

<b>Module title</b>		<b>Abbreviation</b>
Genetics		07-GY-GEN-092-m01
<b>Module coordinator</b>		<b>Module offered by</b>
head of group Didactics of Biology		Faculty of Biology
<b>ECTS</b>	<b>Method of grading</b>	<b>Only after succ. compl. of module(s)</b>
6	numerical grade	--
<b>Duration</b>	<b>Module level</b>	<b>Other prerequisites</b>
1 semester	undergraduate	By way of exception, additional prerequisites are listed in the section on assessments.
<b>Contents</b>		
<p>The first part of this module will discuss the structural and molecular fundamentals of the DNA as well as the structure and regulation of the eukaryotic genome. Building on the knowledge they acquired during this first section, the module will provide students with an overview of research methods in genetics and the conclusions to be drawn from research findings. The transmission of genetic information is an essential characteristic of biological systems. Students will become familiar with Mendelian genetics as well as modern findings on the transmission of genetic information and potential errors in the transmission of genetic information.</p>		
<b>Intended learning outcomes</b>		
<p>Students are able to recognise the DNA as a repository of information that is a key factor determining the phenotype of an organisms. They understand that regulation is necessary during genome expression and recognise the respective mechanisms. In addition, students are able to discuss current methods in genetics as well as the relevance these have to medicine.</p>		
<b>Courses</b> (type, number of weekly contact hours, language — if other than German)		
<p>This module comprises 2 module components. Information on courses will be listed separately for each module component.</p> <ul style="list-style-type: none"> <li>• 07-GY-GEN-1-092: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>• 07-GY-GEN-2-092: V (no information on SWS (weekly contact hours) and course language available)</li> </ul>		
<b>Method of assessment</b> (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)		
<p>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.</p> <p><b>Assessment in module component 07-GY-GEN-1-092: Basic Genetics Basic Genetics</b></p> <ul style="list-style-type: none"> <li>• 3 ECTS, Method of grading: (not) successfully completed</li> <li>• written examination (approx. 30 minutes)</li> <li>• Other prerequisites: Admission prerequisite to assessment: regular attendance of exercises, seminars and lab courses (weekly courses: a maximum of one incident of unexcused absence and one excused absence for a legitimate reason; fortnightly courses: one incident of unexcused absence) and successful completion of the respective exercises (required percentage as specified at the beginning of the course). The preparation of logs (10 to 15 pages) is an admission prerequisite to assessment.</li> </ul> <p><b>Assessment in module component 07-GY-GEN-2-092: Advanced Genetics</b></p> <ul style="list-style-type: none"> <li>• 3 ECTS, Method of grading: numerical grade</li> <li>• written examination (60 to 90 minutes)</li> </ul>		
<b>Allocation of places</b>		
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<b>Additional information</b>		
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<b>Workload</b>		
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**Teaching cycle**

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

§ 61 (1) 3. Biologie "Genetik und Mikrobiologie"

**Module appears in**

First state examination for the teaching degree Gymnasium Biology (2009)