Faculty of Earth Sciences, University of Iceland



Graduate study handbook for MS and PhD studies

Intended for students and staff

Version: September 30, 2022

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1. Introduction

This manual is intended for students and advisors/academic staff, with the goal to clarify various aspects of MS and PhD studies at the Faculty of Earth Sciences, University of Iceland. Please note that this is not the only source of information (see Section 2.5); the School of Engineering and Natural Sciences (SENS) has information websites for both MS and PhD studies; and the student association Folda has additional practical information. The organizational structure of the University is on three levels: University, School, and Faculty. The Faculty must adhere to rules and regulations by the University and School. The primary language of this manual is English. This manual does not have any legal status and no formal responsibility is taken for misinformation or lack of information. Comments and concerns regarding this manual may be directed to the Postgraduate Study Committee (see Section 2.4) or to the editor of this handbook (see Section 12).

2. Organisation and administrative parts

2.1 Institute of Earth Sciences and Faculty of Earth Sciences

Teaching and research in earth sciences at the University of Iceland is split into the *a)* the Faculty of Earth Sciences (FES) and *b)* the Institute of Earth Sciences (IES). Broadly speaking, the Faculty handles teaching matters and the Institute handles research matters. In an administrative sense, the Faculty belongs to the School of Engineering and Natural Sciences (SENS), while the Institute belongs to the Science Institute (Raunvísindastofnun). Graduate studies aim to teach research skills, and therefore graduate students typically need to make use of both the Faculty and Institute of Earth Sciences.

2.2 Respective roles of Faculty of Earth Sciences (FES) and School of Engineering and Natural Sciences (SENS)

The SENS office oversees practical and administrative aspects of the study, while the FES oversees the academic part of the study.

2.3 Role of the Graduate Study Committee

The FES Graduate Study Committee (GSC - also sometimes called the Post-graduate Study Committee, e.g. in SENS regulations) handles various matters such as admittance of students and certain approvals: approval of MS examiners and PhD opponents; approval of PhD committee; approval of study plan(s); approval of change in study plans; approval of PhD thesis.

2.4 Various committees, boards, and contacts (last updated Sep. 30, 2022)

SENS office graduate studies general contact email: sensgraduate@hi.is

SENS office MS main contact email: mssens@hi.is

SENS office MS main program manager: Donna Kristjana Peters (donna@hi.is)

SENS office PhD main contact email: phdsens@hi.is

SENS office PhD main program manager: Þuríður Ósk Sigurjónsdóttir (thuraosk@hi.is)

Graduate Study Committee (GSC) head: Steffen Mischke (smi@hi.is)

GSC deputy head: Bryndís Brandsdóttir (bryndis@hi.is)

Other GSC members: Halldór Geirsson, Guðmundur Guðfinnsson, Elisa Piispa

Contact for PhD desks, etc: IES office manager (Anna Jóna Baldursdóttir or Sandra Mjöll Jónsdóttir) and SENS Human Resources (Ingibjörg Óðinsdóttir (ingaodins@hi.is))

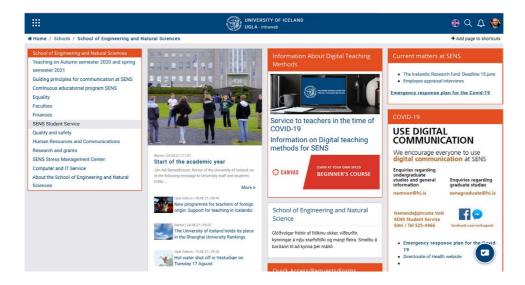
Faculty head: Andri Stefánsson (andri@hi.is)

Deputy faculty head: Guðfinna Aðalgeirsdóttir (gua@hi.is)

Chairman of the board of the Institute of Earth Sciences: Olgeir Sigmarsson (olgeir@hi.is) Joint board for the Faculty and Institute of Earth Sciences: Olgeir Sigmarsson, Ívar Örn Benediktsson, Elisa Piipsa, Halldór Geirsson, Andri Stefánsson, Guðfinna Aðalgeirsdóttir.

2.5 Sources of information for MS and PhD studies

There are several sources of information about MS and PhD studies. SENS maintains detailed information in the University "Ugla" portal. To access the Ugla portal you must have a university username. From ugla.hi.is navigate to "School of Engineering and Natural Sciences" (it varies where this is located depending on your Ugla setup), and choose "SENS student service" (see Figure 1). Under this information portal, students and advisors will find various useful information.



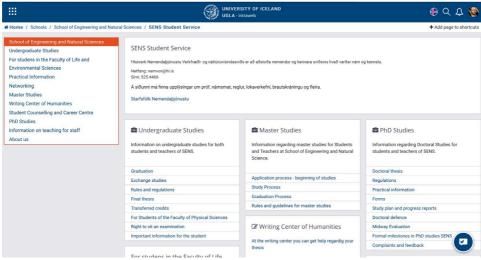


Figure 1: screenshots of access to the SENS student service portal.

All new MS and PhD students must sign a contract with their advisors (see Sections Appendices B and C). A copy of the contract should be sent to the head of the GPC (see Section 2.4). The contract contains important information regarding roles and course of study. The contracts comply with the graduate study rules and regulations of the University and SENS:

- University regulations, especially Article 69: https://english.hi.is/node/18642
- SENS regulations for MS studies (see also Appendix E): https://english.hi.is/node/54553
- SENS regulations for PhD studies (see also Appendix F):
 https://english.hi.is/university/regulation no 995 2017 on doctoral study at the school of engineering and natural

Students and advisors are encouraged to review the learning outcomes, listed in the course catalog (https://english.hi.is/university/course catalogue), that pertain to the appropriate studyline.

The graduate student association for students in earth sciences, FOLDA, also maintains a manual with some practical information. FOLDA can be contacted, for example, through their facebook portal (Figure 2), https://www.facebook.com/groups/920452848347374.

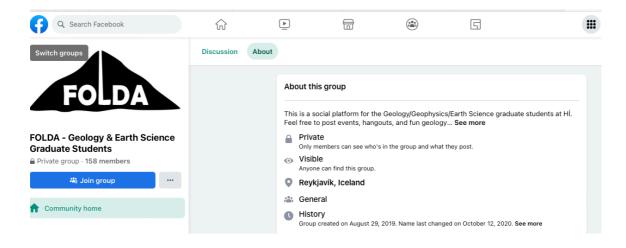


Figure 2: Screenshot of the FOLDA web portal on facebook.

3. Admissions

MS students: The minimum admission grade for MS studies is 7.25 on a scale from 0-10. Students that do not meet this requirement may apply for an exemption from the Faculty based on other evaluation criteria. For further information regarding admission requirements for MS studies see https://english.hi.is/geophysics and https://english.hi.is/geology. The course curriculum is based on fall term commencements, i.e., most MS students begin their studies in the fall semester.

<u>PhD students</u>: PhD students can be admitted at any time, for further information see SENS regulations

(https://english.hi.is/university/regulation no 995 2017 on doctoral study at the school of engineering and natural). Furthermore, PhD students applying are expected to already have funded projects, or be in the process of applying for funds for their research.

4. Course of study for the MS program

As per the <u>UI course catalog</u>, the study is 120 ECTS divided into 60 ECTS for courses and 60 ECTS for a research project. The nominal time to complete the study is 2 years. See (https://ugla.hi.is/kennsluskra/index.php?tab=nam&kennsluar=2021&flaturlisti=0&namsstig=F#svid50) for further details, learning outcomes, etc.

IES offers two main study lines: Geology and Geophysics. A third, multidisciplinary study line for Renewable Energy exists under the Geology degree. The Faculty also offers a degree in Earth Science. The Earth Science programme is principally aimed at students with a bachelor's degree in the physical sciences or engineering that want to study geology or geophysics in their MS studies.

- Upon acceptance into the programme, each student is appointed a "faculty coordinator" (sometimes called "administrative advisor"). The faculty coordinator is an academic member of the Faculty who coordinates the studies of the student and oversees, on behalf of the Faculty, that progress is in accordance with study plans. The faculty coordinator may provide counselling but is not a supervisor nor directly affiliated with the MS project. The faculty coordinator may help students find academic supervisors.
- **Supervisors** (i.e. thesis supervisors) are experts in the field of the research project of the MS-student. The thesis supervisor(s) are the main academic advisor(s) of the student, whereas the faculty coordinator maintains the role of overseeing the study. The thesis supervisor(s) can be employed outside of the University of Iceland, but must hold at least a MS degree or equivalent in a field related to the study.

- **The Masters Committee** consists of at least two members, including the thesis supervisor (UI regulations no. 994-2017).
- UI Graduate Centre: (Miðstöð framhaldsnáms): oversees and implements established standards and requirements for the quality of graduate studies at the University of Iceland, based on article 66 of UI regulations no. 569/2009.
 Information and data requested by the Centre must be provided.

