Module title	Abbreviation
Systems Biology F2	07-MS3SYF2-152-m01

Module coordinator		Module offered by	
holder of the Chair of Bioinformatics		Faculty of Biology	

ECTS	Method of grading	Only after succ. compl. of module(s)	
15	(not) successfully completed	--	

Duration	Module level	Other prerequisites	
1 semester	graduate	--	

Contents

The practical course will provide students with advanced insights into a field of systems biology and will, in particular, make students proficient in a dynamical method in systems biology (areas that may be selected include protein structure analysis and protein folding, genome analysis and evolution; dynamic network analysis, the dynamics of protein-protein interactions, modelling cellular regulation; modelling metabolism, statistical modelling). The techniques applied are evaluated on the basis of the results obtained and are modified where necessary. Results are documented in the form of a presentation, a publication or a term paper.

Intended learning outcomes

Proficiency in one or more methods in systems biology that allows students to independently perform and organise a scientific project in the field of bioinformatics and to document the results obtained. Students are able to design a research project and are prepared for working on a scientific question for their thesis.

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

P (29) + 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 (30 to 60 minutes, including multiple choice questions) or
b) log (15 to 30 pages) or
c) oral examination of one candidate each (30 to 60 minutes) or
d) oral examination in groups of up to 3 candidates (30 to 60 minutes) or
e) presentation (20 to 45 minutes)
Language of assessment: German and/or English

Allocation of places

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Additional information

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Workload

450 h

Teaching cycle

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

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Module appears in

Master's degree (1 major) Biology (2015)
Master's degree (1 major) Mathematics (2016)
Master's degree (1 major) Computational Mathematics (2016)
Master's degree (1 major) Biosciences (2016)
Master's teaching degree Gymnasium MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2016)
Supplementary course MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2016)

Master's degree (1 major) Biosciences (2017)
Master's degree (1 major) Biosciences (2018)
Master's degree (1 major) Computational Mathematics (2019)
Master's degree (1 major) Mathematics (2019)
Master's teaching degree Gymnasium MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2020)
Supplementary course MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2020)
Master's degree (1 major) Biosciences (2021)
Master's degree (1 major) Computational Mathematics (2022)
Master's degree (1 major) Mathematics (2022)
Master's degree (1 major) Biosciences (2023)
Master's degree (1 major) Biosciences (2024)
Master's degree (1 major) Computational Mathematics (2024)
Master's degree (1 major) Mathematics (2024)