GRADUATE STUDIES
REGULATIONS AND GUIDELINES

Master of Architecture (MArch)

Graduate Student Handbook

REVISED SEPTEMBER 16, 2017
THE MASTER OF ARCHITECTURE GRADUATE PROGRAM

The professional Master of Architecture degree is the terminal degree that prepares graduate students for entry into the profession of architecture. It offers those students with a pre-professional undergraduate degree in architecture from an accredited university program, a completion of the academic knowledge base required to become practicing professionals in the field of architecture.

Combining professional study with a design or research-oriented individual thesis, the Waterloo Master of Architecture offers a unique opportunity to engage in self-directed research and develop a minimum three term independent research and/or design thesis while completing the required coursework for professional preparation.

At its heart, the program supports the development of critical thinking in architecture. While it introduces students, through coursework, to the ethical, legal, administrative and practical aspects of the profession, the program also builds upon a firm commitment toward architecture as a cultural act and its development into practice. As such, the Waterloo M. Arch professional degree focuses on preparing students for a future that can only be constructed with the accumulated material of our collective cultural histories. Balancing leading technological innovation with techniques and knowledge drawn from a range of sources like vernacular architecture and historical study, and examining contemporary questions with critical academic rigour and detailed study, Waterloo Architecture's goal is to inflect positive change in future architects' capacities to act and think.

PROGRAM ACCREDITATION

The professional Master of Architecture, in conjunction with the pre-professional Bachelor of Architectural Studies degree from the University of Waterloo, comprises an accredited professional education. In Canada, all provincial/territorial associations/institutes/orders recommend a degree from an accredited professional degree program as a prerequisite for licensure. The Canadian Architectural Certification Board (CACB), which is the sole agency authorized to accredit Canadian professional degree programs in architecture, recognizes two types of accredited degrees: the Master of Architecture (M Arch) and the professional Bachelor of Architecture (B Arch). A program may be granted a six-year, three-year, or two-year term of accreditation, depending on its degree conformance with established educational standards. Like many other similar North American programs, Waterloo’s Architecture professional degree consists of two parts: a pre-professional undergraduate degree and a professional graduate degree. When earned sequentially, these two degrees comprise an accredited professional education. A pre-professional architecture degree is not, however by itself, recognized as an accredited professional degree. The program in Architecture at the University of Waterloo received accreditation for a 6-year term of study combining a pre-professional degree and a following Master's degree by the Canadian Architectural Certification Board (CACB) in 2011.

The CACB sets out conditions and procedures for accrediting professional programs. Included in the twelve conditions of accreditation is the Guide to Student Performance Criteria which informs faculty and students in a professional degree program of the areas where every student from an accredited architecture program must demonstrate the required level of accomplishment. The complete Guide to Student Performance Criteria is available on the CACB website with the specific student performance criteria available on the Architecture Graduate LEARN group.

M.ARCH ADMISSION REQUIREMENTS

The Waterloo Master of Architecture is a two-year degree program. Applicants holding a pre-professional Bachelor of Architectural Studies (BAS) from the University of Waterloo (or an equivalent pre-professional architecture degree from another university) can complete degree requirements in a minimum of three terms and up to a maximum of six terms. Successful applicants holding a pre-professional degree in architecture that does not meet the CACB criteria of the Waterloo pre-professional Bachelor of Architectural Studies program are required to complete transitional coursework in the first year of their Masters studies to adequately prepare for the final thesis year. They can also complete their degree requirements in between five and eight terms.
For consideration for admission to the Waterloo Master of Architecture programme, either a four-year honours pre-professional undergraduate degree in architecture, or professional Bachelor of Architecture degree are required. The minimum overall grade average for applicants from either type of programme above is 75% (B).

International applicants should refer to the International Student Admissions Guide to verify International equivalency requirements.

For detailed information on the admission requirements, required application documents and application process visit Discover Graduate Studies

ARCHITECTURE GRADUATE OFFICE

The Graduate office at the School of Architecture is comprised of one staff position; the Coordinator of Graduate Studies & Research (CGSR), and one Faculty administrative position; the Graduate Officer (GO). The Graduate Affairs committee, comprised of the Graduate Officer and three to four additional Faculty members, is responsible for overseeing the graduate program and all major decisions related to the program and any future graduate programs. The Graduate Office at the School of Architecture works closely with the Faculty of Engineering Graduate Studies Office (EGSO) and the university Graduate Studies Office (GSO).

The Coordinator of Graduate Studies & Research is responsible for ensuring regulations for the Master of Architecture degree are met and the administrative function of the program. The Graduate Coordinator manages all administrative tasks related to Graduate courses and student records. The Coordinator is often the first contact for most inquiries such as recommendation for acceptance to the program, teaching assistant positions, and graduate student payroll, scholarship and award processes.

The Graduate Officer reports to both the Director of the School and to the Associate Dean of Graduate Studies for Engineering and is responsible for academic matters relating to the administration of the program and graduate students such as department level approval for program time limit extensions, enrolment change requests, course add/drop forms, and any matters related to student discipline and grievances.

The Graduate Affairs Committee is responsible for overseeing the admissions process for the MArch program, overall structure and direction of the program and any other matters related to current and future graduate programs offered in the School of Architecture.

Graduate students are encouraged to approach either the Graduate Coordinator or the Graduate Officer at any time for clarification of rules or advice.

Current Graduate Officer:

Adrian Blackwell, O: ARC 2024 E: adrian.blackwell@uwaterloo.ca

Current Coordinator Graduate Studies & Research:

Emmy Anglin, O: ARC 2106 B: eeanglin@uwaterloo.ca

ENGINEERING GRADUATE STUDIES OFFICE

Most front-line work for graduate students – such as admission, course and enrolment changes, extension requests, and degree completion – involves three levels of approval. Approvals are typically initiated at the department level, followed by a Faculty approval through the Engineering Graduate Office, then University approval through the Graduate Studies Office.

For details on the support services offered and Faculty of Engineering deadlines visit the Engineering Graduate Office website.

UNIVERSITY OF WATERLOO GRADUATE STUDIES OFFICE (GSO)

Graduate studies at the University of Waterloo is administered through the Graduate Studies Office. The GSO maintains the official academic calendar, policies related to graduate studies, official forms, graduate student records and provides an academic support role to various stakeholders in the University. All policies and procedures for graduate studies are available in the graduate
SOCIETY OF WATERLOO ARCHITECTURE GRADUATE STUDENTS (SWAG)

The Society of Waterloo Architecture Graduates (SWAG) is the official representative body for all graduate architecture students, and serves by working with administration, holding seats on committees, and performing other administrative duties. In addition, SWAG acts to stimulate social, intellectual, and political contact among its members.

SWAG is a student run, not-for-profit organization whose membership consists of the graduate students of the School of Architecture, University of Waterloo. They actively promote and represent graduate student interests to the university administration and various levels of government. Their efforts focus on issues such as student funding, working conditions, academic regulations, and university services.

Executive members of SWAG get elected at the beginning of each Fall term for the duration of the following year. The executive positions are:

- President (or Co-presidents)
- Treasurer
- GSA Representative
- Secretary
- WASA liaison
- 2 Year Stream Representative
- Health and Safety Representative
- T.A. Representative

SWAG usually meets every two weeks. All graduate students are welcome to attend all SWAG meetings. Communication regarding the time and location of the meetings get sent out via email to the graduate student body. Meeting minutes are also uploaded to the Architecture Graduate Students LEARN group.

You can reach the SWAG president(s) for any questions or concerns via email: pres.swag@waterlooarchitecture.com

REGISTRATION AND ENROLMENT

Enrolment and Tuition Fees:

At the University of Waterloo the calendar year is divided into three academic terms Fall (September-December), Winter (January-April) and Spring (May-August). Intake for the MArch program is in the Fall term only.

A graduate student proceeding to a degree must maintain continuous enrolment, either active or inactive, in each successive term from the time of initial admission until the end of the term during which the requirements for the degree are completed. Students are responsible for ensuring that they enroll and arrange tuition and other required fees at the appropriate time each term (formal dates are available on the Student Accounts website).

Failure of students to arrange fees as required will cause their enrolment in Graduate Studies to lapse. It may be re-established only if an application for readmission is approved.

