

# Faculty of Engineering COURSE OUTLINE

# **CIVE 200 – Engineering Drawing**

**Term – Fall 2015** (201509)

Instructor Office Hours

Dr. Ramtin Rakhsha Days: Tuesdays

Phone: 250-472-5096 Time: 10:30AM-12:30PM E-mail: rrakhsha@uvic.ca Location: ELW A238

# **Course Objectives**

Engineering drawing: sketching, orthographic projections, multiple views, sectional views, isometric and perspective projections, dimensions and tolerances, and working drawings. Computer aided design relevant to Civil Engineering projects.

**A**-Section(s): A01 / CRN 10606 B01 Monday 16:30-19:20 ELW B220

Days: Tuesdays, Wednesday, Friday

Time: 9:30AM-10:20AM B02 Friday 16:30-19:20 ELW B220

Location: ECS 104

# Teaching Assistant(s):

Name: Shan Luo Name: Tao (Tommy) Yu E-mail: luoshan@uvic.ca E-mail: taoyu@uvic.ca

Days: Tuesdays Days: Mondays

Time: 1:00PM-2:00PM Time: 1:00PM-2:00PM Location: EOW 231 Location: EOW 225

# **Required Text**

Title: Engineering Graphics: A Problem Solving Approach (3<sup>rd</sup> edition)

Author: Don McAdam and Roger Winn Publisher: PEARSON-Adison Wesley

Year: 2007

### Required:

Basic tools for hand sketching and drafting

| Assessment:         |     | <u>Note</u> :   |
|---------------------|-----|---|
| Labs & Assignments: | 15% | ATTENDANCE and submission of lab assignments are          |
| Project             | 25% | mandatory requirements of this course. Failure to         |
| Exams & Quizzes     | 60% | comply will result in failure of the course. <sup>1</sup> |

The final grade obtained from the above marking scheme for the purpose of GPA calculation will be based on the percentage-to-grade point conversion table as listed in the current Undergraduate Calendar.

# There will be no supplemental examination for this course.

100%

| Assignments <sup>2</sup> and pr | ojects:                           | DUE DATE:            |
|---------------------------------|-----------------------------------|----------------------|
| Assignment 1                    | Solidworks modeling               | End of labs, week of |
| Assignment 1                    |                                   | Sept 28, 2015        |
| Assignment 2                    | Drafting using AutoCAD            | End of labs, week of |
| Assignment 2                    |                                   | Oct 12, 2015         |
| Project 1                       | Part 1- Civil road design project | End of labs, week of |
|                                 |                                   | Nov 9, 2015          |
| Project 2                       | Part 2- Civil road design project | Last day of classes  |

### **Note to Students:**

Total

Students who have issues with the conduct of the course should discuss them with the instructor first. If these discussions do not resolve the issue, then students should feel free to contact the Chair of the Department by email or the Chair's Secretary to set up an appointment.

# **Accommodation of Religious Observance**

- 1) Where classes or examinations are scheduled on the holy days of a religion, students may notify their instructors, at least two weeks in advance, of their intention to observe the holy day(s) by absenting themselves from classes or examinations.
- 2) Instructors will provide reasonable opportunities for such students to make up work or missed examinations.
- 3) Students will cooperate by accepting the provision of reasonable opportunities for making up work or missed examinations.
- 4) The University Secretary's Office will distribute a multi-faith calendar to each academic unit annually.

# **Policy on Inclusivity and Diversity**

The University of Victoria is committed to promoting, providing and protecting a positive, supportive and safe learning and working environment for all its members.

# **Standards of Professional Behavior**

You are advised to read the Faculty of Engineering document Standards for Professional Behaviour at http://www.engr.uvic.ca/policy/professional-behaviour.php which contains important information regarding conduct in courses, labs, and in the general use of facilities.

<sup>1</sup> There will be no makeup tests, exams or quizzes. If you miss a test, exam or quizzes, you will receive zero marks.

<sup>2</sup> Late assignments or assignments that are not neat or legible will not be graded.

