

# Lab Rotation 1 (IRT1) Guidelines

4 ECTS = 120 hr workload

Curriculum Committee, April 2009

## Basics

IRT stands for “individual research training.” All Masters students do an IRT in the first, second and third semester. The first lab rotation, IRT1, is “worth” 4 ECTS. Since each ECTS point is the equivalent to 30 hours of work, each student should invest approximately 120 hours towards the completion of his/her first project. The second rotation (IRT2) is 5 ECTS and the third one (IRT3) is 10 ECTS. In the first semester, Wednesdays are kept free for the IRT, and students are strongly encouraged to work on their projects during the semester. However, the student can also spend part of the semester break on the IRT1.

## Goal

The goal of IRT1 is to introduce students to a lab environment and research in practice. Students will learn about the motivation and background of the group’s research and the techniques used. Each student will carry out a small independent experiment or study that is relevant to the interests of the specific research group.

From the Studienordnung (the official rulebook of the EES program):

Students gain a thorough and hands-on overview of a major research project. They do a literature search and read the relevant literature and talk to all the people in the lab who are involved in the project. They learn about the methods and contribute a small sub-project (e.g. experiment) of their own. Students become involved with active research. They learn about everyday life in research and about the scientific background, research plan, and methods of a particular research project. They communicate with others about their work.

Note: Because the goal of the IRT1 is to introduce students to a lab environment and research in practice, it is important that the student is in the lab regularly and is integrated. This means for example: the student joins for coffee and lunch breaks, the student is invited to lab meetings and talks. It is also advised that the student schedules meetings with people who work in the lab or on the same project (Diplom and PhD students, TA's, postdocs, etc). All Masters students will have a transponder (an electronic key that allows access to specific rooms) that, if necessary, can be programmed to let the student into the lab. It should be clear to the student which computers, desks and lab benches can be used by him/her.

## Presentation

As part of the presentations course (Skills 2) offered during the first half of the semester, the students give a talk about their IRT1 project during the “IRT1 conference.”

## Report

As part of the scientific writing course (Skills 1) offered during the second half of the semester, the students write a small report in form of a scientific manuscript. This report will be reviewed by the supervisor of the IRT1 project and returned to the student for revision. The student then revises the report and hands it in to be graded by the supervisor of the IRT1 project. The report should be 10,000 – 30,000 characters long (about 5-10 full single spaced pages).

### **Time plan**

About one third of the time should be spent on reading and talking to people in the lab to learn about the goals and topics of the research group. One third of the time should be spent on practical work, and the last one third on writing the report. Student and supervisor can also make arrangements about when the student should be in the lab, when student and supervisor should meet, etc.

It is advised that the student and the supervisor make a time plan (including deadlines for handing in draft, getting feedback, and handing in the final report).

### **Mentor**

The student should discuss his/her plans for the lab rotation with his/her mentor and inform the EES coordinator by email about the topic of the IRT, the start date, and the planned end date.

### **IRT1 Deadlines 2011/12**

31.10.11	Decision on where to do the IRT1 – submit “IRT1 Approval Form” to EES coordinator
18.02.12	1 <sup>st</sup> draft of report is due Submit to supervisor as well as coordinator
04.03.12	Supervisor fills out “IRT1 and IRT2 feedback form” (students, make sure your supervisor has this form!) and submits copies to the student and to the coordinator.
06.03.12	Present work at IRT1 conference
23.03.12	Final version of manuscript is due Submit to supervisor and coordinator
15.04.12	Supervisor submits final grade for IRT1 project Supervisor must fill in the “IRT1 and IRT2 grading form” and return it to the student and coordinator.