At the beginning of the first semester, the student must complete a particular *study form* (see Appendix C). The study form should be filled out with the faculty coordinator and/or thesis supervisor if one has been appointed. The study form is sent to the SENS MS program manager (mssens@hi.is) within the first 2 weeks, upon responsibility of the student. Copies should be sent to the faculty coordinator and thesis supervisor. The study plan should be updated and resent around the middle of the second semester. The study form document contains a comprehensive list of milestones for the MS study.

Each student must also sign a contract with the faculty (see Appendix B). This contract outlines in detail the respective roles of the parties involved in the study. All signing the contract should read it carefully before signing. The faculty coordinator is responsible for that the contract is signed in due time. The contract is available in Appendix B of this manual; academic staff can access the original version in .doc format under Teams "JVD/JH stafsmannasíða - FES/IES staff". The signed contract (pdf) is sent to the Graduate Study Committee and the SENS MS email (mssens@hi.is), before the end of the first semester. In the rare case of delayed choice of supervisor or major changes in the course of study, the contract can be updated.

4.1 Compulsory courses and choice of courses

In general, most of the coursework is completed during the first two semesters, while most of the research is conducted during the third and fourth semesters. Regardless, it is important to start planning right from the start what the research focus will be, and choose courses accordingly. Courses are labelled F,M,G in the course catalog, which stands for F: graduate ("framhaldsnám"), M: mixed, and G: undergraduate ("grunnnám"). The minimum grade to pass each course is 6.0 for MS students. MS students should focus on "M" and "F" courses, however, one "G" course can be included (see MS rules of SENS for details). It is possible to take courses that are not listed specially as elective courses, for example in other departments, if deemed necessary. Students, in coordination with their supervisor(s) and/or faculty coordinator, choose which courses are taken.

Two courses are compulsory for the MS studies in Geology and Geophysics: VON001F and JAR242F. For the MS study in Renewable Energy, Geothermal Science, a few more courses are compulsory, see

https://ugla.hi.is/kennsluskra/index.php?tab=nam&chapter=namsleid&id=090615 20216&kennsluar=2021&lina=8721 for further details.

Students pursuing their MS degree through the United Nations Geothermal Training Program (GRÓ-GTP) are allowed to count up to 15 ECTS of their previous 6-month training

towards their compulsory course credit minimum, as per a special contract between GRÓ-GTP and the University of Iceland.

4.2 Graduation procedure

The internal Ugla SENS web portal contains detailed information about the graduation process (https://ugla.hi.is/cms/milli.php?sid=3834), based on the SENS regulations (see Section 2.5). The thesis must be near completion about 2 months before the MS examination, which is performed by an external examiner. It is the responsibility of the supervisor (and faculty coordinator) to evaluate if the student is ready to graduate and to initiate the graduation process (Figure 3). Students are expected to present their research in public at the SENS MS day, however, if they are unable to attend the MS day, they can arrange with their thesis supervisor to hold a public presentation separately. The MS examination is a closed examination. Further details on the procedure of the graduation can be found in Appendix A.

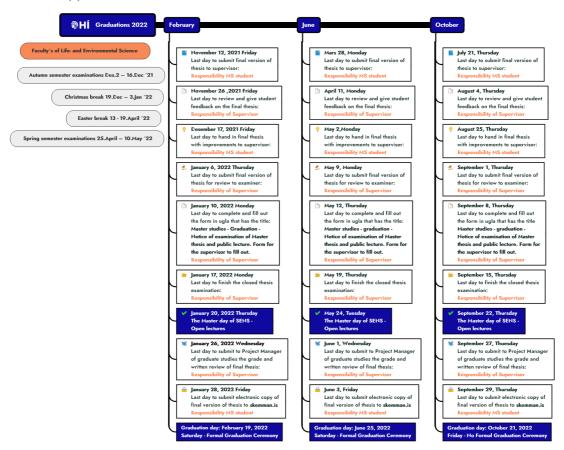


Figure 3: Timeline of MS graduation process for 2022.

5. Course of study for PhD program

As stated in the <u>UI course catalog</u>, the PhD study is 180 ECTS. PhD students are not required to take any courses (unless the Graduate Study Committee requests prerequisite courses to

be taken), however, they are encouraged to discuss with their advisors and PhD committee if taking certain courses would be useful for their PhD project. Course credits only add to the total number of credits, i.e. full three years of research form the core of the PhD study. The official length of the study is three academic years after the MS study (according to the course catalog). Some students do finish in three years, however, a majority of students take somewhat longer to complete, often 4-5 years.

Each student is appointed a "faculty coordinator" at the start of their study - see Appendix D for definitions of parties involved in the PhD study. Each student needs to fill out an agreement (see Appendix D) and send to the Postgraduate Study Committee and SENS PhD contact email (see Section 2.4). In the beginning of the study it is important to focus on appointing a PhD committee and defining the research project as thoroughly as possible. Most often the PhD study is composed of three linked research sections, for publication in peer-reviewed journals. Ususally, at least one paper from the thesis is published; the second paper submitted; and the third paper should exist is a complete manuscript draft, prior to the PhD defense.

Before the end of the first semester, each PhD student submits a study plan valid for the duration of the studies. The study plan includes necessary background material and definition of the research project, as well as a plan of how the research project will be executed. The study plan is signed by the student and PhD committee, and sent by the student to the Graduate Study Committee head and the SENS PhD contact (phdsens@hi.is). All PhD students must complete a Mid-way evaluation before the end of their third semester. All PhD students must complete bi-annual reports on their course of study, to be submitted through the "Doktorsnáman" interface in Ugla. The faculty coordinator must approve and perform the final submission of each report. The PhD student is also required to give an open lecture on the PhD project around the mid-point of the study. Further information can be found in the SENS PhD portal, https://ugla.hi.is/cms/milli.php?sid=3835

It is the responsibility of the PhD committee to evaluate if the student is ready for graduation. It is important to think well ahead about the graduation process, as the thesis should be ready at least 12 weeks before the scheduled defense. Further information can be found in the SENS PhD portal, https://ugla.hi.is/cms/milli.php?sid=3835

A dedicated "Ombudsman" for PhD students acts as an impartial, independent counsel for PhD students, aiming to resolve problems that may come up and cannot be easily resolved between student and PhD committee. Further information on the Ombudsman can be found here: https://english.hi.is/university/ombudsman for phd students

6. Taking part in teaching

Graduate students are encouraged to take part in teaching to develop their own teaching skills and mature as researchers. Graduate students should discuss with their supervisor(s) about opportunities for teaching.

7. Desks and facilities for MS and PhD students

The IES/FES operates a housing committee, which plans the usage of facilities in collaboration with IES, FES, and SENS.

MS students are generally not granted fixed desks during their studies.

PhD students are assigned desks in shared spaces. Students that have their main facilities and supervisors outside of the University of Iceland (for example at ÍSOR), are still eligible for having desk space. The IES office manager (see Section 2.4) handles desk allocations.

8. Financial support for MS students

In general, MS studies are not supported financially. Each MS student, with advisor, can apply for a grant from the Faculty of Earth Sciences for up to 200 thousand ISK to cover specific expenses such as necessary lab expenses, fieldwork, or travel for the MS project, however, the grant cannot be used for conference costs. This grant is advertised annually.

9. Financial support for PhD students

It is expected that PhD students are working on funded research projects. Generally, PhD students become payed employees of the Institute of Earth Sciences, within the University of Iceland. It is the joint duty of the student and supervisor(s) to secure funding for the PhD project.

10. Safety matters

The IES/FES operates a safety committee. We are very concerned with lab and field safety. Each student must participate in an annual "safety day" that is announced in due time. Here are links to essential safety guidelines:

Field safety:

http://jardvis.hi.is/sites/jardvis.hi.is/files/Pdf_skjol/Oryggismal/jh_oryggi_i_ferdum - field_safety_1.pdf

Lab safety

http://jardvis.hi.is/sites/jardvis.hi.is/files/Pdf skjol/Oryggismal/jh oryggisreglur a rannsok nastofum - lab safety guidelines 1.pdf

12. Revision of this document

This document should be revised on an annual basis, by responsibility of the Graduate Study Committee. The original version of this document is only available for IES and FES staff, and is stored on Teams --> JVD/JH stafsmannasíða - FES/IES staff --> Files --> MS og PhD samingar, leiðbeiningar, form --> Graduate study handbook --> Graduate handbook

DATE.docx. All previous editions of the document are archived on the same Teams site. Editor for this version of the Graduate study handbook was Halldór Geirsson (hgeirs@hi.is); editor for the next version of the handbook will be Halldór Geirsson (hgeirs@hi.is).

