ts		•			
In addi	tion, it	is used for activities in th	ne area of general env	vironmental educat	ng and research-related activities ion with the plants in the diffe- public about topics in the areas o	

The Botanical Garden of the University of Würzburg is primarily used for teaching and research-related activities. In addition, it is used for activities in the area of general environmental education with the plants in the different sections and collections being used to inform interested members of the public about topics in the areas of botany, ecology and gardening. In this module, students will develop appropriate educational concepts for imparting, in a comprehensible way, specialist knowledge to interested laypersons. They will practise designing and using appropriate aids (information boards, leaflets etc.) and applying methodological approaches (guidelines) for the comprehensible presentation of complex concepts. Students will be organised into teams to complete the following tasks: develop contents tailored to the needs of selected target groups, acquire the specialist knowledge necessary for presenting these contents, select appropriate methods for presenting these contents.

Intended learning outcomes

Students will be able to communicate concepts in ecology and botany to a lay audience. They will be able to tailor contents to a target audience, selecting and using appropriate aids and techniques. Students will have acquired an overview of the sectors of the Botanical Garden and will be able to prepare information material on individual sections. They will have developed both botanical knowledge and teaching skills that will enable them to guide tours through the Botanical Garden, imparting knowledge in a way that is tailored to their target audience.

Courses (type, number of weekly contact hours, language - if other than German)

Ü (0.5) + E (0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (or preparing educational materials and materials for demonstrations) (approx. 10 to 20 pages) Language of assessment: German and/or English creditable for bonus

Allocation of places

6 places.

Additional information

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Workload

60 h

Teaching cycle

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 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module title					Abbreviation
Publishing Scientific Data					07-SQF-WIP-152-m01
Module coordinator				Module offered by	
Coordinator BioCareers				Faculty of Biology	
ECTS	Meth	hod of grading Only after succ. cor		npl. of module(s)	
3	nume	rical grade			
Duration Module level		Other prerequisites	Other prerequisites		
1 semester undergraduate					
<u>.</u> .	_				

Either alone or in small groups of two or three persons, students will select several journal articles from the field of life sciences. These will serve as the basis for a review article to be prepared by students. With two or three "core publications" as a basis, students will search data bases (e. g. PubMed) for literature that is directly related to these articles. The most important current original publications will be summed up in a review article; where applicable, students may also use their own raw data. The structure of this review article will comply with the standards of the scientific community as defined in the instructions to authors of a scientific journal. The article will contain at least one figure, one table as well as one schematic representation of the contents and will be divided up into the following sections: title, abstract, introduction and/or hypothesis/problem to be investigated, summary of results as well as current developments and discussion thereof. The article will also contain citations in the specified format. Students will also deliver a presentation on the contents of the article.

Intended learning outcomes

Students will have learned to conduct a literature search on a specific topic. They will know how to get an overview of recent publications on a specific topic and will be familiar with basic rules for summing up original publications in a review article complying with the standards of the scientific community. Students will be familiar with the standards regarding the structure of reviews and will be able to properly cite sources. They will thus know what to keep in mind when writing scientific articles. In addition, students will be able to prepare and deliver an oral presentation on raw scientific data.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (approx. 5 to 10 pages) and presentation (approx. 15 minutes), weighted 2:1 Language of assessment: German and/or English creditable for bonus

Allocation of places

30 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.



A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1.
Additional information
Workload
90 h
Teaching cycle
Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title			Abbreviation		
Additio	nal Qu	alification outside Natur		07-SQF-ZQA2-152-m01		
Module	e coord	linator		Module offered by	I.	
Coordinator BioCareers				Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
2	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Contents						
				•	he pool of general transferable eneral background in the natur	

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on cre-

Courses (type, number of weekly contact hours, language - if other than German)

V(0.5) + S(0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or

dit transfer to be made by examination committee. Will include 2 to 3 all-day courses.

- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

60 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Additional Qualification outside Natural Sciences 3					07-SQF-ZQA3-152-m01
Module coordinator				Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
3	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate -					
Contents					

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include courses with 1 weekly contact hour.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

Courses (type, number of weekly contact hours, language — if other than German)

V (0.5) + S (1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	e title			Abbreviation	
Additional Qualification outside Natural Sciences 4					07-SQF-ZQA4-152-m01
Module coordinator				Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
4	(not)	successfully completed			
Duratio	Duration Module level		Other prerequisites		
1 semester undergraduate					
Conter	Contents				

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include one week of all-day courses.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(1.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

120 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title		Abbreviation		
Additio	Additional Qualification outside Natural Sciences 5				07-SQF-ZQA5-152-m01
Module coordinator				Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duratio	Duration Module level		Other prerequisites		
1 semester undergraduate					
Conter	Contents				

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include courses with 2 weekly contact hours.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	e title		Abbreviation			
Additional Qualification outside Natural Sciences 6					07-SQF-ZQA6-152-m01	
Module coordinator				Module offered by	I.	
Coordi	Coordinator BioCareers			Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)		
5	nume	erical grade				
Duration Module level Other prerequ		Other prerequisites	,			
1 semester undergraduate						
Contor	Contents					

Contents

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Additional Qualification in Natural Sciences 2					07-SQF-ZQN2-152-m01
Module coordinator				Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	ıpl. of module(s)	
2	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate					
Contents					

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

V(0.5) + S(0.5) + Ü(0.5)

Module taught in: German and/or English

 $\textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language}) \ (\textbf{type}, \textbf{language}) \$ module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

60 h

Teaching cycle



Module tit	tle	Abbreviation			
Additional Qualification in Natural Sciences 3				07-SQF-ZQN3-152-m01	
Module coordinator			Module offered by		
Coordinate	or BioCareers	Faculty of Biology			
ECTS M	ethod of grading	Only after succ. con	npl. of module(s)		
3 (n	ot) successfully completed				
Duration Module level		Other prerequisites			
1 semester undergraduate					
Contents					

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

 $V(0.5) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	e title		Abbreviation		
Additio	Additional Qualification in Natural Sciences 4				07-SQF-ZQN4-152-m01
Modul	e coord	inator		Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
4	(not)	successfully completed			
Duratio	Duration Module level		Other prerequisites		
1 seme	ester	undergraduate			
Conter	Contents				

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

 $V(0.5) + S(2) + \ddot{U}(2)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

120 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Additional Qualification in Natural Sciences 5					07-SQF-ZQN5-152-m01
Module coordinator				Module offered by	
Coordinator BioCareers				Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate					
Contents					

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(1) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle



Modul	e title		Abbreviation		
Additio	onal Qu	ualification in Natura	07-SQF-ZQN6-152-m01		
Module coordinator				Module offered by	
Coordi	nator B	BioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. cor	mpl. of module(s)	
5	nume	erical grade			
Duration Module level Other pr		Other prerequisites	5		
1 semester undergraduate					
Contents					

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(1) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle



Winter Term 2023

(ECTS credits)



Module title					Abbreviation
How to	excel i	in the Bioscience			07-ASQ-eBio-152-m01
Modul	Module coordinator			Module offered by	
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conter	Contents				

Series of workshops on a variety of topics in the area of transferable skills: What does it take to succeed at university? What skills (both subject-specific and transferable) do you need to be successful in a STEM career once you have completed your BSc/MSc degree: ability to define and achieve goals (good self and time management); How do you develop a research question/hypothesis, how do you structure a coherent analysis? How do you integrate your own findings into a bigger picture? Concrete transferable skills that will help you launch a successful career: a team player with leadership skills needs assertiveness, negotiation and conflict management skills and the ability to structure workflows. The importance of writing/English writing skills in science: an English writing lab will provide you with an opportunity to enhance your writing skills. Most of the workshops will be taught by Ms Rapp-Galmiche and qualified student tutors, but we might also invite external experts to deliver talks.

Intended learning outcomes

Students have acquired skills that will help them succeed at university and decide what career to pursue: They are able to define goals, know what interdisciplinary skills they need for a successful career in the biosciences and are familiar with techniques that will help them develop these skills. Students are able to describe projects, research findings and scientific issues in English in a clear and convincing style.

Courses (type, number of weekly contact hours, language — if other than German)

V (2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (approx. 30 minutes) or
- b) portfolio (approx. 20 pages)

Language of assessment: German and/or English

Allocation of places

max. 20 places (lottery)

Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Basics in Biology					07-GBio-212-m01	
Module	e coord	inator	_	Module offered by		
Ricarda	a Schei	ner		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
5	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	its					
Introdu	ıction i	nto basic aspects in biolo	ogy			
Intend	ed lear	ning outcomes				
biologi	cal exa	mples.			rules and can recognize them in	
Course	S (type, i	number of weekly contact hours, l	anguage — if other than Ger	rman)		
V (4)						
		sessment (type, scope, langua ble for bonus)	ge — if other than German,	examination offered — if no	ot every semester, information on whether	
written	exami	nation (approx. 60 minut	es)			
Allocat	ion of	places				
	-					
Additio	nal inf	ormation				
Workload						
150 h						
Teaching cycle						
Teaching cycle: every semester						
Referred to in LPO I (examination regulations for teaching-degree programmes)						



Module title					Abbreviation	
Methods and tools for Nature- and Environmental Education 1					07-LLG-M1-202-m01	
Module coordinator M				Module offered by		
head o	f group	Didactics of Biology		Botanical Garden		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
3	(not)	successfully completed				
Duration Module level		Other prerequisites				
1 semester undergraduate						
Contents						

Chalk and talk teaching, carousel activities, unguided experimentation. There are many ways to communicate knowledge to groups of pupils. Out-of-classroom learning has been gaining in importance. In interdisciplinary contexts, it is particularly important to draw attention to the fact that looking at a topic from a "different" point of view may facilitate learning. This course will provide students with a practical introduction to knowledge-based and experience-based learning methods. Some of these methods will be adapted to be appropriate for specific topics and will be implemented with groups of pupils. This course will present students with an opportunity to find out what methods they feel comfortable with and whether students like or dislike the respective methods.

Intended learning outcomes

Students are familiar with practical methods for teaching groups in an effective and lively way.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot; A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Methods and tools for Nature- and Environmental Education 2					07-LLG-M2-202-m01	
Module coordinator M				Module offered by		
head o	f group	Didactics of Biology		Botanical Garden		
ECTS	Metho	od of grading	Only after succ. con	fter succ. compl. of module(s)		
3	(not)	successfully completed				
Duratio	Duration Module level		Other prerequisites			
1 semester undergraduate						
Contents						

Chalk and talk teaching, carousel activities, unguided experimentation. There are many ways to communicate knowledge to groups of pupils. Out-of-classroom learning has been gaining in importance. In interdisciplinary contexts, it is particularly important to draw attention to the fact that looking at a topic from a "different" point of view may facilitate learning. This course will provide students with a practical introduction to knowledge-based and experience-based learning methods. Some of these methods will be adapted to be appropriate for specific topics and will be implemented with groups of pupils. This course will present students with an opportunity to find out what methods they feel comfortable with and whether students like or dislike the respective methods.

Intended learning outcomes

Students are familiar with practical methods for teaching groups in an effective and lively way.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation		
Science	Science experiments				07-ASQ-NIE-201-m01		
Module	coord	inator		Module offered by			
				Faculty of Biology			
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)			
5	(not)	successfully completed					
Duratio	n	Module level	Other prerequisites				
1 seme	ster						
Conten	ts						
Intende	ed lear	ning outcomes					
			-				
Course	S (type, r	number of weekly contact hours, l	anguage — if other than Ge	rman)			
Ü (3)							
		sessment (type, scope, langua ele for bonus)	ge — if other than German,	examination offered — if no	ot every semester, information on whether		
		rox. 15 pages) ffered: Once a year, wint	er term				
Allocat	ion of p	olaces					
min. 5,	max. 2	o places (Lottery)					
Additio	nal inf	ormation					
Worklo	ad						
150 h							
Teaching cycle							
Teaching cycle: every year, winter semester							
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)						



Module title					Abbreviation	
Organisation and Safety in Biosciences					07-SQF-OSB-152-m01	
Module coordinator				Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. cor	mpl. of module(s)		
5	nume	rical grade				
Durati	Duration Module level		Other prerequisites	Other prerequisites		
1 semester undergraduate						
Contor	Contonts					

Contents

Safety procedures in the biosciences, in particular radiation protection, handling of genetically modified organisms, hygiene procedures and hazardous substances, working with lab animals. Fundamental concepts that help ensure an effective and efficient workflow in the biosciences. Structure and organisation of institutions in the bioscience/biotech sector. Process-based project management. HR management in the biosciences, responsibilities of managers/supervisors, appraisal interviews, target agreements, management styles.

