## Annex SFB

## Studienfachbeschreibung (subject description, SFB) for the subject <br> Computer Science as a Bachelor's with 1 major with the degree "Bachelor of Science" ( $\mathbf{1 8 0}$ ECTS credits)

Responsible: Institute of Computer Science
Abbreviations used: Course types: $\mathbf{E}=$ field trip, $\mathbf{K}=$ colloquium, $\mathbf{O}=$ conversatorium, $\mathbf{P}=$ placement/lab course, $\mathbf{R}=$ project, $\mathbf{S}=$ seminar, $\mathbf{T}=$ tutorial, $\mathbf{U}=\operatorname{exercise}, \mathbf{V}$ = lecture

Term: SS = summer semester, WS = winter semester
Methods of grading: NUM = numerical grade, $\mathbf{B} / \mathbf{N B}=($ not $)$ successfully completed
Regulations: (L)ASPO = general academic and examination regulations (for teaching-degree programmes), $\mathbf{F S B}=$ subject-specific provisions, SFB $=$ list of modules
Other: $\mathbf{A}=$ thesis, $\mathbf{L V}=$ course(s), $\mathbf{P L}=$ assessment(s), $\mathbf{T N}=$ participants, $\mathbf{V L}=$ prerequisite(s)
Conventions for the Unless otherwise stated, courses and assessments will be held in German, assessments will be offered every semester and modules are not cremodules in this SFB: ditable for bonus.

Information on Should there be the option to choose between several methods of assessment, the lecturer will agree with the module coordinator on the meassessment procedures: thod 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 a 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:

## ASPO2009

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

## 3-Aug-2010 (2010-42)

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.

Every module will be described using the following form

| Abbreviation | Module title |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ECTS | Duration |  | (in semesters) | Method of grading | Module level |  |
|  | Courses |  | To be specified in the form X ( y ) with course type X abbreviated as specified above and number of weekly contact hours y |  |  |  |  |
|  | Method of assessment |  |  |  |  |  |  |
|  | Only after successful completion of |  | if applicable |  |  |  |  |
|  | Other prerequisites |  | if applicable |  |  |  |  |
|  | Participants and allocation of places |  | if applicable |  |  |  |  |
|  | Additional information |  | if applicable |  |  |  |  |
|  | Referred to in LPO I |  | if applicable (examination regulations for teaching-degree programmes) |  |  |  |  |

## Compulsory Courses (86 ECTS credits)

## Computer Science (8o ECTS credits)

## Algorithm and data structures



|  | Courses |  |  | $\mathrm{V}+\mathrm{Ü}$ (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Method of assessment |  |  | written examination (approx. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups. A 80 to 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3 . |  |  |  |  |
|  | other prerequisites |  |  | Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course). |  |  |  |  |
|  | Referred to in LPO I |  |  | § 49 (1) 1. a) Informatik Theoretische Informatik, Algorithmen und Datenstrukturen § 69 (1) 1. a) Informatik Theoretische Informatik, Algorithmen und Datenstrukturen |  |  |  |  |
| 10-I-ST-102-mo1 | Software Technology |  |  |  |  |  |  |  |
|  | ECTS | 10 | Duration | - 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | $\mathrm{V}+\mathrm{Ü}$ (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |
|  | Method of assessment |  |  | written examination (approx. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups. A 80 to 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3 . |  |  |  |  |
|  | other prerequisites |  |  | Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course). |  |  |  |  |
|  | Referred to in LPO I |  |  | § 49 (1) 1. b) Datenbanksysteme und Softwaretechnologie § 69 (1) 1. b) Datenbanksysteme und Softwaretechnologie |  |  |  |  |
| 10-I-PP-102-mo1 | Practical Course in Programming |  |  |  |  |  |  |  |
|  | ECTS | 10 | Duration | - 1 semester | Method of grading | (not) successfully completed | Modul level | undergraduate |
|  | Courses |  |  | P (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |
|  | Method of assessment |  |  | written examination (approx. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups. A 80 to 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3 . |  |  |  |  |
|  | other prerequisites |  |  | Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course). |  |  |  |  |
|  | Additional Information |  |  | Additional information on module duration: 1 to 2 semesters. |  |  |  |  |
|  | Referred to in LPO I |  |  | § 49 (1) 1. c) Informatik Praktische Softwareentwicklung § 69 (1) 1. d) Informatik Praktische Softwareentwicklung |  |  |  |  |


