School of Planning
Faculty of Environment - University of Waterloo

Plan 110 Visual Approaches to Design and Communication Course Syllabus - Winter 2015 (Section 1)

Professor:

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Office Hours: Wednesdays, 1:00-4:30

Course Time & Room

Lecture: Friday, 11:30-12:50, AL-124

Studio: Monday, 8:30-9:50, EV3-2402

Calendar Description

Practical project-based skill development involving sketching, digital and film photography, and 2-dimensional computer graphics used by planners to conceive, evaluate and communicate design ideas.

Learning Objectives

Introduction & Learning Objectives

Planning 110 introduces students to the technical and conceptual skills that professional planners use in the graphic communication of land-use plans and environmental (i.e. urban and landscape) design concepts. The course will build skills that are fundamental to planning practice including visual observation, field analysis and, through the use of a variety of representation tools (i.e. drawing, computer modeling, physical modeling and digital graphics) students will learn how to communicate their observations and ideas as well as critically evaluate the work of others. Given the emphasis on design thinking and communication, the course also introduces the principles and techniques of effective environmental planning, what planners do, and examines a number of the recurring issues in urban planning and design from healthy cities to sustainability.

Upon completion of the course, students will have acquired knowledge and skills in:

- **Land-Use Planning:**
  - o Introduction to the basic principles of urban and regional land-use planning including programming; planning standards; neighbourhood form; FAR, FSI and yield calculation.
  - o Exploration of techniques and standards for neighbourhood planning and design.
- **Manual Drawing & Design Presentation:**
  - o Introduction to concept, master and technical plan drawings through demonstrations of drafting; two-dimensional plan, section and elevation drawing; and CAD transitioning techniques.
  - o Exploration of conventional plan and design presentation techniques using computer-based presentation tools – i.e. SketchUp Pro, Artlantis Studio, Adobe Creative Suite.
- **Three-Dimensional Graphic Techniques:**
  - o Demonstration of how to make one and two-point perspective and axonometric drawings of landscapes and buildings.
  - o Introduction to the principles and techniques of computer-based simulation and physical model construction.
- **Planning Applications:**
  - o An examination of seminal works of historic and contemporary planning, architecture and landscape architecture from around the world.

Schedules

Class Meetings

Plan 110 section 1 will meet regularly for lectures on Friday mornings at 11:30 am. The class will consist of a ninety-minute lecture, followed each Monday morning by a ninety-minute studio session with the professor and teaching assistants.

The course will use highly interactive studio techniques to draw on the experience of studio participants and develop dynamic site-specific solutions. Through guidance provided by the course instructors and teamwork, graphic design and analysis techniques will be explored on site and afterwards in the studio. Studio time will be used primarily to discuss and explore graphic representation techniques as well as proposed planning solutions, and will conclude with a review of student presentations.

Plan of Study

Module	Dates	Topics and Deliverables
Site Plan Preparation	Lecture: January 5 Studio: January 8	Course introduction, review course objectives and requirements, visual communication in planning and design. Scale measurement, manual drafting exercise.
	Lecture: January 12 Studio: January 15	Interpreting by-law requirements and planning standards. Function diagramming.
	Lecture: January 19 Studio: January 22	Preliminary plan preparation.
	Lecture: January 26 Studio: January 29	Final site plan preparation. **Site plan due February 2nd.**
Architectural Design	Lecture: February 2 Studio: February 5	Introduction to the elements and principles of design and how these principles combine to produce contrast, rhythm, unity, emphasis, pattern, movement and balance. 3D Digital Modeling.
	Lecture: February 9 Studio: February 12	Building morphology, design standards, massing model preparation and evaluation.
	Lecture: February 16 Studio: February 26	Building materials and cladding details. Radiosity rendering.
	Lecture: March 2 Studio: March 5	Studio work sessions. **3D architectural model and rendering due March 9th.**
Rendering and Report Presentation	Lecture: March 9 Studio: March 12	Professional design presentation standards, Visualization principles - realism; representational validity, clarity, credibility, accuracy.
	Lecture: March 16 Studio: March 19	Digital and manual rendering techniques.
	Lecture: March 23 Studio: March 26	Studio work sessions.
	Studio: April 2	Studio work session. **Final submission due April 4th.**

Recommended Reading Resources

There are several other recommended texts that are excellent sources of graphic instruction and from which other required readings/exercises may be drawn:

Browning, H. 1996. **The Principles of Architectural Drafting: a sourcebook of techniques and graphic standards**. New York, NY: Watson-Guptill Publications.

