

**Examination Regulations (Rules) of the
Faculty of Mathematics and Natural Sciences at
Christian-Albrechts-Universität zu Kiel (Kiel University)
for students of “Biological Oceanography”,
leading to a Master of Science Degree (M.Sc.)
(Biological Oceanography Examination Regulations (single subject))
of 29 November 2007**

Published on 24 April 2008 (Bulletin of the Ministry of Science, Economic Affairs and Transport of the Land Schleswig-Holstein (NBl. MWV Schl.-H., p. 102), amended by statute of 17 September 2008, published on 2 October (NBl. MWV Schl.-H., p. 168), amended by statute of 13 February 2009, published on 13 March 2009 (NBl. MWV Schl.-H., p. 11), amended by statute of 24 July 2009, published on 1 October 2009 (NBl. MWV Schl.-H., p. 38), amended by statute of 17 December 2009, published on 1 March 2010 (NBl. MWV Schl.-H., p. 3), amended by statute of 16 February 2010, published on 1 April 2010 (NBl. MWV Schl.-H. p. 8), amended by statute of 23 July 2010, published on 11 October 2010 (NBl. MWV Schl.-H. p. 61), amended by statute of 17 December 2010, published on 31 March 2011 (NBl. MWV Schl.-H. p. 43), amended by statute of 10 February 2011, published on 31 March 2011 (NBl. MWV Schl.-H. p. 44), amended by statute of 17 June 2011, published on 2 March 2012 (NBl. MWV Schl.-H. p. 7), amended by statute of 7 June 2012, published on 13 July 2012 (NBl. MWAVT Schl.-H. p. 46), amended by statute of 7 February 2013, published on 1 March 2013 (NBl. HS MBW Schl.-H. p. 25), amended by statute of 11 July 2013, published on 23 August 2013 (NBl. HS MBW Schl.-H. p. 64), amended by statute of 18 June 2014, published on 25 September 2014 (NBl. HS MSB Schl.-H. p. 54), amended by statute of 10 July 2014, published on 25 September 2014 (NBl. HS MSB Schl.-H. p. 56), amended by statute of 5 February 2015, published on 26 February 2015 (NBl. HS MSGWG Schl.-H. p. 85), amended by statute of 10 June 2015, published on 14 July 2015 (NBl. HS MSGWG Schl.-H. p. 128).

[Non-official publication]

Based on Section 52 (1) Sentence 1 of the Schleswig-Holstein Higher Education Act (HSG) in the version published on 28 February 2007 (GVBl. Schleswig-Holstein, page 184), after a resolution was passed by the Convention of the Faculty of Mathematics and Natural Sciences of 7 November 2007 the following Rules were issued:

Table of contents:

- § 1 Scope of application
- § 2 Objective of the degree programme, purpose of the examination
- § 3 Academic title
- § 4 Admission to the Master’s degree programme
- § 5 Structure of curriculum
- § 6 Academic year
- § 7 Teaching and examination language
- § 8 Examination Board
- § 9 Module examinations and module grades
- § 10 - *deleted* -
- § 11 Further prerequisites for admission to examinations
- § 12 Master’s thesis
- § 13 Calculation of the final grade
- § 14 Entry into force

§ 1

Scope of application

- (1) These Examination Regulations in conjunction with the Examination Procedure Regulations (Rules) of Kiel University for students of Bachelor's and Master's Degree Programmes (PVO) apply to the teaching and assessment of the subject "Biological Oceanography" at Kiel University.
- (2) They apply to
 1. all modules which are exclusively part of the degree programmes regulated by these Examination Regulations,
 2. all modules which are part of the degree programmes regulated by these Examination Regulations, and which are simultaneously exported to other degree programmes;
 3. all modules which are exclusively part of other degree programmes as exported modules.
- (3) When not stated otherwise in these Examination Regulations, admission to modules offered by other faculties or other institutes of the same faculty and the respective module examinations are subject to the examination regulations of the respective faculties or institutes.

