

ARCHITECTURE

CURRICULUM

Master of Architecture

DEGREE REQUIREMENTS

	Credits
Masters Thesis Project	(Milestone)
Collaborative Competition I	(Milestone)
Collaborative Competition II	(Milestone)
AR8101 Studio in Critical Practice	1
AR8102 Seminar in Critical Practice	1
AR8103 Studio in Collaborative Practice	3
AR8104 Seminar in Contemp and Future Practice	1
AR8105 Intensive Research Studio and Seminar	4
AR8106 Current Topics in Architectural Praxis	1
Two Elective Credits	2

Electives

	Credits
AR8201 Advanced Construction Case Studies	1
AR8202 Architectural Theory Since 1968	1
AR8203 Architectural Writing	1
AR8204 Architecture in Public Policy	1
AR8205 The Arch. Of Urban Housing	1
AR8206 Canadian Arch. Since 1945	1
AR8207 Contemporary Theories of Urbanism	1
AR8208 Creating Space Simulation	1
AR8209 Advanced Design Methods	1
AR8210 Digital Tools	1
AR8211 Ecology	1
AR8212 Fire Safety in the Built Environment	1
AR8213 Glass in Architecture	1
AR8214 Heritage Conserv., Theory and Practice	1
AR8215 How Buildings Work	1
AR8216 Landscape and Ecological Design	1
AR8217 Landscape Design Theory and Application	1
AR8218 Performance Modeling	1
AR8219 The Small Building	1
AR8220 Sustainable Ratings Systems	1
AR8221 Architectural Representation	1
AR8222 Sustainable Housing Design	1
AR8223 Building Management System	1
AR8224 Designing the Productive City	1
AR8225 Globalization and Construction	1
AR8226 Directed Studies: Cdn Constr	1
AR8227 Minimal Housing	1
AR8228 Research Seminar: Global Communities	1
AR8229 Research Seminar: Emerging Technologies	1
AR8230 Research Seminar: Sustainable Design	1

COURSE LISTING

Masters Thesis Project

Working closely with a faculty advisor, students will carry out independent research on an approved topic within the field of architecture, resulting in the development of a thesis report and subsequently a critical project. The student will be required to publicly present the thesis report, which forms the critical, historical, and theoretical basis for the thesis project. A comprehensive review of literature and relevant works will form a core component of this report. The thesis project must be grounded in architectural praxis, but is not limited to the design of a building. This course culminates in a public juried presentation of thesis projects. This is a "Milestone." Pass/Fail

Collaborative Competition I

In collaboration with fellow students at the graduate and undergraduate level, students take part in architectural competitions or other design activities approved by the Program Director. Competition teams will normally be led by Ryerson Faculty members. This is a "Milestone." Pass/Fail

Collaborative Competition II

In collaboration with fellow students at the graduate and undergraduate level, students take part in architectural competitions or other design activities approved by the Program Director. Competition teams will normally be led by Ryerson Faculty members. This is a "Milestone." Pass/Fail

AR8101 Studio in Critical Practice

In this studio, students will be expected to develop a critical approach to architectural design and production. Students will be confronted with complex design problems which require a close examination of both the conditions that underlie the practice of architecture (including the students' own assumptions and beliefs) and the contexts within which and on which architectural practice acts. The development of an architectural response to these conditions and contexts, using ethical and professional judgment as well as techniques of critical analysis, will be the key objective of the studio. 3 Credits

AR8102 Seminar in Critical Practice

This course presents students with exemplars of critical practice and with methods of architectural research. The role of the architect as observer, critic, and form-maker within society will be discussed; critical practices will be discussed within the framework of contemporary directions in cultural and critical theory. The development of new technologies, either directly through research or indirectly through developing a demand, will be presented as a key role of the critical practice. Students may be asked to prepare a paper or other document which takes a critical position on a topic taken from one of the program's key areas of engagement: sustainability, technological innovation and the GTA. 1 Credit

AR8103 Studio in Collaborative Practice

Architecture is never the product of a single individual. The myth of the star architect as a heroic and creative genius is out of step with the reality of architectural practice in our increasingly complex society. Working collaboratively in teams, and with input from specialized consultants and stakeholder groups, students will develop the design of a complex building. A design process of enquiry, analysis and integration of technical, cultural, social, and economic issues will be stressed. 3 Credits