| 10-I-SWP-102-mo1 | Practical course in software |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ECTS | 10 | Duration | 1 semester | Method of grading | (not) successfully completed | Modul level | undergraduate |
|  | Courses |  |  | P (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |
|  | Method of assessment |  |  | completion of project assignments, presentation |  |  |  |  |
|  | Referred to in LPO I |  |  | § 49 (1) 1. c) Informatik Praktische Softwareentwicklung § 69 (1) 1. d) Informatik Praktische Softwareentwicklung |  |  |  |  |
| 10-I-RAL-102-mo1 | Digital computer systems |  |  |  |  |  |  |  |
|  | ECTS | 10 | Duration | 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | $\mathrm{V}+\mathrm{Ü}$ (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |
|  | Method of assessment |  |  | written examination (approx. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups. A 80 to 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3. |  |  |  |  |
|  | other prerequisites |  |  | Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course). |  |  |  |  |
|  | Referred to in LPO I |  |  | § 69 (1) 1. c) Informatik Technische Informatik |  |  |  |  |
| 10-I-IÜ-102-mo1 | Information Transmission |  |  |  |  |  |  |  |
|  | ECTS | 10 | Duration | - 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | V + Ü (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |
|  | Method of assessment |  |  | written examination (approx. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups. A 80 to 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3 . |  |  |  |  |
|  | other prerequisites |  |  | Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course). |  |  |  |  |
|  | Referred to in LPO I |  |  | § 69 (1) 1. c) Informatik Technische Informatik |  |  |  |  |
| 10-I-HWP-102-mo1 | Practical Course in Hardware |  |  |  |  |  |  |  |
|  | ECTS | 10 | Duration | 1 1 semester | Method of grading | (not) successfully completed | Modul level | undergraduate |
|  | Courses |  |  | P (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |
|  | Method of assessment |  |  | completion of project assignments, presentation (type and expenditure of time to be specified by the lecturer at the beginning of the course) |  |  |  |  |


| 10-I-Tl-102-mo1 | Theoretical informatics |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ECTS | 10 | Duration |  | 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | $\mathrm{V}+\mathrm{U}$ (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |  |
|  | Method of assessment |  |  | written examination (approx. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups. A 80 to 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3. |  |  |  |  |  |
|  | other prerequisites |  |  | Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course). |  |  |  |  |  |
|  | Referred to in LPO I |  |  | § 49 (1) 1. a) Informatik Theoretische Informatik, Algorithmen und Datenstrukturen § 69 (1) 1. a) Informatik Theoretische Informatik, Algorithmen und Datenstrukturen |  |  |  |  |  |
| Basics of Mathematics (6 ECTS credits) |  |  |  |  |  |  |  |  |  |
| 10-I-LOG-102-mo1 | Logic for informatics |  |  |  |  |  |  |  |  |
|  | ECTS | 6 | Duration |  | 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | $\mathrm{V}+\mathrm{Ü}$ (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |  |
|  | Method of assessment |  |  | written examination (approx. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3:25 minutes) |  |  |  |  |  |
|  | other prerequisites |  |  | Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course). |  |  |  |  |  |

## Compulsory Electives (62 ECTS credits)

## Mathematics (29 ECTS credits)

| ECTS | 20 | Duration | 1 2 semester | Method of grading | numerical grade | Modul level | undergraduate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Courses |  |  | This module comprises 2 module components. Information on courses will be listed separately for each module component. <br> - 10-M-INF12-1-102: V + Ü (no information on SWS (weekly contact hours) and course language available) <br> - 10-M-INF12-2-102: V + Ü (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |
| Method of assessment |  |  | Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments. <br> Assessment in module component 10-M-INF12-1-102: Mathematics 1 for students in Computer Science Mathematics 1 for students in Computer Science |  |  |  |  | dents in Computer Science

- 10 ECTS, Method of grading: (not) successfully completed
- written examination (approx. 90 to 120 minutes); if announced by the lecturer, the written examination can be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2 , approx. 30 minutes)
- Language of assessment: German, English if agreed upon with the examiner
- Other prerequisites: Registration for the exercise must be made via SB@home at the beginning of the course or as announced by the lecturer in accordance with the specified registration deadlines. Certain prerequisites must be met to qualify for admission to assessment (e. g. successful completion of a certain percentage of exercises). The lecturer will inform students about the respective details at the beginning of the course. Registration for the exercise will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew and have to register anew, too.


