

# SYLLABUS

## INSTRUCTORS

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## TEACHING ASSISTANTS

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*Young people go to university with the aim of becoming architects, of finding out if they have got what it takes. What is the first thing we should teach them?*

*First of all, we must explain that the person standing in front of them is not someone who asks questions whose answers he already knows. Practicing architecture is asking oneself questions, finding one's own answers with the help of the teacher, whittling down, finding solutions.*

*Over and over again.*

Peter Zumthor  
*Teaching Architecture, Learning Architecture, 1996*

## INTRODUCTION

ARCH 192 is the first in a series of design studios intended to develop design and representation skills, architectural literacy, and critical thought.

Assignments are organized around a sequence of four design problems which serve as the primary vehicle for students to achieve course objectives. Each project focuses on a set of tasks that simultaneously develop conceptual, technical, and analytical skills, while introducing various approaches to design methodology, specifically two- and three-dimensional composition, transformational operations, analytical/comparative studies, and the exploration of the relationship between architectural space and its site and use. Students will be expected to reflect on and synthesize all lessons, identify their strengths and interests, then take risks by venturing beyond perceived minimum expectations.

## **COURSE OBJECTIVES**

Successful completion of this course demands a skillful and rigorous demonstration of the following:

1. the conceptual, technical, critical, and analytical skills required to formulate, develop, evaluate, and articulate a coherent design proposal;
2. the ability to raise thoughtful and precise questions, reach well-reasoned and informed conclusions, and test them against relevant criteria and standards, both in existing and proposed work;
3. the ability and intuition to effectively manipulate basic architectural elements and relations: form, space, structure, order, proportion, mass, surface, light, program, site, scale in relation to the human body, and an understanding of material properties; and
4. the ability to effectively communicate an architectural idea at each stage of the design process verbally, and through two- and three-dimensional drawing and model.

## **INSTRUCTION**

Instruction occurs through individual meetings between faculty and students, seminars, and group reviews. The class will be divided into six sections, each working with a different faculty member, and rotating five times during the term. Within the common framework of the assignments, each instructor will provide additional pedagogical direction to their respective section.

## **SCHEDULE**

ARCH 192 is scheduled as follows:

Monday: 9:30 am - 12:30 pm, 1:30 pm - 5:30 pm

Thursday: 9:30 am - 12:30 pm, 1:30 pm - 5:30 pm

Students are required to be working in studio for the duration of these scheduled hours. Repeated absences may be cause to request withdrawal from the course. Students are also required to attend and participate in all scheduled reviews, and expected to attend all guest lectures and school events.

## **STUDIO**

Each student is assigned a workspace in studio. Students are allowed unrestricted access to the studio 24 hours a day and seven days a week and are encouraged to work in studio as much as possible. A large component of individual development stems from the experience of and contribution to a collective and cooperative studio setting.

The development of a healthy studio culture involves intensive drawing and making as well as a critical and speculative dialogue regarding one's own work and the work of others. The participation in this evolving dialogue is essential to a student's success, and the success of the larger body of the studio. A student's capacity as a critic of the work of others is a fundamental skill that must be developed by each student. Presence and contribution to all aspects of the studio discourse will be noted by studio faculty.

The studio must be a safe and inclusive environment in which all students can work without unnecessary harassment or distraction. Headphones must be used if a student wishes to listen to music. The student lounge, gym and basketball court are available to any student who wishes to engage in activities unrelated to studio work. The playing of video games or watching of videos or movies during studio hours is strictly prohibited.

## **DESK CRITS**

Studio sessions consist primarily of desk critiques with individual instructors, but also include lectures, workshops, small group pin-ups and seminars, large group reviews with several instructors, and class meetings. Each project will conclude with a formal review.

Desk crits are opportunities to receive advice specific to each student and each project. All students must have work to present at every desk crit. Faculty may refuse to provide a crit to a student who does not present new work.

Studio faculty will not provide answers, but will offer advice to aid in the development of critical thinking. The project and the decisions are ultimately the student's responsibility. To cite misunderstood advice as the reason for poor work is an evasion of this responsibility.

## **REVIEWS**

Formal reviews of each student's work will be scheduled at the end of each project. These reviews are held publicly with the feedback intended to provide students with a better understanding of their own work, its strengths and areas of improvement, and to open up broader discussions about architecture. Any criticism is intended to be constructive and educational.

Reviews are considered an important teaching and learning tool, and are thus instructive and not evaluative. The review may not be a reliable indication of the project's final grade. The evaluation itself will take place in confidential sessions by the studio faculty working as a group, in which all critical aspects of each project will be considered.

Students are encouraged to record the conversation that occurs during their review through the assistance of a classmate who can take notes on their behalf. Video recorders and audio recording devices should not be used in review sessions without the express approval of your instructors.

It is extremely important for each student to participate in not only the review of their own work, but in the reviews of their fellow students' work as well.