Full-time/Part-time Enrolment Status:

Students completing the full two-year program are required to maintain 6 terms of full-time enrolment (unless they graduate after 5 terms). Students entering directly into Thesis year (year 2), are also required to maintain 4 terms of full-time enrolment, unless they graduate in 3 terms.

For exceptional reasons, a student may request to go part-time during the Spring (3rd) term of the thesis stream. The Graduate Officer will consider their application on a case-by-case basis and only grant approval if warranted. When a student is granted permission, the change of enrolment form for part-time status must be submitted and approved by the Graduate Officer simultaneously with a change of enrolment form to return to full-time status for the subsequent fall term (4th term).
After four terms of full-time enrolment, students can request an enrolment change to part-time status. A change of enrolment form must be completed with the reason for request and approved by the student’s thesis supervisor. Once completed the form is submitted to the CGSR for Graduate Officer review and approval. If approved at the department level, the form is then submitted to the Engineering Graduate Office for review and approval, and then to the Graduate Studies Office.

**Term Enrolment:**

Students will not be allowed to enroll after the government reporting date in a term (for relevant dates refer to the Calendar of Events & Academic Deadlines page). If not enrolled and fees arranged by this date, students will not receive credit for course work completed up to that date and will have to apply for readmission to the program.

**Enrolment and Time Limits:**

Students who have enrolled and paid fees, but have reached the maximum 6 term time limit allowed for the M Arch program, must submit a petition for program extension form by the departmental deadline communicated each term.

The Petition for Extension form must be completed along with a detailed Plan to Completion Report and reviewed with your supervisor. If your thesis supervisor supports your petition they are required to sign off on the form. Once this is complete, the documentation (form and report) is submitted to the CGSR for Graduate Officer review and approval. Students petitioning beyond Term 9 require Associate Dean approval to continue. Students who fail to do so will be de-registered and required to withdraw from the program. Special approval by the department or Associate dean will only be granted in exceptional circumstances.

**Inactive Status:**

All graduate students must maintain continuous enrolment until the completion of their program. In certain circumstances, such as illness, maternity/parental leave, limited external research or work opportunity which is not related to their UW program, or temporary financial difficulties for which the University cannot provide hardship funds, students may apply to the Associate Dean (Graduate Studies) of their Faculty for inactive status (leave of absence). Students who have been granted inactive status for a term are not entitled to use the services of the University, including graduate thesis supervision, for the duration of that term. Normally, inactive status is approved for a maximum of two consecutive terms (maternity leave up to three consecutive terms). Students who request more than two consecutive terms of leave because they have other commitments such as a full-time job or travel plans, should voluntarily withdraw from their program until they are prepared to resume their studies. In advance of voluntary withdrawal, students must discuss with their department any conditions that must be met upon their readmission to their program. Normally, students who have incomplete courses on their record are not eligible for inactive status.

Students requesting inactive status must complete a Graduate Student Change of Enrolment Form.

**Enrolment - International Students on Study Permits:**

Students without valid Study Permits will not be allowed to enrol at the University of Waterloo. All international students admitted to graduate studies degree programs at the University of Waterloo must have a valid Study Permit issued by Citizenship and Immigration Canada (CIC). A copy of the Study Permit must be submitted to the Graduate studies Office (GSO) upon arrival at the University.

If a Study Permit expires prior to program completion, students must apply to CIC for renewal and submit a copy of the renewed Study Permit to the GSO (check the ‘valid until’ date on the Study Permit). Make sure you apply at least 30 days before your current permit expires. If your Study Permit expires and you have made an application to renew it, but have not had a decision yet, you can continue studying until you receive a decision. Proof of application for renewal must be submitted to the GSO to permit continuing enrolment.

**Co-operative Work Terms/Off-campus Status:**

Students on a co-op work term must submit a change of enrolment form to reflect the co-op work term and avoid tuition fees being assessed for the work term.

If you are going to be away from campus for a term but continuing to conduct work related to thesis research or coursework requirements you can submit a status change form to full-time off campus as this may provide some relief in the incidental fees charges.
for the term.

Birth & Parental leave:

Students wishing to take birth & parental leave during their program of study may apply to change status to inactive. Interested students should consult with their academic supervisor(s) and Graduate Officer prior to making such an application. Where an external agency is involved as in the case of visa students or those holding external scholarships, such agencies should also be consulted.

Further information on Birth and Parental Leave can be found in the Graduate Studies Birth and Parental Leave Guidelines. Students who wish to apply for a Parental Leave Bursary should complete the application available on the Graduate Studies Office website.

Program Withdrawal:

Students who are unable to participate in their program of study for more than two consecutive terms should voluntarily withdraw from the program. The University reserves the right to require a student to withdraw from a program for academic reasons. Students, who reapply to a program and are approved for readmission, must enroll for a minimum of one academic term and are not eligible for tuition refund deadlines in that term.

Readmission Into The M.Arch Program:

In order to initiate the readmissions process please contact the Graduate Coordinator for details on the application steps and requirements. Any student requesting readmission into the Master of Architecture will meet with the Architecture Graduate Officer to determine their placement in the thesis stream and which degree requirements must be met to successfully complete the Master of Architecture degree. Each application will be reviewed individually to determine conditions of readmission.

Applying for readmission within 5 years of initial admit term:

If coursework required upon initial admission is complete and the student’s thesis is more than 50% complete, they can graduate based on their initial admission degree requirements, if their coursework is incomplete or their thesis is less than 50% finished, students will have to meet the current degree requirements. All core and elective courses completed within a five-year window (between initial enrollment and graduation) can be applied to the student’s degree requirements.

Students who have completed at least two terms of thesis, have made substantial progress, will be continuing with a supervisor they worked with previously, and are planning to continue the research they have done to date, may be admitted into the thesis stream without restarting with Thesis Research and Design I and II, as long as their supervisor agrees to this.

Students who are starting a new thesis question, with a new supervisor must return to school in the fall and participate in Thesis Research and Design I and II in the fall and winter terms respectively, as well as Arch 610, Architectural Analysis and Research.

If a student has made substantial progress on the thesis question, but are planning to continue this research under a new supervisor, they must negotiate with the new supervisor and graduate officer whether or not they will be required to take Thesis Research and Design I and /or II, and Arch 610.

Applying for readmission beyond 5 years of initial admit term:

If a student started their degree more than 5 years ago, current M.Arch degree requirements must be fulfilled. Some previously earned elective and core courses may be applied to the current degree requirements, negotiated individually with the graduate officer and with approval from the Faculty of Engineering Associate Dean of Graduate Studies.

M.ARCH DEGREE REQUIREMENTS

The University of Waterloo Master’s program in Architecture combines elements of professional and a thesis based research-oriented program. It offers preparation for entry into the profession of architecture (together with an extension of the knowledge base required of practicing professionals, now and in years to come) to students with the University of Waterloo’s Bachelor of Architecture Studies (BAS) degree, or an undergraduate degree in architecture equivalent that meets necessary CACB requirements. Though all external admitted students, both Canadian and international, are expected to come to Waterloo Architecture with a pre-professional or a professional undergraduate background in architecture, only those that meet the specific CACB criteria (primarily the Comprehensive
Building Design Studio) addressed in Waterloo’s undergraduate BAS program can proceed directly into the Year 2 Master’s Thesis year. Those admitted students who do not, enter the Year 1 programme to complete the above necessary CACB requirements.

- **Year 1: Fall/Winter**
  - ARCH 640 Contemporary Theory, Culture and Criticism
  - ARCH 671 Technical Report
  - ARCH 673 The Science of the Building Envelope
  - ARCH 691 Comprehensive Building Design Studio
  - [Graduate Academic Integrity Module](#) (please visit website for details)
  - ARCH 642 Modern Architecture
  - ARCH 662 Steel & Concrete: Design, Structure and Construction
  - ARCH 690 Design Studio

*Course term offering may be Fall or Winter – will be confirmed each year based on scheduling

- **Year 1: Spring**
  - Optional Co-op Work term or Inactive term

**Thesis Year**

- **Year 2: Fall**
  - ARCH 692 Thesis Research and Design Studio I
  - ARCH 610 Architectural Research and Analysis
  - ARCH 6XX Open graduate elective
  - [Graduate Academic Integrity Module](#) (please visit website for details)

- **Year 2: Winter**
  - ARCH 693 Thesis Research and Design Studio II
  - ARCH 655 Architectural Professional Practice: Ethics, Business, Legal Issues, and Contract Administration
  - ARCH 6XX Open graduate elective

- **Year 2: Spring**
  - ARCH 6XX Open graduate elective
  - Graduate Thesis

Students are encouraged to use elective courses to explore areas of specialization in support of their thesis research. Up to 1 half-credit (0.50) elective may be taken in other departments. One half-credit (0.50) course may be an independent course (either an independent reading/research elective or the competition elective).