## Assessment in module component 10-M-INF12-2-102: Mathematics 2 for students in Computer Science Mathematics 2 for stu-

 dents in Computer Science- 10 ECTS, Method of grading: numerical grade
- written examination (approx. 90 to 120 minutes); if announced by the lecturer, the written examination can be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2 , approx. 30 minutes)
- Language of assessment: German, English if agreed upon with the examiner
- Other prerequisites: Registration for the exercise must be made via SB@home at the beginning of the course or as announced by the lecturer in accordance with the specified registration deadlines. Certain prerequisites must be met to qualify for admission to assessment (e. g. successful completion of a certain percentage of exercises). The lecturer will inform students about the respective details at the beginning of the course. Registration for the exercise will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew and have to register anew, too.
other prerequisites
By way of exception, additional prerequisites are listed in the section on assessments.

| $\begin{aligned} & \text { 10-M-INF3-102- } \\ & \text { mo1 } \end{aligned}$ | Mathematics 3 for students in Computer Science |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ECTS | 9 Duration | 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  | $\mathrm{V}+\mathrm{Ü}$ (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |
|  | Method of assessment |  | written examination (approx. 90 to 120 minutes); if announced by the lecturer, the written examination can be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2, approx. 30 minutes) <br> Language of assessment: German, English if agreed upon with the examiner |  |  |  |  |
|  | other prerequisites |  | Registration for the exercise must be made via SB@home at the beginning of the course or as announced by the lecturer in accordance with the specified registration deadlines. Certain prerequisites must be met to qualify for admission to assessment (e. g. successful completion of a certain percentage of exercises). The lecturer will inform students about the respective details at the beginning of the course. Registration for the exercise will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew and have to register anew, too. |  |  |  |  |


| $\begin{aligned} & \text { 10-M-LRI12-092- } \\ & \text { mo1 } \end{aligned}$ | Mathematics 1 and 2 for students of Space- and Aerospace Computer Science |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ECTS | 20 | Duration | h 2 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | This module comprises 2 module components. Information on courses will be listed separately for each module component. <br> - 10-M-LR112-1-092: V + Ü (no information on SWS (weekly contact hours) and course language available) <br> - 10-M-LR112-2-092: V + Ü (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |
|  | Method of assessment |  |  | Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments. <br> Assessment in module component 10-M-LRI12-1-092: Mathematics 1 for students of Space- and Aerospace Computer Science Mathematics 1 for students of Space- and Aerospace Computer Science <br> - 10 ECTS, Method of grading: (not) successfully completed <br> - written examination (approx. 90 to 120 minutes); if announced by the lecturer, the written examination can be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2, approx. 30 minutes) <br> - Language of assessment: German, English if agreed upon with the examiner <br> - Other prerequisites: Registration for the exercise must be made via SB@home at the beginning of the course or as announced by the lecturer in accordance with the specified registration deadlines. Certain prerequisites must be met to qualify for admission to assessment (e. g. successful completion of a certain percentage of exercises). The lecturer will inform students about the respective details at the beginning of the course. Registration for the exercise will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew and have to register anew, too. <br> Assessment in module component 10-M-LRI12-2-092: Mathematics 2 for students of Space- and Aerospace Computer Science Mathematics 2 for students of Space- and Aerospace Computer Science <br> - 10 ECTS, Method of grading: numerical grade <br> - written examination (approx. 90 to 120 minutes); if announced by the lecturer, the written examination can be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2, approx. 30 minutes) <br> - Language of assessment: German, English if agreed upon with the examiner <br> - Other prerequisites: Registration for the exercise must be made via SB@home at the beginning of the course or as announced by the lecturer in accordance with the specified registration deadlines. Certain prerequisites must be met to qualify for admission to assessment (e. g. successful completion of a certain percentage of exercises). The lecturer will inform students about the respective details at the beginning of the course. Registration for the exercise will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew and have to register anew, too. |  |  |  |  |
|  | other prerequisites |  |  | By way of exception, additional prerequisites are listed in the section on assessments. |  |  |  |  |


