School of Architecture Planning & Landscape | University of Calgary

Graphics Workshop II

EVDA 543 / ARST 453 . H(0-8) . Winter 2020

SCHEDULE (*lect*, tut)

WEEK 1
Course Intro/ Poly Modeling I
WEEK 2
Poly Modeling II & Representation
WEEK 3
Interoperability & Analysis
WEEK 4
Poly Modeling III & Drawing I
WEEK 5
Drawing & Representation II
WEEK 6
MID-TERM BREAK (no classes)
WEEK 7
Interoperability & Making
WEEK 8
Digital Fabrication
WEEK 9
BLOCK WEEK (no classes)
WEEK 10
Drawing & Representation IIII
WEEK 11
BIM Workflows I
WEEK 12
BIM Workflows II
WEEK 13
Layout & Review

Note*: course schedule is subject to change based on class progress.*

Instructors

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Teaching Assistants

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Days and Times

Mondays + Wednesdays 08:40 – 12:50 PF 2160

Course Description

Graphics Workshop II expands on the foundational techniques introduced in Graphics I. The course works to build skill in modelling, visualization, and technical documentation, with a special emphasis on digital, information-driven workflows. Graphics II aims to build technical competency and intuition across a range of platforms, engaging students in contemporary modes of architectural production, analysis, and representation.

CACB Student Performance Criteria

At a primary level: A3 – Graphics Skills, C3 – Technical Documentation.
At a secondary level: B1 – Design Skills.

Course Objectives

Technique

Students will produce outputs that demonstrate proficiency in the use of design tools and awareness of how these tools can work together to produce design workflows.

Information

Students will produce outputs that are precise and show an appropriate amount of detail for their context.

Communication

Students will produce and present graphic and built outputs that demonstrate sensitivity to tone, hierarchy, the organization of pieces, and project narrative.

Craft & Completeness

Students will produce well-crafted outputs that demonstrate an attention to detail, material, and presentation.

Teaching Approach

The class will meet twice weekly for a mix of lecture, in-class activities, tutorials, and reviews. Lectures, reviews, new assignments, and discussion will usually happen on Mondays, and tutorials and workshops will usually happen on Wednesdays. As noted in the schedule outline on the cover page of the syllabus, each week has a theme that will influence both the lecture and tutorial work. Some of these are one-off exercises meant to explore a branch of the tree, where others are sequenced in a way that builds competency in core techniques.

Textbooks, Equipment, and Software

No textbooks are required for this class. Occasional readings may be assigned and PDFs will be made available. Students are expected to have their own laptop computers. Required software is listed below (additional plugins / software, as necessary, may be integrated into some exercises):

Blender
Rhino / Grasshopper
Revit / Dynamo
Adobe Suite (Illustrator, Photoshop, inDesign, etc.)

Course Modules

The course is organized into three modules, each of which will help you build resolution in your modelling practices and design work. They will all in some way deal with the production of technical documentation, visualization, and information-driven workflows.

1 | Poly Modelling	2 | Making & Representation	3 | BIM Workflows
From 2D to 3D	Interoperability I	Basic BIM Workflows
Computer Modeling I	Computer Modeling II	BIM Interface
Orthographic Representation	Rationalization	Interoperability II
Rendering	Digital Fabrication	Technical Drawings
	Drawing	

Assignment Weighting

A0 (participation) – 10%

A1 (module 1) – 30%

A2 (module 2) – 30%

A3 (module 3) – 20%

A4 (portfolio) – 10%

Means of Evaluation

Each assignment will include a rubric that reveals the method of assessment. While weighting between the below-listed sections will vary by project, all will be assessed per the following 4 criteria. This system will give you the opportunity to identify which elements of your work should receive your attention moving forward.

Technique

(project demonstrates proficiency in the tools; correct tools are used to solve problems)

Information & Precision

(project demonstrates rigour, clarity, accuracy and shows an appropriate amount of detail)

Communication

(project is sensitive to story-telling, hierarchy, tone, and overall coherence)

Craft & Completeness

(project deliverables are present, outputs are well-crafted, overall care is evident)

Grading Scale

A+	95 – 100	4.0
A	90 – 94.99	4.0
A-	85 – 89.99	3.7
B+	80 – 84.99	3.3
B	75 – 79.99	3.0
B-	70 – 74.99	2.7
C+	65 – 69.99	2.3
C	60 – 64.99	2.0
C-	55 – 59.99	1.7
D+	50 – 54.99	1.3
D	45 – 49.99	1.0
F	00 – 44.99	0.0

Note

All final grades below B- are indicative of failure at the graduate level and cannot be counted toward Faculty of Graduate Studies course requirements.