Intended learning outcomes

Students have developed a fundamental knowledge of the regulations governing work in the bioscience sector and are familiar with fundamental organisational principles that are relevant for work in research and production. They are also familiar with fundamental principles of process-based project work in the biosciences.

Courses (type, number of weekly contact hours, language — if other than German)

V(1) + S(2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

written examination (60 minutes)

Language of assessment: German and/or English

creditable for bonus

Allocation of places

120 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking.



Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, places will be allocated according to the selection process of group 1.

Additional information -Workload 150 h Teaching cycle -Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title		Abbreviation			
Practic ning-G	•	erience in transfer of kno 1	07-LLG-P1-202-m01			
Module	e coord	linator		Module offered by		
head of group Didactics of Biology				Botanical Garden		
ECTS	Meth	od of grading	Only after succ. con	compl. of module(s)		
3	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Contents						
		•	, , ,		her and work with real groups of y cases the presentation will be	

accompanied by a demonstration to illustrate the topics. Students will either teach existing topics they adapted

to fit the needs of their target groups or will develop new topics.

Intended learning outcomes

Students are able to teach groups, communicating in practice what they have learned in theory.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Practical Experience in transfer of knowledge obtained in the Teaching-Lear- ning-Garden 2					07-LLG-P2-202-m01	
Module coordinator Module offered by						
head o	head of group Didactics of Biology			Botanical Garden		
ECTS	Metho	od of grading	Only after succ. compl. of module(s)			
3	(not)	successfully completed				
Duratio	Duration Module level		Other prerequisites			
1 seme	1 semester undergraduate					
Conter	Contents					

This course will provide students with an opportunity to take on the role of teacher and work with real groups of pupils. Particular emphasis will be placed on the presentation of topics; in many cases the presentation will be accompanied by a demonstration to illustrate the topics. Students will either teach existing topics they adapted to fit the needs of their target groups or will develop new topics.

Intended learning outcomes

Students are able to teach groups, communicating in practice what they have learned in theory.

 $\textbf{Courses} \ (\textbf{type}, \, \textbf{number of weekly contact hours, language} - \textbf{if other than German})$

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

Workload

90 h

Teaching cycle



Module title					Abbreviation	
Environmental Education in the Botanic Garden of Würzburg University					07-SQF-UBG-152-m01	
Module coordinator Module offered by						
head o	f Botan	ical Garden		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
2	(not)	successfully completed				
Duration Module level		Other prerequisites				
1 semester undergraduate						
Contents						

The Botanical Garden of the University of Würzburg is primarily used for teaching and research-related activities. In addition, it is used for activities in the area of general environmental education with the plants in the different sections and collections being used to inform interested members of the public about topics in the areas of botany, ecology and gardening. In this module, students will develop appropriate educational concepts for imparting, in a comprehensible way, specialist knowledge to interested laypersons. They will practise designing and using appropriate aids (information boards, leaflets etc.) and applying methodological approaches (guidelines) for the comprehensible presentation of complex concepts. Students will be organised into teams to complete the following tasks: develop contents tailored to the needs of selected target groups, acquire the specialist knowledge necessary for presenting these contents, select appropriate methods for presenting these contents.

Intended learning outcomes

Students will be able to communicate concepts in ecology and botany to a lay audience. They will be able to tailor contents to a target audience, selecting and using appropriate aids and techniques. Students will have acquired an overview of the sectors of the Botanical Garden and will be able to prepare information material on individual sections. They will have developed both botanical knowledge and teaching skills that will enable them to guide tours through the Botanical Garden, imparting knowledge in a way that is tailored to their target audience.

Courses (type, number of weekly contact hours, language - if other than German)

Ü (0.5) + E (0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (or preparing educational materials and materials for demonstrations) (approx. 10 to 20 pages) Language of assessment: German and/or English creditable for bonus

Allocation of places

6 places.

Additional information

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Workload

60 h

Teaching cycle

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 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module title					Abbreviation
Publishing Scientific Data					07-SQF-WIP-152-m01
Module coordinator				Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)	
3	nume	rical grade			
Durati	Duration Module level		Other prerequisites	Other prerequisites	
1 seme	1 semester undergraduate				

Contents

Either alone or in small groups of two or three persons, students will select several journal articles from the field of life sciences. These will serve as the basis for a review article to be prepared by students. With two or three "core publications" as a basis, students will search data bases (e. g. PubMed) for literature that is directly related to these articles. The most important current original publications will be summed up in a review article; where applicable, students may also use their own raw data. The structure of this review article will comply with the standards of the scientific community as defined in the instructions to authors of a scientific journal. The article will contain at least one figure, one table as well as one schematic representation of the contents and will be divided up into the following sections: title, abstract, introduction and/or hypothesis/problem to be investigated, summary of results as well as current developments and discussion thereof. The article will also contain citations in the specified format. Students will also deliver a presentation on the contents of the article.

Intended learning outcomes

Students will have learned to conduct a literature search on a specific topic. They will know how to get an overview of recent publications on a specific topic and will be familiar with basic rules for summing up original publications in a review article complying with the standards of the scientific community. Students will be familiar with the standards regarding the structure of reviews and will be able to properly cite sources. They will thus know what to keep in mind when writing scientific articles. In addition, students will be able to prepare and deliver an oral presentation on raw scientific data.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (approx. 5 to 10 pages) and presentation (approx. 15 minutes), weighted 2:1 Language of assessment: German and/or English creditable for bonus

Allocation of places

30 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.



A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1.
Additional information
Workload
90 h
Teaching cycle
Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title Abbreviation						
Writing Effectively in English - MINT/STEM and Medical Faculties 07-ASQ-WEE-181-mo1						
Module coordinator Module offered by						
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
5	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	its					
lish. Up	on req	juest, students will also b	e given the opportur	nity to enhance their	ommon writing mistakes in Eng- r presentation skills in English. y be invited to speak on specific	
Intend	ed lear	ning outcomes	,			
and hy ESL (Er	pothes nglish a	es effectively and convin	cingly in English. Stu	dents can create an	escriptions as well as lab results outline and are aware of common andle general writing problems,	
Course	S (type, r	number of weekly contact hours,	anguage — if other than Ger	rman)		
S (2) Module	e taugh	it in: German and/or Engl	ish			
		sessment (type, scope, langua ble for bonus)	ge — if other than German,	examination offered — if n	ot every semester, information on whether	
b) port	folio (a	on (approx. 30 minutes) o pprox. 20 pages) Issessment: German and				
Allocat	ion of	places				
max. 1	5 place	s (lottery)				
Additional information						
Workload						
150 h						
Teachi	ng cycl	e				



Module title					Abbreviation	
Additional Qualification outside Natural Sciences 2					07-SQF-ZQA2-152-m01	
Module coordinator				Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	mpl. of module(s)		
2	(not)	successfully completed				
Duratio	Duration Module level		Other prerequisites			
1 seme	1 semester undergraduate					
Conter	Contents					

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include 2 to 3 all-day courses.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

Courses (type, number of weekly contact hours, language - if other than German)

V(0.5) + S(0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

60 h

Teaching cycle



Module title					Abbreviation	
Additional Qualification outside Natural Sciences 3					07-SQF-ZQA3-152-m01	
Module coordinator				Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
3	(not)	successfully completed				
Duratio	Duration Module level		Other prerequisites			
1 seme	1 semester undergraduate					
Conter	Contents					

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include courses with 1 weekly contact hour.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

Courses (type, number of weekly contact hours, language - if other than German)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

90 h

Teaching cycle



Module title					Abbreviation	
Additio	onal Qu	alification outside Natur		07-SQF-ZQA4-152-m01		
Module coordinator				Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
4	(not)	successfully completed				
Duration Module level			Other prerequisites			
1 semester undergraduate						
Conter	Contents					

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include one week of all-day courses.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(1.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

120 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	e title	Abbreviation			
Additio	Additional Qualification outside Natural Sciences 5				07-SQF-ZQA5-152-m01
Modul	e coordinator			Module offered by	
Coordi	nator BioCareers			Faculty of Biology	
ECTS	Method of grading	Oı	nly after succ. con	ompl. of module(s)	
5	(not) successfully co	mpleted			
Duratio	on Module level	01	Other prerequisites		
1 semester undergraduate		e			
Conter	ıts	•			
Course	s in areas other than	the natural sc	ciences that are no	t offered as part of t	he pool of general trans

skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include courses with 2 weekly contact hours.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V (0.5) + S (2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additional Qualification outside Natural Sciences 6					07-SQF-ZQA6-152-m01	
Modul	e coord	inator		Module offered by		
Coordi	Coordinator BioCareers			Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)		
5	nume	rical grade				
Duration Module level Other p		Other prerequisites	3			
1 semester undergraduate						
Contents						

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle



Module title					Abbreviation
Additional Qualification in Natural Sciences 2					07-SQF-ZQN2-152-m01
Module coordinator				Module offered by	
Coordin	nator Bi	oCareers		Faculty of Biology	
ECTS	Metho	d of grading	Only after succ. con	npl. of module(s)	
2	(not) s	uccessfully completed			
Duratio	Duration Module level		Other prerequisites		
1 semester undergraduate					
Conten	te				

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(0.5) + Ü(0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

60 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Additional Qualification in Natural Sciences 3					07-SQF-ZQN3-152-m01
Module coordinator				Module offered by	
Coordinator BioCareers				Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
3	(not)	successfully completed			
Duration Module level			Other prerequisites		
1 semester undergraduate					
Contents					

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

 $V(0.5) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Additional Qualification in Natural Sciences 4					07-SQF-ZQN4-152-m01
Module coordinator				Module offered by	
Coordinator BioCareers				Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
4	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate					
Contents					

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

 $V(0.5) + S(2) + \ddot{U}(2)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

120 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additio	onal Qu	alification in Natural Sci		07-SQF-ZQN5-152-m01		
Module coordinator				Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
5	(not)	successfully completed				
Duration Module level			Other prerequisites			
1 semester undergraduate						
Conter	Contents					

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(1) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	e title		Abbreviation				
Additional Qualification in Natural Sciences 6					07-SQF-ZQN6-152-m01		
Module coordinator				Module offered by			
Coordi	Coordinator BioCareers			Faculty of Biology			
ECTS	Meth	od of grading	Only after succ. cor	mpl. of module(s)			
5	nume	erical grade					
Duration Module level Other prereq			Other prerequisites	5			
1 semester undergraduate							
Contor	Contents						

Contents

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(1) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle



Summer Term 2024

(ECTS credits)



Module title					Abbreviation	
How to	excel i	in the Bioscience			07-ASQ-eBio-152-m01	
Modul	e coord	inator		Module offered by		
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
5	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites	i		
1 seme	1 semester undergraduate					
Conten	Contents					

Series of workshops on a variety of topics in the area of transferable skills: What does it take to succeed at university? What skills (both subject-specific and transferable) do you need to be successful in a STEM career once you have completed your BSc/MSc degree: ability to define and achieve goals (good self and time management); How do you develop a research question/hypothesis, how do you structure a coherent analysis? How do you integrate your own findings into a bigger picture? Concrete transferable skills that will help you launch a successful career: a team player with leadership skills needs assertiveness, negotiation and conflict management skills and the ability to structure workflows. The importance of writing/English writing skills in science: an English writing lab will provide you with an opportunity to enhance your writing skills. Most of the workshops will be taught by Ms Rapp-Galmiche and qualified student tutors, but we might also invite external experts to deliver talks.

Intended learning outcomes

Students have acquired skills that will help them succeed at university and decide what career to pursue: They are able to define goals, know what interdisciplinary skills they need for a successful career in the biosciences and are familiar with techniques that will help them develop these skills. Students are able to describe projects, research findings and scientific issues in English in a clear and convincing style.

