

Modulbeschreibung Module D – Functional Genomics of marine eukaryotes**Studiengangstitel: Biochemistry and Molecular Biology (BMB)**

1) Information to the module															
Module code	02-8402														
Title of the module	Functional Genomics of marine eukaryotes														
Usage in degree programs	Master programme Biochemistry and Molecular Biology (BMB Master)														
Recommended content-related requirements															
Learning content	<p>Consolidation of the theoretical knowledge and understanding in the field of molecular ecology, functional genomics and genome evolution: Therefore the following topic will be discussed:</p> <ul style="list-style-type: none"> - Introduction into the functional genomic - Application of functional genomics in the field of molecular ecology - Comparative genomics: Concepts and approaches - Introduction into Genome evolution - functional gene annotation - Phylogenomics <p>Methodologies, applied in the laboratory part:</p> <ul style="list-style-type: none"> - Extraction of RNA: Analysis (NanoDrop, Bioanalyser) - production of cDNA libraries the generation of ESTs with Illumina sequencer - Gene expression analysis with RNA seq (Illumina) 														
Learning objectives/Learning outcomes/Competence	<ul style="list-style-type: none"> • Consolidation of the theoretical knowledge and understanding in the field of molecular ecology, functional genomics, and environmental genomics • Development of the abilities to the experimental work and understanding in the field of functional genomics and molecular ecology • Understanding of the principles in genome evolution and bioinformatics 														
Calculating student workload	<table> <tr> <th>Element</th><th>SWS</th></tr> <tr> <td>Practical Course</td><td>4 (56h)</td></tr> <tr> <td>Seminar</td><td>2 (28h)</td></tr> <tr> <td>Lecture</td><td>1 (14h)</td></tr> <tr> <td>Preparation of Course</td><td>22 hours</td></tr> <tr> <td>Preparation of Seminar</td><td>32 hours</td></tr> <tr> <td>Preparation of Poster</td><td>28 hours</td></tr> </table>	Element	SWS	Practical Course	4 (56h)	Seminar	2 (28h)	Lecture	1 (14h)	Preparation of Course	22 hours	Preparation of Seminar	32 hours	Preparation of Poster	28 hours
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	total 180 hours
Language of tuition	English
Module representative	Dr. Uwe John and Dr. Sylke Wohlrab
Frequency	Summer term
Duration	Single term
Credit points	6
SWS	6
2) Information to the module examination	
Kind of examination (MP, KP, TP)	TP
Learning achievements (PL, SL, PVL)	1 PL
Type of examination.	Poster and seminar presentation
Duration of examination	
Submission deadline	14 days
Percentage	
3) Information to the module courses	
VAK number/title of the courses	
Frequency	Summer term
Are there any parallel courses?	
Language	English
Instructors	Dr. Uwe John and Dr. Sylke Wohlrab
Teaching methods	Lectures, Seminars and practical