Appendix: various forms and documents

In the following pages various contracts and forms can be found. The originals for these documents are available for staff on Teams (see Section 12).

APPENDIX A: Guidelines for MS exam and presentation at FES

- Graduation guidelines for MS studies at FES are available on Ugla (https://ugla.hi.is/kerfi/view/page.php?sid=4499)
- MS studies at FES are finalised when a student passes an closed oral examination and gives a public lecture on his / her project during the SENS Master's Days held three times a year before each graduation.
- Public MS presentations are generally not to take place at other times than on a Master's Day.
- The oral exam must be completed before the student gives a lecture on the Master's Day.
- The external examiner is appointed according to the rules of SENS (nr.994-2017).
- Funding for the MS studies can be applied for at the FES

Timeframe:

- Results from the MS exam must be available three weeks before the expected graduation date or alternatively be communicated at least 4 days before the masters day.
- An examiner must receive the thesis no later than 3 weeks before an oral examination. The examiner can make comments and request that they be taken into account in the final thesis. If comments are not put forward during an oral examination, they must be communicated at least 4 days before the masters day.
- The final version of the thesis must be ready on the Masters day.
- The MS project is evaluated by the MS committee and the external examiner.

Evaluation for the MS project:

- The MS project is 60 ECTS and is carried out in 9-12 months. When the project is evaluated this timeframe must be kept in mind this applies to the scope of the project, thesis length, volume of work, and the depth of analysis presented.
- The requirements for passing the degree of MS are detailed in the learning outcomes that can be viewed on webpage of the University of Iceland. The learning outcomes outline the knowledge and understanding, practical ability and skills, theoretical skills, communication skills and information literacy, and learning skills. The MS-thesis is expected to demonstrate these skills and in the oral MS-exam the student is expected to be able to answer questions on the topics dealt with, discuss the reasoning behind methods and results presented in the thesis. See also below an evaluation scheme for MS thesis

MS-exam:

• An MS-exam at the Faculty of Earth Sciences is not open to others than those directly involved in the exam.

- Present in exam are the student, the appointed examiner, the faculty coordinator, the supervisor, and other members of the student's MS-committee if they wish to attend.
- Following a 20 minutes introduction by the student of the thesis, the examiner can bring up points needing attention, question the candidate on the thesis and listen to the arguments presented by the candidate.
- There are two possible outcomes of an MS-exam: Pass or Fail.
- The outcome of the exam is decided after discussion between the examiner and the MS graduate committee.
- If the result is a pass, if required, the candidate receives from the examiner a list of suggestions on corrections (typos, minor errors etc.).
- The faculty coordinator, supervisor and examiner, and if present, other members of the MS-committee, jointly write a brief assessment of the MS-project, the thesis and its contribution and sign the assessment at the end of the examination.
- The assessment letter should be on the faculty letterhead and to be sent by post and as a scanned copy to the project manager of the MS-studies.
- The candidate will receive the assessment at graduation.
- It is expected that the MS-exam takes approximately 60 minutes.
- The result from a MS-exam has to be ready at least three weeks <u>before the expected</u> <u>graduation day.</u>
- Payment to the examiner is according to the regulations of the School of Engineering and Natural Sciences and the University of Iceland.

Mat á MS-ritgerð*

Nemandi:		
Vel afmarkað viðfangsefni		Illa afmarkað viðfangsefni
Skýrar rannsóknaspurningar		Óskýrar rannsóknaspurningar
Traustur fræðilegur grundvöllur		Ótraustur fræðilegur grundvöllur
Frumupplýsinga aflað með eigin athugun		Engin sjálfstæð gagnaöflun eða rannsóknavinna
Aðferðir við eigin rannsókn hentugar og vel rökstuddar		Óhentugaraðferðirvaldar
Aðferðum beitt á viðeigandi hátt og af öryggi		Beiting aðferða ómarkviss ogóörugg
Sannfærandi og ítarleg túlkun eigin gagna		Yfirborðskennd túlkun eigin gagna
Rannsóknaspurningum svarað á fullnægjandi hátt		Rannsóknaspurningum ekki svarað
Gild rök færð fyrir fullyrðingum og túlkunum		Óljós rök til stuðnings fullyrðingum og túlkunum
Gagnrýnin og ábyrg notkun heimilda		Of fáar, rýrar eða ótraustar heimildir
Ljóst hvaða efni er fengið úr heimildum		Óljóst hvaða efni er fengið úr heimildum
Einungis sett fram efni sem kemur rannsóknaverkefninu við		Mikið af efni sem á ekkert erindi
Rökrétt skipan efnis		Efnið sett fram í belg og biðu
Góð hlutföll milli kafla eða ritgerðarhluta		Sumir kaflar óhóflega langir/stuttir
Vel skrifaður texti, án málalenginga		Klunnalegur texti, orðagjálfur eða málvillur áberandi
Myndir og töflur notaðar á viðeigandi hátt		Myndir og töflur notaðar með ómarkvissum hætti
Hreinlega frágengið verk		Frágangur slappur
Réttar og samræmdar heimildatilvísanir inni í texta		Rangar eða mismunandi tilvísanir til heimilda í texta
Heimildaskrá rétt sett fram		Villur og ósamræmi í heimildaskrá
Heildarmat:		
Góð fræðimennska		Léleg fræðimennska
Punktar fyrir umsögn:		
Niðurstaða prófs:Staðið	6Fallið	

^{*}Skorkort til stuðnings við mat á ritgerð og við gerð umsagnar. Skorkort fylgir ekki umsögn.

Evaluation of MS-thesis*

Student:		
Well defined project		Poorly defined project
Clear research questions		Unclear research questions
Sound theoretical basis		Unsound theoretical basis
Original data acquired by own observations		No independent data analysis nor research
Methods appropriate and well argued for		Methods not appropriate
Methods applied in an appropriate and confident manner		Application of methods poor
Convincing and thorough interpretation of own data		Shallow and poor interpretation of own data
Research questions addressed in a convincing manner		Research questions not addressed
Valid argumentation for statements and interpretation		Insufficient arguments for statements and interpretation
Critical and responsible use of references		Too few, unsound, or poor references
Obvious from which references data or statements come from		Unclear what is the source of statements or data
Thesis is concise		Thesis is full of irrelevant material
Logical arrangement of thesis		Thesis is chaotic
Good proportions in section lengths		Some sections are too long/too short
Well written text without clutter		Poor text; cluttered and/or abundant in spelling mistakes
Use of figures and tables appropriate		Poor use of figures and tables
Neat layout and style		Poor layout and style
Correct and coordinated use of references		Wrong or mismatching use of references
Reference list correct and complete		Reference list incorrect & incomplete
Overall evaluation:		
Good research		Poor research
Notes for student:		
Examination results:	Pass	Fail
Examination results:	Pass	ган

^{*}This scorecard is intended to help with evaluation of the thesis and feedback. The score card is not supplied with the feedback.

APPENDIX B: Agreement for MS studies

(starts next page)

Framework/Agreement for MS-degree studies Faculty of Earth Sciences, School of Engineering and Natural Sciences, University of Iceland

The agreement outlines obligations, rights and duties of MS students, supervisors and faculty coordinators of masters studies at the Faculty of Earth Sciences (JVD). The agreement is based on SENS MS regulations no.994-2017

Definition of roles:

- Head of faculty (forseti deildar) is the academic leader of the faculty and responsible, with the dean of the school, for faculty policies, organization of study, and quality of teaching and research. The head of faculty carries out motions of the joint JVD/JH faculty council.
- Head of department (forma
 öur n
 ámsbrautar) oversees the departmental teaching program on
 behalf of the faculty, including graduate studies and other matters concerning teaching.
- Project manager of graduate studies (verkefnastjóri framhaldsnáms): A member of the SENS administration who oversees the graduate program. This person is a liaison between students, the Graduate Studies Committee, faculty coordinators, supervisors and the MScommittee.
- JVD Graduate Studies Committee (framhaldsnámsnefnd): A committee appointed by the faculty board to oversee the graduate study admissions and program in accordance with the MS and PhD regulations of School of Engineering and Natural Sciences (SENS).
- Faculty Coordinator (umsjónarkennari): An academic member of faculty who coordinates the studies of the student and oversees, on behalf of the Faculty, that progress is in accordance with study plans. The Faculty coordinator may provide counselling but is not a supervisor or directly affiliated with the MS project.
- Supervisor (leiðbeinandi): An expert in the field of the research project of the MS-student.
- Masters Committee (meistaraprófsnefnd): The MS committee consists of at least two members, including the supervisor and a faculty coordinator (UI regulations no. 994-2017 B).
- UI Graduate Centre: (Miðstöð framhaldsnáms): oversees and implements established standards and requirements for the quality of graduate studies at the University of Iceland, based on article 66 of UI regulations no. 569/2009. Information and data requested by the Centre must be provided.

