Guidelines for Lab Rotations Biochemistry Bachelor and Master
Heidelberg University – March 2021

Student's responsibilities

1. Find a match.
   A "match" between student and lab is defined as an offer from the Principal Investigator (PI) for the student to join the lab. It is the student's responsibility to find a PI who agrees to host the student in their lab for a predefined time. Contact is best initiated via email.

2. Ensure you will get credit for the Lab Rotation
   The lab rotation needs to be an active research project, either in a 'wet lab', or in computational science or Bioinformatics. The student works on a research topic, implying that the work is done on a continuous topic, and not pursuing different duties every day, as e.g., technicians do. The field of the research topic needs to be in chemistry, Molecular Cell Biology, Biochemistry or Biophysics. If in doubt, contact your study coordinator and get a written confirmation by email that you will, upon successful completion, be given credit points that count towards your degree. If the above criteria are not met any scientific lab rotation can still be done, and be registered on your transcript of records as a voluntary achievement, but it will not count towards your degree.

3. Convey the mode of grading to your PI
   The lab rotation, unless a voluntary achievement, needs to be graded. It is the student's responsibility to convey this information to the PI, and at the beginning of the lab rotation, come to an agreement with the PI on the mode of grading. This should be agreed upon before the start of the lab rotation.

Principal Investigator's responsibilities

1. Have a supervisor (usually a PhD student or post-doc) for the student
   In Biochemistry at Heidelberg University, lab rotations are an essential part of both the Bachelors and the Masters programs. As such, students with very little laboratory experience (3rd semester Bachelor), or considerable laboratory experience (Masters) might apply to your group. Please have a supervisor for the student, and keep in mind that those with less experiences might need more supervision.

2. Have the student work on a project
   The students should work, together with their supervisor, on a continuous research project which should be defined at the beginning of the rotation. This does not need to be a separate project just for the student, it can be seamlessly tied into their supervisor's work, but it should allow the student to a) generate their own data and b) allow them to learn some techniques which are new to them.

3. Grading the student's work

   In order to receive credit, the lab rotation must be graded. The mode of grading ultimately is up to the hosting PI, but it should be conveyed to the student before the lab rotation starts and both sides should agree on the mode of grading. Some guidelines that might help your assessment:

   a) How satisfied were you with the student's performance? Would you hire the student or offer more rotations to the same student in the future? If yes, give a good grade.

   b) How independent was the student? Initially, every student new to a lab needs some hand-holding, but how independent was the student after the techniques were demonstrated? Did they take notes and were able to independently perform the experiments then. Consult the students supervisor as they might be best able to assess this.

   c) How well was the final report and lab protocol written? Did the student grasp the underlying questions of the project? Were they able to properly describe their work and interpret their results?

   d) How was the student's ability to communicate and discuss their experiments and data? One way of assessing this is a concluding meeting between the PI, the student, and the student's supervisor, where the experiments and the final outcome is discussed. Ideally, this could also be the students presentation in the group meeting.

4. Submit the grading

   The final grading ultimately is up to the PI.
   The Pi submits their grading to the study coordinator per email (rainer.beck@bzh.uni-heidelberg.de). If the supervisor (not the PI) sends the email, the PI needs to be in CC. Ultimately, the PI will be responsible for the grading.

   Grading Guidelines

   We recommend to base the grading along the following scale:

   The student by far exceeded your expectations, and clearly could not have done much better: **Grade 1,0 (exceptional)**

   Overall very happy and impressed with the student's performance, you would hire them again any time, if you had the capacity: **Grade 1,3 (very good)**

   The student did quite well, but could have spent more effort: **Grade 1,7 (good, but definitely some room for improvement)**

   The student tried, but was if at all, at an average level compared to others. They could have spent more effort, other students would have been able to achieve more **Grade 2.0 (ok, but slightly below your expectations)**

   You were not very happy with the student's performance **Grades in descending order 2,3 2,7 3,0 3,3 3,7 4,0** (this rarely, if ever, happened).