

# Rules for the International M.Sc. Program in Computer Science at Reykjavík University

## 1 Introduction

These rules describe the objective and requirements of the international M.Sc. program in Computer Science at Reykjavík University.

The objective of the program is to prepare students for leading careers in industry and further academic study. The study program is closely tied to the research carried out at the School of Computer Science, through research-based courses and advanced research projects.

The official language of the program is English.

## 2 Degree

Upon successful completion of the program, Reykjavík University confers the title “Master of Science” (M.Sc.) on the student.

## 3 Program Coordination

The program is managed and coordinated by the Graduate Studies Council of the School of Computer Science.

Students may apply for exceptions to these rules to the Graduate Studies Council. Such exceptions should have strong justification and must be agreed upon by the student’s main supervisor.

The Graduate Studies Council handles any exceptional issues that cannot be resolved by students and their supervisors. The Dean of the School of Computer Science has final authority in all matters that cannot be resolved by the Graduate Studies Council.

## 4 Application Requirements

Applicants should at minimum have very successfully completed (or be close to completing) a B.Sc. degree in Computer Science, or a related area, before applying to the program.

Application and notification deadlines are posted on the university web-site. Applications must be submitted electronically by the posted deadline. Each application must, however, be accompanied by the following documentation, which must be sent by regular mail (postmarked by the posted application deadline):

- An official transcript of the undergraduate program, together with a statement of the ranking of the applicant with respect to other graduates from the program, if available.
- Two letters of recommendation from faculty members or others familiar with the applicant and the applicant’s work.
- A “statement of purpose” which describes the future plans of the applicant, and how the M.Sc. program at Reykjavík University can help the applicant reach his or her goals.

- Any additional information that can aid in the assessment of the strengths and weaknesses of the applicant.
- Detailed course descriptions from the undergraduate program.
- For international students, GRE scores are strongly recommended.
- For international students who are non-native English speakers, TOEFL scores, or comparable certifications, are generally required.

Applications are reviewed by the Graduate Studies Council, which makes a recommendation on acceptance or rejections, and determines whether students need to take any preparatory courses. The Dean of the School makes the final decision. The student is notified of the decision and its justification in writing.

## **5 Program Overview**

Students are required to complete at least 120 ECTS of study. The program has two tracks: a course-based track and a research-based track.

In the course-based track, students complete at least 90 ECTS of course-work, and at least 30 ECTS of M.Sc. project work, which may be a group project.

In the research-based track, students complete at least 60 ECTS of course-work, while at least 60 ECTS are devoted to an individual research project under the supervision of a faculty member.

All students enter into the course-based track. Students who demonstrate exceptional qualifications during the course of their M.Sc. studies can apply to enter the research-based track. The application should clearly indicate the intended research topic and a consenting supervisor, as well as the motivation for making the switch.

## **6 Academic Advising**

Upon entry to the program, each student is appointed an academic advisor by the Graduate Studies Council. The student must meet with the advisor before the start of each semester (early in the first semester) to lay out (or adjust) a study plan for the upcoming semester, as well as future semesters. All study plans must be reviewed by the Graduate Studies Council, which has the option of asking the student and advisor to refine the plan.

In order to proceed to M.Sc. project or thesis work, the student must find a project or thesis supervisor. The original advisor may either become the supervisor or help the student in finding a suitable supervisor. The supervisor then assumes all advising duties for the student. Any switching of students between faculty members must be made with the consent of the new advisor/supervisor and the Graduate Studies Council.

Project or thesis supervision is only performed by mutual consent of the student and supervisor. Many faculty members will have funded projects that qualified students can join. Students who have original ideas they wish to pursue must find a supervisor who is willing to supervise the project and to help the student mould it into a mutually agreeable project.

During project or thesis work the supervisor must be available to the student on a regular and mutually convenient schedule. The supervisor must make every effort to give the

student enough insight into the area and/or pointers for reading to allow the student to understand, plan and finish the project.

The project or thesis supervisor must have sufficient expertise to supervise the project or research. The supervisor must be a faculty member at Reykjavík University (possibly adjunct). A 30 ECTS project supervisor must at minimum have an M.Sc. degree. A 60 ECTS research thesis supervisor must have a Ph.D. degree.

## **7 Joint Supervision**

Joint supervision is possible when the research integrates the research areas of two faculty members, especially in interdisciplinary projects, and mandatory when the project work is performed jointly with a company. In jointly supervised projects, one of the supervisors is the leading supervisor, while the other is the co-supervisor. The leading supervisor must be a faculty member at Reykjavík University; the co-supervisor may be external to the Reykjavík University, but must at minimum have an M.Sc. degree.

## **8 General Academic Requirements**

In addition to the credit requirements of Section 4, the following requirements must be met by all students.