Safety training and orientation.

The head of faculty, head of department and project manager of graduate studies meet with new graduate students at the beginning of their first autumn semester, to introduce UI regulations and deliver other orientation information.

Students enrolled for the autumn semester receive training in laboratory and field safety. Supervisors are obligated to arrange laboratory and field safety training for students arriving at other times.

Agreement

1. Parties to the agreement

Student, student supervisor, faculty coordinator

2. Aims and prerequisites

All students admitted to the masters program of Faculty of Earth Sciences shall sign a project agreement with the faculty.

The master's program provides training in scientific research through work on a research project and a masters dissertation. The masters dissertation may consist of one essay of 8-15 thousand words containing a thorough description of the aims, methods, data and results of the research project. The dissertation may also consist of a manuscript for a scientific paper to be published in a peer-reviewed journal, where the candidate is the first author, and a comprehensive introduction covering all relevant background information with a summary of major results. The research project shall be based on a study plan that includes a project description with clear objectives, milestones, laboratory facilities and other issues related to the project. The study plan is to be finalized at the beginning of the MS study and signed by all relevant parties.

3. Duration a the masters agreement

A Master's degree shall, as a rule, consist of 120 credits, at least two years of full time work. The research project is 60 credits (SENS rules nr. 286, 2012).

A maximum of 15 credits may consist of reading courses assigned by the supervisor.

A maximum time for completing the master's program is three years. The Faculty may grant an extension under special circumstances.

At least 50% of the course credits are to be taken at the University of Iceland.

4. Registration

The student shall register with the University and pay the annual registration fee in accordance with the University regulations.

5. Study leave

Based on article 48 of UI regulations 569/2009, students wishing to suspend study for a period of time shall seek the permission of their faculty and register for the duration of the leave, on the condition that they comply with provisions regarding the deadline for completing their studies. The period of leave can be up to a maximum of one year at a time, and does not prolong the maximum period of study in accordance with the regulations of the relevant faculty. The student must pay a portion of the registration fee during the period of leave.

6. Use of written work and other sources

Acts, regulations and rules pertaining to the University of Iceland contain specific stipulations on students' obligations and responsibilities, as well as disciplinary sanctions in case of violations.

The Faculty and SENS are obliged to offer guidance on accepted study practices and proper referencing of scientific work.

Students are strictly prohibited from using the intellectual property of others during the thesis work, unless sources are cited in conformity with recognized academic practice. Plagiarism is not accepted and can lead to the annulation of thesis and degree or other measures (articles 51 and 54 of the UI regulations 569/2009).

7. Appointment of supervisor and formation of the masters committee

A MS student is entitled to supervision during two or three semesters of the masters program, based on the distribution of course work.

Supervisor(s) are nominated by the Faculty coordinator(s), under consultation with the graduate studies committee and confirmed by the head of faculty.

A supervisor shall be assigned no later than the middle of second semester. In projects with two supervisors, the supervision shall be defined either as evenly split, 50%/50%, or 75% for the main supervisor and 25% for the second supervisor.

The masters committee consists of two or three members, supervisor(s), and the Faculty coordinator.

The appointment of a masters committee is to be approved by the JVD graduate committee and head of faculty (article 7 of SENS regulations nr. 286/2012).

8. Scope and nature of supervision

The masters student is entitled to at least 10 meetings, about 1.5 hours, with the supervisor, during the course of the study. During the third and fourth semester the student is entitled to at least one such meeting per month. Field and lab work does not classify as a meeting.

Supervisor(s) shall provide guidance on the organization and formulation of the research project, including research plan, advice on research approach, available facilities, problem-solving tasks as well as literature relevant to the research project and thesis. Supervisor(s) are also obliged to review, discuss and comment on thesis and paper drafts handed to them by the MS student. Dialogue shall normally take place at meetings, but other arrangements can be agreed on. The supervisor(s) are to register the project's progress based on the JVD study form.

The student is obliged to keep the supervisor(s) informed about the work, at least twice a semester, if necessary by written notification. This applies to practical aspects that are essential for the advancement of the project. The student is obliged to abide by the principles of research ethics applicable to the subject area.

External supervisors shall inform the Faculty coordinator at least once per semester of the progress of the MS-thesis work.

The masters student can seek advice in full confidentiality to the Faculty coordinator in cases of disagreement with supervisor(s) or neglection on their part. The Faculty coordinator strives to resolve such issues, if needed in collaboration with the SENS Human Resource Manager. In the case of serious disagreements these matters are referred to the Faculty and Institute board.

9. Changes in supervision conditions

Both the supervisor and student may request modifications or cancellation of the supervision agreement. Cancellation can only be carried out following thorough consultation with the Faculty coordinator and the Faculty and Institute board. The supervisor is to notify the Faculty coordinator and/or the Faculty and Institute board if serious problems arise regarding the student's work. The student is obliged to notify the Faculty coordinator of unresolved problems that may arise between student and supervisor. If the student finds the supervision unsatisfactory and not according to the terms of this agreement, the student shall contact the Faculty coordinator, who seeks to resolve conflicts or refers such complaints to the JVD/JH board.

10. Timetable for graduation

The thesis draft must be delivered to the supervisor(s) no later than 11 weeks prior to graduation. The supervisor returns the thesis draft with comments no later than 9 weeks prior to graduation. The final version of the MS thesis must be delivered to the MS committee and external examiner no later than 7 weeks prior to graduation.

The MS thesis examination must be held no later than 4 weeks prior to graduation.

The final exam report must be delivered to the SENS graduate study office no later than 3 weeks prior to graduation.

11. MS project presentation

Exam

Parties involved in the closed MS exam are the student, faculty coordinator, supervisors and an external examiner. External examiners are appointed based on article 8 of SENS regulations 286/2012, following evaluation by the JVD Graduate Studies committee and Head of faculty. The exam takes about 60 minutes, thereof are 20 minutes for the student introduction of the project. The external examiner and supervisor examine the masters student on the contents of the thesis under supervision of a faculty coordinator who is a member of the MSc committee. Procedure of the MS exam can be viewed in the guidelines of FES on MS exams.

Open MS lecture

According to the regulations of the School of Engineering and Natural Sciences (SENS) all MS students must give an open presentation about the main results of their MS project. Three masters days are held by SENS before graduation. The dates can be viewed at ugla.hi.is. The presentations are 20 minutes each, were 5 minutes are allocated for questions.

12. Publishing

Unpublished data, collected by the student and the supervisor that is not included in the thesis and that the student does not take the initiative to publish (within a year from graduation), may be written up by the supervisor(s) an published in scientific journals. The student will co-author such papers.

If the student abandons the project before completion, the supervisor(s) has the right to publish data collected during the study in international journals. The student shall be a co-author of such paper(s).

13. Rights related to the use of project results

Unpublished data, collected by the student and the supervisor that is not included in the thesis and that the student does not take the initiative to publish (within a year from graduation), may be written up by the supervisor(s) an published in scientific journals. The student will co-author such papers. If the student abandons the project before completion, the supervisor(s) has the right to publish data collected during the study in international journals. The student shall be a co-author of such paper(s).

This agreement is valid for the period
Signatures
Student Supervisor(s)
Witnessed by the Faculty Coordinator

APPENDIX C: Study plan form for MS studies

(starts next page)

MS-studies form

Faculty of Earth Sciences

A: When a	ccepted into the program		
Faculty o	coordinator (umsjónarkennari) is a	ssigned.	
-			
B: Complet	ted at beginning of studies:		
Student:	:		
Start of s	studies:		
Estimate	ed date for completion:		

C: Course list – provisionally completed at beginning of studies – to be updated before middle of second semester

Number	Title	Semester	Units
Total	- 1	1	

-

D: Completed before middle of second semester (1 November/March 1)
Supervisor and project:
MS-committee:
Title of project:
Project description (approx. 300 words):
(Include the following information: objectives, research question, hypothesis, methods, facilities/equipment to be used in the project, location where the project work will be carried out, estimated project outcome/profit/benefit.)
E: Milestones When accepted into the program
E1 – Faculty coordinator
assigned At start of studies:
E2 - Provisional course list decided on with Faculty coordinator
E3 - Training in laboratory and field health and safety.
Middle of second semester:
E4 – Supervisor selected and project
E5 – Final course list
E6 – Project title and description
End of second semester:
E7 – Status report 1 (progress with courses, status of research plan, funding/cost plan)
End of third semester:
E8 – Status report 2 (progress of research and status of time plan)
End of fourth/final semester:
E9 – Completion of thesis work, closed examination and public lecture at the SENS masters day (see MS-regulations and guidelines on MS exams).

