COMPUTER MODELLING FOR URBAN DESIGN

EVDP 602 H (2-2)
Instructor: Eliza Oprescu
Session: Fall 2016
Time: 9:00 – 12:50
Location: PF 2170
E-mail: eoprescu@gmail.com
Office location and office hours

Introduction

This course gives students an introduction to the use of computer modelling, animation and presentation in urban design. Professional Adobe Suite and 3D rendering applications will be used to explore the aesthetic and technical aspects of design. Emphasis given to developing sensitivity to the application appropriate to communicating three dimensional urban and natural form using computer generated images. Also known as: (formerly Environmental Design 602)

Students will gain an understanding of appropriate forms of representation for all aspects of their projects. The course will take students from preliminary design idea representation to numerous representational techniques for developed ideas. In order to successfully represent design ideas, students will be given an introduction to 2D diagramming, 3D modeling and digital representation.

Objectives

This course will allow students to explore multiple representation techniques in order to successfully deliver ideas to an audience. While a great design idea is crucial, if you are not able to deliver it to a client in a successful and impressive manner, it is virtually useless. The term lectures and lab sessions will introduce a variety of software applications used by design professionals. The course will take students through different software each week followed by assignments intended to further explore the given software. The goal of these assignments will be to develop a sensitivity to the application appropriate to communicate a specific idea or set of relationships.

The objective of this course is as follows:
-   Increase your awareness of a wide range of software used to deliver ideas ranging from site analysis to final site design.
-   Develop an understanding of the most appropriate use of an application appropriate to communicate specific ideas in all stages of a project
-   Develop skills in software applications used in professional practice that allow Planners and Landscape Architects to successfully deliver design ideas
-   Use 2D and 3D software to explore design and decision making
-   Understand limitations of each application and develop the skills necessary to overcome these limitations
-   Increase your understanding of the most appropriate form of representation based on what you want to explain. This includes the use of section, perspective, fly-through videos, and axonometric.

Teaching Approach

The aim of the course is to set a pace with your Studio course while delving into numerous software used by professionals today. The course will provide assistance with techniques you will use in order to successfully deliver your ideas in your studio course and beyond. A goal of this course is to give you the confidence to explore representational techniques as well as to add material to your portfolios.

Each topic area is presented through an introductory lecture by the course instructor followed by lab time that will allow students to practice and explore ideas. Lab time will also allow students to begin assignments due in the following weeks. Students will present work to the class for discussion on designated DUE dates.

Class Schedule

September 16, 2016
> **INTRODUCTION TO THE COURSE AND DESIGN SOFTWARE**
> **INTRODUCTION TO ILLUSTRATOR**
>> *Illustrator Assignment 1*

September 23, 2016
> **INTRODUCTION TO PHOTOSHOP + INDESIGN**
>> Assignment 1 DUE
>> Photoshop + InDesign Assignment 2

September 30, 2016
> ***INTRODUCTION TO SKETCHUP***
>> *Assignment 2 DUE*
>> *SketchUp Assignment 3*

October 7, 2016
> **INTRODUCTION TO *GIS***
>> Assignment 3 DUE
>> *GIS + Illustrator Assignment 4*

October 14, 2016
> ***BLOCK WEEK***

October 21, 2016
> **INTRODUCTION TO AutoCAD**
>> Assignment 4 DUE

October 28, 2016
> ***INTRODUCTION TO RHINO***
>> *Rhino Assignment 5*

November 4, 2016
> **RHINO + SKETCHUP + *PHOTOSHOP***
>> *Assignment 5 DUE*

November 11, 2016
> **SKETCHUP + INTRO TO LUMION**

November 18, 2016
> ***LUMION FLY THROUGH***
>> *Lumion Assignment 6*

November 25, 2016
> ***AFTER EFFECTS MOVIE EDITING***
>> *Assignment 6 DUE*
>> *Movie Editing Assignment 7*

December 2, 2016
> ***LAYOUT + PRESENTATION***
>> *Assignment 7 DUE*
>> *Final Layout Assignment 8*

December 9, 2016
> ***WORKING CLASS – PANELS + PRESENTATION***

Means of Evaluation

> *The course evaluation will be based on the assignments completed during the term, which includes computer models, presentation of work and facilitating discussions. There will be no final examination.*