Courses (type, number of weekly contact hours, language — if other than German)

V (2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (approx. 30 minutes) or
- b) portfolio (approx. 20 pages)

Language of assessment: German and/or English

Allocation of places

max. 20 places (lottery)

Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	Module title Abbreviation						
Genet	ics, Neı	ırobiology, Behaviour			07-2A2GENV-152-m01		
Modul	e coord	linator		Module offered by	L		
Dean	of Studi	es Biologie (Biology)		Faculty of Biology			
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)			
5	nume	erical grade					
Durati	on	Module level	Other prerequisites				
1 seme	ester	undergraduate		d successful comple	exercises. Regular attendance tion of exercises (approx. 25 to on to assessment.		
Conte	nts						
Funda	mental	principles of genetics, ne	eurobiology and beha	vioural biology.			
Intend	led lear	ning outcomes					
	l in anir				al mechanisms and processes in- olecular and formal bases of in-		
Course	es (type,	number of weekly contact hours,	language — if other than Ger	rman)			
V (3)							
		sessment (type, scope, langua ole for bonus)	ge — if other than German, o	examination offered — if no	ot every semester, information on whether		
	n exami able for	nation (approx. 60 to 90 bonus	minutes)				
Alloca	tion of	places					
Additi	onal inf	formation					
1							
Workle	oad						
150 h							
Teachi	Teaching cycle						
Referr	Referred to in LPO I (examination regulations for teaching-degree programmes)						
§ 61 l l	§ 61 Nr. 2 (2 ECTS credits) § 61 Nr. 3 (1 ECTS credits) § 61 Nr. 4 (1 ECTS credits)						



Module title					Abbreviation
Basics in Biology					07-GBio-212-m01
Modul	e coord	inator		Module offered by	
Ricard	a Schei	ner		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conter	nts		•		
Introdu	uction i	nto basic aspects in biol	ogy		
Intend	ed lear	ning outcomes			
biolog	ical exa				rules and can recognize them in
V (4)					
		sessment (type, scope, langua le for bonus)	ge — if other than German,	examination offered — if no	ot every semester, information on whether
writter	exami	nation (approx. 60 minut	es)		
Alloca	tion of p	olaces			
Additio	onal inf	ormation			
Workload					
150 h					
Teaching cycle					
Teaching cycle: every semester					
Referred to in LPO I (examination regulations for teaching-degree programmes)					



Modul	e title		Abbreviation		
		ends in the Biotechnolog curricula)	07-ASQ-GTB-182-m01		
Modul	e coord	linator		Module offered by	
holder	of the	Chair of Biotechnology		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	mpl. of module(s)	
3	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 semester undergraduate					
Contents					
This module (lecture and seminar) will provide students with an overview of instrument-based methods in bio-					

lysis of biological matter on the molecular and cellular level. These methods include light microscopy, fluore-scence spectroscopy, electron microscopy, atomic force microscopy, flow cytometry and microfluidics.

Intended learning outcomes

Students will gain an overview of key methods in biotechnology and their respective advantages and disadvantages. They will learn to decide what method is most suitable for addressing a particular issue.

technology and biomedicine and the underlying physical principles. It will discuss modern methods for the ana-

Courses (type, number of weekly contact hours, language — if other than German)

S (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

presentation (20 to 30 minutes)

Language of assessment: German and/or English

Allocation of places

min. 5, max. 20 places (lot)

Additional information

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Workload

90 h

Teaching cycle

Teaching cycle: every year, summer semester

Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title Abbreviation						
Basic Human Biology I - GY 07-LA-HUBIO-1-152-mo1						
Module	e coord	inator		Module offered by		
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	ipl. of module(s)		
6	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	its					
• h s Intende • F Course V (3)	numan story of ed lear familiar es (type, r	modern humans). ning outcomes ity with the fundamental number of weekly contact hours, l	gy (sex organs, impre principles of human anguage — if other than Ger	gnation, embryonic genetics _{man)}	development, evolutionary hi-	
		ole for bonus)	ge — ii otilei tilali delillali, i	exammation onered — if his	of every semester, information on whether	
written credita		nation (approx. 60 to 90 bonus	minutes)			
Allocat	ion of p	places	,			
Additio	nal inf	ormation				
Workload						
180 h						
Teaching cycle						
·-						
180 h						

Referred to in LPO I (examination regulations for teaching-degree programmes)

§ 61 l Nr. 5



Modul	e title		Abbreviation			
Career Perspectives, Personal Competence and Communication Skills					07-SQF-KEB-152-m01	
Modul	e coord	linator	M	odule offered I	py	
Coordinator BioCareers Fac			Fa	Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. compl	. of module(s)		
5	nume	rical grade				
Duration Module level Other prere		Other prerequisites				
1 semester undergraduate						
C 4	Containt.					

This module will provide students with information on potential areas of employment for life scientists and will address the topic of job application and staff selection. It will discuss methods for analysing personality types and will acquaint students with criteria for developing personal and social skills. Building on this, the module will develop fundamental criteria for working in groups and teams. The fundamental principles of a project-oriented approach to work and of communication (incl. rhetoric and body language) will be discussed. Students will also receive advice on how to design and structure talks.

Intended learning outcomes

Students know what it takes to succeed in the job market. They are familiar with current developments in the job market, know how to go job hunting, and are familiar with recruitment practices of employers. Students have developed a fundamental knowledge of personality assessment methods and are familiar with conflict management methods. They are able to work in a team-based environment and have developed a fundamental knowledge of project management methods and approaches. Students have enhanced their teaching skills and are proficient in the theory and practice of communication. They know how to design and structure talks as well as to present data in both oral and written form. Students are aware of what body language may communicate.

Courses (type, number of weekly contact hours, language — if other than German)

V(1) + S(2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

written examination (approx. 30 to 60 minutes) Language of assessment: German and/or English creditable for bonus

Allocation of places

120 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subjects Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have



ve achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, places will be allocated according to the selection process of group 1.

Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title		Abbreviation			
Method	ds and	tools for Nature- and Env	n 1	07-LLG-M1-202-m01		
Module	e coord	inator		Module offered by		
head o	f group	Didactics of Biology		Botanical Garden		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
3	(not)	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 semester undergraduate						
Conten	Contents					

Chalk and talk teaching, carousel activities, unguided experimentation. There are many ways to communicate knowledge to groups of pupils. Out-of-classroom learning has been gaining in importance. In interdisciplinary contexts, it is particularly important to draw attention to the fact that looking at a topic from a "different" point of view may facilitate learning. This course will provide students with a practical introduction to knowledge-based and experience-based learning methods. Some of these methods will be adapted to be appropriate for specific topics and will be implemented with groups of pupils. This course will present students with an opportunity to find out what methods they feel comfortable with and whether students like or dislike the respective methods.

Intended learning outcomes

Students are familiar with practical methods for teaching groups in an effective and lively way.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot; A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title		Abbreviation			
Metho	Methods and tools for Nature- and Environmental Education 2				07-LLG-M2-202-m01	
Modul	e coord	inator		Module offered by		
head o	f group	Didactics of Biology		Botanical Garden		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
3	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 semester undergraduate						
Conter	Contents					

Chalk and talk teaching, carousel activities, unguided experimentation. There are many ways to communicate knowledge to groups of pupils. Out-of-classroom learning has been gaining in importance. In interdisciplinary contexts, it is particularly important to draw attention to the fact that looking at a topic from a "different" point of view may facilitate learning. This course will provide students with a practical introduction to knowledge-based and experience-based learning methods. Some of these methods will be adapted to be appropriate for specific topics and will be implemented with groups of pupils. This course will present students with an opportunity to find out what methods they feel comfortable with and whether students like or dislike the respective methods.

Intended learning outcomes

Students are familiar with practical methods for teaching groups in an effective and lively way.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (2)

 $\textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language}) \ (\textbf{type}, \textbf{language})$ module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

Workload

90 h

Teaching cycle

Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Experie	ence na	ture outdoors			07-ASQ-NIF-201-m01	
Module	e coord	inator		Module offered by		
				Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
5	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ster					
Conten	ts					
Intend	ed lear	ning outcomes				
Course	S (type, 1	number of weekly contact hours, I	anguage — if other than Ger	man)		
Ü (3)						
		sessment (type, scope, langua ole for bonus)	ge — if other than German, o	examination offered — if no	ot every semester, information on whether	
		rox. 15 pages) iffered: Once a year, sum	mer term			
Allocat	ion of	places				
min. 5,	max. 2	o places (Lottery)				
Additio	nal inf	ormation				
Worklo	ad					
150 h						
Teaching cycle						
Teachi	Teaching cycle: every year, summer semester					
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)					



Modul	e title		Abbreviation			
Fungi:	One ki	ngdom, many faces			07-SQF-FUNGI-182-m01	
Modul	e coord	linator		Module offered by	y	
holder	of the	Chair of Biotechnolog	gy and Biophysics	Faculty of Biology	Faculty of Biology	
ECTS	Meth	od of grading	Only after succ.	compl. of module(s)		
5	nume	rical grade				
Duration Module level Other pro		Other prerequis	ites			
1 semester undergraduate						
Conte	Contents					

The course provides a concise overview of fungal systematics, cell biology, fungal genetics, plant pathogenicity, medical mycology, stimulus processing, and fungi in biotechnology. In the seminar current research topics will be presented and discussed. The exercise includes the microscopy of selected fungi / cultivation and preparation of media / day excursion "mushroom" and determination of collected material. The excursion depends on weather conditions.

Intended learning outcomes

The students are able to identify key characteristics of fungi and classify them accordingly. In addition, they possess knowledge on mushroom biology.

Courses (type, number of weekly contact hours, language - if other than German)

Ü (4)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

Teaching cycle: every year, summer semester

Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title		Abbreviation			
Practic ning-G	•	erience in transfer of kno	ne Teaching-Lear-	07-LLG-P1-202-m01		
Module				Module offered by		
head o	f group	Didactics of Biology		Botanical Garden		
ECTS	Meth	od of grading	Only after succ. com	pl. of module(s)		
3	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	1 semester undergraduate					
Conten	Contents					

This course will provide students with an opportunity to take on the role of teacher and work with real groups of pupils. Particular emphasis will be placed on the presentation of topics; in many cases the presentation will be accompanied by a demonstration to illustrate the topics. Students will either teach existing topics they adapted to fit the needs of their target groups or will develop new topics.

Intended learning outcomes

Students are able to teach groups, communicating in practice what they have learned in theory.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title		Abbreviation		
Practic ning-G	•	erience in transfer of kno 2	07-LLG-P2-202-m01		
Module	e coord	inator		Module offered by	
head o	f group	Didactics of Biology		Botanical Garden	
ECTS	Meth	od of grading	Only after succ. com	pl. of module(s)	
3	(not)	successfully completed			
Duratio	Duration Module level		Other prerequisites		
1 seme	ster	undergraduate			
Conten	Contents				

This course will provide students with an opportunity to take on the role of teacher and work with real groups of pupils. Particular emphasis will be placed on the presentation of topics; in many cases the presentation will be accompanied by a demonstration to illustrate the topics. Students will either teach existing topics they adapted to fit the needs of their target groups or will develop new topics.

Intended learning outcomes

Students are able to teach groups, communicating in practice what they have learned in theory.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

Workload

90 h

Teaching cycle

Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	e title				Abbreviation
Compu	ıter lan	guages and programmin	g 3		07-SQF-PR03-182-m01
Module coordinator				Module offered by	
chairp	erson o	f examination committee	Biologie (Biology)	Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)	
3	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 seme	ester	undergraduate			
<i>c</i> .	Combonida				

Computer languages and programming using one or more computer languages like Java, C, C++, C#, Python, PHP.

Intended learning outcomes

The participants know the basics about computer languages and programming.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 90 h **Teaching cycle** $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Modul	Module title				Abbreviation
Computer languages and programming 5					07-SQF-PR05-182-m01
Module coordinator				Module offered by	
chairperson of examination committee Biologie (Biology)			Biologie (Biology)	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate					
Control					

Computer languages and programming using one or more computer languages like Java, C, C++, C#, Python, PHP.

Intended learning outcomes

The participants know the basics about computer languages and programming.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (3)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 150 h **Teaching cycle** $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module	e title			,	Abbreviation
Legal a	nd Eth	ical Aspects in Biologi	cal Sciences		07-SQF-RETH-211-m01
Module	e coord	inator		Module offered by	
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. cor	npl. of module(s)	
5	nume	rical grade			
Duratio	n	Module level	Other prerequisites	3	
1 seme	ster	undergraduate	exercises (minimun	n 80%) and successf	exercises. Regular attendance of ful completion of the respective rerequisites for admission to as-
Conten	ts				
animal	testing		in agriculture, biodivers		ch, cloning, transgenic animals, ervation, biotechnology and mi-
Intende	ed lear	ning outcomes			
ding st	em cell d natur	research, cloning, tra e conservation, biotec	nsgenic animals, anima	al testing, genetic en ogy, medicine and ne	miliar with legal aspects surroun- gineering in agriculture, biodiver- eurogenetics and are able to eva- n and critically discuss these to-
Course	S (type, r	number of weekly contact hou	rs, language — if other than Ge	rman)	
V (1) +	Ü (1)				
		sessment (type, scope, lan ble for bonus)	guage — if other than German,	examination offered — if no	ot every semester, information on whether
	ige of a	ssessment: German a	so minutes) or portfolio nd/or English		
Allocat	ion of _l	olaces			
Additio	nal inf	ormation			
Worklo	ad				
150 h					
Teachi	ng cycl	е			

Teaching cycle: every year, summer semester

 $\textbf{Referred to in LPO I} \ \ (\text{exam} \underline{\quad } \text{ination regulations for teaching-degree programmes})$



Module	e title	·			Abbreviation
Statistics 3					07-SQF-STAT3-182-m01
Modul	Module coordinator			Module offered by	
degree	progra	mme coordinator Biologi	e (Biology)	Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)	
3	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate					
Contants					

Usage of specific statistical methods on practical examples

Intended learning outcomes

The participants know how to evaluate data statistically and how to use statistic methods in practical examples.