Cheating, plagiarism and other forms of academic fraud are taken very seriously by both the University and the Department. You should consult

http://web.uvic.ca/calendar2009/FACS/UnIn/UARe/PoAcI.html for the UVic policy on academic integrity. "The University reserves the right to use plagiarism detection software programs to detect plagiarism in essays, term papers and other assignments." Pg 32, University Calendar

Cheating, plagiarism and other forms of academic fraud are taken very seriously by both the University and the Department. You should consult entry in current Undergraduate Calendar for the UVic policy on academic integrity.

# **Late Assignments**

No late assignments will be accepted unless prior arrangements have been made with the instructor at least 48 hours before the assignment due date.

# **Course Lecture Notes**

Unless otherwise noted, all course materials supplied to students in this course have been prepared by the instructor and are intended for use in this course only. These materials are NOT to be re-circulated digitally, whether by email or by uploading or copying to websites, or to others not enrolled in this course. Violation of this policy may in some cases constitute a breach of academic integrity as defined in the UVic Calendar.

**Syllabus Tentative Schedule** 

| Week                   | Lectures  | Textbook                             | Lab/Tutorial  |
|------------------------|---|--------------------------------------|---|
| Week 1, Sep 9          | Course Introduction & Introduction to engineering drawing   | Chapter <b>1</b>                     |   |
| Week <b>2</b> , Sep 14 | Discuss Lab 1 - Introduction to Solid Works Orthographic Projections - Principles of projection/Line types and line precedence                  | Chapter <b>1</b>                     | Introduction to Solidworks-interface, capabilities, drawing parts         |
| Week <b>3</b> , Sep 21 | Orthographic Projections - Oblique planes,<br>tangencies and intersections, isometric drawings,<br>isometric view from orthographic projections | Chapter <b>2</b>                     |   |
| Week <b>4</b> , Sep 28 | Discuss Lab 2 Isometric Drawings - draw missing views and isometric views   | Chapter 2                            | Solidworks - assembly drawing  (Assignment #1 due)                        |
| Week <b>5</b> , Oct 5  | FBD and common symbols Sectioning   | Chapter <b>3</b> Appendices: B, C, E |   |
| Week <b>6</b> , Oct 12 | (Thanksgiving Monday) Discuss Lab 3 Sectioning  | Chapter <b>3</b>                     | Quiz on solidworks Introduction to Autocad- 2D drawing (Assignment#2 due) |

| Week <b>7</b> , Oct 19  | Review lecture material                                      |                             |  |
|-------------------------|--|-----------------------------|--|
|                         | <b>R</b> eview lab material                                  |                             |  |
|                         | EXAM 1 (Friday, OCT 23rd)                                    |                             |  |
| Week <b>8</b> , Oct 26  | Discuss Lab 4  |                             |  |
|                         | <b>D</b> imensioning - Rules, guidelines and common mistakes | Chapter <b>4</b>            | Introduction to Civil 2D (Parcels, points, |
|                         | Tolerancing - Tolerance fit type, error accumulation         |                             | surfaces, contours)                        |
| Week <b>9</b> , Nov 2   | Engineering Drawings with case study (TBC)                   | Chapter <b>5</b>            |  |
| Week <b>10</b> , Nov 9  | Reading Break - November 9-to-11 Discuss Lab 5               | Chapter <b>4</b> , <b>5</b> | Handout project (Civil<br>Road Design) ,   |
|                         | Standards - Standard Specifications (1 Lec , Friday)         | Appendices:<br>D, F         | Project part #1 due following week         |
| Week <b>11</b> , Nov 16 | Standards - Standard Specifications                          |                             |  |
|                         | <b>G</b> rades and Contours                                  | Chapter <b>6</b>            |  |
|                         | Review Project   |                             |  |
| Week <b>12</b> , Nov 23 | Review Project   |                             | Quiz                                       |
|                         | <b>G</b> rades and Contours                                  | Chapter <b>6</b>            | Civil road design project                  |
|                         | Review exam materials  |                             | Part #2 discussion                         |
|                         | Presenting technical information (TBC)                       |                             | Tare nz discussion                         |
| Week <b>13</b> , Nov 30 | Design project review  |                             | Project due last day of                    |
|                         | EXAM 2 (Wednesday, DEC 2nd)                                  | Chapter 10                  | classes (Dec 4)                            |