**M.ARCH DEGREE OPTIONS**

**M.ARCH (Water):**

The University of Waterloo offers a unique research-based Masters and Doctor of Philosophy (PhD) collaborative program in Water. This program, jointly offered by ten departments across the Faculties of Arts, Engineering, Environment, Mathematics and Science, is intended to promote multi- and inter-disciplinary perspectives related to water. The goal of the program is to supplement disciplinary (specialist) training offered in individual departments with perspectives from a variety of water-related disciplines. Students graduating from the collaborative program will be better equipped to work in multidisciplinary teams to solve increasingly complex water issues.

Students pursuing a thesis in the academic area of Water related research must submit a thesis abstract to the CGSR to be approved for the M. Arch (Water) degree option.

In addition to the regular M. Arch degree requirements, students in the Water option must successfully complete the courses WATER 601, WATER 602, and the Water Seminar Milestone.
Only one (0.5 credits) of the water course numbers will count towards the M. Arch elective course degree requirements.

For detailed information on the M. Arch (Water) option visit https://uwaterloo.ca/graduate-studies-academic-calendar/engineering/school-architecture/master-architecture-march-water.

Once approved for the M. Arch (Water) a program change form must be submitted to switch from the M. Arch degree plan to the M. Arch (Water) degree plan.

M.ARC (Co-op):

The M. Arch (Co-Op) is an additional degree option offered to all students in the Two Year M. Arch program, that allows students to complete a University of Waterloo cooperative work placement in the summer term between the First and Second Years of the Master’s program.

Students interested in the co-op option will work with the Co-op Education and Career Services team (CECA) for guidance on the co-op application process, requirements and employer selection process. A presentation will be made to all students in the Fall term to provide further details on the co-op option.

Structures Certificate Program:

The BAS undergraduate architecture curriculum at the University of Waterloo offers one of the most thorough and innovative technical programs compared to other North American architecture schools. However, it leaves a select few students wishing they could gain more expertise in structural engineering analysis and design.

The Structures Graduate Certificate curriculum gives students an opportunity to study structural engineering concurrently with their pursuit of the Master of Architecture degree at the University of Waterloo. The structures certificate requires students to complete eight courses in Civil Engineering at the undergraduate level. It does not give students accreditation or professional designation in Structural Engineering or Engineering.

M. Arch students interested in pursuing the structures certificate can contact Prof. Elizabeth English ecenglish@uwaterloo.ca or the Graduate Coordinator for details.

COURSE DROP/ADD PERIOD

During the first four weeks of term, students must drop or add graduate courses using Quest, the University of Waterloo’s on-line student information system. For courses with enrolment restrictions, students must obtain permission through their Department Graduate Assistant or, in the case of the School of Architecture, the CGSR.

After the first four weeks of a term, students may not drop or add a course except by petition using the Drop/Add Form, and only under exceptional circumstances with the signature of the instructor, the thesis supervisor, the Department Graduate Officer and the Associate Dean (Graduate Studies) of Engineering. Students need a Doctor’s note for the following requests if illness is the reason for the change/exception:

- Course drops after week 4,
- Course change to Audit after week 4,
- Missed exams

A doctor’s note detailing the “date and length of illness and the degree of incapacitation” must be submitted to support the course drop form.

Any non-illness related rationale for such requested drop/add changes or exceptions will only be approved by the Director of the School of Architecture and the Associate Dean of Engineering for Graduate Studies after review of the circumstances to determine if they warrant such approval.

Courses may not be dropped or added, nor course status changed, after the examination period begins.

It is students’ responsibility to verify their course schedule on Quest to ensure enrolment in courses is correct within the drop/add
period.

The official schedule of classes is available online http://www.adm.uwaterloo.ca/infocour/CIR/SA/grad.html

Retaking Graduate Courses:

A graduate course may be retaken only once as a requirement for the degree and requires approval from the School of Architecture and the Faculty of Engineering. The original course will be retained on the student’s academic record and is normally counted for credit in the student’s overall grade average for the program.

INDEPENDENT READING/RESEARCH AND COMPETITION ELECTIVE COURSES

If students wish to pursue a special topic that is not covered in an existing ARCH 684 or 600 level elective, they may submit a Course proposal for either an ARCH 685 or 686 elective. A student is permitted to take either one Independent Research course, or one approved Competition course to fulfill the M. Arch elective requirements.

Architecture (ARCH) 685 Independent Research on Special Topics in Architecture (0.50):

This course is intended allow students to cover materials not otherwise available in a graduate course offered in this, or nearby universities. These courses will usually consist of a program of directed reading, complemented with the writing of papers or participation in research. The research question and course content should be negotiated on an individual basis with a faculty member, whose research interests cover closely related material. A specific outline for the course of study must be developed by the student, in consultation with the professor in charge, and approved by the Graduate Officer in advance of the term in which a student wishes to take the course.

Architecture (ARCH) 686 Competitions in Architecture (0.50):

This course provides an opportunity for the student to independently engage in the respected tradition of the Architectural Competition. The competition entry and accompanying research paper must focus on the use of architectural precedents as the basis for the creation of typologically based propositions. Submission to the external competition is mandatory, the timing and detailed requirements of which will determine one part of the academic requirements for this course. A student must develop a course outline, consisting of an outline for the research paper (including a preliminary bibliography), and the competition brief. Terri Meyer Boake, tboake@uwaterloo.ca, the professor in charge, must approve the outline in advance of the term in which a student plans to take the course and submit it to the and the Graduate Coordinator for final approval.

EXCHANGE AND TRANSFER CREDITS

Taking a Course at Another Ontario University:

Students may take a graduate-level course at another Ontario university if the course is essential to the student’s program and there is no comparable course offered at UW. Registration is accomplished with an Ontario Visiting Graduate Student Application available from the Graduate Studies Office. Further information on the Ontario Visiting Graduate Student Plan can be found in the Graduate Calendar and an application form can be obtained from the GSO web site. The Graduate Officers must grant approval.

Taking a Course at an International University or Other Recognized Institution:

Students may take a graduate-level course at another institution if the course is essential to the student’s program and there is no comparable course offered at UW. Approval must be received and supported by the Graduate Officer and Graduate Advisory Committee. A memo or request for approval is then forwarded to the GSO. Once approved, and proof of successful completion is received via a transcript, the course will appear on the students UW transcript.

THESES REQUIREMENTS

As a graduate student writing a thesis, please ensure that you review the University of Waterloo thesis regulations, along with information on preparing your thesis, and submitting your thesis.

The Waterloo Architecture thesis is a self-directed critical and creative project sustained in research and presented comprehensively.
Graduate students can undertake thesis research through different media and approaches – ranging from the creation of artefacts (drawings, models, prototypes, building design, structural exploration, submitted together with a 5,000-10,000 words introductory essay) to a primarily written thesis (criticism, speculation, technical study, historical analysis, theoretical exploration, typically between 20,000 and 25,000 words). For the examination of their thesis, graduate students can choose between two forms of final public presentation: the Final Review or the Thesis Defense.

The **Final Review** is a 90-minute examination (a presentation followed by discussion) with an examining committee that consists of the supervisor, committee member, internal and external critics. **Final Reviews** take place on one or two designated days at the end of each term during the exam period, and presentation at these reviews must be approved by the supervisor and committee member. Students intending to present at a Final Review in the Spring, Fall or Winter term must submit a 95% portfolio of work to their committee and graduate coordinator by July 1st, November 1st, or March 1st respectively, to initiate the sign-off process and eventually obtain approval for presentation. Following the **Final Review**, students must collect their thesis work together with their introductory essay in a final thesis document, which is submitted to their committee (Supervisor, Committee member and Internal Reader) for final evaluation, approval and upload. The objective of the Final Review is to invite a panel of internal and external critics that can affirmatively engage the thesis through the presented artefacts, a format that is most appropriate for an artefact-based thesis.