## ASSIGNMENTS

The design studio is a laboratory and workshop as well a classroom. In studio, students learn through making. Ideas are shaped through a continuous process of experimentation, production, and reflection. It is through this iterative process designs are developed, critically evaluated, reworked and refined - over and over again.

There is no single 'correct' answer to a studio project, or a strictly linear or formulaic process to arrive at a solution. The skills and insights gained from previous studio projects and personal inquiries, along with the theoretical, historical and technical knowledge obtained across all courses are synthesized into cohesive propositions through a process of informed speculation.

There are four assignments for ARCH 192. While the objectives of each project overlap, they each have a specific focus, providing a diversity of conceptual and technical strategies and practices. These assignments also provide opportunities for the development of representational tools including model building, and with the support of ARCH 110, an understanding of the techniques and uses of orthographic, paraline, and perspective projection drawings. The term will culminate in an extended project for the design of a small building of limited complexity that will synthesize the skills acquired through the earlier projects.

A detailed schedule indicating assignment dates and deadlines is included at the end of this document. The grade breakdown for the assignments is as follows:

Project 1	Cube	20%
Project 2	Grid	15%
Project 3	Case Studies	15%
Project 4	House	50%

Detailed descriptions and lectures will introduce each project.

Students are required to document all assignments digitally and post them on the ARCH 192 LEARN site. Grades for each assignment will not be released until this documentation has been received.

## **LATE WORK**

All projects are due in class at the specified time and date. In situations of documented illness or extraordinary circumstance, a *Request for Extension* form must be submitted to the studio coordinator, accompanied by a medical certificate when appropriate.

Work received after the specified deadline without approved extensions will not be accepted.

## **EVALUATION**

All assignments will be assessed on the following general criteria:

- Ambition, clarity and appropriateness of the ideas explored within the work.
- Integrity in the development of the project from initial to final phase.
- Architectural quality and the technical resolution of the proposition.
- Precision and craft of physical artifacts produced.
- The effectiveness and the completeness of project documentation and its capacity to communicate the project's intentions in the author's absence.

The specific basis for the evaluation of each project will be identified in individual project assignments. In addition, grading will reflect student participation, commitment, effort and improvement over the course.

Students must complete all projects and obtain a passing average in order to receive credit for this course. Notwithstanding the cumulative mark from aggregate term projects, failure to earn a passing grade in the final term design project will result in a failing grade for the term.

## **REQUIRED TEXTS**

*Neufert Architects' Data*, 5th edition, Ernst Neufert, Wiley Blackwell, 2019

## RECOMMENDED READING

Readings associated with each project may be made available during the term, either as course material or on reserve in the library. References to notable architectural works or writings will be provided frequently in studio discussions, and you have an obligation to research these references.

General architectural knowledge is vital. It is therefore strongly recommended that you commit a minimum of one hour per week to work in the library. The library is a place of study and musing. In the end, however, there is no substitute for the inevitable hard work of drawing at your board.

## WORKSHOP TRAINING

All students must complete mandatory workshop and photo studio training. These will be scheduled during and both ARCH 192 and ARCH 110 class hours, and on Tuesday afternoons.

## COMMUNICATION WITH STUDIO FACULTY

It is required that all students use their uwaterloo.ca account for all official academic correspondence, and check this email account regularly. Students should ensure that their LEARN account is active. We expect that all discussions concerning individual projects or any other matter requiring direction, confirmation or advice from faculty will occur during scheduled studio hours. In special circumstances and with prior arrangement, students may email studio faculty regarding their studio projects. All official academic correspondence should be addressed to the studio coordinator.

## UNIVERSITY POLICIES

**Academic integrity:** In order 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](#).

**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](#).

**Note for students with disabilities:** [AccessAbility Services](#), located in Needles Hall, Room 1132, 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, please register with [AccessAbility Services](#) at the beginning of each academic term.

## HOW TO BE A SUCCESSFUL STUDENT

### Do This:

- Work in studio.
- Push yourself beyond your comfort zone.
- Trust your eye and trust your gut.
- Identify your interests and skills.
- Maintain a sketchbook to record your design ideas as they develop. Take this with you everywhere.
- Maintain a binder or other filing system to organize handouts, readings, loose sketches, research and inspirational images.
- Keep your desk organized.
- Surround yourself with your work. Post your best sketches and inspirational images on your pinup board.
- Learn the value of tracing paper as a design tool.



- Look at lots of images; figure out what you like and what you don't, ask why – this is how your intuition will develop.
- Produce work continuously. Design is best done through thinking while you are working, not thinking about working.
- Do not wait for the approval of a studio instructor before you make decisions.
- Exchange ideas with your classmates. Attend as many of your classmates' formal reviews as possible.
- Talk to upper-year students about your work and inquire about theirs. Attend upper-year reviews as time permits.
- Attend all guest lectures.
- Spend time in the library. Familiarize yourself with the wider world of architecture.
- If someone suggests you study a specific building or the work of an architect, look it up.
- Take notes during studio lectures. What will be discussed contains useful material for your design work as well as for your general education.
- Take notes during, or immediately after a desk crit.
- Enlist a classmate to take notes for you during a formal review.
- Create a schedule of all your classes, course requirements and deadlines. Block out enough time for everything, including time for yourself.
- Eat well.
- Sleep 8 hours each night

**Do Not Do This:**

- Don't skip classes.
- Don't be late for studio.
- Don't ever be late for your scheduled review.
- Don't make all-nighters a habit.