| $\begin{aligned} & \text { 10-M-ANA-082- } \\ & \text { mo1 } \end{aligned}$ | Analysis |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ECTS | 17 | Duration | 2 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | This module comprises 3 module components. Information on courses will be listed separately for each module component. <br> - 10-M-ANA-1-082: V + Ü (no information on SWS (weekly contact hours) and course language available) <br> - 10-M-ANA-2-082: V + Ü (no information on SWS (weekly contact hours) and course language available) <br> - 10-M-ANA-P-082: M (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |
|  | Method of assessment |  |  | Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments. <br> Assessment in module component 10-M-ANA-1-082: Analysis 1 Analysis 1 <br> - 8 ECTS, Method of grading: (not) successfully completed <br> - a) written examination (approx. 90 minutes; usually chosen) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes) <br> - Language of assessment: German, English if agreed upon with the examiner <br> - Other prerequisites: Modules $10-\mathrm{M}-\mathrm{VKM}$ and $10-\mathrm{M}-\mathrm{PPM}$ are recommended. <br> Assessment in module component 10-M-ANA-2-082: Analysis 2 Analysis 2 <br> - 7 ECTS, Method of grading: (not) successfully completed <br> - a) written examination (approx. 90 minutes; usually chosen) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes) <br> - Language of assessment: German, English if agreed upon with the examiner <br> - Other prerequisites: Modules $10-\mathrm{M}$-VKM and $10-\mathrm{M}-\mathrm{PPM}$ are recommended; in addition, module component $10-\mathrm{M}-$ ANA-1 is recommended for module component 10-M-ANA-2. <br> Assessment in module component 10-M-ANA-P-082: Examination in Analysis <br> - 2 ECTS, Method of grading: numerical grade <br> - oral examination of one candidate each (approx. 30 minutes) <br> - Language of assessment: German, English if agreed upon with the examiner <br> - Only after successful completion of module components: Successful completion of any one of the module components 10-M-ANA-1, $10-\mathrm{M}$-ANL-1, 10-M-ANA-2, $10-\mathrm{M}$-ANL-2 is a prerequisite for participation in module component $10-\mathrm{M}$-ANAP. |  |  |  |  |
|  | other prerequisites |  |  | By way of exception, additional prerequisites are listed in the section on assessments. |  |  |  |  |
|  | Referred to in LPO I |  |  | § 73 (1) 1. Mathematik Analysis |  |  |  |  |


| $\begin{aligned} & \text { 10-M-LNA-082- } \\ & \text { mo1 } \end{aligned}$ | Linear Algebra |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ECTS | 14 | Duration | - 2 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | This module comprises 3 module components. Information on courses will be listed separately for each module component. <br> - 10-M-LNA-1-082: V + Ü (no information on SWS (weekly contact hours) and course language available) <br> - 10-M-LNA-2-082: V + Ü (no information on SWS (weekly contact hours) and course language available) <br> - 10-M-LNA-P-082: M (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |
|  |  |  |  | Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments. <br> Assessment in module component 10-M-LNA-1-082: Linear Algebra 1 Linear Algebra 1 <br> - 7 ECTS, Method of grading: (not) successfully completed <br> - written examination (approx. 90 minutes); if announced by the lecturer, the written examination can be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2, approx. 30 minutes) <br> - Language of assessment: German, English if agreed upon with the examiner <br> - Other prerequisites: Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew. <br> Assessment in module component 10-M-LNA-2-082: Linear Algebra 2 Linear Algebra 2 <br> - 5 ECTS, Method of grading: (not) successfully completed <br> - written examination (approx. 90 minutes); if announced by the lecturer, the written examination can be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2, approx. 30 minutes) <br> - Language of assessment: German, English if agreed upon with the examiner <br> - Other prerequisites: Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew. <br> Assessment in module component 10-M-LNA-P-082: Examination in Linear Algebra <br> - 2 ECTS, Method of grading: numerical grade <br> - oral examination of one candidate each (approx. 30 minutes) <br> - Language of assessment: German, English if agreed upon with the examiner <br> - Only after successful completion of module components: Successful completion of module component 10-M-LNA-1 or module component 10-M-LNA-2 is a prerequisite for participation in module component 10-M-LNA-P. |  |  |  |  |
|  | other prerequisites |  |  | By way of exception, additional prerequisites are listed in the section on assessments. |  |  |  |  |
|  | Referred to in LPO I |  |  | $\S 73$ (1) 2. Mathematik Lineare Algebra, Algebra und Elemente der Zahlentheorie |  |  |  |  |


| Computer Science (23 ECTS credits) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10-I-GT-102-mo1 | Algorithmic Graph Theory |  |  |  |  |  |  |  |
|  | ECTS | 5 | Duration | - 11 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | $\mathrm{V}+\mathrm{U}$ (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |
|  | Method of assessment |  |  | written examination (approx. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of $3: 25$ minutes) Language of assessment: German, English if agreed upon with the examiner |  |  |  |  |
|  | other prerequisites |  |  | Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course). |  |  |  |  |
| 10-I-DB-102-mo1 | Databases |  |  |  |  |  |  |  |
|  | ECTS | 5 | Duration | - 11 semester | Method of grading | numerical grade | Modul level | dergraduate |
|  | Courses |  |  | $\mathrm{V}+\mathrm{UB}$ (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |
|  | Method of assessment |  |  | written examination (approx. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes) Language of assessment: German, English if agreed upon with the examiner |  |  |  |  |
|  | other prerequisites |  |  | Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course). |  |  |  |  |
|  | Referred to in LPO I |  |  | § 49 (1) 1. b) Datenbanksysteme und Softwaretechnologie § 69 (1) 1. b) Datenbanksysteme und Softwaretechnologie |  |  |  |  |
| 10-I-WBS-102-mo1 | Knowledge-based Systems |  |  |  |  |  |  |  |
|  | ECTS | 5 | Duration | - 11 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | $\mathrm{V}+$ Ü (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |
|  | Method of assessment |  |  | written examination (approx. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes) <br> Language of assessment: German, English if agreed upon with the examiner |  |  |  |  |
| 10-I-DM-102-mo1 | Data Mining |  |  |  |  |  |  |  |
|  | ECTS | 5 | Duration | - 11 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | V + Ü (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |
|  | Method of assessment |  |  | written examination (approx. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes) <br> Language of assessment: German, English if agreed upon with the examiner |  |  |  |  |
|  | other prerequisites |  |  | Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course). |  |  |  |  |


