

MDes Handbook

Master of Design
School of Industrial Design
Carleton University



Fall | Winter | Summer | 2026 - 2027

School of Industrial Design

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DESIGN
SUSTAINABILITY

DESIGN

SOCIAL

DESIGN

INNOVATION

DESIGN
TECHNOLOGY

INTERDISCIPLINARY

DESIGN
EXPERIENCE

DESIGN
USER-CENTERED
INDUSTRIAL

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1. PROGRAM OVERVIEW

The School of Industrial Design (SID) offers a program of study and research leading to the Master of Design (MDes) degree. The Master of Design can also be taken with a Collaborative Specialization in Accessibility. Both programs require successful completion of 5.0 credits, including a 2.0 credits thesis. The program takes a strong research approach and is normally completed after two years of study.

The focus of the program is to advance knowledge in the field of Design through the study of advanced design principles and interdisciplinary design practices. This is achieved through a program of study that will enable graduates to positively integrate design principles, methodologies, and interdisciplinary design development processes into private and public sector business practice.

Students examine and incorporate multifaceted design principles and practices that contribute to the strategic value of design. They also have the opportunity to engage in interdisciplinary interactions with faculty from the school as well as faculty and students from a diverse range of disciplines in the university, all linked to the design development process.

PROTOTYPING AND MODELMAKING FOR PRODUCT DESIGN

Bjarki Hallgrímsson



2. PRIMARY LEARNING OBJECTIVES

Design Research

The study of methods for investigation, exploration, and data collection such as undertaking and differentiating between qualitative and quantitative data collection for design problems; examining discursive methods of critical analysis and practice; and employing emerging theories and practices in supervised research projects.

Interdisciplinary Design Development

The study and practice of methods that are used to foster collaboration across disciplines which may include: working on and contributing to projects in interdisciplinary teams; working on design projects with external public and private sector partners with a solid record of interdisciplinary development experience; learning in “interdisciplinary-team-taught” courses, and thesis supervision.

Knowledge Creation and Dissemination

It involves expanding knowledge within critical design areas (e.g. advanced materials and manufacturing processes, advanced visualization, design and culture, design management, extreme environments, human-centered design, product interaction design, social innovation, sustainable design, and strategic design research); writing and presenting papers; delivering workshops at conferences and seminars, limited funding support; and creating archival reference documents for industry such as case studies and technical reports.

Strategic Design Planning

The study of methods for planning, implementation, and application may include incorporating strategic user observation analysis into design projects; identifying systems-related patterns for effectively planning design projects; merging relevant strategic design research and business practices; and integrating user-oriented innovations in prototyping new services and products.



3. ACHIEVEMENT OF PRIMARY LEARNING OBJECTIVES

The learning objectives are achieved through a sequence of core courses structured to provide the opportunity for balancing theory and practice and are integrated with courses from different disciplines. The core courses offer a variety of pedagogical approaches such as project-based interdisciplinary studio activities, lecture-based methodology and theory classes with individual and/or team papers, a seminar class, and optional international conference and workshop participation.

The sequence is structured so that students learn the theory and principles in one course, such as Design Research Methods (IDES 5102), and apply it in a subsequent course, such as the Interdisciplinary Design Development Studio (IDES 5103).

Students are also required to take three elective courses to deepen their knowledge in areas relevant to their thesis topic. In the case of the Collaborative Specialization in Accessibility, students must take the Critical Disability Studies (ACCS 5001) and the Accessibility and Inclusive Design Seminar (ACCS 5002) courses along with one elective of choice. Finally, each student undertakes a supervised thesis investigation to apply and demonstrate the principles, research methods, and knowledge acquired.

All the core courses highlight interdisciplinary and/or collaborative work in theory or practice, where the term interdisciplinary refers to the cooperation between people from different disciplines to achieve common goals that integrate expertise from those different disciplines. For example, the Interdisciplinary Design Development Studio (IDES 5103) may focus on projects undertaken by teams of students who share their different expert knowledge and experiences such as business, psychology, architecture, and information technology among others.

In addition, the core courses highlight a balance between technological, environmental (sustainable), cultural, and social concerns. To this end, the core courses promote a primarily human-centered design research approach.