Courses (type, number of weekly contact hours, language — if other than German)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 90 h **Teaching cycle** $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Modul	e title				Abbreviation
Statistics 5					07-SQF-STAT5-182-m01
Module coordinator				Module offered by	
degree	degree programme coordinator Biologie (Biology			Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. cor	npl. of module(s)	
5	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 seme	1 semester undergraduate				
Continue					

Usage of specific statistical methods on practical examples

Intended learning outcomes

The participants know how to evaluate data statistically and how to use statistic methods in practical examples.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (3)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 150 h **Teaching cycle** $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Modul	e title			Abbreviation	
Taxono	omy an	d Biology of Butterflies			07-SQF-BUFLY-182-m01
Modul	e coord	inator		Module offered by	
degree	progra	mme coordinator Biolo	gie (Biology)	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. co	mpl. of module(s)	
5	nume	rical grade			
Duration Module level		Other prerequisite	Other prerequisites		
1 semester undergraduate					
Contents					

Taxonomy of butterflies and moth. Preparation of butterflies. Ecology and relevance. Developmental biology and developmental strategies of butterflies. Field excursions. Development of wingcolors. Species determination of moth using light traps. Exotic butterflies.

Intended learning outcomes

Students are able to recognize butterfly families and species and are able to estimate the relevance of butterflies as bioindicators.

Courses (type, number of weekly contact hours, language - if other than German)

Ü (4)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

Teaching cycle: every year, summer semester

 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module	e title		Abbreviation		
Enviro	nmenta	l Education in the Botani	07-SQF-UBG-152-m01		
Module coordinator				Module offered by	
head o	f Botan	ical Garden		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
2	(not)	successfully completed			
Duration Module level Othe		Other prerequisites	Other prerequisites		
1 seme	ster	undergraduate			
Contents					

The Botanical Garden of the University of Würzburg is primarily used for teaching and research-related activities. In addition, it is used for activities in the area of general environmental education with the plants in the different sections and collections being used to inform interested members of the public about topics in the areas of botany, ecology and gardening. In this module, students will develop appropriate educational concepts for imparting, in a comprehensible way, specialist knowledge to interested laypersons. They will practise designing and using appropriate aids (information boards, leaflets etc.) and applying methodological approaches (guidelines) for the comprehensible presentation of complex concepts. Students will be organised into teams to complete the following tasks: develop contents tailored to the needs of selected target groups, acquire the specialist knowledge necessary for presenting these contents, select appropriate methods for presenting these contents.

Intended learning outcomes

Students will be able to communicate concepts in ecology and botany to a lay audience. They will be able to tailor contents to a target audience, selecting and using appropriate aids and techniques. Students will have acquired an overview of the sectors of the Botanical Garden and will be able to prepare information material on individual sections. They will have developed both botanical knowledge and teaching skills that will enable them to guide tours through the Botanical Garden, imparting knowledge in a way that is tailored to their target audience.

Courses (type, number of weekly contact hours, language - if other than German)

Ü (0.5) + E (0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (or preparing educational materials and materials for demonstrations) (approx. 10 to 20 pages) Language of assessment: German and/or English creditable for bonus

Allocation of places

6 places.

Additional information

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Workload

60 h

Teaching cycle

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 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module	e title				Abbreviation
Orientation/Review of inorganic Chemistry for students in Biology and MINT studyprograms 07-ASQ-VAC-201-m01					
Module	e coord	inator		Module offered by	
				Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster				
Conten	its				
Intend	ed lear	ning outcomes			
Course	S (type, i	number of weekly contact hours,	language — if other than Ger	rman)	
	-				
			m age-if other than German,	examination offered $-$ if n	ot every semester, information on whether
module is	s creditab	ole for bonus)			
Allocat	ion of	places			
Additio	nal inf	ormation			
Worklo	ad				
150 h					
Teachi					
		e: every year, winter sem	•		
Referre	d to in	LPO I (examination regulation	s for teaching-degree progra	immes)	



Orientation/Review of Statistics for students in Biology and MINT studyprograms Module coordinator Module offered by Faculty of Biology ECTS Method of grading Only after succ. compl. of module(s) [Total successfully completed Other prerequisites] I semester	Modul	e title				Abbreviation	
Module coordinator		ation/R	eview of Statistics for st	udents in Biology an	d MINT studypro-	07-ASQ-VST-201-m01	
Faculty of Biology ECTS Method of grading Only after succ. compl. of module(s) (not) successfully completed		e coord	inator		Module offered by		
ECTS Method of grading Only after succ. compl. of module(s) 5		,			† ·		
5	ECTS	Meth	od of grading	Only after succ. con			
Intended learning outcomes Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	5				•		
Contents Intended learning outcomes Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle		on .	Module level	Other prerequisites	i		
Intended learning outcomes Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	1 seme	ster					
Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	Conter	its					
Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle							
Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	Intend	ed lear	ning outcomes				
Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle							
Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	Course	S (type, 1	number of weekly contact hours,	language — if other than Ge	rman)		
module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	Ü (2)	-					
Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle				ge — if other than German,	examination offered — if n	not every semester, information on whether	
max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	portfol	io (app	rox. 20 hours total)				
Additional information Workload 150 h Teaching cycle	Allocat	ion of	places				
Workload 150 h Teaching cycle	max. 2	o place	s (Lottery)				
Teaching cycle	Additio	nal inf	ormation				
Teaching cycle							
Teaching cycle	Worklo	ad					
	150 h	-					
Referred to in LPO I (examination regulations for teaching-degree programmes)	Teachi	ng cycl	e				
Referred to in LPO I (examination regulations for teaching-degree programmes)							
	Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)					



Modul	e title				Abbreviation
Orienta progra		eview of Mathematics fo	r students in Biology	and MINT study-	07-ASQ-VM-201-m01
Modul	e coord	inator		Module offered by	
				Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites	i .	
1 seme	ster				
Conter	its				
Intend	ed lear	ning outcomes			
Course	S (type, 1	number of weekly contact hours,	language — if other than Ge	rman)	
			m age-if other than German,	examination offered — if n	ot every semester, information on whether
module i	s creditab	le for bonus)			
Allocat	ion of	places			
			,		
Additio	nal inf	ormation			
Worklo	ad				
150 h					
Teachi					
		e: every year, winter sem			
Referre	ed to in	LPO I (examination regulation	s for teaching-degree progra	ammes)	



Modul	e title				Abbreviation
Orienta dyprog		eview of organic Chemis	try for students in Bi	ology and MINT stu-	07-ASQ-VOC-201-m01
Modul	e coord	inator		Module offered by	
				Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster				
Conter	ıts				
	,				
Intend	ed lear	ning outcomes			
	_				
Course	S (type, r	number of weekly contact hours,	anguage — if other than Ger	man)	
Ü (2)					
		sessment (type, scope, langua ble for bonus)	ge — if other than German,	examination offered — if no	t every semester, information on whether
		rox. 20 hours total) ffered: Once a year, sum	mer term		
Allocat	tion of	places			
max. 2	o place	s (Lottery)			
Additio	onal inf	ormation			
Worklo	ad				
150 h					
Teachi	ng cycl	e			
Teachi	ng cycl	e: every year, summer se	mester		
Referre	ed to in	LPO I (examination regulation	s for teaching-degree progra	immes)	



Modul	e title	-			Abbreviation
Publishing Scientific Data					07-SQF-WIP-152-m01
Module coordinator				Module offered by	
Coordinator BioCareers				Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)	
3	nume	rical grade			
Duration Module level Other prerequisit		Other prerequisites	3		
1 semester undergraduate					

Either alone or in small groups of two or three persons, students will select several journal articles from the field of life sciences. These will serve as the basis for a review article to be prepared by students. With two or three "core publications" as a basis, students will search data bases (e. g. PubMed) for literature that is directly related to these articles. The most important current original publications will be summed up in a review article; where applicable, students may also use their own raw data. The structure of this review article will comply with the standards of the scientific community as defined in the instructions to authors of a scientific journal. The article will contain at least one figure, one table as well as one schematic representation of the contents and will be divided up into the following sections: title, abstract, introduction and/or hypothesis/problem to be investigated, summary of results as well as current developments and discussion thereof. The article will also contain citations in the specified format. Students will also deliver a presentation on the contents of the article.

Intended learning outcomes

Students will have learned to conduct a literature search on a specific topic. They will know how to get an overview of recent publications on a specific topic and will be familiar with basic rules for summing up original publications in a review article complying with the standards of the scientific community. Students will be familiar with the standards regarding the structure of reviews and will be able to properly cite sources. They will thus know what to keep in mind when writing scientific articles. In addition, students will be able to prepare and deliver an oral presentation on raw scientific data.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (approx. 5 to 10 pages) and presentation (approx. 15 minutes), weighted 2:1 Language of assessment: German and/or English creditable for bonus

Allocation of places

30 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.



A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1.
Additional information
Workload
90 h
Teaching cycle
Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title Abbreviation						
Writin	Writing Effectively in English - MINT/STEM and Medical Faculties 07-ASQ-WEE-181-mo1					
Module coordinator Module offered by						
Dean o	of Studie	s Biologie (Biology)		Faculty of Biology		
ECTS	Metho	d of grading	Only after succ. con	npl. of module(s)		
5	(not) s	uccessfully completed	'			
Duratio	on	Module level	Other prerequisites			
1 seme	ester	undergraduate				
Conter	nts					
Worksh topics.	hops and	d seminars will be taugh			r presentation skills in English. y be invited to speak on specific	
		ing outcomes			scriptions as well as lab results	
and hy ESL (Er such a	pothese nglish as s writer's	es effectively and conving a second language) miss block.	cingly in English. Stu stakes. Students hav	dents can create an e learned how to ha	outline and are aware of commor andle general writing problems,	
	es (type, nu	umber of weekly contact hours,	language — if other than Gei	man)		
S (2) Module	e taught	in: German and/or Engl	ish			
Metho	d of ass		_	examination offered — if n	ot every semester, information on whether	
b) port	tfolio (ap	n (approx. 30 minutes) o prox. 20 pages) ssessment: German and				
Allocation of places						
max. 15 places (lottery)						
Additional information						
Workload						
150 h						
Teachi	ing cycle					

Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additional Qualification outside Natural Sciences 2					07-SQF-ZQA2-152-m01	
Module coordinator				Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	thod of grading Only after succ. co		npl. of module(s)		
2	(not)	(not) successfully completed				
Duration Module level			Other prerequisites			
1 seme	1 semester undergraduate					
Conter	Contents					

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include 2 to 3 all-day courses.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

60 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additional Qualification outside Natural Sciences 3					07-SQF-ZQA3-152-m01	
Module coordinator				Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	thod of grading Only after succ. c		npl. of module(s)		
3	(not)	not) successfully completed				
Duration Module level			Other prerequisites			
1 seme	1 semester undergraduate					
Conter	Contents					

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include courses with 1 weekly contact hour.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V (0.5) + S (1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additional Qualification outside Natural Sciences 4					07-SQF-ZQA4-152-m01	
Modul	e coord	inator		Module offered by		
Coordinator BioCareers				Faculty of Biology		
ECTS	Meth	ethod of grading Only after succ. con		npl. of module(s)		
4	(not)	successfully completed				
Duration Module level		Other prerequisites				
1 semester undergraduate						
Conter	Contents					

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include one week of all-day courses.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(1.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

120 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additional Qualification outside Natural Sciences 5					07-SQF-ZQA5-152-m01	
Module coordinator				Module offered by		
Coordinator BioCareers				Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
5	(not)	successfully completed				
Duration Module level			Other prerequisites	Other prerequisites		
1 semester undergraduate						
Contents						