AR8104 Seminar in Contemporary and Future Practice

This course is meant to offer students a theoretical basis for working in or operating an architectural practice in the twenty-first century. Topics will include the legal framework for architectural practice, the role of internship, basic financial management of a practice, management and leadership principles, and so on. All aspects are presented from a critical rather than a prescriptive viewpoint: students will be asked to examine current structures of practice and propose alternative versions. Alternative forms of practice, including the Integrated Design Process, will be discussed. 1 Credit

AR8105 Intensive Research Studio and Seminar

In this course, students will work under the close supervision of an instructor on design projects related to a current issue in the instructor's area of research. Building on the introduction to research in architecture from the previous year, this course gives students an in-depth view of one research project. This course may be offered at Ryerson or off-campus, depending on the subject of the research. As part of this studio, a seminar will be offered in which students are presented with the essential characteristics and methods of research in architecture, discussed in the context of the research project being undertaken. 4 Credits

AR8106 Current Topics in Architectural Praxis

This course, offered in seminar format, will allow students in the final semester of the program to enter into a discussion of topics of current interest in architecture. Topics will vary year to year, as proposed by faculty and elected by students. To be taken concurrently with the thesis. 1 Credit

AR8201 Advanced Construction Case Studies

Through lectures and a case study approach, this course investigates recently completed architectural projects, focusing on their tangible, material resolution as an expression of design intent. A major component of this course will involve students undertaking a detailed case study of one such architectural project. Antirequisite ARC730. 1 Credit

AR8202 Architectural Theory Since 1968

This course surveys major trajectories in architectural theory of the past forty years, which form one part of the context for current architectural practice. The first half of the course will focus on a number of these trajectories which can now be treated historically: semiotics, critical histories, phenomenology, deconstruction, critical regionalism, and identity politics. Building on this foundation, the second half of the course will consider current and emerging theoretical frameworks for architecture. Antirequisite ARC732. 1 Credit

AR8203 Architectural Writing

The objective of the course is to provide students with exposure to the various forms of writing related to architecture as a professional practice and critical/cultural discipline. The goal is to improve students' writing and verbal communication in the context of architectural practice and discourse. The process of critical assessment and documentation of architecture will help students focus and clarify the intentions underlying their own design work. Antirequisite ASC751. 1 Credit

AR8204 Architecture in Public Policy

This course investigates the application of architectural principles and processes to facets of public policy not traditionally addressed by the discipline of architecture. The intent is to identify how such principles and processes can shed new light on, and positively contribute to, the evolution of public policy. Some of the public policy issues to be considered include: infrastructure (transportation, waste handling, supply of water, energy and communication), social policy (relating to poverty, homelessness and health), education and governance. Antirequisite ASC750. 1 Credit

AR8205 The Architecture of Urban Housing

This course explores the impact that globalization has had upon the design and development of urban housing and its implications for critical practice in Canada. Seen through the lens of critical practice, students will be exposed to the myriad of themes, from cultural to political to economic, having an effect on the design of contemporary housing and associated living environments. This reading-intensive course comprises discussion sessions led by the instructor and/or invited guests on one or more of the subject's core themes, augmented by comparative analyses of seminal housing projects located in major cities in Western Europe, Asia, the United States, and Canada. Antirequisite ARC731. 1 Credit

AR8206 Canadian Architecture Since 1945

The objective of the course is to provide students with exposure to the recent history of Canadian architecture, from the immediate post-war to the present. Material will cover the basic conditions leading to and facilitating the spread of modernism as an important mode of architectural production and expression in post-war Canada, and its contribution to a national architectural identity, particularly in the context of Canada's celebration of the 1967 centennial of Confederation. Antirequisite ARC733. 1 Credit

AR8207 Contemporary Theories of Urbanism

This seminar course considers interrelationships between contemporary theories of urbanism, the role of urbanism as an instrument of analysis and criticism, and associated implications for critical practice in Canada. Theoretical issues surrounding urban design and strategy are investigated through the lenses of architecture, urbanism, and the humanities. Through an engagement of the writings and projects of Le Corbusier, Rossi, Koolhaas, Venturi and others, and placing strong emphasis on interrelationships between key theoretical concepts and the generation of new urban forms, this reading-intensive course offers a comparative analysis of the changing nature of urban theory in the context of globalization. Antirequisite ASC753. 1 Credit