Peer Learning

Graduate students are expected to have a regular presence in the studio to benefit from peer learning as well as interactions with professors. The peer-learning model is the underlying principle behind the MDes classes in which students working on their projects have the advantage of engaging in and learning from critical discussion, interaction, and problem-solving with peers and professors. In addition, graduate students may be invited to present research-in-progress talks to the student body at regular informal gatherings, and to participate in the annual undergraduate seminar (IDES 4001). Students are also encouraged to present papers and workshops at conferences and seminars, with funding support made available to them, on a limited basis.

Interdisciplinary Aspects

The objectives of learning interdisciplinary design development processes involve integrating different disciplines and different people to achieve common goals. In the MDes program, the student body is made up of students with different design backgrounds whose discipline-specific perspectives broaden everyone's viewpoints. Opportunities for working with non-designers may be found in core and elective courses to prepare graduates to work on teams with non-designers in their future workplaces.

The Interdisciplinary Design Development Seminar (IDES 5101) introduces relevant issues in design discourse. Design Research Methods (IDES 5102) and Interdisciplinary Design Development Studio (IDES 5103) may include students enrolled in other graduate degree programs such as Human-Computer Interaction (HCI). Working on a design problem that crosses disciplines provides experiential learning in interdisciplinary design development processes. Furthermore, the extended core faculty of the program includes individuals who are members of different faculties and/or departments at Carleton University in addition to the School of Industrial Design. These faculty members can be involved as co-supervisors in student thesis committees.

Finally, studio projects may be undertaken collaboratively with private sector partners with a solid record of interdisciplinary development experience who participate in studio activities and/or consult with the students on a regular basis.

The school has a long history of collaborating with public and private sector partners such as the National Capital Commission (NCC), World Health Organization (WHO), Bombardier, World Design Organization (WDO), Shopify, Teknion, Smart Technologies, and others.

4. PROGRAM REQUIREMENTS

The MDes program requires successful completion of 5.0 credits with at least 4.5 credits taken at the 5000 level or higher.

There are 1.5 credits of required core courses (or 2.5 for the Collaborative Specialization in Accessibility), 1.5 credits of electives (or 0.5 for the Collaborative Specialization in Accessibility), and 2.0 credits for the thesis. Elective course selections are made by the student in consultation with their thesis supervisor. Only one 0.5 credit elective may be taken as a Directed Study. Only one 0.5 credit elective may be taken as a 4000-level course. The schedule of coursework and thesis progress follows:

**Year 1
Fall Term**

**IDES 5101
IDES 5102**

ACCS 5001
(Accessibility)

IDES 5101 Interdisciplinary Design Development Seminar (0.5 credit)
Investigation of disciplines involved in design development, with experts in Business, Engineering, Sociology, Anthropology, Architecture, Psychology, Human Factors, Industrial Design, and others. Includes a critical examination of methods used to integrate different approaches, and roles that personality, leadership, negotiation, conflict management, and team building play in collaboration. Introduction to graduate academic writing.

**Milestone 1
Thesis Supervisor
Assignment Form**

IDES 5102 Design Research Methods (0.5 credit)
Critical analysis of research methods in design and disciplines contributing to design including anthropology, psychology, sociology, and business. Application areas include advanced materials and manufacturing processes, advanced visualization, product interaction design, extreme environments, sustainable design, design and culture, design management, and human-oriented design.

ACCS 5001 Critical Disability Studies (0.5 credit)
Course engages disability theory, culture, and activism to consider bodily difference and its relation to the workings of power and social control, accessibility, normalization, ableism, and medicalization. Students will gain an understanding of contemporary debates, theories, and methodologies of critical disability studies.

Thesis Supervisor & Co-supervisor (if applicable)
MDes students are assigned a thesis supervisor who is a faculty member at the School of Industrial Design. Co-supervisors, if any, can be a Carleton faculty member external to SID or an Adjunct Professor who is a member of SID. An Adjunct Professor may only supervise an MDes thesis as co-supervisor.

Students must submit the **Thesis Supervisor Assignment Form** no later than **the 30th of September** in the First term of registration. If there is a co-supervisor, then the form must be resubmitted by the **23rd of December**.

Milestone 1 - Statement of Study Interest

This statement is a short document of the area of student's research interest that has been identified and narrowed down during the 1st semester. It should include a brief description of the student's primary research curiosity along with the preliminary research questions and the implication of its potential results. The research topic should tie to the research areas of the supervisor. This document should follow the provided template. It must be submitted to the MDes Brightspace submission link and emailed to the co-supervisor (if any) for evaluation **by the 23rd of December** in the 1st Fall term (if the student does not meet this deadline, it will be difficult to meet the May deadline for Milestone 2). Milestone 1 needs to be developed with the supervisor's support, who will provide constructive feedback before and after submission. Final feedback and assessment will be provided on Brightspace by the supervisor.