Ching, F. 1996. **Architectural Graphics**. New York, NY: Van Nostrand Reinhold.

Dayton, L. and C. Gillespie. 2006. **The Adobe Photoshop CS/CS2 Wow! Book**. Berkeley, CA: Peachpit Press.

Doyle, M. 1980. **Color Drawing: a marker/colored pencil approach for architects, landscape architects, interior and graphic designers and artists**. New York, NY: Van Nostrand Reinhold.

Gill, R. 1984. **Rendering with Pen and Ink**. London: Thames & Hudson.

Hamilton, J. 2000. **Sketching With Pencil: for those who are just beginning**. London, UK: Blandford.

Lin, M. 1993. **Drawing and Designing with Confidence: a step-by-step guide**. Toronto: John Wiley and Sons.

Reid, G. 1993. **From Concept to Form in Landscape Design**. New York, NY: Van Nostrand Reinhold.

Reid, G. 2002. **Landscape Graphics: Plan, Section and Perspective Drawing of Landscape Spaces**. New York, NY: Watson-Guptill.

Steuer, S. 2005. **The Adobe Illustrator CS2 Wow! Book**. Berkeley, CA: Peachpit Press.

Sullivan, C. 1995. **Drawing the Landscape**. New York, NY: Van Nostrand Reinhold.

Sutherland, M. 1999. **Model Making: a basic guide**. New York, NY: W. W. Norton and Company.

Wang, T. 1979. **Plan and Section Drawing**. New York, NY: Van Nostrand Reinhold.

Studio Equipment

To complete the studio assignments, students should purchase the following items. A complete kit of studio equipment can be bought from Techworx at South Campus Hall, but students are encouraged to economize by visiting local drafting and art suppliers, as well as share equipment with other students.

- Staedtler Pigment Liner 0.1 mm
- Staedtler Pigment Liner 0.5mm
- 20yd x 24" Tracing Paper
- 18" Steel Ruler
- 18mm Drafting Tape
- Metric Engineering Scale
- 2mm Lead Holder
- Staedtler Mars 2mm HB Lead (2 leads)
- Lead Pointer
- Mars Eraser
- 10-45 Set Square
- 10-60 Set Square
- 36" T-Square
- French Curves (Set of 3)

Instruction

Course Instruction Style

The studio mode of instruction provides an active, 'hands on' learning environment in which students learn by doing, through collaboration and constructive critiques. As an important complement to the lectures, the studio provides a forum for observation and feedback, and is a fertile place for the exchange of ideas through professor-student interaction. This means that the studio is part of formal class time and a vital component of the course. Therefore, students must come prepared to work and participate actively and should not expect to leave early or work on assignments from other courses.

The professor and teaching assistants (TAs) will divide and mark assignments on a rotating basis. This ensures that students receive feedback from the course instructor and the TAs. Students should feel free to address questions and concerns to the professor and TAs alike.

Communication

The professor and TAs are available during posted office hours for consultation and discussion on any procedural or substantive issues pertaining to the course. If more time is required,

students should feel free to discuss the assignments, lectures, readings and any other aspect of the course with the professor and/or TAs during posted office hours (or by appointment if you have other commitments during office hours). E-mail is the preferred means of communication for the purpose of making appointments or asking questions of clarification.   Detailed or substantive questions about assignments or grades must be dealt with *in person*.

Course Requirements and Responsibilities

There are three major components that comprise the course 'deliverables' for Plan 110, and students must satisfy all three components in order to receive a satisfactory grade in the course:

- Active and prepared participation in lecture and studio sessions (**25%**);
- Site Planning and Design Project (**75%**);
    - Site Plan (25%, Due - February 2nd)
    - 3D Digital Model (25%, Due - March 13th)
    - Final Panel (25%, Due - April 4th)

Each assignment will be discussed, and actual hands-on work begun on the assignment in the studio period immediately following the lecture on the same topic. The class will work together in studio with the assistance of the professor and TAs on each assignment. It is essential that students are well versed in the timing and requirements for each assignment. Moreover, it is the responsibility of each student to ensure that she or he brings the required background material for each studio.

