



**COURSE OUTLINE**  
**ELEC 483/583 – Digital Video Processing**  
**Spring 2014**

(see also: <http://www.ece.uvic.ca/~pan/ELEC483/ELEC483.html> )

**Instructor:**

Dr. Pan Agathoklis  
 Phone: 721-8618  
 E-mail: pan@ece.uvic.ca

**Office Hours:**

Days: Wednesdays  
 Time: 10:00 a.m. – 12:00 noon  
 Location: EOW 423

**Lectures:**

Section(s): 483: AO1: CRN 21131, AO2: CRN 21132; 583: CRN 21148  
 Days: Mondays and Thursdays  
 Time: 11:30 am -12:50 p.m.  
 Location: CLE D134

**Required Text:**

Title: Video Processing and Communications  
 Author: Y. Wang, J. Osterman and Y-Q. Zhang  
 Publisher: Prentice-Hall  
 Year: 2002

**Assessment:**

Assignments: 5%  
 Project: 15% due during the final exam  
 Mid-term: 25% Date: Thursday, February 27, 2014  
 Final: 55%

Notes: Failure to complete all course requirements will result in a grade of N being awarded for the course. The final grade obtained from the above marking scheme will be based on the following percentage-to-grade point conversion:

| Passing Grades | Grade Point Value | Percentage for Instructor Use Only |   |
|----------------|-------------------|------------------------------------|---|
| A+             | 9                 | 90 – 100                           |   |
| A              | 8                 | 85 – 89                            |   |
| A-             | 7                 | 80 – 84                            |   |
| B+             | 6                 | 77 – 79                            |   |
| B              | 5                 | 73 – 76                            |   |
| B-             | 4                 | 70 – 72                            |   |
| C+             | 3                 | 65 – 69                            |   |
| C              | 2                 | 60 – 64                            |   |
| D              | 1                 | 50 – 59                            |   |
| Failing Grades | Grade Point Value | Percentage for Instructor Use Only | Description   |
| E              | 0                 | 35 - 49                            | Fail, conditional supplemental exam. (For undergraduate courses only)   |
| F              | 0                 | 0 – 49                             | Fail, no supplemental.  |
| N              | 0                 | 0 – 49                             | Did not write examination, Lab or otherwise complete course requirements by the end of term or session; no supplemental exam. |

The rules for supplemental examinations are found on page 80 of the current 2013/14 Undergraduate Calendar.

| <b>Term in which E Grade Was Obtained</b> | <b>Application Deadline for Supplemental Exam</b> | <b>Supplemental Exam Date</b>     |
|---|---|-----------------------------------|
| First term of Winter Session (Sept – Dec) | February 28 in the following term                 | First week of following May       |
| Second term of Winter Session (Jan – Apr) | June 30 in the following term                     | First week of following September |
| Summer Session (May – Aug)                | October 31 in the following term                  | First week of following January   |

Deferred exams will normally be written at the start of the student's next academic term; i.e., approximately 4 months following the deferral of the exam.

### **Course Description**

Representation of digital video. Image formation models. Spatio-temporal sampling and sampling structure conversion. Two and three-dimensional motion estimation techniques. Optical flow, block-based and pel-recursive methods for motion estimation. Image and video compression methods and standards. Interframe compression and model-based methods for video compression. Digital video systems and applications. (*Prerequisite: 310*)

### **Note to Students:**

**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 ECE Chair by email or the ECE Chair's secretary to set up an appointment.**

### **Accommodation of Religious Observance**

See <http://web.uvic.ca/calendar2013/GI/GUPo.html>

### **Policy on Inclusivity and Diversity**

See <http://web.uvic.ca/calendar2013/GI/GUPo.html>

### **Standards of Professional Behaviour**

You are advised to read the Faculty of Engineering document Standards for Professional Behaviour at <http://www.uvic.ca/engineering/current/undergrad/index.php#section0-25> which contains important information regarding conduct in courses, labs, and in the general use of facilities.

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/calendar2013/FACS/UnIn/UARe/PoAcI.html> for the UVic policy on academic integrity.

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| <p><b>Plagiarism detection software may be used to aid the instructor and/or TA's in the review and grading of some or all of the work you submit.</b></p> |
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