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include courses with 2 weekly contact hours.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

Courses (type, number of weekly contact hours, language - if other than German)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle

Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additional Qualification outside Natural Sciences 6					07-SQF-ZQA6-152-m01	
Module coordinator Module offered by						
Coordinator BioCareers				Faculty of Biology		
ECTS	Meth	od of grading Only after succ. cor		npl. of module(s)		
5	nume	rical grade				
Duration Module level		Other prerequisites	Other prerequisites			
1 semester undergraduate						
Contents						

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle

Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additional Qualification in Natural Sciences 2					07-SQF-ZQN2-152-m01	
Module	e coord	inator		Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Metho	Method of grading Only after succ. o		npl. of module(s)		
2	(not)	not) successfully completed				
Duration Module level			Other prerequisites			
1 semester undergraduate						
Conten	Contents					

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(0.5) + Ü(0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

60 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Additional Qualification in Natural Sciences 3					07-SQF-ZQN3-152-m01
Module coordinator				Module offered by	
Coordinator BioCareers			Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
3	(not)	successfully completed			
Duratio	Duration Module level		Other prerequisites		
1 semester undergraduate					
Conter	Contents				

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(0.5) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

90 h

Teaching cycle



Modul	e title		Abbreviation		
Additional Qualification in Natural Sciences 4					07-SQF-ZQN4-152-m01
Module coordinator				Module offered by	
Coordi	nator B	ioCareers	Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
4	(not)	successfully completed			
Duratio	Duration Module level		Other prerequisites		
1 semester undergraduate					
Conter	Contents				

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(0.5) + S(2) + \ddot{U}(2)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

120 h

Teaching cycle



Module title					Abbreviation
Additional Qualification in Natural Sciences 5					07-SQF-ZQN5-152-m01
Modul	e coord	inator		Module offered by	
Coordinator BioCareers				Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate					
Contor	Contents				

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(1) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle



Module title					Abbreviation	
Additional Qualification in Natural Sciences 6					07-SQF-ZQN6-152-m01	
Module coordinator Module off						
Coordinator BioCareers				Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)		
5	nume	erical grade				
Duration Module level Other prereq		Other prerequisites	;			
1 semester undergraduate						
Contor	Contents					

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(1) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle



Winter Term 2024

(ECTS credits)



Module title					Abbreviation
How to excel in the Bioscience					07-ASQ-eBio-152-m01
Module coordinator				Module offered by	
Dean o	f Studi	es Biologie (Biology)	Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duratio	Duration Module level		Other prerequisites		
1 seme	ster	undergraduate			
Conten	Contents				

Series of workshops on a variety of topics in the area of transferable skills: What does it take to succeed at university? What skills (both subject-specific and transferable) do you need to be successful in a STEM career once you have completed your BSc/MSc degree: ability to define and achieve goals (good self and time management); How do you develop a research question/hypothesis, how do you structure a coherent analysis? How do you integrate your own findings into a bigger picture? Concrete transferable skills that will help you launch a successful career: a team player with leadership skills needs assertiveness, negotiation and conflict management skills and the ability to structure workflows. The importance of writing/English writing skills in science: an English writing lab will provide you with an opportunity to enhance your writing skills. Most of the workshops will be taught by Ms Rapp-Galmiche and qualified student tutors, but we might also invite external experts to deliver talks.

Intended learning outcomes

Students have acquired skills that will help them succeed at university and decide what career to pursue: They are able to define goals, know what interdisciplinary skills they need for a successful career in the biosciences and are familiar with techniques that will help them develop these skills. Students are able to describe projects, research findings and scientific issues in English in a clear and convincing style.

Courses (type, number of weekly contact hours, language — if other than German)

V (2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (approx. 30 minutes) or
- b) portfolio (approx. 20 pages)

Language of assessment: German and/or English

Allocation of places

max. 20 places (lottery)

Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title Abbreviation						
Basics in Biology 07-GBio-212-mo1						
Module	coord	inator		Module offered by		
Ricarda	Schei	ner		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
5	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
Introdu	ction i	nto basic aspects in biolo	ogy			
Intende	ed lear	ning outcomes				
logy us biologi	ing sel cal exa	ected examples. They un	derstand basic biolo	gical principles and	renetics, microbiology and eco- rules and can recognize them in	
V (4)	(type, 1	- Idinaci of weekly contact flours, t	- I other than del	- Indity		
_	d of ass	sessment (type, scope, langua	ge — if other than German,	examination offered — if no	ot every semester, information on whether	
		le for bonus)				
		nation (approx. 60 minut	es)			
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Workload						
150 h						
Teaching cycle						
Teaching cycle: every semester						
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)					
	-					



Module title Abbreviation						
Metho	ds and	tools for Nature- and Env	07-LLG-M1-202-m01			
Module coordinator Module offered by				Module offered by		
head of group Didactics of Biology				Botanical Garden		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
3	(not)	successfully completed				
Duration Module level		Other prerequisites				
1 semester undergraduate						
Conten	Contents					

Chalk and talk teaching, carousel activities, unguided experimentation. There are many ways to communicate knowledge to groups of pupils. Out-of-classroom learning has been gaining in importance. In interdisciplinary contexts, it is particularly important to draw attention to the fact that looking at a topic from a "different" point of view may facilitate learning. This course will provide students with a practical introduction to knowledge-based and experience-based learning methods. Some of these methods will be adapted to be appropriate for specific topics and will be implemented with groups of pupils. This course will present students with an opportunity to find out what methods they feel comfortable with and whether students like or dislike the respective methods.

Intended learning outcomes

Students are familiar with practical methods for teaching groups in an effective and lively way.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot; A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title		Abbreviation			
Metho	ds and	tools for Nature- and Env	07-LLG-M2-202-m01			
Module coordinator Module offered by						
head o	f group	Didactics of Biology		Botanical Garden		
ECTS	Meth	od of grading	Only after succ. con	ompl. of module(s)		
3	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 semester undergraduate		undergraduate				
Conten	its					
Chalk a	and tall	k teaching, carousel activ	rities, unguided expe	rimentation. There a	re many ways to communicate	

Chalk and talk teaching, carousel activities, unguided experimentation. There are many ways to communicate knowledge to groups of pupils. Out-of-classroom learning has been gaining in importance. In interdisciplinary contexts, it is particularly important to draw attention to the fact that looking at a topic from a "different" point of view may facilitate learning. This course will provide students with a practical introduction to knowledge-based and experience-based learning methods. Some of these methods will be adapted to be appropriate for specific topics and will be implemented with groups of pupils. This course will present students with an opportunity to find out what methods they feel comfortable with and whether students like or dislike the respective methods.

Intended learning outcomes

Students are familiar with practical methods for teaching groups in an effective and lively way.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	Module title Abbreviation					
Science experiments					07-ASQ-NIE-201-m01	
Modul	e coord	linator		Module offered by		
				Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
5	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ster					
Conter	ıts					
Intend	ed lear	ning outcomes				
			,			
Course	S (type, i	number of weekly contact hours, l	anguage — if other than Ger	rman)		
Ü (3)						
		sessment (type, scope, langua ole for bonus)	ge — if other than German,	examination offered — if no	ot every semester, information on whether	
		rox. 15 pages) offered: Once a year, wint	er term			
Allocat	tion of	places				
min. 5,	max. 2	20 places (Lottery)				
		ormation				
Worklo	ad					
150 h						
Teaching cycle						
Teaching cycle: every year, winter semester						
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)					



Modul	e title		Abbreviation			
Organisation and Safety in Biosciences					07-SQF-OSB-152-m01	
Module coordinator Module						
Coordi	Coordinator BioCareers			Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. cor	mpl. of module(s)		
5	nume	rical grade				
Durati	Duration Module level Oth		Other prerequisites	Other prerequisites		
1 seme	1 semester undergraduate					
Contor	Contants					

Safety procedures in the biosciences, in particular radiation protection, handling of genetically modified organisms, hygiene procedures and hazardous substances, working with lab animals. Fundamental concepts that help ensure an effective and efficient workflow in the biosciences. Structure and organisation of institutions in the bioscience/biotech sector. Process-based project management. HR management in the biosciences, responsibilities of managers/supervisors, appraisal interviews, target agreements, management styles.

Intended learning outcomes

Students have developed a fundamental knowledge of the regulations governing work in the bioscience sector and are familiar with fundamental organisational principles that are relevant for work in research and production. They are also familiar with fundamental principles of process-based project work in the biosciences.

Courses (type, number of weekly contact hours, language — if other than German)

V(1) + S(2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

written examination (60 minutes)

Language of assessment: German and/or English

creditable for bonus

Allocation of places

120 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking.



Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 150 h Teaching cycle $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module	e title		Abbreviation			
Practic ning-G	•	erience in transfer of kno	07-LLG-P1-202-m01			
Module	e coord	inator	Module offered by			
head o	head of group Didactics of Biology			Botanical Garden		
ECTS	Meth	od of grading	Only after succ. com	npl. of module(s)		
3	(not)	successfully completed				
Duratio	Duration Module level		Other prerequisites			
1 seme	1 semester undergraduate					
Conten	Contents					

This course will provide students with an opportunity to take on the role of teacher and work with real groups of pupils. Particular emphasis will be placed on the presentation of topics; in many cases the presentation will be accompanied by a demonstration to illustrate the topics. Students will either teach existing topics they adapted to fit the needs of their target groups or will develop new topics.

Intended learning outcomes

Students are able to teach groups, communicating in practice what they have learned in theory.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	e title		Abbreviation			
Practic ning-G	•	erience in transfer of kno 2	07-LLG-P2-202-m01			
Module	e coord	inator	Module offered by			
head o	head of group Didactics of Biology			Botanical Garden		
ECTS	Meth	od of grading	Only after succ. com	pl. of module(s)		
3	(not)	successfully completed				
Duratio	Duration Module level		Other prerequisites			
1 seme	1 semester undergraduate					
Conten	Contents					

This course will provide students with an opportunity to take on the role of teacher and work with real groups of pupils. Particular emphasis will be placed on the presentation of topics; in many cases the presentation will be accompanied by a demonstration to illustrate the topics. Students will either teach existing topics they adapted to fit the needs of their target groups or will develop new topics.

Intended learning outcomes

Students are able to teach groups, communicating in practice what they have learned in theory.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Environmental Education in the Botanic Garden of Würzburg University				07-SQF-UBG-152-m01	
Module	e coord	inator		Module offered I	ру
head o	f Botan	ical Garden		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. com	ipl. of module(s)	
2	(not) s	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ıts				
The Botanical Garden of the University of Würzburg is primarily used for teaching and research-related activities. In addition, it is used for activities in the area of general environmental education with the plants in the different sections and collections being used to inform interested members of the public about topics in the areas of					

The Botanical Garden of the University of Würzburg is primarily used for teaching and research-related activities. In addition, it is used for activities in the area of general environmental education with the plants in the different sections and collections being used to inform interested members of the public about topics in the areas of botany, ecology and gardening. In this module, students will develop appropriate educational concepts for imparting, in a comprehensible way, specialist knowledge to interested laypersons. They will practise designing and using appropriate aids (information boards, leaflets etc.) and applying methodological approaches (guidelines) for the comprehensible presentation of complex concepts. Students will be organised into teams to complete the following tasks: develop contents tailored to the needs of selected target groups, acquire the specialist knowledge necessary for presenting these contents, select appropriate methods for presenting these contents.

Intended learning outcomes

Students will be able to communicate concepts in ecology and botany to a lay audience. They will be able to tailor contents to a target audience, selecting and using appropriate aids and techniques. Students will have acquired an overview of the sectors of the Botanical Garden and will be able to prepare information material on individual sections. They will have developed both botanical knowledge and teaching skills that will enable them to guide tours through the Botanical Garden, imparting knowledge in a way that is tailored to their target audience.

Courses (type, number of weekly contact hours, language - if other than German)

Ü (0.5) + E (0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (or preparing educational materials and materials for demonstrations) (approx. 10 to 20 pages) Language of assessment: German and/or English creditable for bonus

Allocation of places

6 places.