APPENDIX D: Agreement for PhD studies

(starts next page)

Framework/Agreement for PhD-degree studies Faculty of Earth Sciences, School of Engineering and Natural Sciences, University of Iceland

The agreement outlines the obligations, rights and duties of PhD students, supervisors and Faculty coordinator of doctoral studies at the Faculty of Earth Sciences (JVD). The agreement is based on SENS PhD regulations no. 642/2011 B.

Definition of roles:

- Head of faculty (forseti deildar) is the academic leader of the faculty and responsible, with the dean of the school, for faculty policies, organization of study, and quality of teaching and research. The head of faculty carries out motions of the joint JVD/JH faculty council.
- Head of department (forma
 our n
 massbrautar) oversees the departmental teaching program on
 behalf of the faculty, including graduate studies and other matters concerning teaching.
- Project manager of graduate studies (verkefnastjóri framhaldsnáms): A member of the SENS administration who oversees the graduate program. This person is a liaison between students, the Graduate Studies Committee, faculty coordinators, supervisors and the PhDcommittee.
- JVD Graduate Studies Committee (framhaldsnámsnefnd): A committee appointed by the faculty board to oversee the graduate study admissions and program in accordance with the MSc and PhD regulations of School of Engineering and Natural Sciences (SENS).
- Faculty Coordinator (umsjónarkennari): An academic member of faculty who coordinates
 the studies of the student and oversees, on behalf of the Faculty, that progress is in
 accordance with study plans. The Faculty coordinator may provide counselling but is not a
 supervisor of directly affiliated with the PhD project.
- Supervisor (leiðbeinandi): An expert in the field of the research project of the PhD-student.
- Doctoral Committee (doktorsnefnd): A group of 3-5 members including supervisor(s), Faculty coordinator and external members, according to University of Iceland regulations no. 642/2011 B.
- UI Graduate Centre: (Miŏstöŏ framhaldsnáms): oversees and implements established standards and requirements for the quality of graduate studies at the University of Iceland, based on article 66 of UI regulations no. 569/2009. Information and data requested by the Centre must be provided.

Safety training and orientation.

The head of faculty, head of department and project manager of graduate studies meet with new graduate students at the beginning of their first autumn semester, to introduce UI regulations and deliver other orientation information.

Students enrolled for the autumn semester receive training in laboratory and field safety. Supervisors are obligated to arrange laboratory and field safety training for students arriving at other times.

Agreement

1. Parties to the agreement

Student, student supervisors, and faculty coordinator

2. Aims and prerequisites

All students admitted to the doctoral program of Faculty of Earth Sciences shall sign a project agreement with the faculty.

The doctoral program provides training in advanced research through the research project and doctoral dissertation.

The doctoral dissertation normally consists of three or more scientific papers to be published in peerreviewed journals, where the candidate is the first author. Prior to the thesis defense, one paper
should have been accepted for publication and two others ready for submittance. In addition to the
scientific papers, the thesis must contain a comprehensive introduction covering all relevant
background information, outlining the proportional contributions from the candidate versus co-workers,
and a summary of major results. The thesis should also include appendices listing relevant data used,
research methodology and references. The research project shall be based on a study plan that
includes a project description with clear objectives, milestones and outcomes. The study plan may be
revised during the course of the doctoral program. For additional information see article 16 in SENS
PhD rules nr. 642, 2011.

The doctoral program is three years. The initial PhD contract is one year, to be renewed for two more years upon the passing of a qualifying exam. The maximum time for completing doctoral studies is five years (article 11 of SENS rules nr. 642, 2011).

3. Formal milestones in PhD studies

Study plan: The doctoral student, jointly with his/her supervisor and Faculty coordinator, formulates a study plan to be approved by the Doctoral Committee and confirmed by the Graduate Studies Committee. The study plan shall contain information on project funding, project milestones, publication rights, laboratory facilities and other issues related to the project. The Graduate Studies Committee can request modifications to the study plan, which is subsequently revised by the student, supervisor(s) and Faculty coordinator. The study plan shall be submitted to the SENS project manager of graduate studies within the first three months of the doctoral program.

First year Qualifying Examination, the student shall demonstrate his/her knowledge in the academic field relevant to the project within the first year of the doctoral program (see guidlines on Qualifying exam). The execution of such an exam is the responsibility of the Doctoral Committee. Exam results are to be delivered to the SENS project manager of graduate studies.

Student lecture: Following the first year qualifying exam, the student shall give a faculty lecture on the PhD project. The supervisor (or, when relevant, the faculty coordinator) are responsible for the lecture that is to be held.

Progress reports: Progress reports, describing the advancement of the doctoral project, are to be delivered annually to the doctoral committee (months 12, 24 and 36). Each progress report is to be written and cosigned by the student and the supervisor. The student is responsible for the delivery of these reports to the SENS project manager of graduate studies. The reports are evaluated and approved by the JVD Graduate Studies Committee.

PhD defense approval: At the initiative of the supervisor, the Doctoral Committee determines when the doctoral dissertation is ready for a defense. The Doctoral Committee submits a thesis defense request to the Graduate Studies Committee, proposing a date for the defense and suggesting a minimum of two opponents. The Graduate Studies Committee, along with the UI Graduate Centre, evaluates the defense request and can either approve it or suggest changes. The approval of opponents on behalf of the Faculty is by Head of Faculty.

Defense of doctoral dissertation: Upon approval of the defense request and opponents, a public defense of the dissertation takes place according to procedures set by the Faculty of Earth Sciences in 2015.

4. Use of written work and other sources

Acts, regulations and rules pertaining to the University of Iceland contain specific stipulations on students' obligations and responsibilities, as well as disciplinary sanctions in case of violations.

The Faculty and SENS are obliged to offer guidance on accepted study practices and proper referencing of scientific work.

Students are strictly prohibited from using the intellectual property of others during the thesis work, unless sources are cited in conformity with recognized academic practice. Plagiarism is not accepted and can lead to the annulation of thesis and degree or other measures according to articles 51 of the UI regulations 569/2009.

5. Registration

The student shall register with the University and pay the annual registration fee in accordance with the University regulations.

6. Study leave

Based on article 48 of UI regulations 569/2009, students wishing to suspend study for a period of time shall seek the permission of their faculty and register for the duration of the leave, on the condition that they comply with provisions regarding the deadline for completing their studies. The period of leave can be up to a maximum of one year at a time, and does not prolong the maximum period of study in accordance with the regulations of the relevant faculty. The student must pay a portion of the registration fee during the period of leave.

7. Practical matters

The funding of the PhD project and the doctoral student shall be based on a plan presented to the Graduate Studies Committee with the PhD application. At the initiation of the PhD program, the supervisor (or, when relevant, the Faculty coordinator) shall see to that the student is made aware of his rights and duties on issues like health and safety. For foreign students this also includes information on immigration, the social welfare system in Iceland and taxation system. The payment of registration fees can be the responsibility of the student or paid from grants; this is to be decided at the initiation of the PhD program.

8. Appointment of supervisor and formation of the doctoral committee

Being a grant recipient, the supervisor(s) seeks and hires student(s) for each PhD project. In projects with two or more supervisors, the supervision shall be defined either as evenly split, 50/50, 33/33/33, or as e.g. 25%, 50% or 75% for the main supervisor and 75%, 50% or 25% for other supervisors.

The doctoral committee consists of at least three members, supervisor(s), Faculty coordinator and external expert(s) according to UI regulations. The Faculty coordinator must be an academic employee of the faculty or Institute with voting rights at faculty meetings.

9. Scope and nature of supervision

The doctoral student is entitled to regular supervision during the course of the study. The doctoral student and the supervisor(s) agree on the number of meetings per month, with a minimum of one 1.5 hour meeting per month.

Supervisor(s) lead fundraising for PhD projects and provide guidance to the student on how to apply for funding for scientific research.

Supervisor(s) shall provide guidance throughout the study, including information regarding available facilities, advice on formulation of research approach and research plan, problem- solving tasks as well as literature relevant to the research project and thesis.

Supervisor(s) and the SENS project manager of graduate studies are obliged to manage all administrative aspects of the doctoral program, such as evaluating the project's progress (annual progress reports), to ensure students are registered, have paid registration fees, and monitor credits at end of each semester. They are also responsible for the completion and submission of annual progress reports, to coordinate the qualifying exam and project lecture, and to oversee the administration associated with the thesis defense process.

Supervisor(s) are obliged to review, discuss and comment on thesis and paper drafts handed to them by the PhD student. Dialogue shall normally take place at meetings, but other arrangements can be agreed on.

