

Modulbeschreibung / Module Description

Modul / module code PM 1.14 3 ECTS-Punkte / credit points	Bioinformatik in der Humangenetik <i>Bioinformatics in Human Genetics</i>
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Notwendige Voraussetzungen / prerequisites for participation ./.	
Unterrichtssprache / language of instruction deutsch/ German	Modulverantwortliche/r / module coordinator Prof. Dr. Jörn Bullerdiek
Häufigkeit / offer wechselnd / varying offer, Sommersemester / summer semester	Dauer / duration 1 Semester / semester
Weitere Hinweise zum Modul / further comments /	

Studienvarianten / The module / submodule is part of the following study types

Vollfach /Sole subject	Wahl / optional	Lehramtsoption / Teacher training subject (Bachelor level)	Wahl / optional
Profilfach/ Major subject in Bachelor with two subjects	Wahl / optional	Master of Education / Teacher training subject (Master level)	Wahl / optional
Komplementärfach /Minor subject in Bachelor with two subjects	Wahl / optional		

Lernziele des Moduls Die Studierenden sollen ...molekulargenetische und bioinformatische Tools kennenlernen und benutzen können. <i>learning outcome</i> <i>The students should learn and use...</i> ... new molecular biological and ... bioinformatics tools

Art der Prüfung / method of assessment, exam Modulprüfung (MP) / Assessment of module (MP) or submodule (TP) Klausur <i>written exam</i>

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3 ECTS-Punkte / credit points	<i>Bioinformatics in Human Genetics</i>

Zugehörige Lehrveranstaltung / related course	02-02-P	Präsenzzeit/ course attendance
Bioinformatik in der Humangenetik		28 h
Bioinformatics in Human Genetics		
SWS / teaching hours per week within Semester (14 weeks)		

Art der Lehrveranstaltung / Teaching method	Kapazität / capacity
V Lecture, P Lab course, Ü Exercise, S Seminar, Ex Excursion,	/
FP Research project/Lab rotation, Abschlussarbeit Thesis	

Lerninhalte

Was ist Bioinformatik und was kann man damit machen?

- Literatursuche mittels PubMed
- Datenbanken, NCBI, EBI
- Darstellung genetischer Informationen
- Sequenzvergleiche, Sequenzen und Evolution
- Restriktionsenzyme, Analyse und Anwendung

content

Bioinformatics as tool in Human Genetic and Molecular Biology, what is bioinformatics and what can be done with bioinformatics.

- Searching and retrieving scientific publications with PubMed and Google Scholar.
- Using bioinformatic databases like NCBI, EBI
- Visualization of bioinformatic and molecular biology data
- Comparison of sequence (DNA, RNA, Protein) data, retrieving sequence
- Restriction Enzymes: Analysis and practice