Year 1
Winter Term

IDES 5103
Elective 1

IDES 5103 Interdisciplinary Design Development Studio (0.5 credit)

Team-based studio projects draw on interdisciplinary design development methods in achieving a common design objective. Projects will be supervised by academic and industry advisors from a wide range of disciplines and conducted in collaboration with professionals from external organizations.

Elective 2
(non-Accessibility)

ACCS 5002
(Accessibility)

ACCS 5002 Accessibility and Inclusive Design Seminar (0.5 credit)

Provides foundational knowledge, exploring interdisciplinary approaches for incorporating accessible, inclusive, and human-centered design principles into the research, design, and development of products, information, and environments that can be used by all people, regardless of ability.

Milestone 2

Milestone 2 - Literature Review

A literature review is an overview and evaluation of the scholarship that exists on a specific topic or research question. It allows students to gain a good perspective and comprehensive overview of their research topic in the literature; and to identify critical

points in current theoretical and methodological contributions to a particular topic where their research focus would fit. Students must review up to 10-15 relevant sources. This document should follow the provided template. It must be submitted to the MDes Brightspace submission link and emailed to your external co-supervisor (if any) by the **31st of May**. Milestone 2 needs to be developed with the supervisor's support, who will provide constructive feedback before and after submission. Final feedback and assessment will be provided on Brightspace by the supervisor.

**Year 1
Summer Term**

Elective 3

For the most current listing of summer course offerings, visit the public class schedule. Students may also use the "Build Your Timetable" feature in Carleton Central to plan their summer schedule to ensure successful registration.

In addition, summer is the perfect time to get ethics approvals, collect data, and refine the literature review in preparation for Milestone 3. Students must consult with their supervisor and co-supervisor (if any) to develop the thesis proposal.

**Year 2
Fall Term

Milestone 3**

Milestone 3 – Thesis Proposal

The thesis proposal is a substantial document, resulting from considerable preliminary research into the thesis area. It must include clear research questions, hypothesis investigated, relevant sources from concrete literature review, and doable data collection and analysis methods and research plan. Milestone 3 needs to be developed with the supervisor's support, who will provide constructive feedback before and after submission. Final feedback and assessment will be provided on Brightspace by the supervisor.

This document should follow the provided template. It must be submitted to the MDes Milestones Brightspace submission link and e-mailed to your co-supervisor (if any) **by the 30th of September** in year 2. After the submission, an **oral presentation** must be given to the invited audience including SID supervisor, co-supervisor (if any), other faculty members, and students. This event is held **in the first weeks of October**.

Thesis Proposal should include the following information.

1. Introduction
 - Area of Interest & Research Question
2. Literature Review
3. Methodology
 - Data Collection & Analysis

- Ethics
- 4. Planning & Timescales
- 5. References

IMPORTANT NOTE: Students must successfully satisfy each Milestone requirement before proceeding. If a Milestone is unsatisfied, the re-submission date will be negotiated with the Graduate Program Coordinator and the student's Supervisor and, eventually, Co-supervisor (if any).

Year 2	IDES 5909 Thesis (2.0 credit)
Winter & Summer Term	A comprehensive study that demonstrates the student's ability to conduct critical research in the specialization area in which design can contribute to competitive advantage through design planning and interdisciplinary design development processes. It should exhibit competence in design research process by applying an existing body of knowledge in the critical analysis of a new question or of a specific problem or issue in a new setting.
IDES 5909	
Final Thesis	
Oral Defence	<i>IMPORTANT NOTE: Registration for IDES 5909 is required in the Fall Term of year 1, and consecutively for each term following until the completion of the program.</i>

Thesis

This document should minimally include the following sections:

- Title Page
- Abstract
- Acknowledgments
- Table of Contents
- List of Figures
- List of Tables
- List of Appendices
- Introduction
 - Background/Context
- Literature Review
 - Theoretical/Conceptual Framework
- Methodology / Approach
- Results / Findings
- Discussion / Limitations / Further Studies
- Conclusion / Final Considerations
 - Bibliography / Reference List (APA format, 7th edition for citations and references only)
 - Appendices

The School of Industrial Design provides a base document template, but students should consult with their supervisors on the specifics. General

[Formatting Guidelines](#) are also available on the Graduate Students website.

