

## 1<sup>st</sup> Semester “Frontiers of Biosciences”

<b>Module 1 (Week 1-9)</b>	<b>15 CPs</b>
<b>Lectures and Tutorials:</b> “Frontiers I: the cell, unit of life” <ul style="list-style-type: none"> <li>• Proteome &amp; Interactome</li> <li>• Genome expression</li> <li>• Metabolome</li> <li>• Genome structure and evolution</li> <li>• Cell organisation and dynamics</li> </ul>	
<b>Practical course:</b> “Pathogenic Microorganisms” by Prof. C. Clayton, PD Dr. K. Kubatzky and Prof. M. Lanzer	
<b>Seminar:</b> “Pathogenic Microorganisms” by Prof. C. Clayton, PD Dr. K. Kubatzky and Prof. M. Lanzer	
<b>Module 2 (Week 10-18)</b>	<b>15 CPs</b>
<b>Lectures and Tutorials:</b> “Frontiers II: organisms and communities” <ul style="list-style-type: none"> <li>• Core competencies<sup>a</sup></li> <li>• Cancer Biology/Developmental and Stem Cell Biology<sup>b</sup></li> <li>• MCB/Systems Biology<sup>b</sup></li> <li>• Neurosciences/Molecular Plant Sciences<sup>b</sup></li> <li>• Infectious Diseases<sup>b</sup></li> </ul>	
<b>Practical Course:</b> “Molecular Virology” by Prof. R. Bartenschlager and Prof. H.-G. Kräusslich	
<b>Seminar:</b> “Pathogenesis of viral infections” by Prof. R. Bartenschlager and Prof. H.-G. Kräusslich	

<sup>a</sup> The core competencies week is mandatory for all.

<sup>b</sup> In addition each student has to choose at least two major modules. Attendance of the chosen modules is mandatory.

- **Lectures and Tutorials** will be given in week 1 - 5 in the first module. You will have 3 lectures and 2 tutorials per week. At the end of the first module you will have to pass one written exam comprising the lectures and tutorials. The grade is based on the “100-Punkteregel” (100 points = highest achievable grade, < 50 points = failed; see also Appendix IV). In the second module the attendance of the first week “core competencies” is mandatory for all. In week 2 – 9 each student has to choose at least two major modules. Attendance of the chosen modules is mandatory.
- Major-specific **practical courses** (duration: 3 weeks) are given in each module once. They will make up 65 % of your grade combining practical course + seminar! You have to submit your report to the supervisor 4 weeks after termination of the course at the latest!  
Major-specific **seminars** are given in each module once. In these seminars each student prepares a 30 min presentation based on a relevant research paper of a chosen topic. The seminars will make up 35 % of your grading (made up of 28 % for the presentation and 7 % for your participation in discussions) combining practical course + seminar.  
The grade is based on the “100-Punkteregel” (100 points = highest achievable grade, < 50 points = failed; see also Appendix IV).

## 2<sup>nd</sup> Semester “Focus Biosciences”

<b>Module 1 (Week 1-9)</b>	<b>15 CPs</b>
<b>Lecture and Tutorials:</b> “Molecular Virology” by Prof. R. Bartenschlager, Prof. H.-G. Kräusslich and Prof. S. Urban	
<b>Practical course:</b> Laboratory practical “methods/tools” (4 weeks) in a laboratory of your choice at the Department of Infectious Diseases or in associated research groups	
<b>Seminar:</b> “Molecular Virology” by Prof. R. Bartenschlager and Prof. H.-G. Kräusslich	
<b>Module 2 (Week 10-18)</b>	<b>15 CPs</b>
<b>Lecture and Tutorials:</b> “Pathogenic Microorganisms” by Prof. C. Clayton, PD Dr. K. Kubatzky and Prof. M. Lanzer	
<b>Practical course:</b> Laboratory practical “research project” (4 weeks) in a laboratory of your choice at the Department of Infectious Diseases or in associated research groups	
<b>Seminar:</b> “Pathogenic Microorganisms” by Prof. C. Clayton, PD Dr. K. Kubatzky and Prof. M. Lanzer	

### Grading:

- Lectures and Tutorials** will be given in week 1 - 6 in each module. You will have about 3 lectures and 2 tutorials per week. At the end of each module you will have to pass one exam comprising the lectures and tutorials. The exam consists of a written exam and an oral exam. The latter will only be performed if the repeated written exam has achieved less than 50 points. The grade is based on the “100-Punkteregel” (100 points = highest achievable grade, < 50 points = failed; see also Appendix IV).
- During the 2<sup>nd</sup> semester (or earlier) you should perform **2 laboratory practicals** (each 4 weeks) in a laboratory of your choice at the Department of Infectious Diseases or in associated research groups. We highly recommend to conduct both practicals in the same laboratory. In this case, the first part of the practical focuses on training of methods and/or production of research tools and the second one on implementing these methods/tools into a research project. Each part of the laboratory practical will be evaluated separately. They will make up **65 %** of your grading (practical course + seminar = 100%). You have to submit your reports to the supervisor 4 weeks after termination of the second practical at the latest!