### **8.1 Grades**

Students must obtain a grade of at least 6 (on the regular scale of 0-10) in each course that counts towards the degree requirements. In courses graded with pass/fail, faculty members must make sure that a passing grade is equivalent to a grade of at least 6.

For students in the course-based track, the 15 credit project is graded by a specially appointed project committee, see Section 9.2. For students in the research-based track, the 60 ECTS thesis is graded by a specially appointed thesis committee, see Section 10.2.

### **8.2 Independent Studies**

Aside from the regular courses offered by the School, the student may take up to 16 ECTS of independent study courses, either with the advisor/supervisor or with other faculty members. Such independent studies should always be within the research area of the faculty member and concern subjects that are neither covered by a regular course nor the project or thesis work. Each independent study can range from 2-8 ECTS, depending on its breadth and depth. A description of the independent study must be approved by the Graduate Studies Council. The Council may impose modifications, restrictions or conditions on the format and execution of the course, where deemed necessary, to ensure its quality.

### **8.3 Graduate Credit Requirements**

At least 2/3 of the required course credits must be from graduate courses in Computer Science. Each student must take the course “T-701-REM4 Research Methodology”. The remaining graduate courses must be from at least three different subject areas of Computer Science. Students who have not taken the course “T-519-STOR Theory of Computation”, or an equivalent course, during their undergraduate studies must take the course “T-719-STO4 Theory of Computation”.

Students may take course credits in undergraduate courses or courses outside of Computer Science, if the following conditions are satisfied:

- Undergraduate courses must be advanced courses, which do not overlap with courses that students have completed before. The list of acceptable courses is posted before each semester.
- For courses outside of computer science, the course program must be ambitious and carefully assembled to give the student real benefits towards his or her future plans, as agreed upon by the student and the advisor/supervisor, and accepted by the Graduate Studies Council.

#### **8.4 Residency Requirements**

M.Sc. students are expected to spend at least three full semesters at Reykjavík University, while one full semester may be spent at a cooperating institution. In exceptional cases, however, a student may spend a second semester outside Reykjavík University, if it is the mutual agreement of the student and the advisor/supervisor that this is the most beneficial arrangement for that student.

Courses taken at cooperating institutions must be evaluated by the Graduate Studies Graduate Studies Council. Students must meet the minimum grade requirements of the cooperating institutions.

Courses from previous studies may count towards the degree requirements. Such courses must also be evaluated by the Graduate Studies Graduate Studies Council.

#### **8.5 Time Requirements**

Students in the course-based track may study part-time, although full-time study is preferred during the M.Sc. project. The program must be completed within four calendar years.

Students in the research-based track are expected to study full-time. The program must be completed within three calendar years.

### **9 Requirements for 30 ECTS Project Report**

#### **9.1 Project Report Requirements**

Before graduation, students in the course-based track must submit a project report. In the case of a group project, the students together submit a single report. The project report must represent a body of work, which in quantity and quality matches or exceeds the expectations of the project committee for one semester of full time work. In cases where the project is part of a larger project, or where others have contributed to the work represented in the report, the contribution of the student(s) must be clearly identified.

An open presentation of the project must take place prior to graduation. The students are graded with pass/fail by a project committee. The committee may also give a grade of incomplete and request minor revisions to the report, which are then verified by the supervisor, or major revisions, which must be verified by all committee members. In order to pass the project, such changes must then be made within six months.

The report must be written in English. The format and binding of the report is determined by the School of Computer Science. The students must provide three printed and bound

copies of the final report, with report committee signatures and a library release form, to the supervisor. The student must also provide a digital version of the report to the supervisor, for publication on the Reykjavík University website.

## **9.2 Project Committee**

The project committee is formed by the project supervisor and reviewed by the Graduate Studies Council. The committee must consist of at least three qualified members, possibly external to the School. In case of co-supervision, the project committee must have at least two members other than the supervisors. The leading supervisor chairs the project committee.

The project committee should be formed as early as possible. The role of the committee members is to assist the student in the completion of the project, which includes the following:

- Each committee member must allow the student to seek their advice, and should attempt to communicate such advice to the student as promptly as possible.
- Upon submission of a project report, the committee members review the report. Critical questions should be sent to the student in advance of the presentation.
- The committee members should attend the presentation of the students, and should hold a closed session as part of the presentation. The supervisor (and co-supervisor) must be in attendance during the presentation. If one committee member is unable to attend the presentation, or follow the presentation via remote meeting facilities, a list of suggestions may be sent to the student and supervisor ahead of the presentation. Additionally, a list of questions may be sent to the supervisor. If two committee members are unable to attend, the presentation must be rescheduled.
- After the presentation, the project committee members determine the project grade for each individual student, and whether minor or major revisions are necessary. In the case of major revisions, the committee members must additionally review the revisions.
- Once the final version of the project report is produced, taking into account any comments and suggestions by committee members, the version must be signed by all committee members.