| 10-I-OOP-102-mo1 | Object-oriented Programming |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ECTS | 5 | Duration |  | 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | $\mathrm{V}+\mathrm{Ü}$ (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |  |
|  | Method of assessment |  |  | written examination (approx. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of $3: 25$ minutes) Language of assessment: German, English if agreed upon with the examiner |  |  |  |  |  |
|  | other prerequisites |  |  | Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course). |  |  |  |  |  |
| 10-I-KT-102-mo1 | Theory of Complexity |  |  |  |  |  |  |  |  |
|  | ECTS | 5 | Duration |  | 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | $\mathrm{V}+\mathrm{Ü}$ (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |  |
|  | Method of assessmentW |  |  | written examination (approx. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes) Language of assessment: German, English if agreed upon with the examiner |  |  |  |  |  |
|  | other prerequisites |  |  | Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course). |  |  |  |  |  |
| 10-I-AR-102-mo1 | Automation and Control Technology |  |  |  |  |  |  |  |  |
|  | ECTS | 8 | Duration |  | 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | $\mathrm{V}+\mathrm{Ü}$ (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |  |
|  | Method of assessment W <br>  W <br>  9 <br>   <br>  La |  |  | written examination (approx. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups. A 80 to 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3. Language of assessment: German, English if agreed upon with the examiner |  |  |  |  |  |
|  | other prerequisites |  |  | Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course). |  |  |  |  |  |
| 10-I-BS-102-mo1 | Operating Systems |  |  |  |  |  |  |  |  |
|  | ECTS | 5 | Duration |  | 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | $\mathrm{V}+\mathrm{Ü}$ (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |  |
|  | Method of assessment |  |  | written examination (approx. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes) Language of assessment: German, English if agreed upon with the examiner |  |  |  |  |  |
|  | other prerequisites |  |  | Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course). |  |  |  |  |  |
|  | Referred to in LPO I |  |  | § 69 (1) 1. c) Informatik Technische Informatik |  |  |  |  |  |


| 10-I-RAK-102-mo1 | Computer Architecture |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ECTS | 5 | Duration | - 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | V + Ü (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |
|  | Method of assessment |  |  | written examination (approx. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of $3: 25$ minutes) <br> Language of assessment: German, English if agreed upon with the examiner |  |  |  |  |
|  | other prerequisites |  |  | Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course). |  |  |  |  |
|  | Referred to in LPO I |  |  | § 69 (1) 1. c) Informatik Technische Informatik |  |  |  |  |
| 10-I-RK-102-mo1 | Computer Networks and Communication Systems |  |  |  |  |  |  |  |
|  | ECTS | 8 | Duration | - 1 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | $\mathrm{V}+$ Ü (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |
|  | Method of assessment |  |  | written examination (approx. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups. A 80 to 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3. <br> Language of assessment: German, English if agreed upon with the examiner |  |  |  |  |
|  | other prerequisites |  |  | Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course). |  |  |  |  |
| 07-Bl-102-mo1 | Bioinformatics |  |  |  |  |  |  |  |
|  | ECTS | 5 | Duration | - 11 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | $\mathrm{V}+$ Ü (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |
|  | Method of assessment |  |  | written examination (approx. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes) <br> Language of assessment: German, English if agreed upon with the examiner |  |  |  |  |
|  | other prerequisites |  |  | Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course). |  |  |  |  |

## Subsidiary Subject (10 ECTS credits)

## Mathematics (max. 10 ECTS credits)

## 10-M-EDM-072-

 Introduction to Discrete Mathematics| Courses |  |
| :--- | :--- |
| Method of assessment |  |

V + Ü (no information on SWS (weekly contact hours) and course language available)
Method of assessment examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German, English if agreed upon with the examiner
other prerequisites
Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew.