Major-specific **seminars** are given in each module once. In these seminars each student prepares a 30 min presentation based on a relevant research paper of a chosen topic. The seminars will make up **35 %** of your grading (made up of 28 % for the presentation and 7 % for your participation in discussions). The grade is based on the “100-Punkteregel” (100 points = highest achievable grade, < 50 points = failed; see also Appendix IV).

### 3<sup>rd</sup> Semester “Biolab and Working in Bioscience”

<b>Module 1 (Week 1-9)</b> (can be combined with Module 1, 1 <sup>st</sup> Semester)	<b>15 CPs</b>
Practical course ‘Biolab’: 6-8 weeks in a laboratory of your choice at the Department of Infectious Diseases or in associated research groups	
<b>Module 2 (Week 10 – 18)</b> (can be combined with Module 2, 2 <sup>nd</sup> Semester)	<b>15 CPs</b>
Practical course ‘Working in Bioscience’: 6-8 weeks in a laboratory of your choice at the Department of Infectious Diseases, in associated research groups or in an external laboratory abroad	

- During the 3<sup>rd</sup> semester (or earlier) you should perform **2 laboratory rotations** (each 6-8 weeks). The practical course “Biolab” has to take place in a laboratory of your choice at the Department of Infectious Diseases or in associated research groups. The practical course “Working in Bioscience” can be done in an external laboratory abroad. They will make up **100 %** of your grade, based to 40% on your practical performance in the lab (external laboratory: as evaluated by the external supervisor according to the 100 point grading key), 40 % on your written report and 20 % on your final presentation of your work in a research seminar. You have to submit your report to the supervisor 8 weeks after termination of the rotation at the latest!  
Rotations in external laboratories: see Appendix I: External lab rotations

## 4<sup>th</sup> Semester “Master thesis”

Master thesis in a laboratory of your choice at the Department of Infectious Diseases, in associated research groups or in an external laboratory abroad. In the latter case, see Appendix II: Guidelines “External” Master Thesis and get in contact with the Major Infectious Diseases office to request the “external master thesis form”.

**30 CPs**

(can be done in 3<sup>rd</sup> Semester)

## **Appendix:**

### **I. External Lab rotations – “Working in Bioscience”**

Lab rotations outside Heidelberg, the Major or Major-associated groups

New guidelines, updated October 2016

In general we will allow for one lab rotation on a topic not related to “Infectious Diseases” and not performed in one of our associated laboratories. Yet, the focus of the practical has to be on biosciences. This has to be agreed on with the Major coordinator Ralf Bartenschlager. Supervision of the student by the hosting institute has to be granted.

To register for the lab rotation abroad and to ensure that it will be accepted for credit points within the Major, the student has to present documentation by the host lab detailing (please fill in “[external lab rotation form](#)”):

- Duration and dates of the lab rotation
- Subject and title
- Guarantees for supervision and provision of a written protocol that can be evaluated by the Major Infectious Diseases office
- Acknowledgement of the lab rotation guidelines

This documentation has to be with the major coordinator at least 4 weeks before the planned start of the external rotation.

In order to get the credit points from outside labs approved by the coordinator, the student has to submit two documents:

First, the student has to write a protocol according to the guidelines for the Master’s degree. This protocol has to be read and marked by the supervisor in the hosting institute. Students have to submit their report to their host supervisor at the latest 4 weeks after termination of the lab rotation.

Second, the supervisor at the hosting institute has to write a short evaluation based on the student’s performance in the lab, the written protocol and the oral presentation of the student’s work. The supervisor at the host institute has to evaluate student’s performance two weeks after obtaining the student’s report (6 weeks after lab rotation ended for the student).

The student’s total evaluation by the supervisor in the host institute is based on lab performance (40%), written report (40%) and oral presentation (20%) with a maximum total of 100 points (see Appendix IV).

Both, the short evaluation and the lab rotation report have to be presented to the coordinator of the Major, but will not be marked again. The students will not have to present their work in Heidelberg.

