

Laboratory Module. What to know and what to do.

What to know and what to do before you apply for a Laboratory Module

A Laboratory Module is a substitute for a Subject Module. Students will conduct an individual research project in a research group for at least 7 weeks, including one week for preparation of an oral presentation, written report and oral examination, all graded. While the Laboratory Modules are obligatory for students of the Research Track Program, they are exceptions for all other students. An exception will be granted if a student has not been admitted to a module of her or his choice and if no place in a subject module with a similar topic is available. Permission for attending a Laboratory Module has to be granted by the Degree Committee. Therefore, contact a student adviser (Dr. Jan Weber or Dr. Joachim Schmidt) for approval before handing in the application form. Talk to Dr. Isabell Witt if you study in the Research Track Program. A laboratory module can only be conducted in the laboratory of a academic supervisor in the MSc program.

What to do before you start a Laboratory Module

- Contact Dr. Jan Weber or Dr. Joachim Schmidt or for Research Track Lab modules, Dr. Isabell Witt during their regular consulting hours to get advice and to discuss your reasons why you wish to and may need to substitute a subject module by a laboratory module.
- Fill out and sign the *Application form* together with your supervisor.
- Make sure that both of you know the examination requirements: lab report, research talk with discussion and a general oral exam (20-45 min).
- Ask for subjects of oral exam and for material (papers, books etc.) for preparation of the research talk and the oral exam.
- Ask for the date when the lab report has to be handed in.
- Ask for the date of the research talk.
- Ask for the date of the oral exam.
- Hand in the *Application form* to the Master's office at least 2 weeks before you start working.

Examination and what to do when you are done

- Make sure to give the *Certificate of Completion* form and the two minutes forms to your supervisor.
- You have to prepare a lab report that will be graded (*50% of final grade*). Ask your supervisor for advice.
- You have to give a research talk on a topic related to your project, for example, on a publication. There will be a discussion. The subjects of the discussion will be minuted. Give the respective form to your supervisor. The talk will be graded (*25% of final grade*).
- There will be a general oral exam (20-45 min) that will be graded (*25% of final grade*). General means that the subjects do not only derive from your project but rather cover a broad range of the respective field (*Genetics, Ecology, Neurobiology etc.*). Ask your supervisor which topics will be covered. The subjects of the oral exam will be minuted
- Remind your supervisor to send the two minute forms and the *Certificate of Completion* in a sealed envelope to the Office of the Degree committee.
- The final grade will be awarded by the Degree Committee.

University of Cologne

Degree Committee
Master of Science in Biological Sciences



Laboratory Module

Application Form

(The application must be submitted at least 2 weeks prior to the start of the module.)

Degree Committee
MSc in Biological Sciences
Zùlpicherstr. 47a
50674 Cologne
phone +49 221 470 4328
fax +49 221 470 1633

Student name _____

Matriculation number _____ e-mail _____

Module start date _____ Module end date _____

(Duration of the module is at least 7 weeks, incl. preparation for examination)

Name of supervisor and institution where project will be carried out

(Supervisor's e-mail address)

Working title of project

Examination (graded):

- Lab report (50% of final grade)
- Research talk on a topic related to the project (25% of final grade)
- General oral exam in _____ (e.g. Genetics, Ecology, Neurobiology etc.;; 25% of final grade)

.....
Date _____ Date _____

Student (signature) Supervisor (signature)

Confirmation of application by the degree committee

Date _____

(PD Dr. J. Schmidt / Dr. Jan Weber)



Laboratory Module

Certificate of Completion

Student name _____

Matriculation number _____ e-mail _____

Module start date _____ Module end date _____

Name of supervisor and institution where module was carried out _____

Title of project _____

Title of research talk _____

Field of oral exam _____ (e.g. Genetics, Ecology, Neurobiology etc.)

	% of final grade	Date of examination	Grade	Date of re-examination	Grade
Lab report	50 %				
Research talk	25 %				
Oral exam	25 %				

Grades: 1.0 – 1.5 (very good), 1.6 – 2.5 (good), 2.6 – 3.5 (satisfactory), 3.6 – 4.0 (sufficient), > 4 (insufficient)

Date _____ Supervisor (signature) _____

(Institutional seal)

Supervisor, send examination papers in a sealed envelope to the Degree Committee: (1) Certificate of Completion, minutes taken during (2) research talk and (3) oral exam. Sign the lab report on front page.

