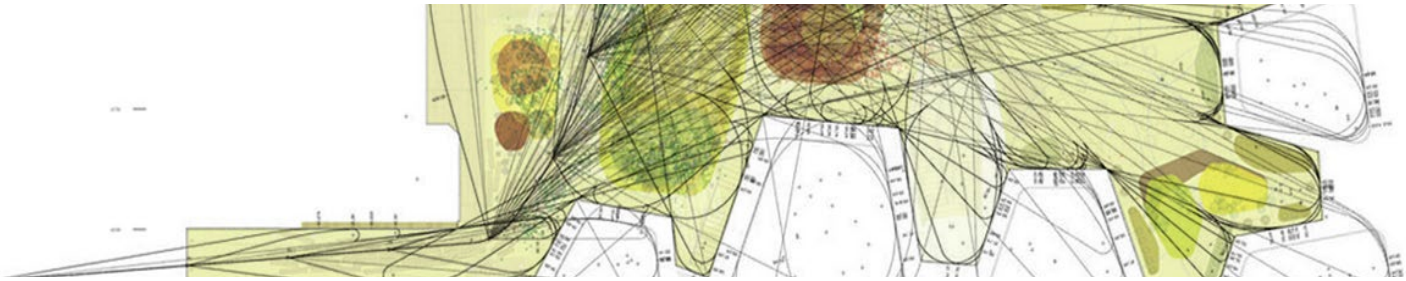


Cero 9 - Fundación Giner De Los Ríos Por Amid (overlaid drawings)

ARCH 113 : VISUAL AND DIGITAL MEDIA 2

SCHEDULE:
Fridays: 9:30 - 12:30, 1:30 - 5:30

INSTRUCTOR:
Cam Parkin - *jcparkin@uwaterloo.ca*

TEACHING ASSISTANTS:
Ethan Duffey - *eduffey@uwaterloo.ca*
Lisa Huang - *lisa.huang@uwaterloo.ca*
Peter Kwak - *p2kwak@uwaterloo.ca*

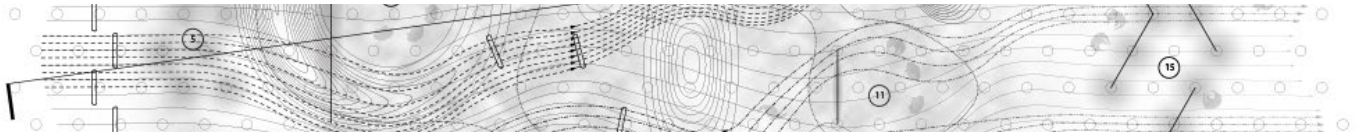
TERRITORIAL ACKNOWLEDGMENT:
We acknowledge that the School of Architecture is located on the traditional territory of the Neutral, Anishinaabeg and Haudenosaunee peoples. The University is situated on the Haldimand Tract, the land promised to the Six Nations that includes 10 kilometres on each side of the Grand River. (see references here: https://uwaterloo.ca/engineering/about/territorial-acknowledgement)

COURSE DESCRIPTION:
The course is structured to advance digital modeling and representation techniques for the purpose of visually developing and communicating spatial ideas and architectural design concepts. Students will both advance their use of current computer software and be introduced to new tools, all in service of adding to their already existing representational toolkit. Rhinoceros 3D will be the primary software used for Computer Aided Drafting/ Modeling (CAD), with Enscape being used for rendering. Adobe Creative Suite will serve as the graphic applications in the workflow.

As you have learned in your first semester, the practice of drawing and model making are central to the architectural practice. This being said, there has been a massive shift towards digital tools in architecture, to the point of ubiquity. In this new digital realm, there are nearly infinite software and workflows the can offer efficiency, and expand creative boundaries. This being said, it is important to carefully consider the integration and application of digital tools in the practice, as blind adoption of these tools can present pitfalls. While a 3D model can be an invaluable tool to quickly develop formal relationships in your building, getting absorbed in the minutiae of a digital model can be distracting and crippling. While the ability to produce photo-realistic renders can be a convincing method to communicate a project, it can ignore the architect's ability to establish visual hierarchy and evoke specific atmospheres.

This course looks at the practice of digitally drawing, modeling, and rendering, and equips students with the ability to navigate and utilize digital tools in a nimble, efficient, and productive manner. Thus, the course seeks to not only equip students with technical skills, but with criticality and insight on the use of these tools in their work.

Throughout this course, two goals of digital representation will be explored: inquiry, and communication. Inquiry refers to using drawings and models for oneself to test, learn, understand, and reveal, while communication refers to expressing established architectural motives and subtleties to someone else. These are by no means separate approaches, but both are key to consider in the practice of drawing, modeling, and representation.