The student is obliged to keep the supervisor(s) informed about the work, at least twice a semester, if necessary by written notification. This applies to practical aspects that are essential for the advancement of the project. The student is obliged to abide by the principles of research ethics applicable to the subject area.

External supervisors shall inform the Faculty coordinator at least once per semester on the progress of the PhD-thesis work.

The doctoral student can seek advice in full confidentiality to the Faculty coordinator in cases of disagreement with supervisor(s) or neglection on their part. The Faculty coordinator strives to resolve such issues, if needed in collaboration with the SENS Human Resource Manager. In the case of serious disagreements these matters are referred to the JVD/JH board.

10. Changes in supervision conditions

Both the supervisor and student may request modifications or cancellation of the supervision agreement. Cancellation can only be carried out following thorough consultation with the Faculty coordinator and the JVD/JH board. The supervisor is to notify the Faculty coordinator and/or the JVD/JH board if serious problems arise regarding the student's work. The student is obliged to notify the Faculty coordinator of unresolved problems that may arise between the student and the supervisor. If the student finds the supervision unsatisfactory and not according to the terms of this agreement, the student shall contact the Faculty coordinator, who seeks to resolve conflicts or refers such complaints to the JVD/JH board.

11. Publishing

The doctoral student shall publish project results in three first-authored papers of international peerreviewed scientific journals. A minimum requirement prior to a thesis defense is that one paper has been accepted for publication and the other two be ready for submission. If the student does not submit or return revised manuscript(s) to the journals following the doctoral defense, the supervisor has the right to do so in order to ensure publication.

12. Rights related to the use of project results

Unpublished data, collected by the student and the supervisor that is not included in the thesis and that the student does not take the initiative to publish (within a year from graduation), may be written up by the supervisor(s) an published in scientific journals. The student will co-author such papers.

If the student abandons the project before completion, the supervisor(s) has the right to publish data collected during the study in international journals. The student shall be a co-author of such paper(s).

This agreement is valid for the period
Signatures
Supervisor(s)
Witnessed by the Feedby Coordinates
Witnessed by the Faculty Coordinator

Appendix E: Regulation no. 994-2017 on Master's study at School of Engineering and Natural Sciences

Acquired from https://english.hi.is/node/54553 on January 11, 2021

Article 1. Studies and objectives.

Within the School of Engineering and Natural Sciences (hereafter, 'the School'), it is possible to take Master's studies in those subjects specified in Chapter XIV of the Regulation for the University of Iceland, no. 569/2009.

The goal of a Master's programme is to provide a solid and comprehensive education, deepening the knowledge in a particular field of study which can be applied to further studies or in employment.

A Master's degree may be a final degree or preparation for doctoral studies. Each faculty shall set learning outcomes in those subjects pertaining to it. Upon completion of a Master's programme in Engineering, students may apply for the right to use the regulated professional title 'Engineer', cf. Act no. 8/1996.

The University of Iceland Graduate School shall oversee and follow up established standards and requirements for the quality of postgraduate studies at the University of Iceland, cf. Article 66 of the Regulation for the University of Iceland, no. 569/2009. Any information requested by the Graduate School must be supplied.

Article 2. Admission requirements.

To enrol in a Master's programme at a faculty of the School, a student must have completed a recognised undergraduate programme (BS degree) in the field of specialisation for which they apply, or a comparable recognised programme, with the minimum grade specified by the faculty in the course catalogue.

Faculties are permitted to stipulate prerequisite requirements, cf. Article 11 of this Regulation.

In the case of a joint Master's degree conferred by the University of Iceland and another university, the head of the Division of Academic Affairs must be consulted in preparing an agreement for the study programme.

Article 3. Faculty postgraduate study committees.

The faculty council of each faculty shall select and appoint a postgraduate study committee for the faculty. The committee shall comprise a minimum of three members of the academic staff. The postgraduate study committee shall handle matters relating to postgraduate study within the faculty in question. Its role is to oversee the quality of postgraduate programmes (cf. the Standards and requirements for the quality of Master's programmes at the University of Iceland), oversee the application process for postgraduate studies within the faculty, approve external examiners on behalf of the faculty council, and perform any other tasks the faculty may assign to it. The

postgraduate study committee approves those nominated to serve on a student's Master's degree committee.

Article 4. Processing of applications.

Applications for admission to Master's programmes are submitted using the electronic application form provided by the University of Iceland Student Registration. The School Office sends an assessment of original materials and copies of applications and accompanying documents to the respective faculty postgraduate study committee.

The faculty postgraduate study committee assesses the application and whether the necessary facilities are available, approves or rejects the application on behalf of the faculty and stipulates any prerequisites. The postgraduate study committee sends its verdict to the head of faculty as well as the School Office.

Registration and payment of the registration fee are a precondition for commencing or continuing study.

Article 5. Tutors and supervisors.

Each Master's student shall from the beginning of their studies be assigned a tutor, who advises the student regarding the organisation of the programme, choice of courses, as well as any matters and regulations related to their studies. A tutor must always be a permanent member of academic staff at the respective faculty. Subject to approval by the head of faculty, a student may switch tutors, if circumstances so demand. The tutor is generally also the student's Master's supervisor. The faculty may permit a student to have an external supervisor, provided that this individual meets the requirements for serving on a Master's degree committee, as stipulated by the University of Iceland.

Article 6. Study plan.

The Master's student must meet with the tutor at the beginning of the programme to devise a study plan regarding courses to be taken and the Master's thesis as far as possible.

A research plan shall be added to the study plan no later than by the end of the first semester of a Master's programme in cases where the project accounts for 90 credits, by the end of the second semester if the project accounts for 60 credits, and by the end of the third semester if the project accounts for 30 credits.

The faculty may stipulate more detailed regulations regarding the study plan and its content.

Article 7. Master's degree committee.

A Master's degree committee must include at least two persons, one of which shall be the student's tutor. Those serving on a Master's degree committee shall hold at least a Master's degree and possess knowledge in the field relevant to the Master's project. The head of faculty appoints the Master's degree committee, subject to the approval of the faculty postgraduate study committee. The role of the Master's degree committee is to supervise the Master's student, ensure the academic quality of the research work, and also that the study progress is in line with the study plan.

Article 8. External examiner.

The School dean shall appoint external examiners based on recommendations from the faculty postgraduate study committee. The external examiner, together with the Master's degree committee, assesses the Master's project, cf. Article 12 of this Regulation. External examiners shall have completed at least a Master's degree and be recognised in their academic field. If no suitable external examiner outside of the University of Iceland can be found in Iceland, who fulfils the aforementioned requirements, the School dean is authorised to appoint a member of the academic staff of the University to the position, based on recommendations from the faculty postgraduate study committee.

Article 9. Length of study and number of credits.

A Master's programme following a BS programme shall be equivalent to 120 credits, i.e. a minimum of two years of full-time study.

The size of the research project shall be as follows:

Faculty of Industrial Engineering, Mechanical Engineering and Computer Science: 30 or 60 credits.

Faculty of Earth Sciences: 60 credits.

Faculty of Life and Environmental Sciences: 30, 60, or 90 credits.

Faculty of Electrical and Computer Engineering: 60 credits.

Faculty of Physical Sciences: 60 or 90 credits.

Faculty of Civil and Environmental Engineering: 30 or 60 credits.

Deviation from these provisions is permitted in cases of interdisciplinary study programmes, for which special regulations regarding the size of the project are in force. The maximum number of credits for reading courses overseen by a student's supervisor is 15.

The maximum length of time permitted for completing a Master's degree is six semesters from the time of enrolment. The Faculty may grant exemptions from these time limits, in exceptional circumstances.

Master's students shall take at least half their Master's programme credits at the University of Iceland.

Article 10. Course requirements.

Courses shall be at the postgraduate level of the University of Iceland (M and F courses) or of other recognised research universities.

All courses must conclude with an appropriate assessment in conformity with specifications in the study plan. The minimum grade for courses taken at the University of Iceland that shall be assessed as part of a Master's programme is 6.0. Courses taken at recognised universities other than the University of Iceland must be completed in conformity with the requirements of that university.

In general, undergraduate courses (courses marked G at the University of Iceland) cannot be assessed as part of a Master's programme. Interdisciplinary research may,

however, lead to undergraduate courses in other [departments]¹being deemed a necessary part of the Master's programme. Generally, 8 credits of such necessary undergraduate coursework may count towards the Master's programme. However, it is permitted to take up to 12 credits of undergraduate courses in cases where the research project accounts for 30 credits.

¹Amended by Article 1 of Regulation no. <u>447/2018</u>.

Article 11. Prerequisites.