## 10-M-NM1-082

mo1

## Numerical Mathematics 1

| ECTS | 8 | Duration | 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Courses |  |  | $V+$ Ü (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |

Method of assessment
written examination (approx. 90 minutes); if announced by the lecturer, the written examination can be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2 , approx. 30 minutes) Language of assessment: German, English if agreed upon with the examiner
other prerequisites Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew
Referred to in LPO I

| 10-M-ST1-082-mo1 | Stochastics 1 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ECTS | 8 | Duration |  | 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | $\mathrm{V}+\mathrm{Ü}$ (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |  |
|  | Method of assessment |  |  | written examination (approx. 90 minutes); if announced by the lecturer, the written examination can be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German, English if agreed upon with the examiner |  |  |  |  |  |
|  | other prerequisites |  |  | Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew. |  |  |  |  |  |
|  | Referred to in LPO I |  |  | § 73 (1) 3. Mathematik Stochastik |  |  |  |  |  |
| $\begin{aligned} & \text { 10-M-COM-082- } \\ & \text { mo1 } \end{aligned}$ | Computeroriented Mathematics |  |  |  |  |  |  |  |  |
|  |  | 3 | Duration |  | 1 semester | Method of grading | (not) successfully completed | Modul level | undergraduate |
|  |  |  |  | $\mathrm{V}+\mathrm{Ü}$ (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |  |
|  | Method of assessment |  |  | project in the form of programming exercises (as specified at the beginning of the course) Assessment offered: once a year, summer semester <br> Language of assessment: German, English if agreed upon with the examiner |  |  |  |  |  |
|  | other prerequisites |  |  | Admission prerequisite to assessment: regular attendance of exercises (attendance monitored, a maximum of one incident of unexcused absence). |  |  |  |  |  |
|  | Referred to in LPO I |  |  | § 73 (1) 5. Mathematik Angewandte Mathematik |  |  |  |  |  |
| 10-M-EZT-082-mo1 | Introduction to Number Theory |  |  |  |  |  |  |  |  |
|  | ECTS | 5 | Duration |  | 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | $\mathrm{V}+\mathrm{Ü}$ (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |  |
|  | Method of assessment |  |  | a) written examination (approx. 90 minutes; usually chosen) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes) |  |  |  |  |  |
| $\begin{aligned} & \text { 10-M-ODE-082- } \\ & \text { mo1 } \end{aligned}$ | Ordinary Differential Equations |  |  |  |  |  |  |  |  |
|  | ECTS | 5 | Duration |  | 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | $\mathrm{V}+\mathrm{Ü}$ (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |  |
|  | Method of assessment |  |  | written examination (approx. 90 minutes); if announced by the lecturer, the written examination can be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German, English if agreed upon with the examiner |  |  |  |  |  |
|  | other prerequisites |  |  | Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew. |  |  |  |  |  |


| $\begin{aligned} & \text { 10-M-ORS-072- } \\ & \text { mo1 } \end{aligned}$ | Operations Research |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ECTS | 5 | Duration |  | 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | $\mathrm{V}+\mathrm{Ü}$ (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |  |
|  | Method of assessment |  |  | written examination (approx. 90 minutes); if announced by the lecturer, the written examination can be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German, English if agreed upon with the examiner |  |  |  |  |  |
|  | other prerequisites |  |  | Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew. |  |  |  |  |  |
|  | Referred to in LPO I |  |  | § 73 (1) 5. Mathematik Angewandte Mathematik |  |  |  |  |  |
| Physics (max. 10 ECTS credits) |  |  |  |  |  |  |  |  |  |
| 11-EFNF-072-mo1 | Introduction to Physics for Students of Non-physics-related Minor Subjects |  |  |  |  |  |  |  |  |
|  | ECTS | 7 | Duration |  | 2 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | $\mathrm{V}+\mathrm{V}$ (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |  |
|  | Method of assessment |  |  | written examination (approx. 120 minutes) |  |  |  |  |  |
|  | Participants and allocation of places |  |  | Only as part of pool of general key skills (ASQ): 10 places. Places will be allocated |  |  |  |  |  |
| 11-PFNF-072-mo1 | Practical Course Physics for Students of Non-physics-related Minor Subjects |  |  |  |  |  |  |  |  |
|  | ECTS | 3 | Duration |  | 1 semester | Method of grading | (not) successfully completed | Modul level | undergraduate |
|  | Courses |  |  | P (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |  |
|  | Method of assessment |  |  | a) oral test (approx. 15 minutes) during experiment and b) ungraded written examination (approx. 90 minutes) |  |  |  |  |  |
|  | Participants and allocation of places |  |  | Only as part of pool of general key skills (ASQ): 10 places. Places will be allocated by lot. |  |  |  |  |  |
| Business Management and Economics (max. 10 ECTS credits) |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { 12-NW-EBWL-092- } \\ & \mathrm{mo1} \end{aligned}$ | Introduction to Business Administration - Minor |  |  |  |  |  |  |  |  |
|  | ECTS | 5 | Duration |  | 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | $\mathrm{V}+$ Ü (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |  |
|  | Method of assessment |  |  | written examination (approx. 60 minutes) |  |  |  |  |  |
| $\begin{aligned} & \text { 12-NW-EV- } \\ & \text { WL-o92-mo1 } \end{aligned}$ | Introduction to Economics - Minor |  |  |  |  |  |  |  |  |
|  | ECTS | 5 | Duration |  | 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  |  | $\mathrm{V}+\mathrm{Ü}$ (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |  |
|  | Method of assessment |  |  | written examination (approx. 60 minutes) |  |  |  |  |  |