12 Credit Points are granted by the degree committee

Date _____

(PD Dr. J. Schmidt / Dr. Jan Weber)

<p>Final Grade</p> <p>(Degree committee member only)</p>

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Laboratory Module

Research Talk Minutes Form

Name of student _____

Date _____

Name of examiner _____

Time _____

Name of minute keeper _____

Subjects of discussion

(To be continued on the back)

Grade:

Examiner (signature)

Minutes keeper (signature)

Grades: 1.0 – 1.5 (very good), 1.6 – 2.5 (good), 2.6 – 3.5 (satisfactory), 3.6 – 4.0 (sufficient), > 4 (insufficient)

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Laboratory Module

Oral Examination Minutes Form

Name of student _____

Date _____

Name of examiner _____

Start of exam _____

Name of minutes keeper _____

End of exam _____

(Duration 20-45 min)

Examination subjects

(To be continued on the back)

Grade:

Examiner (signature)

Minutes keeper (signature)

Grades: 1.0 – 1.5 (very good), 1.6 – 2.5 (good), 2.6 – 3.5 (satisfactory), 3.6 – 4.0 (sufficient), > 4 (insufficient)

Module name: Laboratory Module

Identification number	Workload	Credits	Term of studying	Frequency of occurrence	Duration
MN-B-SM(LM)	360 h	12	1 st and/or 2 nd term of studying	all year round	7 weeks
1	Type of lessons Interactive Tutorials, Project work and Seminar	Contact times approx. 180 h	Self-study times approx. 180 h	Intended group size max. 1	
2	Learning outcomes / Skills Students who successfully completed this module ... <ul style="list-style-type: none">• have learned to do scientific work in a specific field of a given research group.• have understood how to plan and conduct a small scientific project.• have gained experience in following the presentation of scientific material by others in the frame of the seminar programme of a research group.• have learned how to present research results in oral and written form and to critically discuss scientific publications.				
3	Contents The detailed content of the Laboratory Module is proposed by the supervising tutor on an individual basis in agreement with the student. The content requires approval by the M.Sc. Biological Sciences Degree Committee. A Laboratory Module may be supervised by any member of staff qualified under the University Regulation § 65 HG.*				
4	Teaching methods Interactive tutorials; Practical/Lab (Project work); Seminar; Guidance to independent research; Training on presentation techniques in oral and written form				
5	Requirements for participation Enrollment in the Master's degree course "Biological Sciences"; Formal written permission by the M.Sc. Biological Sciences Degree Committee before starting the module (application form can be obtained from http://www.biologie.uni-koeln.de/examination_office.html)				
6	Type of examinations The final examination consists of three parts: 30 min oral examination about topics of the tutorials, the practical/lab part and the seminar (25 % of the total module mark), oral presentation (25 % of the total module mark) and seminar paper (50 % of the total module mark)				
7	Requisites for the allocation of credits Regular and active participation; Total module mark at least "sufficient" (see appendix of the examination regulations for details) <i>Note:</i> The supervising tutor awards marks for the different parts of the final examination and communicates this information to the M.Sc. Biological Sciences Degree Committee. The latter allocates the final mark and credits.				
8	Compatibility with other Curricula None				
9	Significance of the mark for the overall grade 15 % of the overall grade (see also appendix of the examination regulations)				

10	Module coordinator and Participating faculty Module coordinator: Chairperson of the M.Sc. Biological Sciences Degree Committee, at present: Prof. Dr. Karin Schnetz, phone 470-4328, MScBiol-Office@uni-koeln.de Participating faculty: Variable. Component supervisors need not be academic staff of a University if a component is accepted in a non-academic environment.
11	Additional information Subject module of the Master's degree course "Biological Sciences"; Focus of research: Depends on the research area, in which the Laboratory Module is conducted. <i>Note:</i> A student may do no more than two modules within the same research group. This applies to Laboratory Module (MN-B-SM [LM]), Elective Module (MN-B-EM) and Project Modules (MN-B-PM). Literature: Will be handed out at the beginning and during the module General time schedule: Week 1-6 (Mon.-Fri.): Tutorials, practical/lab and seminars as well as preparation for the seminar talk (topic and date will be arranged individually) and writing seminar paper; Week 7 (Mon.-Fri): Preparation for the oral examination Introduction / Examination dates: The dates of the introduction to the module and of the examinations will be arranged in agreement between the student and the supervising tutor.

* A biannually updated list is provided on the internet pages of the Department of Biology (see Teaching staff at http://www.biologie.uni-koeln.de/master_thesis.html).