Additional information

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Workload

60 h

Teaching cycle

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 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module title					Abbreviation	
Publis	hing Sc	ientific Data			07-SQF-WIP-152-m01	
Modul	e coord	inator		Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)		
3	nume	rical grade				
Duration Module level		Other prerequisites	Other prerequisites			
1 seme	1 semester undergraduate					
- ·						

Either alone or in small groups of two or three persons, students will select several journal articles from the field of life sciences. These will serve as the basis for a review article to be prepared by students. With two or three "core publications" as a basis, students will search data bases (e. g. PubMed) for literature that is directly related to these articles. The most important current original publications will be summed up in a review article; where applicable, students may also use their own raw data. The structure of this review article will comply with the standards of the scientific community as defined in the instructions to authors of a scientific journal. The article will contain at least one figure, one table as well as one schematic representation of the contents and will be divided up into the following sections: title, abstract, introduction and/or hypothesis/problem to be investigated, summary of results as well as current developments and discussion thereof. The article will also contain citations in the specified format. Students will also deliver a presentation on the contents of the article.

Intended learning outcomes

Students will have learned to conduct a literature search on a specific topic. They will know how to get an overview of recent publications on a specific topic and will be familiar with basic rules for summing up original publications in a review article complying with the standards of the scientific community. Students will be familiar with the standards regarding the structure of reviews and will be able to properly cite sources. They will thus know what to keep in mind when writing scientific articles. In addition, students will be able to prepare and deliver an oral presentation on raw scientific data.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (approx. 5 to 10 pages) and presentation (approx. 15 minutes), weighted 2:1 Language of assessment: German and/or English creditable for bonus

Allocation of places

30 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.



A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1.
Additional information
Workload
90 h
Teaching cycle
Referred to in LPO I (examination regulations for teaching-degree programmes)



Module	Module title Abbreviation						
Writing	Writing Effectively in English - MINT/STEM and Medical Faculties 07-ASQ-WEE-181-mo1						
Module	coord	inator		Module offered by			
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology			
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)			
5	(not)	successfully completed					
Duratio	n	Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	ts						
lish. Up	on req	uest, students will also b	e given the opportur	ity to enhance their	mmon writing mistakes in Eng- presentation skills in English. y be invited to speak on specific		
Intende	ed lear	ning outcomes					
and hyp ESL (En	pothes Iglish a	es effectively and convin	cingly in English. Stu	dents can create an	scriptions as well as lab results outline and are aware of common ndle general writing problems,		
Course	S (type, r	number of weekly contact hours,	anguage — if other than Ger	man)			
S (2) Module	taugh	t in: German and/or Engl	ish				
		sessment (type, scope, langua ble for bonus)	ge — if other than German, o	examination offered — if no	ot every semester, information on whether		
b) portf	folio (a	n (approx. 30 minutes) o pprox. 20 pages) ssessment: German and					
Allocat	ion of p	olaces					
max. 15	place	s (lottery)					
Additio	nal inf	ormation					
Workload							
150 h							
Teaching cycle							
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)						



Summer Term 2025

(ECTS credits)



Module title					Abbreviation
How to excel in the Bioscience					07-ASQ-eBio-152-m01
Module coordinator				Module offered by	
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. compl. of module(s)		
5	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate					
Contents					

Series of workshops on a variety of topics in the area of transferable skills: What does it take to succeed at university? What skills (both subject-specific and transferable) do you need to be successful in a STEM career once you have completed your BSc/MSc degree: ability to define and achieve goals (good self and time management); How do you develop a research question/hypothesis, how do you structure a coherent analysis? How do you integrate your own findings into a bigger picture? Concrete transferable skills that will help you launch a successful career: a team player with leadership skills needs assertiveness, negotiation and conflict management skills and the ability to structure workflows. The importance of writing/English writing skills in science: an English writing lab will provide you with an opportunity to enhance your writing skills. Most of the workshops will be taught by Ms Rapp-Galmiche and qualified student tutors, but we might also invite external experts to deliver talks.

Intended learning outcomes

Students have acquired skills that will help them succeed at university and decide what career to pursue: They are able to define goals, know what interdisciplinary skills they need for a successful career in the biosciences and are familiar with techniques that will help them develop these skills. Students are able to describe projects, research findings and scientific issues in English in a clear and convincing style.

Courses (type, number of weekly contact hours, language — if other than German)

V (2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (approx. 30 minutes) or
- b) portfolio (approx. 20 pages)

Language of assessment: German and/or English

Allocation of places

max. 20 places (lottery)

Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	Module title Abbreviation						
Genetics, Neurobiology, Behaviour 07-2A2GENV-152-mo1							
Modul	le coord	linator		Module offered by			
Dean	of Studi	es Biologie (Biology)		Faculty of Biology			
ECTS		od of grading	Only after succ. con	ipl. of module(s)			
5	nume	rical grade					
Durati	on	Module level	Other prerequisites				
1 seme	ester	undergraduate		d successful comple	exercises. Regular attendance tion of exercises (approx. 25 to on to assessment.		
Conte	nts						
Funda	mental	principles of genetics, ne	eurobiology and beha	vioural biology.			
Intend	led lear	ning outcomes					
	l in anir			,	al mechanisms and processes in- olecular and formal bases of in-		
	es (type, i	number of weekly contact hours,	language — if other than Ger	man)			
V (3)							
		sessment (type, scope, langua ole for bonus)	age — if other than German,	examination offered — if no	ot every semester, information on whether		
	n exami able for	nation (approx. 60 to 90 bonus	minutes)				
Alloca	tion of	places					
Additi	onal inf	ormation					
Workle	oad						
150 h							
Teaching cycle							
							
Referr	Referred to in LPO I (examination regulations for teaching-degree programmes)						
§ 61 l l	§ 61 Nr. 2 (2 ECTS credits) § 61 Nr. 3 (1 ECTS credits) § 61 Nr. 4 (1 ECTS credits)						



Modul	e title				Abbreviation	
Basics in Biology					07-GBio-212-m01	
Modul	e coord	inator		Module offered by		
Ricard	a Schei	ner		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
5	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ester	undergraduate				
Conter	nts		•			
Introdu	uction i	nto basic aspects in biol	ogy			
Intend	ed lear	ning outcomes				
biolog	ical exa				rules and can recognize them in	
V (4)						
		sessment (type, scope, langua le for bonus)	ge — if other than German,	examination offered — if no	ot every semester, information on whether	
writter	exami	nation (approx. 60 minut	es)			
Alloca	tion of p	olaces				
Additio	onal inf	ormation				
Workload						
150 h						
Teaching cycle						
Teaching cycle: every semester						
Referred to in LPO I (examination regulations for teaching-degree programmes)						



Modul	e title		Abbreviation			
		ends in the Biotechnolog curricula)	07-ASQ-GTB-182-m01			
Modul	e coord	linator		Module offered by	by	
holder	of the	Chair of Biotechnology		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. compl. of module(s)			
3	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 semester undergraduate						
Contents						
This module (lecture and seminar) will provide students with an overview of instrument-based methods in bio-						

technology and biomedicine and the underlying physical principles. It will discuss modern methods for the analysis of biological matter on the molecular and cellular level. These methods include light microscopy, fluorescence spectroscopy, electron microscopy, atomic force microscopy, flow cytometry and microfluidics.

Intended learning outcomes

Students will gain an overview of key methods in biotechnology and their respective advantages and disadvantages. They will learn to decide what method is most suitable for addressing a particular issue.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)

 $\textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ \\$ module is creditable for bonus)

presentation (20 to 30 minutes)

Language of assessment: German and/or English

Allocation of places

min. 5, max. 20 places (lot)

Additional information

Workload

90 h

Teaching cycle

Teaching cycle: every year, summer semester



Module title Abbreviation							
Basic Human Biology I - GY 07-LA-HUBIO-1-152-mo1							
Module	coord	inator		Module offered by			
Dean o	f Studie	es Biologie (Biology)		Faculty of Biology			
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)			
6	nume	rical grade					
Duratio	n	Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	ts						
• h • h	uman i uman o tory of	genetics (genetic disease ohysiology (human senso developmental physiolog modern humans). ning outcomes	ory physiology, nutrit		vsical health), development, evolutionary hi-		
		ity with the fundamental	nrinciples of human	genetics			
		number of weekly contact hours, l	•	_			
V (3)	(),,,,,	,					
Method		sessment (type, scope, langua le for bonus)	ge — if other than German, o	examination offered — if no	ot every semester, information on whether		
written credita		nation (approx. 60 to 90 bonus	minutes)				
Allocat	ion of p	olaces					
Additional information							
Workload							
180 h							
Teaching cycle							

Referred to in LPO I (examination regulations for teaching-degree programmes)

§ 61 l Nr. 5



Modul	e title		Abbreviation				
Career	Perspe	ectives, Personal Con	07-SQF-KEB-152-m01				
Modul	e coord	inator		Module offered by			
Coordi	nator B	ioCareers		Faculty of Biology			
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)			
5	nume	rical grade					
Duration Module level		Other prerequisites	Other prerequisites				
1 seme	1 semester undergraduate						

This module will provide students with information on potential areas of employment for life scientists and will address the topic of job application and staff selection. It will discuss methods for analysing personality types and will acquaint students with criteria for developing personal and social skills. Building on this, the module will develop fundamental criteria for working in groups and teams. The fundamental principles of a project-oriented approach to work and of communication (incl. rhetoric and body language) will be discussed. Students will also receive advice on how to design and structure talks.

Intended learning outcomes

Students know what it takes to succeed in the job market. They are familiar with current developments in the job market, know how to go job hunting, and are familiar with recruitment practices of employers. Students have developed a fundamental knowledge of personality assessment methods and are familiar with conflict management methods. They are able to work in a team-based environment and have developed a fundamental knowledge of project management methods and approaches. Students have enhanced their teaching skills and are proficient in the theory and practice of communication. They know how to design and structure talks as well as to present data in both oral and written form. Students are aware of what body language may communicate.

Courses (type, number of weekly contact hours, language — if other than German)

V(1) + S(2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

written examination (approx. 30 to 60 minutes) Language of assessment: German and/or English creditable for bonus

Allocation of places

120 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subjects Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they ha-



ve achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, places will be allocated according to the selection process of group 1.

Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Methods and tools for Nature- and Environmental Education 1					07-LLG-M1-202-m01	
Module coordinator				Module offered by		
head o	f group	Didactics of Biology		Botanical Garden		
ECTS	Metho	od of grading	Only after succ. con	ter succ. compl. of module(s)		
3	(not)	successfully completed				
Duration Module level		Other prerequisites				
1 semester undergraduate						
Contents						

Chalk and talk teaching, carousel activities, unguided experimentation. There are many ways to communicate knowledge to groups of pupils. Out-of-classroom learning has been gaining in importance. In interdisciplinary contexts, it is particularly important to draw attention to the fact that looking at a topic from a "different" point of view may facilitate learning. This course will provide students with a practical introduction to knowledge-based and experience-based learning methods. Some of these methods will be adapted to be appropriate for specific topics and will be implemented with groups of pupils. This course will present students with an opportunity to find out what methods they feel comfortable with and whether students like or dislike the respective methods.

Intended learning outcomes

Students are familiar with practical methods for teaching groups in an effective and lively way.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (2)

 $\textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language}) \ (\textbf{type}, \textbf{language})$ module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot; A waiting list will be maintained and places reallocated as they become available.

Additional information

Workload

90 h

Teaching cycle



Module title					Abbreviation	
Methods and tools for Nature- and Environmental Education 2					07-LLG-M2-202-m01	
Module coordinator Module of						
head o	f group	Didactics of Biology		Botanical Garden		
ECTS	Metho	od of grading	Only after succ. con	ly after succ. compl. of module(s)		
3	(not)	successfully completed				
Duration Module level		Other prerequisites				
1 semester undergraduate						
Contents						

Chalk and talk teaching, carousel activities, unguided experimentation. There are many ways to communicate knowledge to groups of pupils. Out-of-classroom learning has been gaining in importance. In interdisciplinary contexts, it is particularly important to draw attention to the fact that looking at a topic from a "different" point of view may facilitate learning. This course will provide students with a practical introduction to knowledge-based and experience-based learning methods. Some of these methods will be adapted to be appropriate for specific topics and will be implemented with groups of pupils. This course will present students with an opportunity to find out what methods they feel comfortable with and whether students like or dislike the respective methods.