Sean Lally

OBJECTIVES:

Incremental Objectives:

1. Translate knowledge gained in Visual communication 1 to a 3D digital workflow
2. Gather, evaluate, and utilize precedents and to build toolkit of visual representation techniques
3. Develop custom methods of representation that foster a specific understanding of a self-authored project

Overall Objectives:

- To build a familiarity/aptitude with the applications in this course
- To learn the fundamentals of 3D CAD (drawing, modeling, and rendering)
- To expand on the fundamentals of digital graphics (raster and vector)
- To build an adeptness and critical intuition when working with digital design applications
- To establish habits for successful, iterative and fluid digital workflows and collaboration
- To learn how to learn! This course will improve your capacity to understand and apply whatever software you my encounter later.

STRUCTURE:

The course will be comprised of three main sections. Most days will include a lecture, a tutorial, and a lab. In general, the lecture will introduce the theme of the day, the tutorial will share technical skills, and the lab will give time to complete the day's assignment with instructor and TA support. Depending on the day's topic, these sections may be weighted differently, but the general scheme is below:

Prep Time (.5 hr, 9:30am - 10:00am): Half an hour will be granted in the morning for students to prepare for the day. This time should be used to download tutorial files, ensure appropriate software is installed and equipment is prepared for the day.

Lectures (.5 - 1 hr) (synchronous , recorded):
Lectures will be based on major topics in digital creation, representation, and fabrication.
Appropriate examples and case studies will be brought into the class; dissected from a digital perspective, from which lessons learned based on approach, technique, and product will be collectively discussed. It is through the lecture that the goal and tone of the lab will be established.

Tutorials (1 - 2 hr) (synchronous or asynchronous, recorded):
The tutorial section will see an instructor or TA orienting the group in a specific software and walking them through a process that illustrates the ability of the software in relation to the day's theme. The tutorial will equip students with the tools they need to complete their assignment during lab time. Basic questions can be addressed during tutorials, but more specific and advanced questions should be saved for the lab time.

Labs (~ 4 hr):
Labs will take up the remainder of the day and give students a chance to work on their lab assignments with support from the teaching team. Students can engage the TAs and each other by asking questions in the support channel or by participating in small impromptu meetings.

ASSIGNMENTS:

The assignments for this course will be daily exercises, which will be completed during lab time. Each assignment will be tailored to allow practice and experimentation for the given tool, process, or concept. When possible, these assignments will be set up to advance studio work. Because the assignments have very limited time frames for completion, they will take the form of a work log that illustrates the progress made in that lab. The assignments will be submitted at the end of each Friday, so that they do not expand to take up more time than necessary. It is expected that these assignments will serve as springboards for more detailed and refined

Perry Kulper - Fast Twitch, Speculative Desert Dwelling, v.03, Site Drawing

digital outputs completed in studio. The lab assignments should be seen as a chance to get your bearings, experiment, and test ideas, before taking your newfound knowledge to studio.

Beyond these assignments students will be graded on participation, and a final project which will be a submission of graphics created for another class' year end project.

Most assignments will be submitted in groups to give everyone a chance to collaborate and learn from each other. This will also simulate a work environment, where your digital workflows need to accessible to others. To ensure group members are carrying their load, individual contributions will be labeled in each assignment.

To alleviate weekly pressure and grading time, Assignments will alternate between being graded for completion and content. Completion assignments will be given full marks if the group has completed the required deliverables. Graded assignments will be marked with more scrutiny. Often, work carried out in completion assignments will carry into graded assignments, so their quality should not be ignored.

Assignment 1 -9: 5 completion @ 5% & 4 graded @10% (65% total)
Weekly exercises to be completed during lab time

Final Project: 30%
Drawing set generated for another course final (TBD)

Participation: 5%
Contributions to discussions and support channel.

EVALUATION:
- Completion of the deliverables
- Organization and clarity of the submission
- Demonstration of the techniques covered in the tutorials
- Consideration of the themes covered in the lecture
- Independent inquiry, exploration and development

RESOURCES:
- Rhino commands: https://docs.mcneel.com/rhino/6/help/en-us/commandlist/command_list.htm
- Rhino user manual: https://www.food4rhino.com/resource/rhino-6-users-guide-english

REQUIRED SOFTWARE:
- Rhinoceros 3D 6 (Windows)
- Enscape 2.9 (or current version) (Windows only, free educational license available)
- Adobe Creative Suite (Photoshop, Illustrator, InDesign)

SUBMISSIONS:
All submissions will be digital on Learn. Each submission should be a single compiled PDF under 25 MB.