A **Thesis Defense** is a 2-hour examination (presentation, questions, and evaluation) to an examining committee that consists of the supervisor, committee member, internal and external readers. **Thesis Defenses** take place in either the first two or the last two weeks of the term. Presentation at a Thesis Defense must be approved by the supervisor and committee member. Students who wish to defend during a given term must submit a 95% draft of their thesis to their committee and graduate coordinator by June 15th, October 15th, or February 15th, and subsequently obtain sign-off, for defenses in the last two weeks of July, November, or March respectively. Alternatively, students can defend in the first two weeks of the Fall, Winter and Spring term if they have submitted a 95% draft to the committee and graduate coordinator by August 1st, December 1st and April 1st respectively, and have successfully been granted sign off. Once they have defended and upon the recommendation of the examination committee, students can upload their final document. **Thesis Defense** is most appropriate for thesis that relies more heavily on written work as the external reader reads the document in advance of the defense.

**Example of structure leading to Final Review:**

- **TRD1** Development of argument, decision on schedule and presentation, selection of committee
- **TRD2** Development of design, completion of introductory essay, Interim Review
- **Term3** Final review + final submission of document and upload OR Second Interim Review
- **Term4** Final review + final submission of document and upload OR Third Interim Review
- **Term5** Final review + final submission of document and upload
- **Term6** Final review + final submission of document and upload

**Example of structure leading to Thesis Defense:**

- **TRD1** Development of argument, decision on schedule and presentation, selection of committee
- **TRD2** Thesis development, Interim Colloquium and Preparation of Spring Colloquium
- **Term3** Thesis defense + final submission of document and upload OR Spring Colloquium
- **Term4** Thesis defense + final submission of document and upload OR Fall Colloquium
- **Term5** Thesis defense + final submission of document and upload OR 95% draft on April 1st
- **Term6** July defense + final submission of document and upload

**WATERLOO ARCHITECTURE M. ARCH THESIS ADVISORY COMMITTEE**

The M. Arch Advisory Committee is comprised of the supervisor and one committee member drawn from the University of Waterloo professoriate. The role of the committee is to guide and advise the student on research issues and monitoring their progress. Members are selected based on their fields of expertise, the nature and planning of the research project and to complement the expertise of the supervisor. The members also serve as peers providing critical and constructive feedback on the student’s research. Adjunct faculty with a longstanding regular teaching relationship to Waterloo Architecture may undertake this role as well. If specialized knowledge is required for the thesis, the Committee member can also be filled by faculty from another university or college, or by a working professional architect with approval from the Graduate Officer.
M. Arch Thesis Supervisor:

A Thesis Supervisor must be a tenure-track or tenured member of the faculty of the School of Architecture. Though students typically work with one supervisor, co-supervision is also an option (see below).

Graduate student supervision requires complex interaction between graduate students and their supervisors. Supervisors are responsible for fostering the intellectual and scholarly development of their students as they develop and complete their thesis research and final work, and they can also play an important role in providing advice regarding career paths. The defined role of an M. Arch supervisor is threefold:

- to advise, monitor and act as mentor.
- to provide the primary guidance, instruction, and encouragement in the research activities of their students,
- to take the coordinating role in the evaluation and examination of their students’ progress and performance.

To perform a supervisory role, the faculty supervisor will meet with students an average of once every two weeks. While the rate and length of meetings can vary throughout the development of the thesis, communication, review and contact hours per student should typically range between 30 minutes to an hour per week.

Thesis Supervisor Ballot Process:

1) Students in the first term of their thesis need to familiarize themselves with the research interests of the faculty in order to determine who is best suited to be their supervisor and committee member. As part of the TRD I term there are four ways for students and faculty to learn about each other’s research interests.

1.1) Faculty will be presenting their research interests in Arch 610.

1.2) All students will submit a 2 page PDF, with their thesis abstract (400 words) and selected images. All faculty have posters on their doors describing their research.

1.3) Faculty will participate in thesis mid-reviews and an exhibition of interim thesis work following the reviews in the Loft.

1.4) There will be a day or days of TRD I when faculty can drop into studio to meet with specific students.

2) The two last weeks of November is the designated meeting period in which students can arrange meetings with faculty members to discuss their thesis (students should meet with 3 Faculty members each).

3) Students submit ballots to the Graduate Coordinator by 3:00pm on the Friday of the week classes end (December 8, 2017), ranking three choices for supervisor in order of preference. Students must also upload their interim work on LEARN for review by faculty.

4) Faculty will be informed of those students who have ranked them 1, 2 or 3 and can then review the work of each of these students and rank a total of 8 students as first and alternate choices. Faculty must submit their rankings to the graduate coordinator a week before University holiday closure (December 15, 2017).

5) The Graduate Coordinator will assign all first choices, until faculty are filled, then students unable to get their first choice will be assigned their second or third choices. In the even that a student cannot be assigned their third choice the Graduate Officer will approach faculty who are appropriate to the students work. All supervisor allocations will be announced for all students on the last day before University holiday closure.

Co-Supervision Option:

Though students typically work with one supervisor, co-supervision is an option in cases of additional needed expertise in the student’s selected thesis topic, and if agreed on by the student and the thesis supervisor. Such expertise can come from inside the School of Architecture, from inside the University of Waterloo, from an outside academic institution, or the private sector. When undertaken by two Waterloo Architecture faculty members, or in conjunction with another University of Waterloo faculty member, a co-supervision partnership is subject to review by the Graduate Officer to ensure that it is a necessary choice. For external co-supervisors, such a relationship is subject to a more strict review and approval by the Graduate Officer, and requires a strong case for both necessity of co-supervision, and the choice of the external co-supervisor. In any co-supervision partnership, a full time tenured Waterloo Architecture faculty member acts as the primary supervisor, and the secondary co-supervisor acts in an expanded version of the first committee member role, but with more frequent student contact and with appropriate credit allowance. In all cases of co-supervision, there is no
need for an additional first committee member as defined below.

Provision for Supervisor Absence:

Supervisors are obliged to inform their students and prospective students of any anticipated extended absences. In cases when the absence is for a period greater than two months, supervisors should arrange for suitable communication methods. Substitute supervision also must be arranged, for example, by using members of the thesis advisory committee. Supervisors must inform students and departments of the arrangements made for the period of absence and receive approval from the Dean of Graduate Studies.

Curtailment of Supervisory Duties:

Supervisors should inform the Graduate Office and the thesis advisory committee when, in exceptional circumstances such as personal or professional conflicts, temporary leave because of illness, or prolonged leave, withdrawal from their supervisory role is necessary and in the best interest of the student. The arrangement should be confirmed in writing. In such cases, supervisors should cooperate with the Graduate Officer to help arrange for continuity of supervision. Committee Member:

The M. Arch Advisory Committee member follows the development of the thesis from its initial stages and complements the supervisor's role. The First Committee Member should:

- Meet a minimum of once a term as a Committee to review the student's progress and provide advice. Advisory Committees should meet at the request of students or supervisors. Meetings should be arranged as required to support the student's progress.
- Review the thesis in a timely manner before the thesis is examined.

The Committee Member will not act as an ongoing alternate supervisor, and the relationship to the thesis student is not a primary supervisory role.

Students are strongly encouraged to confirm their first committee member by the end of January of the first winter term of thesis.

A Supervisor approval form and thesis committee approval form are to be submitted to the Graduate Coordinator for review and approval by the Graduate Officer(s).

WATERLOO ARCHITECTURE M. ARCH THESIS EXAMINING COMMITTEE

This committee member does not provide input into the actual writing of the thesis and is only brought into the thesis process when the defense is scheduled. The thesis supervisor is to make arrangements with an appropriate internal and external reviewers and contact them at the time that thesis sign-off is confirmed and a student is ready to defend. The External and Internal Readers must each receive a hard copy of the thesis for review at minimum two weeks before the defense.

The Examining Committee must include at least three University of Waterloo Faculty members, including the two members of the Advisory Committee and the following two reviewers:

Internal Reviewer:

The Waterloo Architecture Internal Reviewer is added to the Committee for the defense and becomes a member of the Thesis Examining Committee. Internal Reviewers must be members of the Waterloo Architecture tenure-track or tenured faculty.