## STUDY UNITS

### 1

Jamie Gu  
Omar Oosthuizen  
Noah Becks-D'Souza  
Julia Mroz  
Samuel Correa  
Nazaninzahra Alimadadi  
Matthew Lam  
Linda Pan  
Dhruvi Khamar  
Nasrine Khairi-Arancibia  
Adri Saha  
Nicole Cao  
Vivian Du  
Falak Nazer

### 2

Mariam Palmer  
Ulyana Bunina  
Julia Richard  
Alisha Heipel-Bolger  
Adam Cohen  
Sandra Lyboun  
Madiha Bhuiyan  
Charlotte Teng  
Simar Mangat  
Manav Aggarwal  
Tianqi Liu  
Kari Chen  
Xin Miao Jiang

### 3

Joel Wan  
Eva Yang  
Dulce Acosta  
Luca De Vasconcelos-Ricci  
Larissa Mazzacca  
David Dharma  
Mariam Elghamudi  
Ksenija Lukic  
Alison Yu  
Roxana Torshizi  
Marisa Giammarco  
Celia Lin  
Nicole Chan

### 4

Romelia Abdollahi Alirezaei  
Jarín Hoque  
Paul Holley  
Mia Cajic  
Aaron Boville  
Nathan Vilela  
Ruby Liu  
Alexandra Yeung  
Grace Ma  
Isha Patel  
Fangyuan Zhu  
Rebecca Mathew  
Natalie Davidson

### 5

Matthew Roberts  
Maxwell Steppuhn  
Jessica Kong  
Juhi Puri  
Alexander Doyi  
Shan Lan  
Adrien Fera  
Meaghan Roberts  
Jordana Polera  
Ke Yang  
Juliana Jiang  
Narani Kiriwattuduwa  
Neli Yuen

### 6

Bernice Balano  
Julian Lai  
Jason Chen  
Candace Haddy  
Xi Yue Liu  
Emilio Gonzales  
Connor Rothe  
Xanades Ivic-Williams  
Clay Te Bokkel  
Mingyuan Ma  
Junseop Kim  
Isabella Ieraci  
Priscilla Subramaniam

## SCHEDULE

### WEEK 1

<b>Thu Sept 05</b>	PROJECT 1 OUT P1 intro Lecture Seminars Model workshop
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### WEEK 2

<b>Mon Sept 09</b>	Desk crits
<b>Thu Sept 12</b>	Desk crits

### WEEK 3

<b>Mon Sept 16</b>	Desk crits <b>PROJECT 1 DUE (5:00 PM)</b>
<b>Thu Sept 19</b>	PROJECT 1 REVIEW

### WEEK 4

<b>Mon Sept 23</b>	<b>MONTREAL</b>
<b>Thu Sept 26</b>	PROJECT 2 OUT P2 intro Desk crits

### WEEK 5

<b>Mon Sept 30</b>	Desk crits
<b>Thu Oct 03</b>	Desk crits

### WEEK 6

<b>Mon Oct 07</b>	Desk crits <b>PROJECT 2 DUE (5:00 PM)</b>
<b>Thu Oct 10</b>	PROJECT 2 REVIEW PROJECT 3 OUT P3 Intro

### WEEK 7

<b>Mon Oct 14</b>	<b>STUDY WEEK</b>
<b>Thu Oct 17</b>	

**WEEK 8**

<b>Mon Oct 21</b>	Lecture Desk crits
<b>Thu Oct 24</b>	Desk crits

**WEEK 9**

<b>Mon Oct 28</b>	Desk crits <b>PROJECT 3 DUE (5:00 PM)</b>
<b>Thu Oct 31</b>	PROJECT 3 REVIEW PROJECT 4 OUT

**WEEK 10**

<b>Mon Nov 04</b>	Lecture Desk crits
<b>Thu Nov 07</b>	Desk crits

**WEEK 11**

<b>Mon Nov 11</b>	Lecture Desk crits
<b>Thu Nov 14</b>	Desk crits

**WEEK 12**

<b>Mon Nov 18</b>	PROJECT 4 INTERIM REVIEW
<b>Thu Nov 21</b>	Lecture Desk crits

**WEEK 13**

<b>Mon Nov 25</b>	Lecture Desk crits
<b>Thu Nov 28</b>	Desk crits

**WEEK 14**

<b>Mon Dec 02</b>	Desk crits <b>PROJECT 4 DRAWINGS DUE (5:00 PM)</b>
<b>Thu Dec 05</b>	<b>PROJECT 4 MODEL DUE (5:00 PM)</b>
<b>FRI DEC 06</b>	PROJECT 4 FINAL REVIEW