# 1<sup>st</sup> Semester "Frontiers of Biosciences"

# Module 1 (Week 1-9)

**Lectures and Tutorials**: "Frontiers in Molecular Biology, Biochemistry and Cell Biology"

- The Genome
- Control of Gene Expression
- Proteins
- Intracellular Transport
- Macromolecular Machnines and Organelles

**Practical course**: "Pathogenic Microorganisms" by Prof. C. Clayton, Prof. A. Dalpke and Prof. M. Lanzer

**Seminar**: "Pathogenic Microorganisms" by Prof. C. Clayton, Prof. A. Dalpke and Prof. M. Lanzer

Module 2 (Week 10-18)

15 CPs

**Lectures and Tutorials**: "Frontiers in Molecular Biology, Biochemistry and Cell Biology"

- Cell-Cell communication: The Nervous System
- Cell-Cell communication: Development
- Host-Pathogen Interactions
- Biological Networks
- Evolution and Diversity

**Practical Course**: "Molecular Virology" by Prof. R. Bartenschlager and Prof. H.-G. Kräusslich

**Seminar**: "Pathogenesis of viral infections" by Prof. R. Bartenschlager and Prof. H.-G. Kräusslich

- Lectures and Tutorials will be given in week 1 5 in each module. You will have 3 lectures and 2 tutorials per week. At the end of each 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 II).</li>
- 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 23 % for the presentation and 12 % 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 II).

**15 CPs** 

## 2<sup>nd</sup> Semester "Focus Biosciences"

**Lecture and Tutorials**: "Molecular Virology" by Prof. R. Bartenschlager, Prof. H.-G. Kräusslich and Prof. S. Urban

**Practical course**: Laboratory rotations (4 weeks) in laboratories of your choice at the Department of Infectious Diseases and in associated research groups

**Seminar**: "Molecular Virology" by Prof. R. Bartenschlager and Prof. H.-G. Kräusslich

## Module 2 (Week 10-18)

15 CPs

15 CPs

Lecture and Tutorials: "Pathogenic Microorganisms" by Prof. C. Clayton, Prof. A. Dalpke and Prof. M. Lanzer

**Practical course**: Laboratory rotations (4 weeks) in laboratories of your choice at the Department of Infectious Diseases and in associated research groups

**Seminar**: "Pathogenic Microorganisms" by Prof. C. Clayton, Prof. A. Dalpke 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 II).</li>
- During the 2<sup>nd</sup> semester (or earlier) you should perform 2 laboratory rotations (each 4 weeks) in a laboratory of your choice at our institute. They will make up 65 % of your grading (practical course + seminar = 100%). The grade for these practical courses is based to 40% on your practical performance in the lab, 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 4 weeks after termination of the rotation 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 23 % for the presentation and 12 % for your participation in discussions).

The grade is based on the "100-Punkteregel" (100 points = highest achievable grade, < 50 points = failed; see also Appendix II).

# 3<sup>rd</sup> Semester "Biolab and working in bioscience"

## Module 1 (Week 1-9)

15 CPs

15 CPs

(can be combined with Module 1, 1<sup>st</sup> Semester)

Practical course: 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

## Module 2 (Week 10 – 18)

(can be combined with Module 2, 2<sup>nd</sup> Semester)

Practical course: 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) in a laboratory of your choice at our institute or in an external laboratory. 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: External lab rotations

# 4<sup>th</sup> Semester "Master thesis"

Master thesis in a laboratory of your choice within the Major Infectious Diseases.

## 30 CPs

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

#### Appendix:

#### I. External Lab rotations

Lab rotations outside Heidelberg

New guidelines, updated September 2009

The lab rotation has to fit in thematically with the Major "Infectious Diseases". 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:

- Duration and dates of the lab rotation
- Subject and title
- Guarantees for supervision
- 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 II).

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.

If you perform both laboratory rotations outside the Hygiene institute (including the associated research groups), the two rotations have to be located in different institutions.

#### II. Lab Rotations with a topic outside of the subject area "Infectious Diseases"

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.

# 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

Points	Mark
<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