External Reviewer:

The final member of the M. Arch thesis examining committee is the External Reviewer. This committee member must be publicly recognized in his/her field, should be knowledgeable in the student's field of study, and should be external to the School of Architecture (although they may be University of Waterloo faculty members from a different department or Faculty, and in cases where the Advisory Committee Member is not a Faculty member, the external will need to be one).

THE THESIS DEFENSE

The Waterloo thesis defense is a two-hour event involving the student, the Thesis Examining Committee and an external reader. The defense is open to the public and is scheduled as follows:

1. Presentation of the thesis to the committee and audience (30 minutes maximum)
2. A first round of questions, beginning with the external reader, followed by the two committee members, and ending with the supervisor (+/- 30 minutes)
3. A second round of questions in the same order (+/- 30 minutes)
4. Other questions from the committee and the assembled audience (+/- 10 minutes)
6. In Camera deliberation of the committee and reader (+/- 10 minutes)
7. Private discussion with the student about the deliberation (+/- 5 minutes)
8. Public announcement of the results of the deliberation (+/- 5 minutes)

THE FINAL REVIEW

A final review will be a long and thorough review (90 minutes in length) that will allow for a substantial presentation of the work (30 minutes maximum) and a one hour discussion with the Advisory Committee, Internal Reviewer as well as internal and external critics.

RESULTS OF THE DEFENSE AND REVIEW

The thesis defense examination, and the final submission following a final review, can have one of the following results:

Accepted:
Thesis may require typographical and/or minor editorial corrections to be made to the satisfaction of the supervisor, though no formal communication is required to confirm these approved changes.

Accepted With Minor Modifications:
Thesis requires minor changes in substance or major editorial changes that are to be made to the satisfaction of members of the Examining Committee as designated by the Committee. Normally such changes should be completed within four (4) weeks of the date of the examination.

Accepted With Major Modifications:
Thesis requires more substantive changes but will be accepted when these changes are made. Changes are to be made to the satisfaction of those members of the Examining committee as designated by the Committee. The Examining Committee’s report must include a brief outline of the nature of the changes required and the date by which the changes are to be completed.

Decision Deferred:
Thesis requires modifications of a substantial nature, which make the acceptability of the thesis questionable. The Examining committee’s report must contain a brief outline of the modifications expected and should indicate the time by which the changes are to be completed. The revised thesis must be re-submitted for re-examination. The re-examination will follow the same procedures as for the initial submission except that the display period may be reduced or eliminated at the discretion of the Associate Dean. Normally, the same Examining Committee will serve. A decision to defer is open only once for each candidate.

Rejected:
Thesis is rejected. The Examining Committee shall report the reasons for rejection. A student whose thesis has been rejected will be required to withdraw from the Masters program.
## M. ARCH THESIS REVIEW / DEFENSE TIMELINE

<table>
<thead>
<tr>
<th>REVIEW OR DEFENSE</th>
<th>STEP</th>
<th>TIMELINE</th>
<th>PEOPLE INVOLVED</th>
<th>DETAILS</th>
<th>LINKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Review + Defense</td>
<td>Balloting Process for supervisor selection</td>
<td>Please see above, under The Ballot Process</td>
<td>Student, Faculty</td>
<td>Please see detailed description above, under The Ballot Process</td>
<td></td>
</tr>
<tr>
<td>2 Review + Defense</td>
<td>Thesis research/ design</td>
<td>Ongoing</td>
<td>Student, Supervisor, Committee member</td>
<td>Establish regular meeting schedule with your supervisor and committee member as per guidelines above</td>
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</tr>
<tr>
<td>3 Review + Defense</td>
<td>Review guidelines</td>
<td>Ongoing</td>
<td>Student</td>
<td>Review UW Graduate Studies thesis regulations and formatting requirements</td>
<td><a href="https://uwaterloo.ca/graduate-studies/thesis">https://uwaterloo.ca/graduate-studies/thesis</a></td>
</tr>
<tr>
<td>4 Review + Defense</td>
<td>Submission of 95% document for final review prior to sign-off</td>
<td>6 weeks prior to anticipated defense date</td>
<td>Student</td>
<td>Provide your thesis (95% Complete) to all members of the thesis committee for a final review prior to the sign-off meeting</td>
<td></td>
</tr>
<tr>
<td>5 Review + Defense</td>
<td>Establish sign-off meeting</td>
<td>4-5 weeks prior to anticipated final review or defense date</td>
<td>Student, Supervisor, Committee member,</td>
<td>When your thesis document is sufficiently complete a sign-off meeting is set to get confirmation from all members of the thesis committee that you are approved to defend. Submit the defense approval form with signature from all committee members to the Graduate Coordinator (email sign off form all committee members is acceptable in lieu of the form)</td>
<td></td>
</tr>
<tr>
<td>6 Defense</td>
<td>Confirm external and internal readers, set defense date and time</td>
<td>After sign-off meeting</td>
<td>Thesis committee</td>
<td>Generally, the thesis supervisor in consultation with the committee will contact the external and internal readers appropriate for the thesis defense. The supervisor will work to set the defense date/time based on their availability in the time windows suggested above.</td>
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</tr>
<tr>
<td>7 Review + Defense</td>
<td>Complete final edits to thesis document or to drawings and models</td>
<td>After sign-off meeting</td>
<td>Student</td>
<td>Any finals edits to your thesis based on feedback from the sign-off meeting should be incorporated prior to the thesis being sent to the external reader or prior to the final review.</td>
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<tr>
<td>8 Defense</td>
<td>Submit printed thesis copies, thesis abstract and title to the Graduate Coordinator (GC) and book defense location</td>
<td>3 weeks prior to defense date</td>
<td>Student</td>
<td>One full colour copy of your thesis must be submitted to the Graduate Coordinator to be mailed to the external reader. A black and white printed copy must also be provided for display and perusal in the main office. Your thesis title and abstract must also be provided in a WORD doc to prepare the notice of defense. The room booking can also be done at this time.</td>
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<tr>
<td>9 Review + Defense</td>
<td>Contact ACM for technical assistance/ equipment booking</td>
<td>Minimum one week prior to defense / review date</td>
<td>Student</td>
<td>If you require technical assistance or AV equipment for your defense or review be sure to contact ACM to make the necessary arrangements</td>
<td></td>
</tr>
<tr>
<td>10 Review</td>
<td>Review</td>
<td>Final Review Days Scheduled by the School in the exam period</td>
<td>Student, Committee Member, Internal Reader and guest critics</td>
<td>The final review will be 90 minutes in length and will be an opportunity to have focused discussion about the design research focused on artifacts rather than text. After the defense the student will have 2-3 weeks to submit a collated folio of work, including the required essay, to the examining committee.</td>
<td></td>
</tr>
<tr>
<td>11 Review</td>
<td>Post review modifications and collation of artifacts, essay</td>
<td>2-3 weeks after the review.</td>
<td>Student, Thesis examining Committee</td>
<td>The student must collate the essay and artifacts into an 8.5 x 11&quot; folio for submission to the Examining Committee. The committee will then review the submitted document and either approve it or require</td>
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<td>Action</td>
<td>Details</td>
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<tr>
<td>Defense</td>
<td>Defense date</td>
<td>Student, Thesis examining committee</td>
<td>The defense location is booked for a maximum two hours and the defense presentation takes place as per the guidelines above. After the defense presentation the Defense Report including the result of the defense is signed off by all members of the committee and submitted to the Graduate Coordinator.</td>
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<tr>
<td>Defense</td>
<td>Post defense / review modifications</td>
<td>After defense or review</td>
<td>Student</td>
<td>If your thesis requires modifications after the defense or review, these changes must be completed and signed off by your supervisor prior to your defense report being submitted to Engineering.</td>
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</tr>
<tr>
<td>Review + Defense</td>
<td>Defense / Review Report submitted to Engineering Graduate Office</td>
<td>After defense</td>
<td>Graduate Coordinator</td>
<td>If your thesis is approved (and requires no further modifications) the defense report is sent to the Engineering Graduate Office.</td>
<td></td>
</tr>
<tr>
<td>Review + Defense</td>
<td>Approval to upload to UWSpace</td>
<td>2-3 days following submission of defense report</td>
<td>Eng Grad Studies Office (EGSO)</td>
<td>The Engineering Graduate Office will send an email after receipt of your defense report confirming your thesis has been accepted and you can upload to UWSpace.</td>
<td></td>
</tr>
<tr>
<td>Review + Defense</td>
<td>UWSpace submission</td>
<td>After e-mail confirmation from EGSO</td>
<td>Student</td>
<td>Upload your thesis to UWSpace following the instructions as indicated in the link.</td>
<td></td>
</tr>
<tr>
<td>Review + Defense</td>
<td>Graduate Studies review and final UWSpace approval</td>
<td>After submission to UWSpace</td>
<td>Graduate Studies Office (GSO)</td>
<td>Once you have uploaded your thesis to UWSpace the GSO will review to ensure you meet all UW formatting requirements. Any necessary formatting changes will be communicated to you and you will have to make the necessary changes and re-upload to UWSpace. Once any necessary changes are made and the GSO approves your thesis a final email will be sent confirming approval.</td>
<td></td>
</tr>
<tr>
<td>Review + Defense</td>
<td>Intent to Graduate /Library and ACM forms</td>
<td>Anytime after defense</td>
<td>Student</td>
<td>Submit your intent to graduate form and ACM/Library clearance forms to the Graduate Coordinator</td>
<td></td>
</tr>
<tr>
<td>Review + Defense</td>
<td>Intent to Graduate Submitted to the GSO</td>
<td>After UWSpace approval</td>
<td>Graduate Coordinator</td>
<td>Once your thesis is approved in UWSpace your intent to graduate is sent by the Grad Coordinator to the GSO for processing.</td>
<td></td>
</tr>
<tr>
<td>Review + Defense</td>
<td>Degree completion</td>
<td>After intent is graduate is processed</td>
<td>Grad Studies Office</td>
<td>Once your intent to graduate form is processed by the GSO you have officially completed your degree requirements!</td>
<td></td>
</tr>
<tr>
<td>Review + Defense</td>
<td>Convocation</td>
<td>Fall or Spring</td>
<td>Student</td>
<td>For convocation information visit the link included. To attend fall convocation, you must be fully complete before Aug 31. To attend Spring convocation, you must be fully complete before Apr 30.</td>
<td></td>
</tr>
<tr>
<td>Review + Defense</td>
<td>Tuition Refunds</td>
<td>Varies each term</td>
<td>Student</td>
<td>Please make yourself aware of the tuition refund deadlines each term and plan your thesis defense schedule accordingly. You must degree complete by the posted deadline each term.</td>
<td></td>
</tr>
<tr>
<td>Review + Defense</td>
<td>Thesis printing and binding</td>
<td>After thesis accepted in UWSpace</td>
<td>Student</td>
<td>A bound copy of your thesis must be submitted to the School for display in the library. It is strongly recommended a bound copy be provided to your thesis supervisor. Printing of your thesis is up to your discretion but Media.Doc should do the binding on main campus. Be sure to complete the thesis binding form and include your UWSpace approval email when sending your printed document(S) to Media.Doc. You are the depositor and Emily Anglin is the department</td>
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</tbody>
</table>
contact. You can have the bound copy(s) sent directly to the School.
RESEARCH ETHICS - OFFICE OF RESEARCH ETHICS