Illustrator Assignment 1	10%
Photoshop + InDesign Assignment 2	15%
SketchUp Assignment 3	10%
GIS + Illustrator Assignment 4	15%
Rhino Assignment 5	15%
Fly Through Assignment 6	10%
Movie Editing Assignment 7	15%
Final Layout Assignment 8	10%
Total	**100%**

Readings

While there are no required readings for this class, it is strongly recommended that you visit the following pages for tutorials and help prior to the class relating to the given content:

Illustrator:
> https://helpx.adobe.com/illustrator/tutorials.html
> https://www.youtube.com/watch?v=Tw2qUdfvbEQ

Photoshop:
> https://helpx.adobe.com/photoshop/tutorials.html

InDesign:
>	https://helpx.adobe.com/indesign/tutorials.html
After Effects:
>	https://helpx.adobe.com/after-effects/tutorials.html
Rhino:
>	https://vimeo.com/58212839
>	https://www.rhino3d.com/tutorials
SketchUp:
>	http://www.sketchup.com/learn/videos/58?playlist=58
ArcMAP:
>	https://www.youtube.com/watch?v=hqHCJUudPvs
Lumion:
>	https://lumion3d.com/tutorials.html#overview
AutoCAD:
>	https://www.youtube.com/watch?v=-JbXqesOUyM

Grading Scale

Final grades will be reported as letter grades, with the final grade calculated according to the 4-point range. All assignments will be evaluated by percentage grades, with their letter grade equivalents as shown.

Grade	Grade Point Value	4-Point Range	Percent	Description
A+	4.00	4.00	95-100	Outstanding - evaluated by instructor
A	4.00	3.85-4.00	90-94.99	Excellent - superior performance showing comprehensive understanding of the subject matter
A-	3.70	3.50-3.84	85-89.99	Very good performance
B+	3.30	3.15-3.49	80-84.99	Good performance
B	3.00	2.85-3.14	75-79.99	Satisfactory performance
B-	2.70	2.50-2.84	70-74.99	Minimum pass for students in the Faculty of Graduate Studies
C+	2.30	2.15-2.49	65-69.99	All final grades below B- are indicative of failure at the graduate level and cannot be counted toward Faculty of Graduate Studies course requirements.
C	2.00	1.85-2.14	60-64.99	
C-	1.70	1.50-1.84	55-59.99	
D+	1.30	1.15-1.49	50-54.99	
D	1.00	0.50-1.14	45-49.99	
F	0.00	0-0.49	0-44.99	

Notes:
- A student who receives a "C+" or lower in any one course will be required to withdraw regardless of their grade point average (GPA) unless the program recommends otherwise. If the program permits the student to retake a failed course, the second grade will replace the initial grade in the calculation of the GPA, and both grades will appear on the transcript.

Notes:

1. Written work, term assignments and other course related work may only be submitted by e-mail if prior permission to do so has been obtained from the course instructor. Submissions must come from an official University of Calgary (ucalgary) email account.

2. Academic Accommodations. Students who require an accommodation in relation to their coursework or to fulfil requirements for a graduate degree, based on a protected ground other than disability, should communicate this need, preferably in writing, to their Instructor or the designated contact person in EVDS, Jennifer Taillefer (jtaillef@ucalgary.ca). Students who require an accommodation unrelated to their coursework or the requirements for a graduate degree, based on a protected ground other than disability, should communicate this need, preferably in writing, to the Vice-Provost (Student Experience). For additional information on support services and accommodations for students with disabilities, visit www.ucalgary.ca/access/

3. Plagiarism - 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 (this includes having another impersonate the student or otherwise substituting the work of another for one's own in an examination or test),(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. It is recognized that clause (d) does not prevent a graduate student incorporating work previously done by him or her in a thesis. Any suspicion of plagiarism will be reported to the Dean, and dealt with as per the regulations in the University of Calgary Graduate Calendar.

4. Information regarding the Freedom of Information and Protection of Privacy Act (http://www.ucalgary.ca/secretariat/privacy) and how this impacts the receipt and delivery of course material

5. Emergency Evacuation/Assembly Points (http://www.ucalgary.ca/emergencyplan/assemblypoints)

6. Safewalk information (http://www.ucalgary.ca/security/safewalk)

7. Contact Info for: Student Union (https://www.su.ucalgary.ca/contact/);   Graduate Student representative(http://www.ucalgary.ca/gsa/) and Student Ombudsman's Office (http://www.ucalgary.ca/ombuds/).