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| Module title | | Abbreviation |
| Basic Principles of Genetics | | 07-GHR-GEN-092-m01 |
| Module coordinator | | Module offered by |
| Dean of Studies Biologie (Biology) | | Faculty of Biology |
| ECTS | Method of grading | Only after succ. compl. of module(s) |
| 3 | numerical grade | -- |
| Duration | Module level | Other prerequisites |
| 1 semester | undergraduate | 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. |
| Contents | | |
| Students will become familiar with classic Mendelian genetics as well as modern findings on the transmission of genetic information, potential errors in the transmission of genetic information and the respective consequences for the phenotype. The module will discuss the structural and molecular fundamentals of the DNA as well as the structure of the eukaryotic genome. Building on this knowledge, the module will provide students with an overview of methods in genetics. Having been simplified for teaching purposes, these methods will then be applied in experiments on the model organism <i>Drosophila melanogaster</i> . | | |
| Intended learning outcomes | | |
| 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 principles behind the respective mechanisms. In addition, students are able to discuss methods in genetics as well as the relevance these have to medicine. | | |
| Courses (type, number of weekly contact hours, language – if other than German) | | |
| V + Ü (no information on SWS (weekly contact hours) and course language available) | | |
| 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 45 minutes) | | |
| Allocation of places | | |
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| Additional information | | |
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| Workload | | |
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| Teaching cycle | | |
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| Referred to in LPO I (examination regulations for teaching-degree programmes) | | |
| § 41 (1) 3. "Genetik oder Mikrobiologie" | | |
| Module appears in | | |
| First state examination for the teaching degree Grundschule Biology (2009) First state examination for the teaching degree Hauptschule Biology (2009) First state examination for the teaching degree Realschule Biology (2009) First state examination for the teaching degree Mittelschule Biology (2013) | | |