Note: To receive the 25% participation grade, students must demonstrate that they are **actively** engaged in the course material through class discussions and participation in studio exercises. Absenteeism is an issue that is taken seriously in the workplace and is treated no less seriously in this course.   Absences due to personal medical issues and family obligations will be accommodated, but it is the student's responsibility to inform the professor of any absences and provide a valid medical certificate where the student has been unable to attend class or studio due to illness.

Students will automatically lose the 25% participation grade for the following reasons:
- Persistent absenteeism from class or studio (i.e. for three or more occasions without notifying the professor or providing a medical certificate),
- Leaving lecture or studio without the professor's consent after signing the class attendance form and before the scheduled end time,
- Unprofessional conduct during lecture or studio sessions.

Submitting Work

Assignments are to be completed on time and submitted to the TAs in person at the beginning of class when due. Assignments are to be submitted to the professor if the TAs are unavailable. Late assignments will be penalized at the rate of 5% per day. Extensions will be granted only under circumstances where the student has suffered an illness or family emergency. With the exception of extraordinary circumstances that must be discussed with the professor, no work will be accepted for grading after the last day of classes.

Conduct

Students can expect that their professor will be punctual for lectures and studios/labs, deliver the material/concepts according to the course syllabus and provide timely and constructive feedback on course assignments. In addition to providing timely delivery of required assignments, students are expected to attend and be attentive during lectures and studio/lab sessions. Students who fail to attend 3 lecture/studio sessions (for reasons other than family bereavement or personal illness supported by the UW Verification of Illness form signed by a physician) will receive a 25% deduction from their final grade.

Academic Honesty

Originality is the cornerstone of academic as well as professional planning and design practice. To protect and uphold academic integrity in the class, it is the responsibility of the student to demonstrate the originality of his or her work if called upon to do so. However, all students will be asked at any time to explain his or her work as part of the normal studio critique process. For all assignments, the sources of all data and ideas that are not the student's own must be referenced using a standard academic referencing format. The failure to reference an assignment properly constitutes plagiarism and will result in an academic penalty.

Evaluation

Evaluation Criteria

All studio assignments will be evaluated according to the following criteria:

- Visual communication (clarity, readability, choice of medium, etc.);
- Adherence to assignment instructions;
- Presence of required components/features;
- Creativity and originality.

In addition to verbal comments during desk critiques and presentations, students will receive written comments through a completed *Feedback and Evaluation Form* that will be returned with each assignment. This form is intended to supplement the communication between the professor/TAs and students, as well as provide a transparent accounting of the grades assigned.

Grading Policy

The professor and TAs are willing to discuss feedback and grades for any assignment *after* students have taken the time to read and reflect on the comments provided. After this reflection, if the student feels that comments and/or grades do not adequately reflect the quality of their submission, a request to meet with the professor should be sent by e-mail. In addition to requesting a day and time to discuss the assignment, the e-mail should provide a brief but detailed statement addressing the student's concerns regarding the grade awarded. Following the meeting with the professor, if the grade is reconsidered, the initial comments may be adjusted, additional comments may be offered, and the grade may be changed (either higher or lower) depending on the professor's re-evaluation of the submission.

Studio Policy

The School is pleased to provide a supportive and comfortable setting for students to prepare their design work. In order to maintain the studio as an effective workplace for everyone, the following rules will apply and be enforced by faculty, staff and teaching assistants:

1. Individual workstations (drafting tables and worktables) in the studio will not be assigned, but will be used on an as-needed basis. Students may not "claim" a workstation for their exclusive use.
2. Instructors will assign students a lockable storage drawer in which equipment and projects may be kept secure. Students must remove their lock and belongings by **Friday, April 6th, 2018**. Failure to do so will see the lock will be cut off and belongings deposited in the "Lost and Found"
3. Studio space is often reserved for exclusive class use by Planning and other units in ENV. A schedule will be posted at the beginning of each term.   Additional booking of the studio for non-class events must be done through Sheree Solomon in the Planning Office well in advance of the date required.
4. Students will organize their studio work around the reserve times (class or other scheduled activities). However, students are allowed to work quietly during reserved times. If the noise levels generated by working students are not respectful of the scheduled activities, those students will be asked to leave by the Director of the School or any individual charged with

enforcing Studio Policy. If this occurs repeatedly, the opportunity for students to work during reserved times will be revoked.

5. Cutting and gluing is restricted to the appropriate surfaces on the worktables. Students must not cut or glue on drawing surfaces due to damage potential.