| 12-ExtUR-G-082- <br> mo1 | Financial Accounting |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ECTS |  | 5 | Duration |  | 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  |  | $\mathrm{V}+\mathrm{Ü}$ (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |  |
|  | Method of assessment |  |  |  | written examination (approx. 60 minutes) |  |  |  |  |  |
|  | Participants and allocation of places |  |  |  | Number of places: 640. No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics), Wirtschaftsmathematik (Mathematics for Economics) and Wirtschaftsinformatik (Business Information Systems). The remaining places will be allocated to students of other subjects. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 ( $50 \%$ of places): total number of ECTS credits already achieved in the respective degree subject; 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): allocation by lot. Applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available. |  |  |  |  |  |
| 12-BPL-G-o82-mo1 | Supply, Production and Operations Management. An Introduction |  |  |  |  |  |  |  |  |  |
|  | ECTS |  | 5 | Duration | n 11 semester |  | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  |  | $\mathrm{V}+\mathrm{Ü}$ (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |  |
|  | Method of assessment |  |  |  | written examination (approx. 60 minutes) |  |  |  |  |  |
|  | Participants and allocation of places |  |  |  | Number of places: 405. No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics), Wirtschaftsmathematik (Mathematics for Economics) and Wirtschaftsinformatik (Business Information Systems). The remaining places will be allocated to students of other subjects. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 ( $50 \%$ of places): total number of ECTS credits already achieved in the respective degree subject; 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): allocation by lot. Applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available. |  |  |  |  |  |


| $\begin{aligned} & \text { 12-IntUR-G-082- } \\ & \text { mo1 } \end{aligned}$ | Managerial Accounting |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ECTS |  | 5 | Duration |  | 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  |  | $\mathrm{V}+\mathrm{Ü}$ (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |  |
|  | Method of assessment |  |  |  | written examination (approx. 60 minutes) |  |  |  |  |  |
|  | Participants and allocation of places |  |  |  | Number of places: 640. No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics), Wirtschaftsmathematik (Mathematics for Economics) and Wirtschaftsinformatik (Business Information Systems). The remaining places will be allocated to students of other subjects. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 ( $50 \%$ of places): total number of ECTS credits already achieved in the respective degree subject; 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): allocation by lot. Applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available. |  |  |  |  |  |
| 12-I\&F-G-082-mo1 | Investment and Finance. An Introduction |  |  |  |  |  |  |  |  |  |
|  | ECTS |  | 5 | Duration | - 11 semester |  | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  |  | $\mathrm{V}+$ Ü (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |  |
|  | Method of assessment |  |  |  | written examination (approx. 60 minutes) |  |  |  |  |  |
|  | Participants and allocation of places |  |  |  | Number of places: 405. No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics), Wirtschaftsmathematik (Mathematics for Economics) and Wirtschaftsinformatik (Business Information Systems). The remaining places will be allocated to students of other subjects. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 ( $50 \%$ of places): total number of ECTS credits already achieved in the respective degree subject; 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): allocation by lot. Applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available. |  |  |  |  |  |


