



## Module MN-BC-LM - Laboratory Module

Master of Science in  
Biochemistry

### ***Guidelines for the assessment of laboratory modules***

Examination Committee

Prof. Dr. Jan Riemer  
Chairman

#### **Content and schedule of the Laboratory Module**

The student should deal with a defined scientific question within the field of research and development in the molecular life sciences. The student will send beforehand a brief outline of the project to the examination board, which has to grant its approval.

The general time-schedule of a laboratory module is as follows:

1 week before starting date or earlier: Submission of Application Form and description of the planned work (about 1 page DIN A4) to the Examination office.

Week 1-9: Laboratory work

Week 10-12: Preparation of the oral presentation and the lab report paper

Week 13-14: Oral presentation and submission of the seminar paper to the PI

#### **Type of module examinations and grading**

1. Oral presentation and discussion (30% of the overall module grade):<sup>1)</sup>  
A record of the examination has to be kept by using the available form provided on the website (<https://bc.uni-koeln.de/master-of-science>).  
The exam consists of a 20 minutes' oral presentation of the results of the laboratory module followed by 10-30 minutes of discussion.  
The presentation should take place as a public talk e.g. in the framework of a regular colloquium or group meeting of the research group/department where the internship takes place.
2. Written report (70% of the overall grade) including an introduction with the relevant literature citation and discussion:<sup>2)</sup> This should give a comprehensive account of the performance of the student in the laboratory as well as his/her theoretical background on the subject.
3. The overall grade<sup>3)</sup> is calculated from the partial grades 1) and 2) using the mentioned weighting and truncation (not mathematically rounded) to one decimal place.  
Example: In the oral presentation the student receives a grade of 2.3 and the seminar paper is graded as 1.8 – the overall grade is  $0.7 \cdot 1.8 + 0.3 \cdot 2.3 = 1.95$ , i.e. overall grade is 1.9.

1) & 2) possible grades: 1.0; 1.1; 1.2; 1.3 ... - ... 3.8; 3.9; 4.0; 5.0

2) Grading scale: 1.0 – 1.5 = very good; 1.6 – 2.5 = good; 2.6 – 3.5 = satisfactory;  
3.6 – 4.0 = sufficient; 5.0 = failed

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**PLEASE note:**

If the lab module is carried out at an external (international) research institution or university with a differing grading system, the evaluation has to be done according to the grading system applied for the Master's program at the University of Cologne.

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**Definition of grades**

Grade	Scaling	Oral presentation	Written report
very good	1.0 – 1.5	Slides are clear, logical, very descriptive and fluently presented. Discussion: all or vast majority of the questions are correctly answered	The paper fulfills all standards. The scientific background is adequately described and the relevant literature correctly cited. The aims of the project have been clearly stated. Experimental procedures are carefully described. Results are presented in a clear style and discussed without over-interpretation. Language and style are in accord with scholarly writing. Lab performance of the student has been excellent or very good.
good	1.6 – 2.5	Slides are clear, descriptive and presented in a good way. Discussion: most questions are correctly answered. Some questions are partially answered and with aid of the supervisor	As above, with minor flaws in writing style, discussion of experiments and presentation of data. Good lab performance with some minor shortcomings.
satisfactory	2.6 – 3.5	Slides are correct and the presentation is satisfactory. Discussion: more than 50% of the questions are answered with aid or partially, some not at all	Some major shortcomings, like the lack of citing an important result in introduction, presentation of data is not so clear. Experiments are not well described and have not been carried out in a careful way.
sufficient	3.6 – 4.0	Slides are essentially correct with some mistakes Discussion: about 50 % of the questions are answered (possibly with aid)	Lab report and students' performance fulfill minimum standards for being acceptable.
failed	less than 4.0	Slides and the presentation are generally unacceptable. Discussion: Less than half of the questions are correctly answered	Inacceptable performance and lab report.

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