Once the SID thesis supervisor approves the examination copy (deemed ready for defence), the student must upload the copy to Carleton Central at least **three weeks** before the defence date. The Thesis Approval Form is signed off electronically by the thesis supervisor indicating that the thesis is ready for defence. Once the thesis defence has taken place and all corrections are made, the final copy must be uploaded to Carleton Central. To do that, the student submits their final copy to the supervisor and the SID supervisor notifies the Graduate Administrator that the student is ready to upload. Then, the Graduate Administrator will authorize the upload for the student to do in Carleton Central. Along with the upload, the student must fill out licenses and agreements. Information for thesis submission is available in the [Thesis Examination Policy](#) on the Graduate Students website.

Oral Defence

An oral defence is required for all students in the MDes program. The examination board will be formed by the SID thesis supervisor, co-supervisor (if any), an examiner from a department other than that of the candidate, one additional member from the department concerned, and a chair from SID.

For more detailed information, refer to the [Thesis Examination Policy](#) on the Graduate Students website.



5. MDES STUDY SEQUENCE

	Year 1			Year 2		
Research & Coursework	Semester 1 Fall	Semester 2 Winter	Semester 3 Summer	Semester 4 Fall	Semester 5 Winter	Semester 6 Summer
IDES 5101 (0.5 credit) Interdisciplinary Design Development Seminar						
IDES 5102 (0.5 credit) Design Research Methods						
IDES 5103 (0.5 credit) Interdisciplinary Design Development Studio						
Elective (0.5 credit)						
Elective (0.5 credit)						
Elective (0.5 credit)				or 		
IDES 5909 (2.0 credit) Thesis						
Semester Credit	1.0	1.5	0.0 or 0.5	0.0 or 0.5	0.0	2.0
Accumulated Credit	1.0	2.5	2.5 or 3.0	3.0	3.0	5.0
Deliverables	Milestone 1 Statement of Study Interest Thesis Supervisor Assignment Form	Milestone 2 Literature Review	Milestone 3 Thesis Proposal		Final Thesis & Oral Defence	
Research Activities	Establish area of interest	Define research scope	Develop methodology	Collect data	Synthesize data	Prepare examination copy of thesis
	Identify a potential research topic	Develop research questions and hypotheses	Prepare ethics application	Analyze data	Identify insights	Prepare for oral defence
	Prepare Milestone 1	Conduct literature review	Collect data (if applicable)		Draft thesis	Conduct oral defence
		Prepare Milestone 2	Prepare Milestone 3			Address required revisions and complete thesis

6. MDES STUDY SEQUENCE (with Collaborative Specialization in Accessibility)

	Year 1				Year 2	
Research & Coursework	Semester 1 Fall	Semester 2 Winter	Semester 3 Summer	Semester 4 Fall	Semester 5 Winter	Semester 6 Summer
IDES 5101 (0.5 credit) Interdisciplinary Design Development Seminar	●					
IDES 5102 (0.5 credit) Design Research Methods	●					
IDES 5103 (0.5 credit) Interdisciplinary Design Development Studio		●				
ACCS 5001 (0.5 credit) Critical Disability Studies	●		or	●		
ACCS 5002 (0.5 credit) Accessibility & Inclusive Design Seminar		●				
Elective (0.5 credit)		●	or	●	or	●
IDES 5909 (2.0 credit) Thesis	○	○	○	○	○	●
Semester Credit	1.0 or 1.5	1.0 or 1.5	0.0 or 0.5	0.0 or 0.5 or 1.0	0.0	2.0
Accumulated Credit	1.0 or 1.5	2.0 or 2.5 or 3.0	2.0 or 2.5 or 3.0	3.0	3.0	5.0
Deliverables	Milestone 1 Statement of Study Interest Thesis Supervisor Assignment Form	Milestone 2 Literature Review		Milestone 3 Thesis Proposal		Final Thesis & Oral Defence
Research Activities	Establish area of interest	Define research scope	Develop methodology	Collect data	Synthesize data	Prepare examination copy of thesis
	Identify a potential research topic	Develop research questions and hypotheses	Prepare ethics application	Analyze data	Identify insights	Prepare for oral defence
	Prepare Milestone 1	Conduct literature review	Collect data (if applicable)		Draft thesis	Conduct oral defence
		Prepare Milestone 2	Prepare Milestone 3			Address required revisions and complete thesis



7. SCHOOL RESOURCES

Administrative and Technical Support

The School of Industrial Design has two full-time administrators. The Graduate Administrator is stationed in the General Office and is the first point of contact for master student inquiries. The School Administrator oversees the school budget and undergraduate students.