§ 2

Objective of the degree programme, purpose of the examination

- (1) Students should obtain a basic understanding of the structure and function of marine ecosystems, along with the human influences on these systems; a broad, interdisciplinary overview of the current state of knowledge and methods used in Biological Oceanography; as well as an advanced, scientific-methodical qualification for independently processing complex issues within this area of research.
- (2) The Master's degree programme "Biological Oceanography" facilitates to obtain a more advanced degree qualifying for a professional career. The final examination ascertains whether the candidate has obtained an advanced scientific-methodological qualification for independent research in the Biological Oceanography field.

§ 3

Academic title

The student is awarded the degree of Master of Science (M.Sc.) if he or she has passed the Master's examination.

§ 4

Admission to the Master's degree programme

- (1) Anyone who has completed a Bachelor's degree programme in either Biology, Natural Sciences or Environmental Sciences, after a standard period of study of at least three years at a German or comparable foreign institution of higher education can be admitted to the Master's degree programme. The candidate must have obtained at least 180 ECTS credits or passed a comparable final examination. The candidate must also have obtained at least 60 ECTS credits from the field of Biology and prove a special aptitude in accordance with (2).
- (2) A special aptitude can be proven by:
 1. A qualified university degree in accordance with (1) 1, with a minimum grade of 2.0. Applicants who have not achieved the minimum grade of 2.0, but have achieved a

For information purposes only, the German original is binding.

minimum grade of 2.5 can still be admitted to the degree programme on account of their special interest in and commitment to marine science issues. This can be proven by, for example, a Bachelor's thesis with a focus on a marine topic, etc. Also:

2. A special motivation. This can be proven in a motivational letter, submitted with the application for the degree programme. It must include:

a) the specific talents and interests on account of which the applicant considers him or herself particularly suited to this degree programme.

b) to what extent he or she possesses sufficient prior knowledge of the scientific basics of the Master's degree programme, obtained from a first degree programme and/or previous professional activities, and

3. Proof of a good knowledge of the English language in accordance with the study qualification rules (Studienqualifikationssatzung).

(3) The Examination Board for Biological Oceanography decides whether the admission requirements are met.

§ 5

Structure of curriculum

The standard period of study for the Master's degree programme is four semesters. The scope of the degree programme for the first three semesters (each) encompasses approximately 25 Semesterwochenstunden (SWS) (weekly 45-minute teaching units for the duration of one semester of about 12 weeks), for which the student must be present (contact hours), and approximately 600 hours independent study. A total of 120 ECTS credits are to be obtained, including 30 ECTS credits for the Master's thesis.

§ 6

Academic year

(1) The academic year applies to this course. Courses for both new students and returning students from odd-numbered semesters are only offered in a winter semester.

(2) Registrations during odd-numbered semesters are only possible for a winter semester. Registrations during even-numbered semesters are only possible for a summer semester.

§ 7

Teaching and examination language

Lectures and examinations will be held in English.

§ 8

Examination Board

Contrary to Section 3 (2) Sentence 1 of the Examinations Regulations (PVO), the Examination Board consists of four members who are Higher Education Institute Lecturers, one member from the area of scientific services and one member from the student body.

§ 9

Module examinations and module grades

(1) The type and number of module examinations required as part of the modules can be found in the Annex.

For information purposes only, the German original is binding.

- (2) A written examination lasts *between 30 minutes and 5 hours*.
- (3) If a module examination consists of several examinations, the module grade will be calculated using the weighted average of the individual grades obtained. The weighting is performed in relation to the ECTS credits allocated to the course within which the examination was taken.
- (4) If a module examination is jointly set by several examiners, they also jointly determine the grade. The Examination Board will decide in the event that no agreement is reached.
- (5) Written module examinations will be assessed within two weeks after the end of the winter semester lecture period and within six weeks after the end of the summer semester lecture period.