AR8208 Creating Space Simulation

Increasingly, computer modeling allows designers to simulate a range of performance factors of a building, including thermal performance, ventilation, lighting, acoustics, structure and others. This course will allow students to experience the use of such software and explore its potential as a tool for the design of spaces and for current architectural practice. Students will use simulation software to analyze spaces and develop design proposals based on the results of simulation. Antirequisite ASC754. 1 Credit

AR8209 Advanced Design Methods

Digital design using computer software has evolved through a number of modes of design practice. Recent software applications have introduced more fluid interfaces that allow for greater serendipitous design discovery that can emerge from sketching and experimenting with forms. Students in this course will explore the potential of a number of types of software to support the digital design process. Working with these digital tools will be placed within a general creative context. 1 Credit

AR8210 Digital Tools

Digital Tools: Ways of conceiving and communicating architectural ideas. An advanced level seminar taught by department faculty members, either singly or as a team. Topics offered in various semesters will be determined by faculty expertise available. Antirequisite ASC755. 1 Credit

AR8211 Ecology

This course explores the basic dynamics of ecology through the study of varied and typical environments. The relationships between the primary factors of geology, surface deposits, hydrology, flora and fauna, together with the impact of urbanization and human activity on the natural ecosystem, are studied. 1 Credit

AR8212 Fire Safety in the Built Environment

This course provides students with an introduction to fire safety engineering. The principal objective of fire safety engineering is to provide an acceptable level of safety when an accidental fire occurs. Computational simulation software packages will be used to demonstrate fire growth and smoke movement under different scenarios. This course is designed for architecture students who

have developed some basic understanding of fire and knowledge about regulations associated with fire safety in buildings. Antirequisite ASC756. 1 Credit

AR8213 Glass in Architecture

This course will take us on an in-depth study of that most expressive of modern materials and glass. The material will be looked at in a holistic manner, that is, we will approach our study from technical, historical, theoretical, and expressive directions. We will attempt to make these four trajectories not as separate paths of study, but as different elements of a single journey. Antirequisite ASC857. 1 Credit

AR8214 Heritage Conservation Theory and Practice

A course on the theoretical and practice issues of heritage conservation, particularly with regard to the preservation of buildings and sites in Ontario of architectural significance. The course reviews methods of documenting heritage resources and methodologies and techniques available for physical interventions into heritage structures. Antirequisite ARC735. 1 Credit

AR8215 How Buildings Work

Knowledge of how our buildings work is crucial to creating better architecture. Without feedback loops informing architects of the performance of their designs, most buildings become prototypes and the knowledge that could be gained from each building is lost. This course will allow students the opportunity to study, examine and understand in detail the performance of an existing building. This will help develop a perspective for the long term performance of buildings and develop an understanding of buildings as they develop after architects have completed their design. Students may be asked to select an existing building and collect detailed information on performance from uses, management, designers and client, and present a critical analysis to the group. Antirequisite ASC851. 1 Credit

AR8216 Landscape and Ecological Design

In this course students will explore the fundamentals of landscape design principles and applied ecological form. This course will focus on theories of both designed and natural composition of landscapes elements. The course objectives are achieved through lectures, field trips, case studies and in-class assignments. Antirequisite ASC852. 1 Credit

AR8217 Landscape Design, Theory, and Application

This course in landscape design, site and environmental planning engages students in the development and application of personal design philosophy towards the built and naturalistic environment. This is achieved through researching the professional work, styles and paradigms of internationally recognized architects, landscape architects, artists, planners and designers from the 19th-21st Century. Antirequisite ASC853. 1 Credit

AR8218 Performance Modeling

This course investigates issues associated with computer modeling of building performance. While the course focuses on the modeling of energy consumption and daylighting, other modeling systems will also be discussed. Principles of performance modeling will be discussed, including means for evaluating results and verifying the accuracy of the model. Antirequisite ASC854. 1 Credit