Intended learning outcomes

Students are familiar with practical methods for teaching groups in an effective and lively way.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	e title	,		Abbreviation		
Experi	ence na	ture outdoors		07-ASQ-NIF-201-m01		
Module	e coord	inator		Module offered by		
				Faculty of Biology		
ECTS	ECTS Method of grading Only after succ. con			npl. of module(s)		
5	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ster					
Conter	ts		,			
Intend	ed lear	ning outcomes				
			,			
Course	S (type, r	number of weekly contact hours, l	anguage — if other than Ger	rman)		
Ü (3)						
		sessment (type, scope, langua le for bonus)	ge — if other than German, o	examination offered — if no	ot every semester, information on whether	
	Portfolio (approx. 15 pages) Assessment offered: Once a year, summer term					
Allocat	Allocation of places					
min. 5,	min. 5, max. 20 places (Lottery)					
Additional information						
Workload						
150 h						
Teaching cycle						
Teachi	Teaching cycle: every year, summer semester					
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)					



Module title					Abbreviation	
Fungi:	One kii	ngdom, many faces			07-SQF-FUNGI-182-m01	
Modul	e coord	inator		Module offered by	Module offered by	
holder	holder of the Chair of Biotechnology and Biophysics			Faculty of Biology	Faculty of Biology	
ECTS	Metho	Method of grading Only after succ. co		compl. of module(s)		
5	nume	rical grade				
Duration Module level		Other prerequisites				
1 seme	ester	undergraduate				
Conter	Contents					

The course provides a concise overview of fungal systematics, cell biology, fungal genetics, plant pathogenicity, medical mycology, stimulus processing, and fungi in biotechnology. In the seminar current research topics will be presented and discussed. The exercise includes the microscopy of selected fungi / cultivation and preparation of media / day excursion "mushroom" and determination of collected material. The excursion depends on weather conditions.

Intended learning outcomes

The students are able to identify key characteristics of fungi and classify them accordingly. In addition, they possess knowledge on mushroom biology.

Courses (type, number of weekly contact hours, language - if other than German)

Ü (4)

Module taught in: German and/or English

 $\textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language}) \ (\textbf{type}, \textbf{language}) \$ module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle

Teaching cycle: every year, summer semester



Module title					Abbreviation	
Practical Experience in transfer of knowledge obtained in the Teaching-Lear- ning-Garden 1					07-LLG-P1-202-m01	
Module coordinator Module offered						
head of group Didactics of Biology			E	Botanical Garden		
ECTS	Method of grading Only after succ			ol. of module(s)		
3	(not) successfully completed					
Duration Module level		Module level	Other prerequisites			
ı semester u		undergraduate				
Conter	Contents					

This course will provide students with an opportunity to take on the role of teacher and work with real groups of pupils. Particular emphasis will be placed on the presentation of topics; in many cases the presentation will be accompanied by a demonstration to illustrate the topics. Students will either teach existing topics they adapted to fit the needs of their target groups or will develop new topics.

Intended learning outcomes

Students are able to teach groups, communicating in practice what they have learned in theory.

 $\textbf{Courses} \ (\textbf{type}, \, \textbf{number of weekly contact hours, language} - \textbf{if other than German})$

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

Workload

90 h

Teaching cycle



Module title					Abbreviation	
Practical Experience in transfer of knowledge obtained in the Teaching-Learning-Garden 2					07-LLG-P2-202-m01	
Module coordinator Module offered by						
head of group Didactics of Biology				Botanical Garden		
ECTS	Method of grading Only after succ. compl. of module(s)		pl. of module(s)			
3	(not) successfully completed					
Duration Module level C			Other prerequisites	Other prerequisites		
1 semester undergraduate						
Conten	Contents					
pupils.	Particular e panied by a	emphasis will be plac	ced on the presentati ustrate the topics. St	on of topics; in man udents will either te	her and work with real groups of y cases the presentation will be ach existing topics they adapted	

Intended learning outcomes

Students are able to teach groups, communicating in practice what they have learned in theory.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) presentation (20 to 30 minutes) or
- b) term paper (7 to 10 pages)

Allocation of places

max. 12 places.

Places will be allocated primarily according to the number of subject semesters; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places reallocated as they become available.

Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Computer languages and programming 3					07-SQF-PR03-182-m01
Module coordinator				Module offered by	
chairperson of examination committee Biologie (Biology)			Biologie (Biology)	Faculty of Biology	
ECTS	Meth	Method of grading Only after succ. cor		npl. of module(s)	
3	(not) successfully completed				
Duration Module level		Other prerequisites			
1 seme	ester	undergraduate			
Control					

Computer languages and programming using one or more computer languages like Java, C, C++, C#, Python, PHP.

Intended learning outcomes

The participants know the basics about computer languages and programming.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 90 h Teaching cycle $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module title				Abbreviation		
Computer languages and programming 5					07-SQF-PRO5-182-m01	
Modul	e coord	inator		Module offered by		
chairperson of examination committee Biologie (Biology)			Biologie (Biology)	Faculty of Biology		
ECTS	Meth	Method of grading Only after succ. cor		npl. of module(s)		
5	(not)	(not) successfully completed				
Duration Module level		Other prerequisites	prerequisites			
1 seme	ester	undergraduate				

Computer languages and programming using one or more computer languages like Java, C, C++, C#, Python, PHP.

Intended learning outcomes

The participants know the basics about computer languages and programming.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (3)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 150 h Teaching cycle $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module	e title			,	Abbreviation			
Legal a	nd Eth	ical Aspects in Biologi	cal Sciences		07-SQF-RETH-211-m01			
Module	e coord	inator		Module offered by				
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology				
ECTS								
5	nume	rical grade						
Duratio	<u> </u>							
1 seme	ster	undergraduate						
Conten	ts							
animal	testing		in agriculture, biodivers		ch, cloning, transgenic animals, ervation, biotechnology and mi-			
Intende	ed lear	ning outcomes						
ding st	em cell d natur	research, cloning, tra e conservation, biotec	nsgenic animals, anima	al testing, genetic en ogy, medicine and ne	miliar with legal aspects surroun- gineering in agriculture, biodiver- eurogenetics and are able to eva- n and critically discuss these to-			
Course	S (type, r	number of weekly contact hou	rs, language — if other than Ge	rman)				
V (1) +	Ü (1)							
		sessment (type, scope, lan ble for bonus)	guage — if other than German,	examination offered — if no	ot every semester, information on whether			
	ige of a	ssessment: German a	so minutes) or portfolio nd/or English					
Allocat	ion of _l	olaces						
Additio	nal inf	ormation						
Worklo	ad							
150 h								
Teachi	ng cycl	е						

Teaching cycle: every year, summer semester

 $\textbf{Referred to in LPO I} \ \ (\text{exam} \underline{\quad \text{ination regulations for teaching-degree programmes}})$



Modul	Module title Abbreviation			Abbreviation	
Statist	ics 3				07-SQF-STAT3-182-m01
Modul	e coord	inator		Module offered by	
degree	progra	mme coordinator Biologi	e (Biology)	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. cor	npl. of module(s)	
3	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites	1	
1 seme	ester	undergraduate			
C 4					

Usage of specific statistical methods on practical examples

Intended learning outcomes

The participants know how to evaluate data statistically and how to use statistic methods in practical examples.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 90 h Teaching cycle $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module title				Abbreviation	
Statist	Statistics 5				07-SQF-STAT5-182-m01
Modul	e coord	inator		Module offered by	
degree	progra	mme coordinator Biologi	e (Biology)	Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. co	mpl. of module(s)	
5	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites	5	
1 seme	ster	undergraduate			
Cantar		-	•		

Usage of specific statistical methods on practical examples

Intended learning outcomes

The participants know how to evaluate data statistically and how to use statistic methods in practical examples.

Courses (type, number of weekly contact hours, language — if other than German)

Ü (3)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

10 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.

A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according



to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1. **Additional information** Workload 150 h Teaching cycle $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module	title	Abbreviation		
Environr	mental Education in the Bota	nic Garden of Würzburg	g University	07-SQF-UBG-152-m01
Module	coordinator		Module offered	by
head of	Botanical Garden		Faculty of Biolog	ry
ECTS	Method of grading	Only after succ. com	npl. of module(s)	
2	(not) successfully completed			
Duration	n Module level	Other prerequisites		
1 semes	ter undergraduate			
Content	<u> </u>			

The Botanical Garden of the University of Würzburg is primarily used for teaching and research-related activities. In addition, it is used for activities in the area of general environmental education with the plants in the different sections and collections being used to inform interested members of the public about topics in the areas of botany, ecology and gardening. In this module, students will develop appropriate educational concepts for imparting, in a comprehensible way, specialist knowledge to interested laypersons. They will practise designing and using appropriate aids (information boards, leaflets etc.) and applying methodological approaches (guidelines) for the comprehensible presentation of complex concepts. Students will be organised into teams to complete the following tasks: develop contents tailored to the needs of selected target groups, acquire the specialist knowledge necessary for presenting these contents, select appropriate methods for presenting these contents.

Intended learning outcomes

Students will be able to communicate concepts in ecology and botany to a lay audience. They will be able to tailor contents to a target audience, selecting and using appropriate aids and techniques. Students will have acquired an overview of the sectors of the Botanical Garden and will be able to prepare information material on individual sections. They will have developed both botanical knowledge and teaching skills that will enable them to guide tours through the Botanical Garden, imparting knowledge in a way that is tailored to their target audience.

Courses (type, number of weekly contact hours, language - if other than German)

Ü (0.5) + E (0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (or preparing educational materials and materials for demonstrations) (approx. 10 to 20 pages) Language of assessment: German and/or English creditable for bonus

Allocation of places

6 places.

Additional information

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Workload

60 h

Teaching cycle

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 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$



Module	e title				Abbreviation
Orienta studyp		eview of inorganic Chemns	istry for students in	Biology and MINT	07-ASQ-VAC-201-m01
Module	e coord	inator		Module offered by	
				Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster				
Conten	its				
Intend	ed lear	ning outcomes			
Course	S (type, i	number of weekly contact hours,	language — if other than Ger	rman)	
	-				
			m age-if other than German,	examination offered $-$ if n	ot every semester, information on whether
module is	s creditab	ole for bonus)			
Allocat	ion of	places			
Additio	nal inf	ormation			
Worklo	ad				
150 h					
Teachi					
		e: every year, winter sem	•		
Referre	d to in	LPO I (examination regulation	s for teaching-degree progra	immes)	



Orientation/Review of Statistics for students in Biology and MINT studyprograms Module coordinator Module offered by Faculty of Biology ECTS Method of grading Only after succ. compl. of module(s) [Total successfully completed Other prerequisites] I semester	Modul	e title				Abbreviation	
Module coordinator		ation/R	eview of Statistics for st	udents in Biology an	d MINT studypro-	07-ASQ-VST-201-m01	
Faculty of Biology ECTS Method of grading Only after succ. compl. of module(s) (not) successfully completed		e coord	inator		Module offered by		
ECTS Method of grading Only after succ. compl. of module(s) 5		,			† ·		
5	ECTS	Meth	od of grading	F			
Intended learning outcomes Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	5				•		
Contents Intended learning outcomes Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle		on .	Module level	Other prerequisites	i		
Intended learning outcomes Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	1 seme	ster					
Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	Conter	its					
Courses (type, number of weekly contact hours, language — if other than German) Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle							
Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	Intend	ed lear	ning outcomes				
Ü (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle							
Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	Course	S (type, 1	number of weekly contact hours,	language — if other than Ge	rman)		
module is creditable for bonus) portfolio (approx. 20 hours total) Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	Ü (2)	-					
Allocation of places max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle				ge — if other than German,	examination offered — if n	not every semester, information on whether	
max. 20 places (Lottery) Additional information Workload 150 h Teaching cycle	portfol	io (app	rox. 20 hours total)				
Additional information Workload 150 h Teaching cycle	Allocat	ion of	places				
Workload 150 h Teaching cycle	max. 2	o place	s (Lottery)				
Teaching cycle	Additio	nal inf	ormation				
Teaching cycle							
Teaching cycle	Worklo	ad					
	150 h	-					
Referred to in LPO I (examination regulations for teaching-degree programmes)	Teachi	ng cycl	e				
Referred to in LPO I (examination regulations for teaching-degree programmes)							
	Referre	ed to in	LPO I (examination regulation	s for teaching-degree progra	ımmes)		



Module	title	_			Abbreviation
Orienta	tion/R	eview of Mathematics fo	r students in Biology	and MINT study-	07-ASQ-VM-201-m01
progra	ms				
Module	coord	inator		Module offered by	
Faculty of Biology					
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 seme	ster				
Conten	ts				
Intende	ed lear	ning outcomes			
Course	Տ (type, ւ	number of weekly contact hours, l	language — if other than Ger	rman)	
Method	d of as	sessment (type, scope, langua	ige — if other than German,	examination offered — if no	ot every semester, information on whether
module is	creditab	le for bonus)			
Allocat	ion of	olaces			
Additio	nal inf	ormation			
Worklo	ad				
150 h					
Teachi	ng cycl	e			
		e: every year, winter sem			
Referre	d to in	LPO I (examination regulation	s for teaching-degree progra	immes)	
			,		