If a Master's student has changed their field of study with their choice of a Master's programme, important fundamentals acquired in undergraduate studies may be missing from the student's academic record. The faculty postgraduate study committee stipulates necessary prerequisites for an applicant to be admitted to a Master's programme. In such cases, the necessary prerequisites will be added to the coursework component of the programme. The Master's student is required to fulfil these requirements at the beginning of the programme. Prerequisites must be specified in the study plan.

Article 12. Assessment.

A Master's programme shall conclude with the submission of a thesis and the delivery of a public lecture on the project by the student, held at the University of Iceland. The Master's degree committee and external examiner assess the Master's project.

Master's theses that meet the requirements of the faculty shall be graded according to quality. In the Faculties of Industrial Engineering, Mechanical Engineering and Computer Science as well as Civil and Environmental Engineering, grades are awarded in whole and half numbers, from 6.0 to 10.0. In the Faculties of Earth Sciences, Life and Environmental Sciences, Electrical and Computer Engineering, as well as Physical Sciences, pass/fail grades are awarded.

Faculties may set more detailed rules on the implementation and mode of assessment.

Article 13. Submission and format of the Master's thesis.

The finished Master's thesis shall be submitted to the Master's degree committee and the external examiner at least two weeks before the examination and the student's concluding public lecture.

A Master's thesis shall conform to the School's template for Master's theses. It must be clearly indicated that the project was completed at the University of Iceland. The supervisors, external examiner, school, faculty and, if applicable, research institute concerned, shall be identified, as shall any funds that financed the project.

Master's students shall comply with the working procedure and deadline for submitting an electronic copy of their Master's thesis, as stipulated by the School Office. Faculties may stipulate rules on submitting a printed copy.

Article 14. Academic title.

A Master's degree confers the right to the academic title *magister* [scientiarum,]¹and use of the abbreviation MS.

¹Amended by Article 1 of Regulation no. <u>1192/2018</u>.

Article 15. Entry into force.

This Regulation is established by the University Council in accordance with the authority of paragraph 3, Article 18 of the Act on Public Higher Education Institutions, no. 85/2008, cf. also Article 69 of the Regulation for the University of Iceland, no. 569/2009. This Regulation has been approved by the Board of the School of Engineering and Natural Sciences, having received the opinion of the faculties concerned and the Graduate School, cf. Articles 66 and 69 of the Regulation for the University of Iceland, no. 569/2009. This Regulation enters into force immediately. At the same time, Regulation no. 286/2012, on Master's study at the University of Iceland School of Engineering and Natural Sciences, is repealed.

Appendix F: Regulation no. 995-2017 on doctoral study at the School of Engineering and Natural Sciences

Acquired from https://english.hi.is/node/54560 on April 25, 2022.

Article 1. Studies and objectives.

Within the School of Engineering and Natural Sciences (hereafter, 'the School'), it is, in accordance with Chapter VI of the Regulation for the University of Iceland, no. 569/2009, possible to take doctoral studies in those subjects specified in Chapter XIV of the Regulation for the University of Iceland, no. 569/2009.

It is possible to take doctoral studies in all faculties within the School in those academic fields for which the relevant faculty and the School deem the necessary facilities and specialist knowledge to be available.

The objective of a doctoral programme is to provide students with extensive and solid training in research, and to enable them to conduct independent academic work. Each faculty shall be responsible for their own doctoral programmes and shall set learning outcomes for doctoral programmes in those subjects pertaining to it.

This Regulation defines a common framework for doctoral study in the School; further details on various points can be found in the rules for organisation of study for individual faculties or departments.

The University of Iceland Graduate School shall oversee and follow up established standards and requirements for the quality of postgraduate studies at the University of Iceland, cf. Article 66 of the Regulation for the University of Iceland, no. 569/2009. The School Office shall supply any information requested by the Graduate School.

The School Office ensures that this Regulation, agreements on joint doctorates, when applicable, and central University of Iceland regulations are enforced.

Article 2. Admission requirements.

To enrol in doctoral studies, students must have completed a recognised Master's degree in the field of proposed doctoral study or a related field. Faculties are permitted to stipulate prerequisite requirements, cf. Article 11. Any Master's degree, which forms the basis for doctoral studies, shall be from a recognised university.

Transfer of a student enrolled in a Master's programme in the natural sciences to a doctoral programme is permissible with the approval of the faculty in question, even if the student has not yet defended the Master's thesis, provided that no more than two years have passed since the student enrolled in the Master's programme, assuming study on a full-time basis. The student shall, in consultation with their administrative supervisor, apply for such a

transfer as if applying for conventional doctoral studies, cf. Article 5 of this Regulation. Further provisions on preparation and number of credits can be found in Article 9.

In the case of a joint doctoral degree conferred by the University of Iceland and another university or institution, the Division of Academic Affairs and the Graduate School must be consulted in preparing an agreement for the study programme, cf. Article 66 of the Regulation for the University of Iceland, no. 569/2009.

Article 3. Application deadline.

The School accepts applications for doctoral studies all year round, regardless of specific dates.

Article 4. Faculty postgraduate study committee and Faculty council.

The postgraduate study committee of each faculty oversees the application process for doctoral studies within said faculty. The Faculty council or postgraduate study committee, on behalf of the Faculty council and under its authority, shall approve the doctoral committee for each doctoral student, confirm their study plan, confirm that the thesis is fit for defence, and approve the doctoral committee's proposed opponents before the proposal is presented to the Graduate School for confirmation.

Any changes to the terms of a student's doctoral studies require approval from the postgraduate study committee. This includes changing administrative supervisor, academic supervisor, or members of the doctoral committee, as well as changing the topic of the doctoral thesis. If a student's request for such a change is not approved, it may result in the student not being permitted to continue their doctoral studies, e.g. if a supervisor leaves their post and no other qualified person can take over that role.

Article 5. Processing of applications.

Applications for admission to doctoral study programmes are submitted using the electronic application forms provided by the University of Iceland Student Registration or at the School Office. In addition to the standard application documents, applicants are also required to provide information regarding their administrative supervisor, academic supervisor, how their studies will be funded, and a brief statement on the applicant's field(s) of interest and expectations regarding study.

The School Office sends an assessment of original materials and copies of applications and accompanying documents to the respective faculty's postgraduate study committee.

The faculty postgraduate study committee evaluates the application (administrative supervisor and academic supervisor, basis of financial support, and whether the programme conforms to the faculty's policy and objectives), accepts or rejects the application on behalf of the faculty, and stipulates prerequisites, where applicable. The postgraduate study committee sends its conclusion to the head of faculty as well as the School Office, which notifies the Student Registration.

Registration and payment of the registration fee are necessary prerequisites for commencing or continuing study. Students are responsible for registering annually for each upcoming academic year and must pay the registration fee.

Article 6. Administrative supervisor and academic supervisor.

Each doctoral student shall from the beginning of their studies have an administrative supervisor, who advises the student regarding the organisation of the programme, choice of courses, as well as any matters and regulations related to their studies. The administrative supervisor must be a permanent member of academic staff at the respective faculty and have completed a doctorate in the field of study in question.

Should a student discontinue their studies, the administrative supervisor shall formally notify the School Office, which ensures that the student's doctoral study track is terminated.

The administrative supervisor is generally also the student's academic supervisor regarding the doctoral project. The faculty may, however, permit a student to have an external academic supervisor, provided that this individual meets the requirements for supervisors, as stipulated by the University of Iceland.

The academic supervisor must be a recognised expert with a doctorate in the field of study in question and have published papers on their own research in international peer-reviewed journals.

Each student's research project must fall under the specialisation of their academic supervisor. The academic supervisor is responsible for ensuring that the doctoral project is carried out in a professional manner.

Article 7. Doctoral committee.

Before the end of the first semester, the administrative supervisor shall propose doctoral committee members to the respective faculty's postgraduate study committee for approval. The administrative supervisor shall obtain the consent of the individuals proposed for the doctoral committee, before approaching the postgraduate study committee. The postgraduate study committee notifies the administrative supervisor, head of faculty as well as the School Office of their approval. The School Office then issues a letter of appointment for the doctoral committee.

The doctoral committee shall consist of at least three expert individuals. The majority of committee members must have a doctorate. The administrative supervisor shall always have a seat on the doctoral committee and acts as chair. In case the administrative supervisor is not the academic supervisor, the academic supervisor shall also sit on the doctoral committee. At least one committee member must work outside the University of Iceland faculty in question. In the case of a tie vote in the committee, the chair shall cast the deciding vote. The doctoral committee shall fulfil the academic requirements stipulated in

the Standards and requirements for the quality of doctoral programmes at the University of Iceland.

The doctoral committee shall summon the doctoral student to its meetings as necessary over the duration of the programme, but at least once a year. The committee monitors study progress and provides the student with guidance, as necessary. The doctoral committee bears responsibility for assessing the student's doctoral studies in accordance with Article 12.