The responsibility for obtaining and presenting both documents to the coordinator lies with the student. Approving the lab rotation for the Major is not possible without timely presentation of both documents. We expect both to be submitted 8 weeks after termination of the lab rotation at the latest.

### **II. Guidelines “External” Master Thesis**

The master thesis can be performed in a laboratory not belonging to the Department

of Infectious Diseases or associated research groups if the following prerequisites are fulfilled:

-The student has to find two examiners of our Major that are on the official “examiners list” ([http://www.bio.uni-heidelberg.de/fakultaetbio/en/mscmolbio\\_forms](http://www.bio.uni-heidelberg.de/fakultaetbio/en/mscmolbio_forms)) and that are supporting the external thesis.

-The content of the master thesis has to fit in our Major “Infectious Diseases”.

-The student has to get the document “external master thesis form” filled in and signed by the two examiners of our Major and by the supervisor of the external laboratory. **In addition, the thesis must be registered with the Faculty on a regular basis!**

-The supervisor of the external laboratory has to write an official report on the thesis without grading it. This report will be handed in at the faculty. Only informally, the external supervisor can suggest a grade to the examiners.

-In addition, both examiners of our Major have to write a report on the master thesis and have to grade the written part as well as perform the oral examination.

### **III. Memorandum of the University of Heidelberg on Academic Integrity in Coursework and Examinations**

#### **§1 Area of Application**

- (1) This memorandum applies to all examinations at the University of Heidelberg including external examinations and to all coursework.
- (2) This memorandum takes precedence over any other existing policy or examination regulations of the University of Heidelberg with differing regulations. In any other cases, it is to be applied as an addition to other policies or regulations.

#### **§2 Academic Misconduct in Final Theses or Other Written Papers**

- (1) If a final thesis is submitted, especially a Bachelors, Masters, Magister, Diplom or doctoral thesis, which completely or in large part corresponds to a thesis of another candidate, both theses will receive a failing grade. An exception will be made if the author can convincingly prove that he or she wrote the thesis independently and that the thesis was used without his or her knowledge or agreement to produce the corresponding thesis.
- (2) Academic works in the sense of Par. 1 that correspond completely or in large part to other works or publications in word choice without the correct use of quotations and citations will receive a failing grade.
- (3) Academic works in the sense of Par. 1 that have been written by a third party and submitted as the own work of the student will receive a failing grade.
- (4) In particularly serious or repeated cases in the sense of Pars. 1 to 3, the examination committee can bar the student from the production of all further academic works in the relevant course of studies at the University of Heidelberg, including repeat examinations. The Dean of Studies must consent to this measure.

- (5) The student loses the opportunity to repeat coursework or examinations only at the University of Heidelberg. The student in this case must be expelled from this course of studies.
- (6) A decision according to Par. 4 can not be delegated to the chair of the committee.

### **§3 Academic Misconduct Discovered After The Fact**

- (1) If a student is guilty of academic misconduct according to §3 and the misconduct is discovered only after the grades have been assigned or the diploma has been issued, the examination committee can change the grades in question retroactively and can give a failing grade for the complete examination or for a part of the same.
- (2) The incorrect examination report will be confiscated and a new report will be issued. This applies also to all additional, related documents (e.g. transcript of records and diploma supplement) and to any other certificates of performance.
- (3) A decision in the sense of Par. 1 and 2 can be made no longer than 5 years after the award of the grade or the date of the diploma.

### **§4 Legal Validity**

The above memorandum becomes legally valid on the day of its publication in the Mitteilungsblatt of the Rector of the University.

Published in the Rector's Mitteilungsblatt on May 24<sup>th</sup>, 2008, page 489.

**IMPORTANT NOTICE:** This English translation has been produced for information purposes only. This translation is not legally binding. The legally binding document is the "Satzung der Universität Heidelberg zur Redlichkeit im Studium und bei Prüfungen" dated May 28, 2008 and published in the "Mitteilungsblatt" on May 24<sup>th</sup>, 2008.

## **IV. Grading Key for evaluation**

### **Grading key for the evaluation**

100 point grading scale

<b>Points</b>	<b>Mark</b>
<50	Failed
≥ 50 – 55	4,0
> 55 – 60	3,7
> 60 – 65	3,3
> 65 – 70	3,0
> 70 – 75	2,7
> 75 – 80	2,3
> 80 – 85	2,0
> 85 – 90	1,7
> 90 – 95	1,3
> 95 – 100	1,0