## **9.3 Deadlines**

The deadline schedule for graduation in a particular semester is as follows (the graduation date is  $t$ ):

Report delivered to project committee	$t-4$ weeks (Monday)
Comments delivered to student	$t-2$ weeks (Monday)
Open presentation	$t-2$ weeks (Thursday)
Final version of project report delivered	$t-1$ week (Monday)
Grade posted to school	$t-1$ week (Monday)
Graduation	$t$ (Saturday)

This schedule assumes no revisions or minor revisions. In the case of major revisions, the students are very likely to require more time to address the concerns of the thesis committee, and additional time must also be given to committee members, before posting the grades to the school.

Students are responsible for meeting all deadlines. Students that miss any of these deadlines must graduate in the following semester.

## **10 Requirements for 60 ECTS Research Thesis**

### ***10.1 Thesis Requirements***

Before graduation, the students in the research-based track must then submit a research thesis. The thesis must represent a body of original, individual research work, which in quantity and quality matches or exceeds the expectations of the thesis committee for two semesters of full time research. This requirement must be met regardless of how long the actual thesis work has taken; it may take more than two semesters to finish the thesis, and in fact it is even possible to finish in less than two semesters to finish the thesis. In cases where the thesis is part of a larger research project, or where other students or researchers have contributed to the topics represented in the thesis, the contribution of the student must be clearly identified in the thesis.

An open defence of the thesis must take place prior to the evaluation of the thesis. After the open defence, the thesis committee should hold a closed session with the student.

The thesis is graded with pass/fail by a thesis committee. The committee may also give a grade of incomplete and request minor revisions to the thesis, which are then verified by the supervisor, or major revisions, which must be verified by all committee members. In order to pass the thesis defence, such changes must then be made within six months.

The thesis must be written in English. The format and binding of the thesis is determined by the School of Computer Science. The students must provide three printed and bound copies of the final thesis, with thesis committee signatures and a library release form, to the supervisor. The student must also provide a digital version of the thesis to the supervisor, for publication on the Reykjavík University website.

### ***10.2 Thesis Committee***

The thesis committee is formed by the thesis supervisor and reviewed by the Graduate Studies Council. The committee must consist of at least three qualified members, possibly external to the School. In case of co-supervision, the thesis committee must have at least two members other than the supervisors. The leading supervisor chairs the thesis committee.

The thesis committee should be formed as early as possible. The role of the committee members is to assist the student in the completion of the research, which includes the following:

- Each committee member must allow the student to seek their advice, and should attempt to communicate such advice to the student as promptly as possible.
- Upon submission of a thesis, the committee members review the thesis. Critical questions should be sent to the student in advance of the defence.

- The committee members should attend the presentation of the students, and should hold a closed session as part of the presentation. The supervisor (and co-supervisor) must be in attendance during the presentation. If one committee member is unable to attend the presentation, or follow the presentation via remote meeting facilities, a list of suggestions may be sent to the student and supervisor ahead of the presentation. Additionally, a list of questions may be sent to the supervisor. If two committee members are unable to attend, the presentation must be rescheduled.
- After the defence, the thesis committee members determine the thesis grade, and whether minor or major revisions are necessary. In the case of major revisions, the committee members must additionally review the revisions.
- Once the final version is produced, which takes into account any comments by committee members, the version must be signed by all committee members.

### **10.3 Deadlines**

The deadline schedule for graduation in a particular semester is as follows (the graduation date is  $t$ ):

Thesis delivered to supervisor	$t-9$ weeks (Monday)
Supervisor comments delivered to student	$t-7$ weeks (Monday)
The thesis delivered to thesis committee	$t-5$ weeks (Monday)
Thesis committee comments delivered to student	$t-3$ weeks (Monday)
Defence	$t-2$ weeks (Thursday)
Final version of thesis delivered	$t-2$ weeks (Thursday)
Grade posted to school	$t-1$ week (Monday)
Graduation	$t$ (Saturday)

This schedule assumes no revisions or minor revisions. In the case of major revisions, the student is very likely to require more time to address the concerns of the thesis committee, and additional time must also be given to committee members, before posting the grade to the school.

Students are responsible for meeting all deadlines. Students that miss any of these deadlines must graduate in the following semester. Before each semester, the Graduate Studies Council will post a list of semester-specific deadlines for thesis submissions.

## **11 Tuition, Support, and Facilities**

Tuition is determined by Reykjavík University.

Student support is coordinated through the School, in the form of teaching assistantships, and through the research grants of individual faculty members, in the form of research assistantships.

Facilities are coordinated through the School and through the research labs of individual supervisors. Students in the course-based track have access to the general student facilities of Reykjavík University. Students in the research-based track will generally have access to work space and the necessary computing equipment.

## **12 Effect**

These rules take effect immediately.