Article 8. Study plan.

A doctoral student shall, in consultation with the doctoral committee, submit a study plan before the end of the first semester of study. The study plan describes the selection of courses to be taken and their division between the University of Iceland and other recognised universities. The study plan shall include a research plan with timeline. If any work for the doctoral thesis is carried out at another institution or company, a separate agreement shall be made in regard to this. This agreement shall accompany the study plan.

The study plan must be approved by the doctoral committee and confirmed by the faculty postgraduate study committee. The administrative supervisor shall then deliver the approved study plan to the School Office, where it is filed.

Disagreements over the study plan may be referred to the head of faculty.

The student, in consultation with the doctoral committee, shall update their study plan annually and report on their study progress. The administrative supervisor shall confirm the updated study plan as well as reported study progress, by signing the document and delivering it to the School Office.

Article 9. Length of study and number of credits.

A doctoral programme following completion of a Master's degree shall be equivalent to a minimum of three years of full-time study. The research project shall account for 180 credits.

Doctoral studies in engineering shall furthermore include 30 credits of coursework. The maximum number of credits for reading courses overseen by a student's academic supervisor is 15.

For students admitted to a doctoral programme in natural sciences on the basis of the transfer provision in Article 2 of this Regulation, doctoral studies shall be equivalent to 240 credits, i.e., a minimum of four years of full-time study. The programme shall either consist of a 180-credit research project and 60 credits of coursework or a 210-credit research project and 30 credits of coursework.

Doctoral students shall spend a minimum of two semesters at the University of Iceland during their doctoral studies, or a minimum of one semester in case of a joint doctoral degree with another university.

The maximum length of study is ten semesters from the time of enrolment in a doctoral programme, or twelve semesters from the time of transfer from a Master's programme. Subject to reasoned argument, the administrative supervisor may apply to the respective faculty postgraduate study committee for an extension of the maximum length of study for up to one year.

Article 10. Course requirements.

Courses must be at the doctoral or Master's level at the University of Iceland or other recognised research universities.

All courses must conclude with an appropriate assessment in conformity with the study plan as it has been defined. The minimum grade for courses taken at the University of Iceland that shall be assessed as part of a doctoral programme is 6.0. Courses taken at recognised universities other than the University of Iceland must be completed in conformity with the requirements of that university.

In general, undergraduate courses cannot be assessed as part of a doctoral programme (courses marked G at the University of Iceland). Interdisciplinary research may, however, lead to undergraduate courses in other departments being deemed a necessary part of the doctoral programme. A maximum of 8 credits of such necessary undergraduate coursework may count towards the doctoral programme. An exception is made for students admitted to a doctoral programme in natural sciences on the basis of the transfer provision in Article 2 of this Regulation. In this case, a maximum of 16 credits of necessary undergraduate coursework may count towards the doctoral programme.

Article 11. Prerequisites.

If a student changes their field of study with their doctoral studies, cf. Article 2 of this Regulation, important fundamentals acquired in undergraduate studies may be missing from the doctoral student's academic record. In such cases, the necessary prerequisites will be added to the coursework component of the programme. The doctoral student is required to fulfil these requirements at the beginning of the doctoral programme. These prerequisites are, however, not considered part of the doctoral programme and the student does not earn credits for them. The administrative supervisor shall submit a recommendation regarding the scope and content of these prerequisites, which must be approved by the respective faculty postgraduate study committee. Prerequisites for admission to doctoral studies must be specified in the study plan, cf. Article 8.

Article 12. Assessment.

The student's general knowledge in the main academic field connected to the speciality of the research project shall be assessed at least once during the length of study. At the same time, a written assessment of their ability to analyse and communicate scientific knowledge shall be conducted. The student's doctoral committee is responsible for implementing such an assessment, which shall be held during the first half of the study programme. The administrative supervisor sends a copy of the assessment documents to the School Office, as well as the conclusion of the doctoral committee as to whether the student passed the assessment.

Students, who fail the assessment, are not permitted to continue their doctoral studies. This decision must be supported, in writing, by a reasoned argument. Before a final decision is made, the student shall be given the opportunity to dispute the decision. The doctoral committee may permit the student to resit the assessment. The reassessment shall be done before the end of the next semester. The decision must be supported, in writing, by a reasoned argument. The administrative supervisor sends all documents related to the matter to the School Office, where they are filed.

To demonstrate their ability to communicate scientific knowledge orally, students shall present their research project in a public lecture at the University of Iceland around the midpoint of the programme, e.g. by participating in an advertised seminar or symposium. The presentation shall not be held during the same semester as the doctoral defence. The administrative supervisor sends a confirmation notification that the presentation has been held to the School Office.

Faculties may set more detailed rules on the implementation and mode of assessment.

When the student and academic supervisor consider the research project to be complete, the student submits a final draft of the thesis to the doctoral committee.

The doctoral committee evaluates the thesis and the project. Should the doctoral committee not deem the thesis ready for defence, it is sent back to the student with comments regarding necessary improvements. If the thesis is deemed ready for defence, the doctoral committee shall deliver its verdict to the faculty postgraduate study committee, recommending that the doctoral candidate be given the opportunity to submit the thesis for defence. The faculty postgraduate study committee, in consultation with the head of faculty, approves the thesis as acceptable for defence.

A doctoral research project shall conclude with the submission of a thesis and the delivery of a public lecture on the project by the student: the doctoral defence. The thesis shall be assessed by opponents, or as further determined by an agreement on a joint doctorate with another university (cf. Chapter VI of the Regulation for the University of Iceland, no. 569/2009). [If there is disagreement among the members of the evaluation committee on whether a Doctoral degree should be awarded, it shall be resolved according to rules of procedure set by the University Council, cf. Article 70 of the Regulation for the University of Iceland no. 569/2009.]¹

1: Amended by Article 1 of Regulation no. 1536/2021.

Article 13. Opponents.

The opponents must be independent parties who are not members of the doctoral committee and experts in the field of study in question. At least one of the opponents must be from a recognised research institute other than the University of Iceland. Generally, efforts shall be made to arrange that an individual from a recognised research institute outside Iceland will serve as an opponent. The nominated opponents shall fulfil the requirements stipulated in the Standards and requirements for the quality of doctoral programmes at the University of Iceland.

The doctoral committee nominates two opponents and, subject to their consent, presents the proposal to the postgraduate study committee. If the postgraduate study committee approves the nominated opponents, a request for confirmation is sent to the Graduate School. Once the approval has been received, the School Office, on behalf of the head of faculty, sends letters of appointment as well as a finished draft of the thesis to the opponents, and retains copies of the letters of appointment.

Opponents must submit a statement to the head of faculty as to whether they consider the thesis ready for defence no later than four weeks prior to the planned defence date.

Article 14. Submission and format of the doctoral thesis.

A doctoral thesis, which is to be defended at the University of Iceland and which has been approved by the doctoral committee as ready for defence and obtained the confirmation of the faculty postgraduate study committee, shall be submitted to opponents no later than two months prior to the planned defence.

A final project for a doctoral degree may either be in the form of a monograph or a collection of scientific articles that have been published or submitted for publication in international peer-reviewed journals. A thesis composed of a collection of articles must always contain a detailed overview and summary of the work.

A doctoral thesis shall conform to the School's template for doctoral theses. A doctoral thesis may follow the template of another university, in accordance with an agreement on a joint doctorate. Nonetheless, the University of Iceland logo shall always appear on the cover and cover page of the thesis. Moreover, the respective faculty at the University of Iceland shall appear in the same location as the faculty of the other university and in a comparable manner.

No other symbol or logo, other than those of the University of Iceland and the collaborating university, in accordance with an agreement on a joint doctorate, may appear on the cover or cover page of a doctoral thesis.

The doctoral candidate is responsible for printing and publishing the thesis, as well as submitting it, in accordance with the law, to the National and University Library, once the opponents have deemed it fit for defence. An electronic copy must be saved in a database operated by the library.

Article 15. Academic title.

A doctoral degree confers the right to the academic title philosophiae doctor, and use of the abbreviation Ph.D.

Article 16. Entry into force.

This Regulation is established in accordance with Articles 47 and 68-69 of the Regulation for the University of Iceland, no. 569/2009, and the authority of the Act on Public Higher Education Institutions, no. 85/2008. This Regulation has been approved by the faculties and governing board of the School of Engineering and Natural Sciences and by the Graduate School, cf. Articles 66 and 69 of the Regulation for the University of Iceland. This Regulation enters into force immediately. At the same time, Regulation no. 642/2011, on doctoral study at the University of Iceland School of Engineering and Natural Sciences, is repealed.

University of Iceland,	7 November 2017.
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End of Graduate Study Handbook