§ 10

- deleted -

§ 11

Further prerequisites for admission to examinations

- (1) If a module contains practical exercises or field trips, admission to the examination assumes regular participation in these courses. A maximum of three course dates may be missed without giving reasons for the non-attendance. If students are absent from additional course dates due to illness (hereby a maximum of 40% of all dates, however), those parts of the course which were missed can be replaced by a written draft or an oral colloquium.
- (2) The further prerequisites for admission to module examinations can be found in the Annex.

§ 12

Master's thesis

- (1) Any candidate who has obtained at least 70 ECTS credits from module examinations in compulsory and optional modules may be admitted to the Master's thesis.
- (2) When applying for admission to the Master's thesis, the examination candidate may propose examiners and a topic for the thesis. This does not give rise to any claims.
- (3) The period from when the topic is issued until the Master's thesis is submitted is six months. This deadline may not be extended by more than three months, in accordance with Section 11 (4) Sentence 5 of the PVO for Bachelor's and Master's degree programmes.
- (4) The topic of the Master's thesis may be handed back only once and only within the first month of the preparation period.
- (5) The results of the Master's thesis must be defended orally as part of a scientific presentation and discussion. This part of the examination must be graded by the examiners in a joint vote.
- (6) The written Master's thesis will be graded by both examiners within six weeks of submission.
- (7) The grade for the Master's thesis is calculated as follows: 75% comes from the grade for the written thesis and 25% comes from the grade for the oral presentation of its content.
- (8) The Master's thesis must be written in English. An application can be made to the Examination Committee for the Master's thesis to be written in German.

For information purposes only, the German original is binding.

(9) The Master's thesis is to be submitted to the responsible Examination Office in the form of three hard copies and additionally one copy in a form suitable for electronic data processing.

§ 13

Calculation of the final grade

(1) When calculating the final grade, the module grades (marked in the attached Programme Schedule) are weighted by ECTS credits.

(2) The grade for the Master's thesis is weighted double.

§ 14

Entry into force

These Examination Regulations enter into force on the day after the date they are published.

The University Board at Christian-Albrechts-Universität zu Kiel granted its approval in accordance with Article 1 § 52 (1) Clause 1 in conjunction with Article 2 § 1 (4) of the Schleswig-Holstein Higher Education Act in its letter dated 28 November 2007.

Kiel, 29 November 2007
Dean of the
Faculty of Mathematics and Natural Sciences
Christian-Albrechts-Universität zu Kiel
Prof. Dr Jürgen Grottemeyer

For information purposes only, the German original is binding.

1. Programme Schedule for the Master of Science in "Biological Oceanography"

	Module	Name	Teaching method	SWS	C/O	Requirement	Exam (old/new)	ECTS	
								Sem.	Year
First Semester	MNF-bioc-101	Introduction to Biological Oceanography	L	3	C		Ex 100%	6	
	MNF-bioc-102	Practical Courses in Biological Oceanography	P/E	12/1	C		Ex 100%	10	
	MNF-bioc-110	Doing Science	L/E	1/2	C		OP 50%, 50% H	6	
	MNF-geol-101	Introduction to Marine Geology	L	2	C		Ex 100%	3	
	MNF-bioc-103	Introduction to Chemical Oceanography	L/E	1/3	C		P or OP 40%, Ex 60%	5	
				Σ 25				Σ 30	
Second Semester	MNF-bioc-201	Advanced Course in Biological Oceanography (Choose 2 from the three options)						Per part: Ex or P or OP (30%)	11
		Part A: Marine Molecular and Chemical Ecology	P+E	3/1	O	MNF-bioc-101 and 102			
		Part B: Plankton Ecology and Pelagic Biogeochemistry	P+E	3/1	O	MNF-bioc-101 and 102			
		Part C: Microbial Ecology, Microbial Interactions and Marine Biotechnology	P+E	3/1	O	MNF-bioc-101 and 102			
			Advanced studies in Biological Oceanography	L	3	C	MNF-bioc-101 and 102	Written exam (40%)	
	MNF-bioc-220	Biological Modelling and Biostatistics	L/E	2/2	C		Ex or A or P 50% Ex or A or P 50%	6	
	MNF-ozgr-151	Introduction to Physical Oceanography	L	3	C		Ex 100%	5	
			Choose 1 of the following 231–233						4
	MNF-bioc-231	Current Topics in Marine Biogeochemistry I (1)	L/L	2/1	O	MNF-bioc-101	Ex 100%	(4)	
	MNF-bioc-232	Current Topics in Marine Ecology I (1)	L/S	2/2	O	MNF-bioc-101	OP 100%	(4)	
	MNF-bioc-233	Current Topics in Fish Ecology and Aquaculture (1)	FT/E/S	3/3/2	O	MNF-bioc-101	P 100%	(4)	
			Choose 4 ECTS from any other subject or another one from 231-233						4
				Σ 21-26+x				Σ 30	Σ 60