Late Submissions:
No late submissions will be accepted. Due to the nature of the assignments, you are expected to be able to organize and submit your in-progress work on time.

This course relies heavily on technology to complete assignments. Students are expected to work responsibly and carefully so that they can submit assignments on time. Issues such as forgetting to save before a crash or

not leaving time for digital processes will not be accepted as reasoning for a late assignment. If students do run into technical issues that hinder a submission, please upload everything you have and explain the issue in the submission.

Only in the case of a justified medical or personal reason will these penalties be waived, and only if these have been officially submitted to the Undergraduate Student Services Co-Ordinator and accepted by the Undergraduate Office.
Students seeking accommodations due to COVID-19, are to follow Covid-19-related accommodations as outlined by the university here: (https://uwaterloo.ca/coronavirus/academic-information#accommodations).

REMOTE COURSE DELIVERY PLATFORMS & COMMUNICATION:
During remote learning, we will be using additional platforms to deliver, organize and share course content, learning and work. Here is a breakdown of tools we will use in this course:

Teams:
- Live lectures and tutorials
- Archived recordings of lectures and tutorials
- Course documents (assignments, readings, etc.)
- Meetings
- Messaging for informal chats and questions
- Document sharing, sign up sheets, etc.

Learn:
- Submissions
- Grades

Email:
- Formal announcements and communications

Miro:
- Pin-ups

ADVICE:
Be Patient and Considerate. Whether with other students, schoolmates, or even teaching assistants, please be mindful of the obligations, and concerns of others. Everyone wishes to perform well and it can be possible – and not at the expense of others.

Always back up your work. Make it a habit to save your work every half hour (or less) if possible (on more than one type of media).

Always work from the hard drive. Working off a USB, temporary servers, or remote disk space is unstable at best and is often the cause of a program crashing.

Pirated software is not acceptable. Not only is using cracked or pirated software illegal, it is also grounds for failure in the course according to university policy. In addition to this, pirated software fails to have some functions of the legitimate versions or even worse, have incompatibility issues. Projects exhibiting signs of piracy shall be dealt with accordingly.

Plagiarism is against university policy. As with the pirated software rule, intellectual property theft is quickly becoming prevalent in the electronic age. There shall be instance where material generated by students shall be available to classmates, but realize that you may NOT submit someone else's work as your own. All assets (images, models, texture maps, etc.) Should be credited, given user permissions, or are authored by the student in question. Please refer to the Undergraduate Calendar's Academic Discipline section for guidelines on crediting and plagiarism.

Be PREPARED and EQUIPPED. Though not mandatory it is helpful to have a few items ready for class and the production of assignments and projects. Hardware should include: a mouse and a USB hard-drive (that can handle file transfers of projects and back-ups). Students should also set aside finances for printing, plotting, and fabricating.

DIGITAL SUPPORT:
When asking the instructor or TAs for support regarding digital files, place follow these guidelines:
- Include the file(s) in question or a link to download it if it is too large
- Describe the steps you have taken to resolve the issues so far
- Include images and/or notes of what you are trying to achieve

COURSE TIME ZONE:
All dates and times communicated in the document are expressed in Eastern Time (Local time in Waterloo Ontario, Canada). From September 8 – October 24 2020 times are indicated in Eastern Daylight Time (EDT, UTC—4:00) and from October 25 – December 31 2020, times are indicated in Eastern Standard Time (EST, UTC—5:00)

WINTER 2021 COVID-19 SPECIAL STATEMENT:
Given the continuously evolving situation around COVID-19, students are to refer to the University of Waterloo's developing information resource page (https://uwaterloo.ca/coronavirus/) for up-to-date information on academic updates, health services, important dates, co-op, accommodation rules and other university level responses to COVID-19.

STUDENT NOTICE OF RECORDING:
The course's official Notice of Recording document is found on the course's LEARN site. This document outlines shared responsibilities for instructors and students around issues of privacy and security. Each student is responsible for reviewing this document.

All live lectures, seminars and presentations including questions and answers will be recorded and made available through official course platforms (LEARN and/or MS Teams). Students wishing not to be captured in the recordings have the option of participating through the direct chat or question and answer functions in the meeting platforms used.

Individual desk critiques/meetings and small group meetings will not be recorded.

MENTAL HEALTH SUPPORT:
All of us need a support system. We encourage you to seek out mental health supports when they are needed. Please reach out to Campus Wellness (https://uwaterloo.ca/campus-wellness/) and Counselling Services (https://uwaterloo.ca/campus-wellness/counselling-services).

We understand that these circumstances can be troubling, and you may need to speak with someone for emotional support. Good2Talk (https://good2talk.ca/) is a post-secondary student helpline based in Ontario, Canada that is available to all students.