6. No vandalism of any sort will be tolerated. This includes graffiti, as well as cutting or gluing on drawing surfaces. Perpetrators will be required to pay the price of repair or replacement for the damage they cause. Students finding a need for self-expression should use the blackboard, whiteboards or kraft paper provided.

7. **Propping open the studio doors breaches fire regulations and poses a safety issue. Therefore it is not allowed. Similarly, "jimmying" the locks allows unauthorized people to access the studio, so it too, is prohibited**.

8. Playing music aloud in the studio can be distracting and annoying to others. Students should therefore use earphones.

9. Students must clean up after themselves so that the studio and associated spaces remain a welcoming, productive, and creative place for all.

University Policies

Academic Integrity: To provide appropriate guidance to students, all course outlines in the Faculty of Environment must address academic integrity and reference the web documents for Policy #71. The statement below is recommended for inclusion in the Course Outline. In addition, instructors are encouraged to discuss academic integrity during course meetings.

Consequences of Academic Offences:

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. The University's guiding principles on academic integrity can be found here:

http://uwaterloo.ca/academicintegrity/

ENV students are strongly encouraged to review the material provided by the university's Academic Integrity office specifically for students:

http://uwaterloo.ca/academicintegrity/Students/index.html

Students are also expected to know what constitutes academic integrity, to avoid committing academic offenses, and to take responsibility for their actions. Student who are unsure whether

an action constitutes an offense, or who need help in learning how to avoid offenses (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. Students may also visit this webpage:

https://uwaterloo.ca/library/get-assignment-and-research-help/academic-integrity/academic-integrity-tutorial

When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to Policy 71 - Student Discipline:

https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-71

Students who believe that they have been wrongfully or unjustly penalized have the right to grieve; refer to Policy #70, Student Grievance:

https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-70

Research Ethics: Please also note that the 'University of Waterloo requires all research conducted by its students, staff, and faculty which involves humans as participants to undergo prior ethics review and clearance through the Director, Office of Human Research and Animal Care (Office). The ethics review and clearance processes are intended to ensure that projects comply with the Office's Guidelines for Research with Human Participants (Guidelines) as well as those of provincial and federal agencies, and that the safety, rights and welfare of participants are adequately protected. The Guidelines inform researchers about ethical issues and procedures which are of concern when conducting research with humans (e.g. confidentiality, risks and benefits, informed consent process, etc.). If the development of your research proposal consists of research that involves humans as participants, the please contact the course instructor for guidance and see:

https://uwaterloo.ca/research/office-research-ethics

Note for students with disabilities: The AccessAbility Office 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 the AccessAbility Office at the beginning of each academic term.

Mental Health: The University of Waterloo, the Faculty of Environment and our Departments consider students' well-being to be extremely important. We recognize that throughout the term students may face health challenges - physical and / or emotional. Please note that help is available. Mental health is a serious issue for everyone and can affect your ability to do your best work. Counselling Services http://www.uwaterloo.ca/counselling-services is an inclusive, non-judgmental, and confidential space for anyone to seek support. They offer confidential counselling for a variety of areas including anxiety, stress management, depression, grief, substance use, sexuality, relationship issues, and much more.

Religious Observances: Student needs to inform the instructor at the beginning of term if special accommodation needs to be made for religious observances that are not otherwise accounted for in the scheduling of classes and assignments.

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:
www.adm.uwaterloo.ca/infosec/Policies/policy70.htm.

When in doubt please contact your Undergraduate Advisor for details.

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):
www.adm.uwaterloo.ca/infosec/Policies/policy72.htm

Turnitin: Text matching software (Turnitin®) will be used to screen written assignments in this course. This is being done to verify that use of all materials and sources in assignments is documented. Students will be given an option if they do not want to have their assignment screened by Turnitin®. In the first week of the term, details will be provided about arrangements and alternatives for the use of Turnitin® in this course.

Note: students must be given a reasonable option if they do not want to have their assignment screened by Turnitin®. See: https://uwaterloo.ca/academic-integrity/guidelines-instructors for more information.

For further information on UW's Turnitin guidelines, see:

http://uwaterloo.ca/academic-integrity/home/guidelines-instructors

LEARN: Users can login to LEARN via:

http://learn.uwaterloo.ca/

use your WatIAM/Quest username and password.