AR8219 The Small Building

Throughout history, the small building has engaged the landscape and been part of the urban environment. This course will study the small building in many cultures and will provide a greater understanding of human scale, meaning, symbol, and function, and the relationship of these factors to architecture. It is also aimed at teaching useful skills for architects, including research, writing, analysis and presentation skills. Antirequisite ASC856. 1 Credit

AR8220 Sustainable Ratings Systems

The course focuses on the environmental impact assessment method used in Canada since the launch of Canadian LEED in December 2004. Designing with LEED deals with the use of the LEED green building rating system as a design tool for the creation of environmentally responsible buildings. Other environmental issues, assessed by other methods not necessarily included in LEED, are also discussed. Antirequisite: ASC855. 1 Credit

AR8221 Architectural Representation

The emphasis of this course is to read, write and discuss issues of architectural representation. Representation, very basically-imitation with a change, is a key element in how we read and provide meaning in architecture. The main goal of this class is to learn how concepts of Representation impact the architecture that we make and the architecture that we experience. 1 Credit

AR8222 Sustainable Housing Design

Sustainable Housing deals with the design of low rise residential housing which demonstrates and promotes advanced levels of energy efficiency, resource conservation strategies, healthy environments, cultural appropriateness and sustainable development principles. Sustainable housing is viewed from a holistic approach, investigating issues as they relate to architecture, social context, building science, and mechanical systems. 1 Credit

AR8223 Building Management System

This course provides students with opportunities to explore the fundamentals of control engineering and its applications in building automation. This course focuses on how building services systems (such as HVAC, lighting and solar protection) are controlled for optimal performance and how building management systems (BMS) can help save energy and improve indoor environment control in buildings. Students will learn how to carry out integrated architectural design that allows for optimal controllability of buildings and building systems. 1 Credit

AR8224 Designing the Productive City

Architects can contribute to the transformation of our cities into more sustainable environments. This task encompasses designing higher density living and working environments, including farmers' markets, greenhouses, edible landscapes, living walls, productive green roofs, community gardens, and other strategies. The course will review these strategies and apply them to a real-world project in Toronto, looking at actual and proposed development projects that allow food production and provision inside planned and existing neighborhoods. 1 Credit

AR8225 Globalization and Construction

The objective of this course is to encourage students to think globally and to understand the growing importance of international business and globalization and how they relate to construction at large and to the Canadian construction industry. Antirequisite ASC850. 1 Credit

AR8226 Directed Studies in Canadian Construction

This course is available to internationally educated students enrolled in the graduate program in architecture, who lack the knowledge of Canadian Construction. Students are required to present appropriate assignments (exam, report, etc) for assessment as agreed by the supervisor and program director. Registration approval is required from the program director of the M.Arch. program. 1 Credit

AR8227 Minimal Housing

This course examines housing design related to the issues of affordable housing, to explore new and innovative approaches to minimal housing and to engage students in issues of affordable/minimal housing through direct involvement. Antirequisite ASC505. 1 Credit

AR8228 Research Seminar: Global Communities

What is the meaning of community in a globally connected world? How is architecture as a discipline affected by the increasingly charged relationship between the local and the global? What new insights, processes and methods does an architect need to practice effectively in such a world? In this seminar, students will prepare and present research papers discussing the architectural opportunities and consequences of globalization as well as participating in discussions and focused readings on a theme put forward by the instructor and approved by the Program Committee. 1 Credit.

AR8229 Research Seminar: Emerging Technologies

Digital fabrication, parametric design and mass customization offer not only form-making tools for designers but can also enhance the performative qualities of our buildings. How do we harness and mobilize these tools for the future? How can architecture respond to the hybridization of real and virtual spaces to enrich human experience? In this seminar, students will prepare and present research papers discussing the architectural effects of emerging technologies as well as participating in discussions and focused readings on a theme put forward by the instructor and approved by the Program Committee. 1 Credit.

AR8230 Research Seminar: Sustainable Design

How do we ensure that our world is available for the use and enjoyment of future generations? How do we offer a better quality of life to more citizens through the built environment? Beyond the design of energy-efficient buildings, our holistic view of social, cultural and economic sustainability looks to uncover and design the new infrastructures that will be needed to ensure a healthy, vital future. In this seminar, students will prepare and present research papers discussing aspects of sustainable design as well as participating in discussions and focused readings on a theme put forward by the instructor and approved by the Program Committee. 1 Credit.