It is essential that all students intending to conduct any research that requires the interviewing, filming or use of human subjects, refer to the Office of Research Ethics guidelines to set up this research. There are detailed UW requirements for such research to proceed. Please refer to the ORE website and the presentation material on the Architecture Graduate LEARN site.

M.ARCH FUNDING AND FINANCIAL AID

Graduate students in the Master of Architecture may be eligible for scholarships, bursaries, and/or teaching assistantships while in the program if eligibility criteria are met. The University of Waterloo maintains a database of all scholarships and bursaries available to graduate students http://uwaterloo.ca/graduate-studies/awards-funding. To be eligible for scholarships students must maintain fulltime enrolment, make satisfactory progress with degree requirements, and maintain a minimum 80% average (for merit based scholarships) with no incomplete grade (INC).

Students entering the program with an overall average based on undergraduate studies of 80% or higher receive a UW entrance scholarship. Details of the entrance scholarship are contained in the official offer of admission. The entrance scholarship is applied to the student’s Quest account in the first term of study only. Since this is a professional program, there is no guaranteed funding in the form of supervisor committed funding (Graduate Research Studentships (GRSs)). However, Graduate Research Assistantships (GRAs) will from time to time be available to students. Interested students are encouraged to apply to these opportunities as they arise.

External Scholarships – OGS/CGS-M:

The Ontario Graduate Scholarship (OGS) program encourages excellence in graduate studies at publicly-assisted universities in Ontario. Since 1975, the OGS program has been providing merit-based scholarships to Ontario’s best graduate students in all disciplines of academic study.

The OGS competition is held once annually. For detailed information on application requirements, eligibility and deadline to apply visit https://uwaterloo.ca/graduate-studies/awards-funding/external-awards/ontario-graduate-scholarship-ogs

The CGS-M Scholarship Program provides financial support to high-caliber scholars who are engaged in eligible Master’s or, in some cases, Doctoral programs in Canada. This support helps to allow these scholars to fully concentrate on their studies in their chosen fields.

The CGS-M scholarship competition is held once annually. For detailed information on application requirements, eligibility and deadline to apply visit https://uwaterloo.ca/graduate-studies/awards-funding/external-awards/tri-agency-cihr-nserc-sshrc-canada-graduate-scholarships

A list of School, University, and External scholarship opportunities of interest to Architecture students is available online:

http://uwaterloo.ca/graduate-studies/awards-funding/database

Scholarships are also posted to Architecture Graduate students on the LEARN Architecture Graduate Students Group.

Graduate Studies Research Travel Assistantships:

A small fund is available each term for the purpose of assisting University of Waterloo graduate students to attend professional conferences, and present their research. Students will normally be the first author, and must be a conference presenter. Graduate Studies Office travel funds are normally awarded to a graduate student only once per year. The application form and regulations are available on the GSO website. The School of Architecture may have funds available to provide some financial support if a student is awarded a Graduate Travel Assistantship. Commitment from the School is assessed on a term-by-term basis and varies depending on the number of approved applications.

Teaching Assistantships:

A select number of Teaching Assistantships are offered every term. Students with superior academic records, appropriate interests and skills in the courses requiring TA’s, are encouraged to apply. Students in the first term of study, and/or inactive or part-time status or enrolled beyond the maximum six terms of study are not eligible to apply for Teaching Assistantships. Students are normally limited to a maximum of two Teaching Assistantships over the course of their MArch study.

A TA’s work time should not exceed 130 hours per term (10 hours per week). Extra hours are at the discretion of the student and the instructor, however student course load and time should be considered when duties are accepted or assigned. Assistantships take great
effort; students and instructors should work together to ensure that studies are balanced with the requirements of the position. Timesheets must be submitted to the Graduate Coordinator monthly.

Positions are advertised for the next term midway through the current term. Application details will be posted on LEARN. In some cases, interviews are required to assess student appropriateness for the TA activity. The TA assignment process is reviewed regularly and subject to change.

Further details about teaching assistantships, architecture scholarships, and other sources of financial aid such as research assistantships will be announced to all registered M. Arch students via LEARN as the assignment details and opportunities become available.

**Other Forms of Support:**

The Graduate Studies Office also offers bursaries to graduate students who can demonstrate financial need. Information on this bursary is available from the GSO and the Graduate Calendar. Maternity/adoption leave bursaries and day care bursaries are also available from the GSO.

**CANADIAN ARCHITECTURE CERTIFICATION BOARD - ACADEMIC CERTIFICATION**

Prior to registration with any of the provincial associations of architects in Canada, applicants must have their academic qualifications certified by the CACB. Following certification of academic qualifications, applicants are then required to complete the licensing requirements (including internship and exams) for the province in which they wish to register.

Twice a year (May and September), the School can batch process students that are interested in registering with the Canadian Architecture Certification Board to obtain academic certification. Depending on the timing of your degree completion and convocation ceremony, the Graduate Coordinator will send an email with details and required forms for the certification process, in either May or September. Given the limited timing throughout the year for the School to complete the batch certification process, you may choose to complete the certification process as an individual in which case you will have to request a Program confirmation letter from the Graduate Studies Office and submit this along with all other required documents as outlined in the CACB website.