Module	e title				Abbreviation	
Orienta dyprog		eview of organic Chemis	try for students in Bio	ology and MINT stu-	07-ASQ-VOC-201-m01	
Module	e coord	inator		Module offered by		
				Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. compl. of module(s)			
5	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ster					
Conten	its					
Intend	ed lear	ning outcomes				
Course	S (type, r	number of weekly contact hours,	language — if other than Ger	man)		
Ü (2)						
		sessment (type, scope, langua le for bonus)	${\sf ge-if}$ other than German, ${\sf e}$	examination offered — if no	t every semester, information on whether	
		rox. 20 hours total) ffered: Once a year, sum	mer term			
Allocat	ion of	olaces				
max. 2	o place	s (Lottery)	-			
Additio	nal inf	ormation				
Worklo	ad					
150 h						
Teachi	ng cycl	e				
Teachi	ng cycl	e: every year, summer se	mester			
Referre	ed to in	LPO I (examination regulation	s for teaching-degree progra	mmes)		



Modul	e title				Abbreviation	
Publis	hing Sc	cientific Data			07-SQF-WIP-152-m01	
Modul	e coord	linator		Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)		
3	nume	rical grade				
Duratio	on	Module level	Other prerequisites	}		
1 seme	ester	undergraduate				
Contor						

Either alone or in small groups of two or three persons, students will select several journal articles from the field of life sciences. These will serve as the basis for a review article to be prepared by students. With two or three "core publications" as a basis, students will search data bases (e. g. PubMed) for literature that is directly related to these articles. The most important current original publications will be summed up in a review article; where applicable, students may also use their own raw data. The structure of this review article will comply with the standards of the scientific community as defined in the instructions to authors of a scientific journal. The article will contain at least one figure, one table as well as one schematic representation of the contents and will be divided up into the following sections: title, abstract, introduction and/or hypothesis/problem to be investigated, summary of results as well as current developments and discussion thereof. The article will also contain citations in the specified format. Students will also deliver a presentation on the contents of the article.

Intended learning outcomes

Students will have learned to conduct a literature search on a specific topic. They will know how to get an overview of recent publications on a specific topic and will be familiar with basic rules for summing up original publications in a review article complying with the standards of the scientific community. Students will be familiar with the standards regarding the structure of reviews and will be able to properly cite sources. They will thus know what to keep in mind when writing scientific articles. In addition, students will be able to prepare and deliver an oral presentation on raw scientific data.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

term paper (approx. 5 to 10 pages) and presentation (approx. 15 minutes), weighted 2:1 Language of assessment: German and/or English creditable for bonus

Allocation of places

30 places.

Should the number of applications exceed the number of available places, places will be allocated as follows: Students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits will be given preferential consideration. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one place in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in the same procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration.



A waiting list will be maintained and places re-allocated as they become available.

Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot.

Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50 % of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25 % of places): lottery.

Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, pla-

ces will be allocated according to the selection process of group 1.
Additional information
Workload
90 h
Teaching cycle
Referred to in LPO I (examination regulations for teaching-degree programmes)



	e title				Abbreviation
Writing	g Effect	ively in English - MINT/S	TEM and Medical Fac	culties	07-ASQ-WEE-181-m01
Module	e coord	linator		Module offered	by
Dean o	f Studi	es Biologie (Biology)		Faculty of Biolog	sy .
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duratio					
1 seme	ster	undergraduate			
Conten	ıts				
Worksh topics.	nops ar	nd seminars will be taugh			eir presentation skills in English. nay be invited to speak on specific
		ning outcomes			
		ing skills in English. Stud		mumcate project	HESCHIDHOUS AS WEILAS IAD TESHIIS
ESL (Er	nglish a			dents can create	an outline and are aware of common
ESL (Er	nglish a s writer	ns a second language) mi	stakes. Students hav	dents can create ve learned how to	an outline and are aware of commo
ESL (Er such as Course S (2)	nglish a s writer	as a second language) mi ''s block.	stakes. Students hav	dents can create ve learned how to	an outline and are aware of commo
ESL (Er such as Course S (2) Module Method	nglish as writer s (type, retaugh	as a second language) mid's block. number of weekly contact hours, at in: German and/or Eng	stakes. Students hav	dents can create re learned how to	an outline and are aware of commo
ESL (Er such as Course S (2) Module Method module is a) pres b) port	nglish as writer s (type, in the taught of assets creditation folio (a	as a second language) min's block. number of weekly contact hours, at in: German and/or Engineessment (type, scope, language)	stakes. Students hav	dents can create re learned how to	an outline and are aware of common handle general writing problems,
ESL (Er such as Course S (2) Module Method module is a) pres b) port	nglish as writer (type, retaugh d of associated as creditation folio (a age of a	is a second language) mid's block. number of weekly contact hours, at in: German and/or Engine sessment (type, scope, language) on (approx. 30 minutes) of pprox. 20 pages) assessment: German and	stakes. Students hav	dents can create re learned how to	an outline and are aware of common handle general writing problems,
ESL (Er such as Course S (2) Module is a) pres b) port Langua Allocat	nglish as writer s (type, the taught d of assess creditation folio (a tauge of a taught)	is a second language) mid's block. number of weekly contact hours, at in: German and/or Engine sessment (type, scope, language) on (approx. 30 minutes) of pprox. 20 pages) assessment: German and	stakes. Students hav	dents can create re learned how to	an outline and are aware of common handle general writing problems,
ESL (Er such as Course S (2) Module is a) pres b) port Langua Allocat max. 14	nglish as writer s (type, the taugh d of assess creditation entation folio (a age of a tion of	is a second language) mid's block. number of weekly contact hours, it in: German and/or Engine for bonus) on (approx. 30 minutes) of pprox. 20 pages) assessment: German and places	stakes. Students hav	dents can create re learned how to	an outline and are aware of common handle general writing problems,
ESL (Er such as Course S (2) Module is a) pres b) port Langua Allocat max. 14	nglish as writer s (type, the taugh d of assess creditation entation folio (a age of a tion of	is a second language) min's block. number of weekly contact hours, at in: German and/or Englisessment (type, scope, language) on (approx. 30 minutes) on (approx. 20 pages) assessment: German and places s (lottery)	stakes. Students hav	dents can create re learned how to	an outline and are aware of common handle general writing problems,
ESL (Er such as Course S (2) Module is a) pres b) port Langua Allocat max. 14	nglish as writer s (type, the taught d of assess creditation folio (ange of action of place ponal info	is a second language) min's block. number of weekly contact hours, at in: German and/or Englisessment (type, scope, language) on (approx. 30 minutes) on (approx. 20 pages) assessment: German and places s (lottery)	stakes. Students hav	dents can create re learned how to	an outline and are aware of common handle general writing problems,
ESL (Er such as Course S (2) Module is a) pres b) port Langua Allocat max. 14 Additio	nglish as writer s (type, the taught d of assess creditation folio (ange of action of place ponal info	is a second language) min's block. number of weekly contact hours, at in: German and/or Englisessment (type, scope, language) on (approx. 30 minutes) on (approx. 20 pages) assessment: German and places s (lottery)	stakes. Students hav	dents can create re learned how to	an outline and are aware of common handle general writing problems,

Referred to in LPO I (examination regulations for teaching-degree programmes)



Modul	e title	Abbreviation			
Additional Qualification outside Natural Sciences 2					07-SQF-ZQA2-152-m01
Modul	e coord	inator		Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
2	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	1 semester undergraduate				
Conter	ıts				
Course	s in are	eas other than the natura	l sciences that are no	of offered as part of t	he nool of general trans

skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include 2 to 3 all-day courses.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

Courses (type, number of weekly contact hours, language - if other than German)

V(0.5) + S(0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

60 h

Teaching cycle

--

Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additional Qualification outside Natural Sciences 3					07-SQF-ZQA3-152-m01	
Modul	e coord	inator		Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. compl. of module(s)			
3	(not)	successfully completed				
Duration Module level		Other prerequisites				
1 seme	ester	undergraduate				
Conter	Contents					

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include courses with 1 weekly contact hour.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

Courses (type, number of weekly contact hours, language - if other than German)

V (0.5) + S (1)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

90 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Additional Qualification outside Natural Sciences 4					07-SQF-ZQA4-152-m01
Module coordinator				Module offered by	
Coordi	nator B	ioCareers	Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. compl. of module(s)		
4	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate					
Conter	nts	-			

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include one week of all-day courses.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(1.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

120 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additio	onal Qu	alification outside Natur	07-SQF-ZQA5-152-m01			
Modul	e coord	inator		Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. compl. of module(s)			
5	(not)	successfully completed				
Duration Module level		Other prerequisites				
1 semester undergraduate						
Conter	Contents					

Courses in areas other than the natural sciences that are not offered as part of the pool of general transferable skills (ASQ) and that provide students with an opportunity to strengthen their general background in the natural sciences. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee. Will include courses with 2 weekly contact hours.

Intended learning outcomes

Students have expanded their interdisciplinary knowledge and have thus enhanced their general scientific skills. They have acquired additional expertise and have developed additional skills in areas other than biology.

Courses (type, number of weekly contact hours, language - if other than German)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

150 h

Teaching cycle

Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additio	onal Qu	ualification outside N	07-SQF-ZQA6-152-m01			
Modul	e coord	linator		Module offered by		
Coordi	nator B	BioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)		
5	nume	erical grade				
Duration Module level Other prere		Other prerequisites	3			
1 semester undergraduate						
Conter	nts					

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(2)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title				Abbreviation		
Additio	onal Qu	alification in Natural Sci	07-SQF-ZQN2-152-m01			
Module coordinator				Module offered by		
Coordi	nator B	ioCareers	Faculty of Biology			
ECTS	Metho	od of grading	Only after succ. compl. of module(s)			
2	(not)	successfully completed				
Duration Module level		Other prerequisites				
1 semester undergraduate						
Conten	Contents					

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

V(0.5) + S(0.5) + Ü(0.5)

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

60 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation
Additional Qualification in Natural Sciences 3					07-SQF-ZQN3-152-m01
Module coordinator				Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. compl. of module(s)		
3	(not)	successfully completed			
Duration Module level		Other prerequisites			
1 semester undergraduate					
Contents					

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(0.5) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

Additional information

Workload

90 h

Teaching cycle

Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additional Qualification in Natural Sciences 4					07-SQF-ZQN4-152-m01	
Module coordinator				Module offered by		
Coordinator BioCareers			Faculty of Biology			
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
4	(not) s	successfully completed				
Duration Module level		Other prerequisites				
1 semester undergraduate						
Contents						

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

 $V(0.5) + S(2) + \ddot{U}(2)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

120 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additional Qualification in Natural Sciences 5				07-SQF-ZQN5-152-m01		
Module coordinator				Module offered by		
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	ıpl. of module(s)		
5	(not)	successfully completed				
Duration Module level		Other prerequisites				
1 semester undergraduate						
Contor	Contents					

Courses in the natural sciences not offered as part of the pool of general transferable skills (ASQ) that equip students with advanced knowledge in the natural sciences that is related to their discipline. These courses may be offered by the University of Würzburg or by external institutions. Decision on credit transfer to be made by examination committee.

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(1) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)



Module title					Abbreviation	
Additional Qualification in Natural Sciences 6					07-SQF-ZQN6-152-m01	
Module coordinator				Module offered by		
Coordi	Coordinator BioCareers			Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. co	compl. of module(s)		
5	nume	rical grade				
Duration Module level (Other prerequisite	Other prerequisites			
1 semester undergraduate						
Conter	nts					

Intended learning outcomes

Students have developed an improved scientific knowledge and have thus enhanced their specific qualifications. They have acquired additional expertise that will help them specialise in their field.

 $\textbf{Courses} \ (\text{type, number of weekly contact hours, language} - \text{if other than German})$

 $V(1) + S(1) + \ddot{U}(1)$

Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- a) written examination (approx. 45 to 60 minutes) or
- b) log (approx. 10 to 20 pages) or
- c) oral examination of one candidate each (approx. 30 minutes) or
- d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or
- e) presentation (approx. 20 to 30 minutes) or
- f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours).

Students will be informed about the method and length of the assessment prior to the course.

Language of assessment: German and/or English

creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)