| $\begin{aligned} & \text { 12-EWiinf-G-082- } \\ & \text { mo1 } \end{aligned}$ | Introduction to Business Informatics |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ECTS | 5 | Duration |  | 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | $\mathrm{V}+\mathrm{Ü}$ (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |  |
|  | Method of assessment ${ }^{\text {w }}$ |  |  |  | written examination (approx. 60 minutes) |  |  |  |  |
|  | Participants and allocation of places |  |  | Number of places: 640. No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics), Wirtschaftsmathematik (Mathematics for Economics) and Wirtschaftsinformatik (Business Information Systems). The remaining places will be allocated to students of other subjects. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 ( $50 \%$ of places): total number of ECTS credits already achieved in the respective degree subject; 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): allocation by lot. Applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available. |  |  |  |  |  |
| 12-GP-G-082-mo1 | Business Processes |  |  |  |  |  |  |  |  |
|  | ECTS | 5 | Duration |  | 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | $\mathrm{V}+\mathrm{Ü}$ (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |  |
|  | Method of assessment ${ }^{\text {w }}$ |  |  |  | written examination (approx. 60 minutes) |  |  |  |  |
|  | Participants and allocation of places |  |  | Wirtschaftsinformatik (Business Information Systems) Bachelor's (18o ECTS): no restrictions. Other degree programmes: minimum 15 places. More places will be available provided there is enough capacity. Should the number of applications from students of other subjects exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 ( $50 \%$ of places): total number of ECTS credits already achieved in the respective subject; among applicants with the same number of ECTS credits, 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): allocation by lot; applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available. |  |  |  |  |  |



| Medicine (max. 10 ECTS credits) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 03-M-MEI-072-mo1 | Medical decision making |  |  |  |  |  |  |  |
|  | ECTS | 10 | Duration | - 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | $\mathrm{V}+\mathrm{U}$ + V (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |
|  | Method of assessment |  |  | written examination (60 minutes) or oral examination (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes) |  |  |  |  |
| Geography (max. 10 ECTS credits) |  |  |  |  |  |  |  |  |
| 09-FERN-072-m01 | Remote Sensing |  |  |  |  |  |  |  |
|  | ECTS | 10 | Duration | $1{ }^{1}$ semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | This module comprises 2 module components. Information on courses will be listed separately for each module component. <br> - 09-FERN-1-072: V + T (no information on SWS (weekly contact hours) and course language available) <br> - 09-FERN-2-072: $\mathrm{V}+\mathrm{T}$ (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |
|  | Method of assessment |  |  | Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments. <br> Assessment in module component 09-FERN-1-072: Introduction to Geographical Remote Sensing Introduction to Geographical Remote Sensing <br> - 5 ECTS, Method of grading: numerical grade <br> - written examination (45 minutes) <br> Assessment in module component 09-FERN-2-072: Application of Remote Sensing in Geography Application of Remote Sensing in Geography <br> - 5 ECTS, Method of grading: numerical grade <br> - written examination (45 minutes) |  |  |  |  |
| Thesis (12 ECTS credits) |  |  |  |  |  |  |  |  |
| 10-I-BA-072-mo1 | Bachelor-Thesis |  |  |  |  |  |  |  |
|  | ECTS | 12 | Duration | 1 11 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | no courses assigned |  |  |  |  |
|  | Method of assessment |  |  | written thesis <br> Language of assessment: German or English |  |  |  |  |
|  | other | rere | ites | Language of assessment: German or English |  |  |  |  |
| Subject-specific Key Skills (12 ECTS credits) |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { 10-I-SEM1-072- } \\ & \text { mo1 } \end{aligned}$ | Seminar 1 |  |  |  |  |  |  |  |
|  | ECTS | 5 | Duration | $1{ }^{\text {a }}$ | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | S (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |
|  | Method of assessment |  |  | written elaboration and oral presentation with subsequent discussion on a topic from the field of computer science (type and length to be specified by the lecturer at the beginning of the course) <br> Language of assessment: German, English if required by the examination candidate |  |  |  |  |


| $\begin{aligned} & \text { 10-I-SEM2-072- } \\ & \text { mo1 } \end{aligned}$ | Seminar 2 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ECTS | 5 | Duration |  | 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | S (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |  |
|  | Method of assessment |  |  | written elaboration and oral presentation with subsequent discussion on a topic from the field of computer science (type and length to be specified by the lecturer at the beginning of the course) <br> Language of assessment: German, English if required by the examination candidate |  |  |  |  |  |
| 10-l-BK-072-mo1 | Bachelor-Kolloquium |  |  |  |  |  |  |  |  |
|  | ECTS | 2 | Duration |  | - 1 1 semester | Method of grading | numerical grade | Modul level | undergraduate |
|  | Courses |  |  | K (no information on SWS (weekly contact hours) and course language available) |  |  |  |  |  |
|  | Method of assessment |  |  | oral presentation (talk maximum 30 minutes, approx. 30 to 40 minutes total) with subsequent discussion of Bachelor's thesis and adjacent fields |  |  |  |  |  |