**ACADEMIC INTEGRITY, GRIEVANCE, APPEALS, ACCESSIBILITY SERVICES**

**Academic integrity:**

To maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. [Check the Office of Academic Integrity for more information.]

**Grievance:**

A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70, Student Petitions and Grievances, Section 4. When in doubt, please be certain to contact the department’s administrative assistant who will provide further assistance.

**Discipline:**

A student is expected to know what constitutes academic integrity to avoid committing an academic offence, and to take responsibility for his/her actions. [Check the Office of Academic Integrity for more information.] A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about “rules” for group work/collaboration should seek guidance from the course instructor, academic advisor, or the undergraduate associate dean. For information on categories of offences and types of penalties, students should refer to Policy 71, Student Discipline. For typical penalties, check Guidelines for the Assessment of Penalties.

**Turnitin.com and alternatives:**

Plagiarism detection software (Turnitin) will be used to screen assignments in courses. This is done to verify that use of all material and sources in assignments and the thesis work is documented. In the first week of the first term, details will be provided about the arrangements for the use of Turnitin and alternatives in this course.

**Appeals:**
A decision made or penalty imposed under Policy 70, Student Petitions and Grievances (other than a petition) or Policy 71, Student Discipline may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to Policy 72, Student Appeals.

AccessAbility Services:

AccessAbility Services, located in Needles Hall, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, you must register with AccessAbility Services at the beginning of each academic term. No accommodations can be granted without this registration. This is required to ensure your privacy, and so that the school knows how to properly accommodate your needs.

ADMINISTRATIVE ITEMS

Communication With Graduate Students:

The School communicates with students through the LEARN Architecture Graduate Student Group and students’ official Waterloo (userid@uwaterloo.ca) email address. The University of Waterloo also sends all official communication to students’ uwaterloo email address. It is your responsibility to ensure your email address is activated and working. If you have activated your WatIam account, this will allow you to log into your waterloo email service Connect.

School Keys & Studio Fees:

All registered students are provided a Key Fob for 24hr access to the School. The School is now locked at all times for safety. Fobs are issued by Architecture Computing & Media at a cost of $10. If your FOB is lost or misplaced, please notify ACM immediately so it can be deactivated. There is a $20 replacement cost for lost Fobs.

A $25 studio fee is assessed each term you are enrolled in a studio (ARCH 690, 691, 692 & 693). The studio fee must be paid by the end of the second week of classes.

Watcard:

WatCard is the official identification card for the University of Waterloo. For details on how to use your card and add funds visit If you are a returning student to Waterloo you can swap your undergraduate WatCard for a Graduate card at no cost. New students to Waterloo are issued the first WatCard at no cost. Individual students can either send WatCard photos to the WatCard Office or photos will be taken during Orientation Week here at the School and WatCards will be mailed during the second week of classes normally. If you choose to have your WatCard photo taken here at the School you will not have your WatCard for transit, library loans etc. until your WatCard arrives you may want to go to the WatCard Office to avoid any delays.

Graduate Mail:

The School of Architecture will accept packages on behalf of students that pertain to academic studies only (no personal items are to be shipped to the School). The delivered package must be clearly identified with your name. We will not accept packages that having money owing on delivery. Any mail that needs to go to main campus can be brought to the main office and will be sent over through the inter-office campus mail service.

Photo Studio Booking:

The photo studio is accessible for student use however the studio must be booked in advance in the main office. Any equipment bookings you require (lights, cameras etc.) should be done through ACM.

Musagetes Library:

The Musagetes Architecture Library supports the teaching and research of students and faculty at Waterloo Architecture. The library is located on the 2nd floor of the School. The library contains architecture books and periodicals, which can be signed out with your UW Watcard. The library also houses a rare books collection that can be accessed by appointment. The Musagetes Library has a conference room that is available for students to book for group meetings, thesis meeting etc. the booking calendar is available online.

Thesis Library And UWspace:
M.Arch. theses are available for perusal in the Musagetes Library. Students may also review theses published since 2004 on UWSpace. [http://uwspace.uwaterloo.ca/](http://uwspace.uwaterloo.ca/)

**Architecture Computing And Media:**

The Architecture Computing and Media (ACM) department maintains the Architecture Computing Helpdesk in ARC 2004A. It can be accessed in person or by calling ext. 27600 or by emailing archhelpdesk@uwaterloo.ca.

For more information on the services and facilities and services available in ACM visit the ACM homepage.

**Fabrication Labs:**

The School of Architecture fabrication space located on the main floor offers a number of different services to students from tools to fabrication equipment, 3D printers etc. The workshop is accessible to all students. For workshop information and safety policies visit [https://uwaterloo.ca/architecture/resources-services/fabrication-labs](https://uwaterloo.ca/architecture/resources-services/fabrication-labs)

**Counselling Services:**

[Counselling Services](https://uwaterloo.ca/architecture/resources-services/fabrication-labs) is available at the School two days per week. Individual appointments can be booked by calling 519-888-4567 x.32655.

**International Student Experience Office:**

The International Student Experience team offers resources and support to all International Students studying at Waterloo. For detailed information visit [https://uwaterloo.ca/international-students/](https://uwaterloo.ca/international-students/).

**Off-Campus Housing:**

The Housing Office supplies lists of off-campus accommodation available in the K-W and Cambridge areas on its web site at [https://uwaterloo.ca/off-campus-housing/](https://uwaterloo.ca/off-campus-housing/). It is strongly recommended Graduate students secure accommodation in Cambridge, as travel by public transit between Cambridge and Waterloo is quite time consuming.

**Security:**

Waterloo Campus Police contracts G4S to provide security service for the School. A security officer is on duty beginning at 4:00 p.m. until 8:30 a.m. and can be contacted regarding an emergency, for first aid, or for ordering a taxi (see below). In an emergency situation during regular daytime hours the Cambridge Police and/or 911 should be contacted.

**Safe Ride Taxi Service:**

Security personnel can call a taxi when students require a ride to safely transport them from the School to their local place of residence in Cambridge after hours (9:00 p.m. to 5:00 a.m.). Your local address must be listed in your Quest account or you will be responsible to cover the charge for the taxi. The University will cover up to a maximum of $20 per ride and only to your local address.

**Parking:**

Parking for the School is available in the parking lot just north of the building; there is no cost to park in this lot.
The Performance Criteria

For the purposes of accreditation, graduating students must demonstrate understanding or ability in the following areas:

A1. Critical Thinking Skills
   *Ability* to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well reasoned conclusions, and test them against relevant criteria and standards.

A2. Research Skills
   *Ability* to employ basic methods of data collection and analysis to inform all aspects of the programming and design process.

A3. Graphic Skills
   *Ability* to employ appropriate representational media to convey essential formal elements at each stage of the programming and design process.

A4. Verbal and Writing Skills
   *Ability* to speak and write effectively on subject matter contained in the professional curriculum.

A5. Collaborative Skills
   *Ability* to identify and assume divergent roles that maximize individual talents, and to cooperate with others when working as members of a design team and in other settings.

A6. Human Behavior
   *Understanding* of the relationship between human behavior, the natural environment and the design of the built environment.

A7. Cultural Diversity
   *Understanding* of the diverse needs, values, behavioral norms, and social/spatial patterns that characterize different cultures and individuals, as well as the implications of this diversity on the societal roles and responsibilities of architects.

Les critères de performance

Pour les fins de l’agrément, tout diplômé doit démontrer sa compréhension ou sa capacité dans les domaines suivants :

A1. Habilîtes de pensée critique
   Capacité de soulever des questions claires et précises, d’utiliser des idées abstraites afin d’interpréter des informations, de tenir compte de divers points de vue, d’en venir à des conclusions raisonnées et de les vérifier en fonction de critères et de normes pertinents.

A2. Habilîtes en recherche
   Capacité d’utiliser des méthodes de base de collecte et d’analyse de données dans le développement de tous les aspects du processus de programmation et de design.

A3. Habilîtes graphiques
   Capacité d’employer les moyens de représentation appropriés afin de communiquer les éléments formels essentiels à chaque étape du processus de programmation et de design.

A4. Habilîtes langagîères
   Capacité de communiquer efficacement, oralement et par écrit, sur un sujet contenu dans le programme professionnel.

A5. Habilîtes de collaboration
   Capacité d’identifier et d’assumer différents rôles afin de tirer profit des talents individuels et de collaborer avec autrui en tant que membre d’une équipe de design et dans d’autres circonstances.