The Computer Technician is available for computing issues and other computing and electronic expertise.

The Lab technicians are available for manufacturing and model-making expertise and other advanced prototyping support if needed for graduate research.

Dedicated Space

The MDes Studio in the Mackenzie Building accommodates up to 24 graduate students. Students have access to this studio 24 hours a day. There are additional meeting rooms for faculty and students to meet to review their work on an ongoing basis, and they must be booked ahead of time. Some MDes classes will take place in the studio, and students not enrolled in those classes are welcome to work quietly in other parts of the room. Graduate students can also take advantage of the range of work and learning spaces currently utilized by the undergraduate program as well as within the library.

The school's Manufacturing Labs and Resources include sophisticated rapid prototyping capabilities, computer systems, equipment, and resources to support the design and development of three-dimensional and virtual prototypes. It complements and supports the design and generation of interactive products and systems. While these labs are primarily for the students enrolled in the Bachelor of Industrial Design program, graduate students may find that they need to support the undergrads in the shops as TA's or need to produce prototypes for their own thesis research. In both cases, individual consultation with a Lab Technician is required.



8. OTHER RESOURCES

The [Graduate Students](#) website is a dedicated and comprehensive resource to help you successfully navigate graduate studies at Carleton University. It is important to familiarize yourself with its content.

Although not exhaustive, the following links are great starting points and can be considered particularly relevant for you as an MDes student:

Graduate Supervision – Responsibilities & Expectations Policy

<https://gradstudents.carleton.ca/graduate-supervision-responsibilities-expectations-policy/>

Academic Integrity Policy

<https://carleton.ca/secretariat/wp-content/uploads/sites/158/Academic-Integrity-Policy-2021.pdf>

Copyright & Intellectual Property

<https://gradstudents.carleton.ca/copyright-intellectual-property/>

Research Ethics

<https://research.carleton.ca/researchethics/>

Thesis Examination Policy

<https://carleton.ca/secretariat/wp-content/uploads/sites/158/Thesis-Examination-Policy-2024.pdf>

Awards and Funding

<https://gradstudents.carleton.ca/awards-and-funding/>

General Academic Schedule

<https://calendar.carleton.ca/academicyear/>

Furthermore, the School of Industrial Design provides access to a set of school-specific resources through Microsoft Teams. All MDes students are added to the [MDes Student Sharing](#) team where they can see announcements, engage in chats/posts, and find specific policies, procedures, forms, templates, and other important documents/information.

If you are unable to access the Teams channel, please contact the Graduate Program Administrator. For any other technical support with Microsoft Teams or for assistance in setting up the application on your device(s), please contact the Computing & Technology Technician.



APPENDIX A: THESIS SUPERVISOR ASSIGNMENT FORM

Thesis Supervisor Assignment

School of Industrial Design

- All parties should review the [Graduate Supervision-Responsibilities and Expectations Policy](#)
- Master of Design students must submit this form no later than **September 30th** in the first term of registration, to confirm their thesis supervisor and agreed upon thesis topic area.
- This form must be resubmitted a second time no later than **December 23rd** if a co-supervisor becomes involved.
- Once the form has been submitted, any changes to the supervisor or co-supervisor (if any) should be discussed with the Graduate Program Coordinator.

Student

	Carleton ID:
Name	
Signature	Date (mm/dd/yyyy)
	Email:

Thesis Topic Area:

Thesis Supervisor

Co-Supervisor (only required by the end of the fall term)

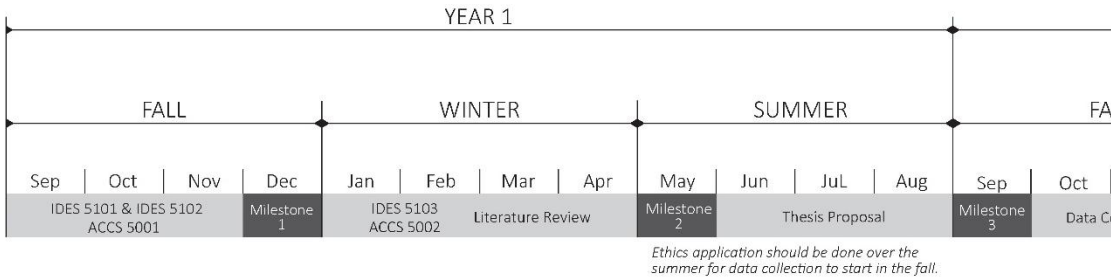
Name	Name
Signature	Signature
Date (mm/dd/yyyy)	Date (mm/dd/yyyy)

