



# 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 Department 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 Research and Graduate Studies Council (RGSC) of the Department of Computer Science.

Students or supervisors may apply for exceptions to these rules to the RGSC. Such exceptions must have strong justification.

The RGSC handles any exceptional issues that cannot be resolved by students and their supervisors. The Chair of the Department of Computer Science has final authority in all matters that cannot be resolved by the RGSC.

## 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:

- An official transcript of the undergraduate program.
- 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 who are non-native English speakers, TOEFL scores, or comparable certifications, are generally required.

Applications are reviewed by the RGSC, which makes a recommendation on acceptance or rejection, and determines whether students need to take any preparatory courses. 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 can be a group project. Each project group can include at most three students.

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.

Upon entry to the program, each student is appointed an academic advisor by the RGSC. The student should meet with the advisor at least once every semester to discuss the plan of study.

In order to proceed to M.Sc. project or thesis work, the student must find a project or



thesis supervisor. The assigned advisor may help the student in finding a suitable supervisor. The supervisor then assumes all advising duties for the student. Supervisors are responsible for notifying the Department of Computer Science office of any changes in their supervisory duties, including when taking on new students.

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 Reykjavík University, but must at minimum have an M.Sc. degree.

## **8. General Academic Requirements**

In addition to the credit requirements of Section 5, 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 30 ECTS 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 Department, 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 by 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 RGSC. 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. 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-519-STOR Theory of Computation” during their M.Sc studies.

Students must satisfy a breadth requirement, by taking at least one (minimum 6 ECTS) graduate course from each of the following three major areas of Computer Science: Systems, Applications, and Theory.

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 RGSC.

### ***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<sup>1</sup>. 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 RGSC. 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 RGSC.

### *8.5 Time Requirements*

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

A study leave may be granted for special personal reasons, but the total (accumulated) study leave period over the course of study cannot exceed one year. The study leave period does not count towards time to program completion.

Students who exceed the allowed study period will be deregistered from the program and must reapply if they wish to continue their study. If accepted, the previous study credits will be evaluated in accordance with Reykjavík University's rules for evaluation of previous studies.

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

### *9.1 Project Report Requirements*

MSc project registration: 24 ECTS MSc research, 6 ECTS MSc project defence.

Students need to hand in a draft that the supervisor deems qualified enough for evaluation by the project committee and then they can be signed up for the project defence for 6 ECTS.

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

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<sup>1</sup> Residency requirements for students who are enrolled in double-degree or other international programs are specified in the rules for those programs



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 presented 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 project is graded on the scale 1-10 by a project committee. A passing grade for a thesis is 6.0.

A grade should be assigned immediately following the defence. The grade will not be changed even if changes are made before final delivery. In case of a failing grade, the defence can be repeated once. The final version should be delivered to the department within six months of the (first) defence.

The report must be written in English. The format of the report is determined by the Department of Computer Science. The students must upload a copy of the final report to Skemman and hand in a copy 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 RGSC. The committee must consist of at least three qualified members, possibly external to the Department. In case of co-supervision, the project committee must have at least two members other than the supervisors. The lead 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, either physically or remotely, 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, 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, either physically or remotely, the presentation must be rescheduled.

- After the presentation, the project committee members determine the project grade for each individual student, using the thesis grading guidelines. The grading form 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 (Wednesday)
Final version of project report delivered	t-2 weeks (Friday)
Grade posted to Department	t-1 week (Monday)
Graduation	t weeks (Saturday)

This schedule assumes no significant 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 the defense.

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

MSc thesis registration: 30 ECTS MSc research, 24 ECTS MSc thesis, 6 ECTS MSc thesis defence.

Students register for 30 ECTS MSc research, and then hand in a progress report by the last day of teaching of the three week term. It should contain a review of related work, review of background, the actual progress made, and a plan and a schedule on how to proceed. The supervisor gives a pass/fail grade for the progress report.



Next semester students register for a 24 ECTS in MSc thesis. Students need to hand in a draft that the supervisor deems qualified enough for evaluation by the thesis committee and then they can be signed up for the thesis defence for 6 ECTS.

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 take 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 on the scale 1-10 by a thesis committee (see the grading guidelines). A passing grade for a thesis is 6.0. A grade should be assigned immediately following the defence. The grade will not be changed even if changes are made before final delivery. In case of a failing grade, the defence can be repeated once. The final version should be delivered to the department within six months of the (first) defence.

The thesis must be written in English. The format of the thesis is determined by the Department of Computer Science. The students must upload their final thesis to Skemman and hand in a sheet with the 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 RGSC. The committee must consist of at least three qualified members, possibly external to the Department. In case of co-supervision, the thesis committee must have at least two members other than the supervisors. At least one of the committee members should be independent from the work of the student. 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, either physically or remotely, 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, either physically or remotely, the presentation must be rescheduled.
- After the defence, the thesis committee members determine the thesis grade using the thesis grading guidelines. The grading sheet must be signed by all committee members.

### 10.3 Deadlines

Progress report should be handed in by the last day of teaching of the three week term during the semester in which the student takes the MSc research course.

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-3 weeks (Friday)
Final version of thesis delivered	t-2 weeks (Thursday)
Grade posted to Department	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 the defense.

Students are responsible for meeting all deadlines. Students that miss any of these deadlines must graduate in the following semester. Before each semester, the RGSC 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 Department, 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 Department and through the research laboratories 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. The rules apply for all students that start their studies from the fall 2020. The students enrolled before that can choose, whether they apply to these rules or to the rules that were current at their enrollment.