A6. Comportement humain
   Compréhension de la relation entre le comportement humain, l’environnement naturel et le design de l’environnement construit.

A7. Diversité culturelle
   Compréhension de la diversité des besoins, des valeurs, des normes de comportement et des modèles sociaux et spatiaux qui caractérisent différentes cultures et différents individus ainsi que les implications de cette diversité au niveau des rôles sociaux et des responsabilités des architectes.
A8. History and Theory
Understanding of diverse global and local traditions in architecture, landscape, and urban design, as well as the factors that have shaped them.

A9. Precedents
Ability to make a comprehensive analysis and evaluation urban space of a building, building complex, or urban space.

B1. Design Skills
Ability to apply organizational, spatial, structural, and constructional principles to the conception and development of spaces, building elements, and tectonic components.

B2. Program Preparation
Ability to prepare a comprehensive program for an architectural project that accounts for client and user needs, appropriate precedents, space and equipment requirements, the relevant laws and standards, and site selection and design assessment criteria.

B3. Site Design
Ability to analyze and respond to context and site conditions in the development of a program and in the design of a project.

B4. Sustainable Design
Ability to apply the principles of sustainable design to produce projects that conserve natural and built resources, provide healthy environments for occupants/users, and reduce the impacts of building construction and operations on future generations.

B5. Accessibility
Ability to design both site and building to accommodate individuals with varying physical and cognitive abilities.

Understanding the principles that inform the design and selection of life-safety systems in buildings and their subsystems; the codes, regulations, and standards applicable to a given site and building design project, including occupancy classifications, allowable building heights and areas, allowable construction types, separation requirements, occupancy requirements, means of egress, fire protection, and structure.

B7. Structural Systems
Understanding of the principles of structural behavior in withstanding gravity and lateral forces, and the evolution, range and appropriate applications of structural systems.


A8. Histoire et théorie
Compréhension de diverses traditions mondiales et locales en architecture, en architecture du paysage et en design urbain, ainsi que des facteurs qui les ont façonnées.

A9. Précédents
Capacité de faire une analyse et une évaluation approfondies d’un bâtiment, d’un ensemble de bâtiments ou d’un espace urbain.

B1. Habilétés en design
Capacité d’appliquer des principes organisationnels, spatiaux, structuraux et de construction, à la conception et au développement d’espaces, d’éléments de construction et de composantes tectoniques.

B2. Préparation d’un programme

B3. Aménagement du site
Capacité d’analyser un contexte et les conditions d’un site et d’y répondre adéquatement dans l’élaboration d’un programme et la conception d’un projet.

B4. Design durable
Capacité d’appliquer les principes du design durable afin de produire des projets qui conservent les ressources naturelles et bâtisses, qui procurent un environnement sain aux occupant et qui réduisent les impacts de la construction et de l’exploitation des bâtiments sur les futures générations.

B5. Accessibilité
Capacité de concevoir un site et un bâtiment adaptés aux individus ayant diverses capacités physiques et cognitives.

B6. Systèmes de sécurité, codes et normes du bâtiment
Compréhension des principes qui sous-tendent le design et la sélection des systèmes de sécurité et de leurs sous-systèmes dans les bâtiments; des codes, des règlements et des normes applicables à un site et à un projet donnés, incluant les types d’occupation, les hauteurs et superficies de bâtiments autorisées, les types de constructions autorisés, les exigences de séparation et d’occupation, les moyens d’évacuation, la protection contre l’incendie et la structure.

B7. Systèmes structuraux
Compréhension des principes de comportement de la structure lorsqu’elle résiste à la gravité et aux forces latérales, ainsi que de l’évolution, de l’éventail et des applications appropriées des systèmes structuraux.
B8. Environmental Systems
Understanding of the basic principles that inform the design of environmental systems, including acoustics, illumination and climate modification systems, building envelopes, and energy use with awareness of the appropriate performance assessment tools.

B9. Building Envelopes
Understanding of the basic principles involved in the appropriate application of building envelope systems and associated assemblies relative to fundamental performance, aesthetics, moisture transfer, durability, and energy and material resources.

B10. Building Service Systems
Understanding of the basic principles that inform the design of building service systems, including plumbing, electrical, vertical transportation, communication, security, and fire protection systems.

B11. Building Materials and Assemblies
Understanding of the basic principles utilized in the appropriate selection of construction materials, products, components, and assemblies, based on their inherent characteristics and performance.

B12. Building Economics and Cost Control
Understanding of the fundamentals of development financing, building economics, construction cost control, and life-cycle cost accounting.

C1. Detailed Design Development
Ability to assess and detail as an integral part of the design, appropriate combinations of building materials, components, and assemblies.

C2. Building Systems Integration
Ability to assess, select, and integrate structural systems, environmental systems, life safety systems, building envelopes, and building service systems into building design.

C3. Technical Documentation
Ability to make technically precise descriptions and documentation of a proposed design for purposes of review and construction.

C4. Comprehensive Design
Ability to project a comprehensive design based on an architectural idea, a building program and a site. The design or designs should integrate structural and environmental systems, building envelopes, building assemblies, life-safety provisions, and environmental stewardship.

B8. Systèmes environnementaux
Compréhension des principes de base qui sous-tendent la conception de systèmes environnementaux, incluant l’acoustique, l’éclairage et la climatisation, l’enveloppe de bâtiment et la consommation énergétique, avec une connaissance des outils d’évaluation de la performance appropriés.

B9. Enveloppes du bâtiment
Compréhension des principes de base qui motivent les choix appropriés d’enveloppes de bâtiment et d’assemblage associés, en ce qui concerne la performance globale, l’esthétique, le transfert de l’humidité, la durabilité et les ressources énergétiques et matérielles.

B10. Systèmes de service du bâtiment
Compréhension des principes de base qui sous-tendent le design des systèmes de service du bâtiment, incluant la plomberie, l’électricité, le transport vertical, la communication, les dispositifs d’urgence et la protection-incendie.

B11. Matériaux de construction et assemblages
Compréhension des principes de base liés à la sélection appropriée des matériaux de construction, des produits, des composantes et des assemblages, selon leurs caractéristiques propres et leur performance.

B12. Économie du bâtiment et contrôle des coûts
Compréhension des principes fondamentaux du financement de développements, de l’économie et du contrôle des coûts de construction et de l’analyse du coût du cycle de vie.

C1. Développement détaillé d’un projet
Capacité d’évaluer et de produire les détails de construction, comme partie intégrante du projet, de combinaisons appropriées de matériaux, de composantes et d’assemblages.

C2. Intégration des systèmes du bâtiment
Capacité d’évaluer, de sélectionner et d’intégrer à la conception du bâtiment les systèmes structuraux, les systèmes environnementaux, les systèmes de sécurité, les enveloppes et les systèmes de service du bâtiment.

C3. Documentation technique
Capacité de produire la documentation et les descriptions techniques précises d’un projet de design pour fins d’évaluation et de construction.

C4. Design complet
Capacité de concevoir un projet de design complet fondé sur une idée architecturale, un programme et un site. Le ou les projets devraient intégrer des systèmes structuraux et environnementaux, les enveloppes de bâtiments, les assemblages de construction, les systèmes de sécurité et les principes de responsabilité environnementale.

D1. Leadership and Advocacy
Understanding of the techniques and skills for architects to work collaboratively with allied disciplines, clients, consultants, builders, and the public in the building design and construction process, and to advocate on environmental, social, and aesthetic issues in their communities.

D2. Ethics and Professional Judgment
Understanding of the ethical issues involved in the formation of professional judgment regarding social, political and cultural issues in architectural design and practice.

D3. Legal Responsibilities
Understanding of the architect’s responsibility to the client and the public under the laws, codes, regulations and contracts common to the practice of architecture in a given jurisdiction.

D4. Project Delivery
Understanding of the different methods of project delivery, the corresponding forms of service contracts, and the types of documentation required to render competent and responsible professional service.

D5. Practic Organization
Understanding of the basic principles of practice organization, including financial management, business planning, marketing, negotiation, project management, risk mitigation and as well as an understanding of trends that affect practice.

D6. Professional Internship
Understanding of the role of internship in professional development, and the reciprocal rights and responsibilities of interns and employers.

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