Safety

Participation in this course will involve the use of shop tools, including blades, grinders, lasers, robotic arms, and other Bond villain devices. We shouldn't have to tell you to be safe around lasers, but here it is: improper use of this equipment can result in serious injury and/or damage to the equipment. For detailed information and certification required before using the shop, please refer to the EVDS website:

evds.ucalgary.ca/content/workshop

Students are required to have completed EVDS shop training to use the shop facilities. Please contact the head shop technician (evdsshop@ucalgary.ca) for details about training schedules and other requirements.

SAFE USE OF SHOP EQUIPMENT WILL ALWAYS TAKE PRECEDENCE OVER COURSE REQUIREMENTS. DO NOT DRIVE OR USE SHOP EQUIPMENT IF YOU HAVE MISSED A NIGHT OF SLEEP.

The course will also involve intensive use of software, which can at times entail long stretches in front of a computer. Please be conscious of ergonomic practices in your workspace habits. Take frequent breaks, drink lots of water, and change your scenery every now and again. The following website, published by Cornell University, offers some good advice about the ergonomics of notebook computer use:

ergo.human.cornell.edu/culaptoptips.html

Course Expectations

Students are expected to:

- Prepare for, attend, and participate in all class sessions.
- Demonstrate graduate-level discourse, in rigour of thought and quality of execution.
- Post or submit assignments on time. Late assignments will be docked half of a letter grade per day.

Extensions and Other Issues

To notify the instructors of an issue impacting your ability to complete coursework on time, or to request an extension, please send an e-mail containing the information in the bullets below. Submission of an e-mail does not guarantee an extension. The instructors commit to responding to e-mail within two week days; please plan accordingly. In your message, please include:

- Your full name & student number.
- A brief explanation of the issue.
- Your proposed solution to the issue (i.e. if requesting an extension, suggest a suitable replacement deadline).

Other Notes

University of Calgary Policies and Supports

ACADEMIC ACCOMMODATION

Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services; SAS will process the request and issue letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities, visit www.ucalgary.ca/access/. Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their Instructor. The full policy on Student Accommodations is available at http://www.ucalgary.ca/policies/files/policies/student-accommodation-policy.pdf.

ACADEMIC MISCONDUCT

Plagiarism involves submitting or presenting work in a course as if it were the student's own work done expressly for that particular course when, in fact, it is not. Most commonly plagiarism exists when: (a) the work submitted or presented was done, in whole or in part, by an individual other than the one submitting or presenting the work, (b) parts of the work are taken from another source without reference to the original author, (c) the whole work (e.g., an essay) is copied from another source, and/or, (d) a student submits or presents work in one course which has also been submitted in another course (although it may be completely original with that student) without the knowledge of or prior agreement of the instructor involved. While it is recognized that scholarly work often involves reference to the ideas, data and conclusions of other scholars, intellectual honesty requires that such references be explicitly and clearly noted. Plagiarism is an extremely serious academic offence. Any suspicion of plagiarism will be reported to the Dean, and dealt with as per the regulations in the University of Calgary Graduate Calendar.

For information on academic misconduct and its consequences, please see the University of Calgary Calendar at http://www.ucalgary.ca/pubs/calendar/current/k.html

COPYRIGHT LEGISLATION:

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright (www.ucalgary.ca/policies/files/policies/acceptable-use-of-material-protected-by-copyright.pdf) and requirements of the copyright act (https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html) to ensure they are aware of the consequences of unauthorised sharing of course materials (including instructor notes, electronic versions of textbooks etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy.

FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY

Student information will be collected in accordance with typical (or usual) classroom practice. Students' assignments will be accessible only by the authorized course faculty. Private information related to the individual student is treated with the utmost regard by the faculty at the University of Calgary.

UNIVERSITY STUDENT APPEALS OFFICE: If a student has a concern about the course, academic matter, or a grade that they have been assigned, they must first communicate this concern with the instructor. If the concern cannot be resolved with the instructor, the student can proceed with an academic appeal, which normally begins with the Faculty. https://ucalgary.ca/student-appeals/

More student support and resources (e.g. safety and wellness) can be found here:
https://www.ucalgary.ca/registrar/registration/course-outlines