For information purposes only, the German original is binding.

Third Semester	<u>MNF-bioc-301</u>	Lecture Series "The Future Ocean"	C	1	C	All compulsory MNF-bioc-courses from 1 st and 2 nd semester	Written thesis proposal 100%	10
		Tutorium & Thesis Proposal	E	1				
		Advanced Laboratory Course	P	2				
		Research Cruise / Field Course	FT	2				
	<u>MNF-bioc-310</u>	Summer School or Internship	P or Int	7	C		P 100%	5
		Choose 2 of the following:						10
	<u>MNF-bioc-331</u>	Current Topics in Marine Biogeochemistry II (2)	L/S/L	1/2/2	O	MNF-bioc- 201	OP 100%	(5)
	<u>MNF-bioc-332</u>	Current Topics in Marine Ecology II (2)	L/S	3/2	O	MNF-bioc-101, MNF-bioc-102	OP 100%	(5)
	<u>MNF-bioc-334</u>	Current Topics in Fish Ecology (2)	L/L/S	1/2/2	O	MNF-bioc-201	Ex 50% OP 50%	(5)
	Choose 5 ECTS from any other subject or another one from 331-334						5	
			Σ 23+x				Σ 30	
Fourth Semester	<u>MNF-bioc-401</u>	Master's Thesis with Thesis Defence			C			30
								Σ 30

Explanations:

Module: Module number
 Name: Module name
 Teaching method: L: Lectures, P: Practical, E: Exercises, S: Seminar, FT: Field Trip, C: Colloquia, T: Tutorial, Int: Internship
 C / O: Status of the course (C: Compulsory, O: Optional)
 SWS: Semesterwochenstunden (weekly 45-min teaching units)
 Requirements: Conditions for entry
 Exam: Type of exam and grading
 Ex: Written Exam, Or: Oral Exam, P: Protocol, OP: Oral Presentation,
 Ma: Manuscript, E: Exercises, A: Assignments
 X% = graded exam with X% of module mark, (p/f) = pass/fail
 ECTS: ECTS credits

Module numbers for modules contributing to the final Master's grade are underlined.

The weighting is according to ECTS credits.

* Passing the exercises / protocol / report is required to take part in the written exam.