Supervisors

MDes is an interdisciplinary program where there can be both a supervisor and co-supervisor for the thesis. MDes students must choose a thesis supervisor who is a faculty member at the School of Industrial Design. The co-supervisor is optional and can be any other Carleton faculty member (including SID) or an Adjunct Professor who is a member of SID. An Adjunct Professor may only supervise an MDes thesis as a co-supervisor. If your proposed supervisor does not fit the above description, you must discuss this with the Graduate Program Coordinator before you will be given approval.

Please submit completed form to Brightspace under the [MDes Milestones](#) course.

APPENDIX B: MDES PATH TO COMPLETION



Milestone 1

Statement of Study Interest

Statement of Study Interest is a summary of your research interest that has been narrowed down during the 1st semester. It includes a brief description of your preliminary research questions along with the implication of the potential results of the research. Make sure that your research topic ties to the research areas of your SID supervisor.

This document must be submitted to the MDes Brightspace submission link and emailed to the external co-supervisor (if any) for evaluation by **December 23 in Year 1** (if you don't meet this deadline, it will be difficult to meet the deadline for Milestone 2).

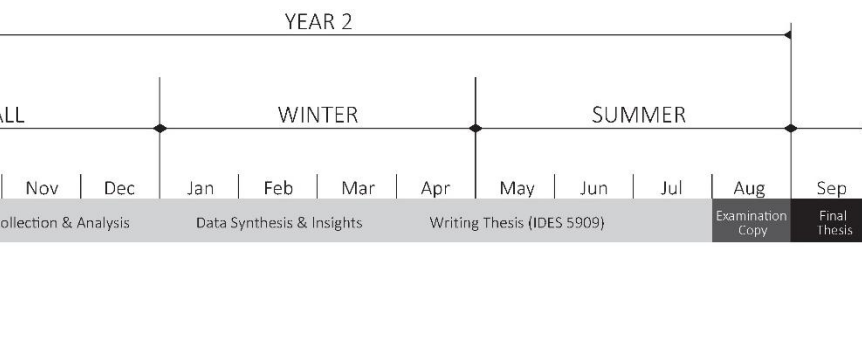
Students must submit the thesis supervisor form no later than September 30.

Milestone 2

Literature Review

Literature Review is an overview and evaluation of the scholarship that exists on a specific topic or research question. It allows students to gain a good perspective and comprehensive overview of their research topic in the literature; and to identify critical points in current theoretical and methodological contributions to a particular topic where their research focus would fit.

This substantial document of the secondary research into the chosen thesis topic areas must be submitted to the MDes Brightspace submission link and emailed to your external co-supervisor (if any) by **May 31 in Year 1** (if you don't meet this deadline, it will be difficult to meet the deadline for Milestone 3).



Milestone 3 Thesis Proposal

Thesis proposal describes what you will investigate, why it is important, and how you will do the research to get your thesis plan approved. It includes the clear research question(s), hypothesis investigated, relevant sources from the literature review, and doable data collection and analysis methods and research plan.

This substantial document must be submitted to the MDes Brightspace submission link and emailed to your co-supervisor (if any) by **September 30 in Year 2** (if you don't meet this deadline, it will be difficult to meet the deadline for the thesis leading to a possible need for extension).

An oral presentation of the thesis proposal will occur in October.

Examination Copy

The examination copy of your thesis must be distributed to the thesis examination board a minimum of **3 weeks before the defence (by mid August, at the latest) in Year 2**.

An oral thesis defense will be scheduled a minimum of 3 weeks after the submission of the examination copy.

The examination board needs to be defined 2 weeks before the distribution of the thesis.

Final Thesis

The deadline of the final thesis submission is usually in **the middle of September** for Fall graduation (date changes yearly).

If the final thesis is not submitted by the given deadline but it is submitted by September 30, graduation will take place in the Winter semester, but without having to pay ongoing tuition fees (i.e., withdrawal from Fall term with a full fee adjustment).

Students must successfully satisfy each milestone requirement before proceeding. If a milestone is unsatisfied, the re-submission date will be negotiated with the Graduate Program Coordinator and the student's thesis supervisor.