EQUITY, DIVERSITY AND INCLUSION COMMITMENT:
At the School of Architecture, we are committed to foster and support equity, diversity and inclusion. We recognize however, that discrimination does occur, sometimes through an isolated act, but also through practices and policies that must be changed. If you experience discrimination, micro-aggression, or other forms of racism, sexism, discrimination against LGBTQ2S+, or disability, there are different pathways to report them:

A) If you feel comfortable bringing this up directly with the faculty, staff or student who has said or done something offensive, we invite you, or a friend, to speak directly with this person. People make mistakes and dealing them directly in the present may be the most effective means of addressing the issue.

B) you can reach out to either the Undergraduate office, Graduate office, or Director (Anne Bordeleau). If you contact any of these people in confidence, they are bound to preserve your anonymity and follow up on your report.

C) You may also choose to report centrally to the Equity Office. The Equity Office can be reached by emailing equity@uwaterloo.ca. More information on the functions and services of the equity office can be found here: https://uwaterloo.ca/human-rights-equity-inclusion/about/equity-office.

ACADEMIC INTEGRITY, GRIEVANCE, DISCIPLINE, APPEALS AND NOTE FOR STUDENTS WITH DISABILITIES:

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.

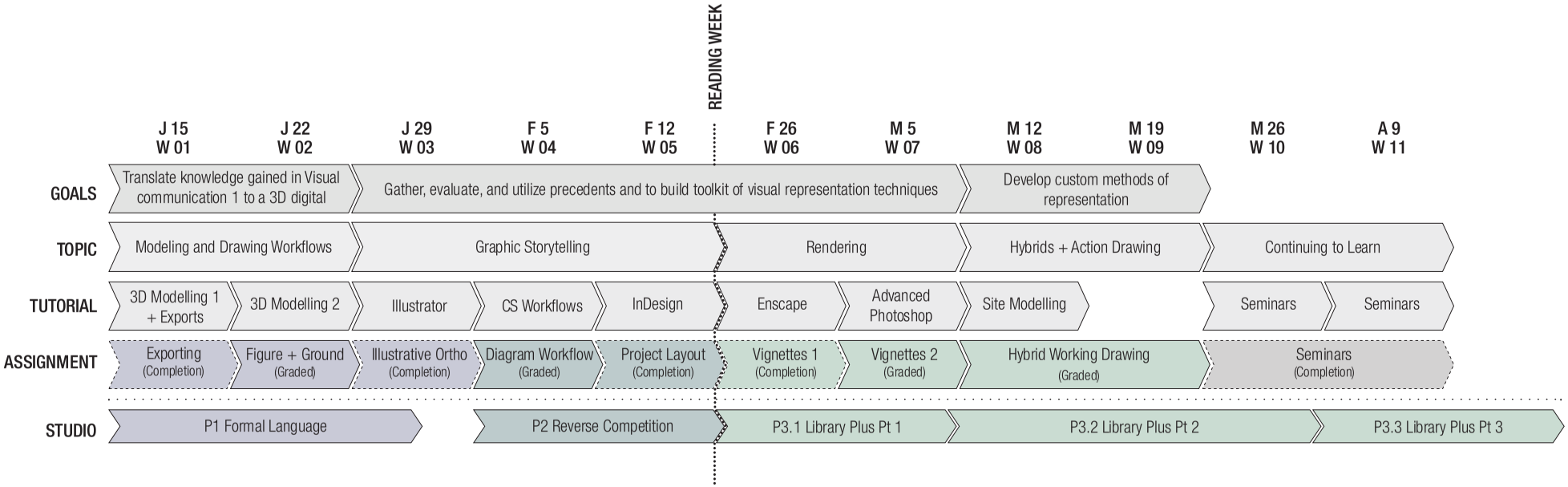
Discipline:
A student is expected to know what constitutes academic integrity to avoid committing an academic offence, and to take responsibility for his/her actions. [Check the Office of Academic Integrity for more information.] A student who is unsure whether an action constitutes an offence, or who 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 1401, 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.

Turnitin.com:
: Text matching software (Turnitin®) may be used to screen assignments in this course. Turnitin® is used to verify that all materials and sources in assignments are documented. Students' submissions are stored on a U.S. server, therefore students must be given an alternative (e.g., scaffolded assignment or annotated bibliography), if they are concerned about their privacy and/or security. Students will be given due notice, in the first week of the term and/or at the time assignment details are provided, about arrangements and alternatives for the use of Turnitin in this course.

It is the responsibility of the student to notify the instructor if they, in the first week of term or at the time assignment details are provided, wish to submit the alternate assignment.



*Note: Daily course content is subject to change