2. Examples of shifting optional courses for the Master of Science in "Biological Oceanography"

	Module	Name	Teaching method	SWS	Requirement	Exam	ECTS
Second Semester	<u>MNF-bioc-250</u>	Element cycles in the ocean - Stoffkreisläufe im Meer	L	2		Or 100%	3
	<u>MNF-bioc-251</u>	Biogeochemistry of Marine Sediments I	L	2		Ma 100%	4
	<u>MNF-bioc-252</u>	New research in animal physiology, biochemistry and genomics	L	2		Ex 100%	3
	<u>MNF-bioc-253</u>	How to Write and Publish a Scientific Paper	S	1		H pass/fail	2
	<u>MNF-bioc-255</u>	Mechanisms of biomineralization	S	2		OP 100%	3
	<u>MNF-bioc-260</u>	Marine biodiscovery and biotechnology	P	2		P 100%	4
	<u>MNF-bioc-262</u>	Trophodynamic Interactions	P	3		Ma 100%	5
	<u>MNF-bioc-264</u>	Sea Bird Ecology	P	4		Ex 100%	4
	<u>MNF-bioc-265</u>	Zooplankton Ecology	L/FT	4		OP 100%	4
	<u>MNF-bioc-266</u>	Advanced course in Polar Ecology	L/S	2/2		Ex 100%	4
	<u>MNF-bioc-267</u>	Identification and taxonomy of marine invertebrates	L//P	1/3		A or Ma 100%	5
	<u>MNF-bioc-268</u>	Food-Web interactions in the Wadden Sea	P	4	A Bachelors degree in a biological discipline	Ex50%, P 50%	4
	<u>MNF-bioc-269</u>	Marine Population Genomics	S	2		OP 30%, M 70%	2
Third Semester	<u>MNF-bioc-341</u>	Advanced Biological Modelling	L/E	2/2	MNF-bioc-220	Ex 100%	5
	<u>MNF-bioc-342</u>	Current Topics in Biogeochemical Modelling	S	2	MNF-bioc-220	OP 100%	3
	<u>MNF-bioc-343</u>	Current Topics in Benthic Ecology	L/S	1/1		OP (pass/fail)	4
	<u>MNF-bioc-348</u>	Introduction to Metabolomics	Ex/E/S	2 weeks		P 100%	5
	<u>MNF-bioc-349</u>	Research Cruise / Field Course	FT/E/S	2 weeks	All previous compulsory modules	research report (pass / fail)	4
	<u>MNF-bioc-350</u>	Climate-relevant trace gases in the ocean - Klimarelevante Spurengase im Ozean	L	2		Or 100%	3
	<u>MNF-bioc-352</u>	Microbiology of Extreme Marine Habitats	L	1		Ex 100%	2
	<u>MNF-bioc-353</u>	Marine Microbiology	S	2		Ex 100%	2

For information purposes only, the German original is binding.

<u>MNF-bioc-354</u>	Functional morphology and physiology of marine organisms	S	2		OP 50% Ma 50%	2
<u>MNF-bioc-355</u>	Marine Animal Physiology	L	4	MNF-bioc-252	A 100%	4
<u>MNF-bioc-356</u>	Biogeochemistry of Marine Sediments II	L	1	MNF-bioc-251 or equivalent	Ex 100%	2
<u>MNF-bioc-357</u>	How to make and keep a habitable planet- biogeochemistry-climate feedbacks and astrobiology	L/E	2/1		WE 100%	5
<u>MNF-bioc-358</u>	Phytoplankton: from genome to ecology	L	2		Ex 100%	2
<u>MNF-bioc-359</u>	Modern aspects of meteorology and oceanography: Carbon cycling in a changing climate	S	3		OP 100%	5
<u>MNF-bioc-360</u>	Marine biotechnology – I	S	1		OP 70%, H 30%	3
<u>MNF-ozgr-152</u>	Advanced Physical Oceanography for Minors	L/E	2/2	MNF-ozgr-151	Ex 100%	5

Teaching method: L: Lectures, P: Practical, E: Exercises, S: Seminar, FT: Field Trip, C: Colloquia, T: Tutorial, Int: Internship

Requirements: Conditions for entry

Exam: Type of exam and grading: Ex: Written Exam, P: Protocol, R: Report, OP: Oral Presentation, Ma: Manuscript, E: Exercises
100% = graded exam, (p/f) = pass/fail

* Passing the exercises / protocol / report is required to take part in the written exam.