



**From:** [Graham Layne](#)  
**To:** [Kenny, Gail](#)  
**Cc:** [Oscar Meruvia-Pastor](#); [CS Grad Officer](#)  
**Subject:** Re: COMP 6982: Computer Vision (Special Topics)-New Course Proposal - Approved  
**Date:** Thursday, December 9, 2021 1:04:54 PM  
**Attachments:** [COMP 6982 21 1124 CompVision Matt sm SpTop 6982 vOM2 2021-11-25 C P.pdf](#)

---

Gail-

The above Special Topics course has been approved by GSC after discussion, and revisions to the original proposal that was circulated.

I attach the revised version of the proposal that was approved, for inclusion on the next Faculty Council agenda.

Regards,  
Graham



SCHOOL OF GRADUATE STUDIES

# Request for Approval of a Graduate Course

Adobe Reader, minimum version 8, is required to complete this form. Download the latest version: <http://get.adobe.com/reader>. (1) Save the form by clicking on the diskette icon on the upper left side of the screen; (2) Ensure that you are saving the file in PDF format; (3) Specify where you would like to save the file, e.g. Desktop; (4) Review the [How to create and insert a digital signature](#) webpage for step by step instructions; (5) Fill in the required data and save the file; (6) Send the completed form by email to: [sgs@mun.ca](mailto:sgs@mun.ca).

To: Dean, School of Graduate Studies  
From: Faculty/School/Department/Program  
Subject:  Regular Course  Special/Selected Topics Course

Course No.: COMP 6982

Course Title: Special Topics in Computer Vision

I. To be completed for all requests:

A. Course Type:  Lecture course  Lecture course with laboratory  
 Laboratory course  Undergraduate course<sup>1</sup>  
 Directed readings  Other (please specify)

B. Can this course be offered by existing faculty?  Yes  No

C. Will this course require new funding (including payment of instructor, labs, equipment, etc.)?  Yes  No  
If yes, please specify:

D. Will additional library resources be required (if yes, please contact [munul@mun.ca](mailto:munul@mun.ca) for a resource consultation)?  Yes  No

E. Credit hours for this course: 3

F. Course description (please attach course outline and reading list):

This course studies how to develop methods that enable a machine to “understand” or analyze images. The course introduces the fundamental problems in computer vision and the state-of-the-art approaches that address them.

G. Method of evaluation:	Percentage	
	Written	Oral
Class tests	20	
Assignments	15	
Other (specify):	35 (Project)	
Final examination:	30	

Total 100

<sup>1</sup> Must specify the additional work at the graduate level

**II. To be completed for special/selected topics course requests only**

**For special/selected topics courses, there is no evidence of:**

- |  | Instructor's initials      |
|--|----------------------------|
| 1. duplication of thesis work              | <u>MH</u>                  |
| 2. double credit                           | <u>MH</u>                  |
| 3. work that is a faculty research product | <u>MH</u>                  |
| 4. overlap with existing courses           | <u>MH*(see attachment)</u> |

Recommended for offering in the                      Fall                      **Winter**                      Spring                      20 22

Length of session if less than a semester:

**III. This course proposal has been prepared in accordance with General Regulations governing the School of Graduate Studies**

**Matthew Hamilton** Digitally signed by Matthew Hamilton  
Date: 2021.10.13 12:50:59 -02'30'

Course instructor

**October 13, 2021**

Date

**Dr. Oscar Meruvia-Pastor** Digitally signed by Dr. Oscar Meruvia-Pastor  
Date: 2021.11.24 21:04:33 -03'30'

Approval of the head of the academic unit

**24Nov2021**

Date

**IV. This course proposal was approved by the Faculty/School/Council**

\_\_\_\_\_  
Secretary, Faculty/School/Council

\_\_\_\_\_  
Date

\*This course is intended to create a graduate version of COMP-4301, which is cross-listed with ECE-8410. In the past, CS4301/ECE-8410 have been offered in tandem with Engineering graduate course ENGI-9805. The proposed course is an effort to provide a corresponding Computer Science graduate course to also be offered simultaneously with COMP-4301/ECE-8410/ENGI-9805.

# Computer Science 6982

## Special Topics in Computer Vision

### Winter 2022



Department of Computer Science

**Instructor:** Matthew Hamilton  
**E-mail:** [mhamilton@mun.ca](mailto:mhamilton@mun.ca)

**Credit Restrictions:** COMP-4301, ECE-8410, ENGI-9805

**Course Content:** <https://online.mun.ca/>

#### Course Objectives:

COMP 6982 Computer Vision studies how to develop methods that enable a machine to “understand” or analyze images. The course introduces the fundamental problems in computer vision and the state-of-the-art approaches that address them. Topics include feature detection and matching, geometric and multi-view vision, structure from X, segmentation, object tracking and visual recognition.

#### Topics:

1. Feature detection and matching
2. Geometric and multi-view vision
3. Structure from X
4. Segmentation
5. Object tracking
6. Visual recognition

#### Textbook and Resources:

Computer Vision: Algorithms and Applications by Richard Szeliski (available for free on author's page)

Computer Vision: A Modern Approach by David Forsyth and Jean Ponce

Additional materials assigned throughout the course.

#### Evaluation:

	Grade Weight
Assignments	15%
Class Tests	20%
Project	35%
Final	30%
	100%

#### Difference between the graduate and the undergraduate version of this course:

Where this course is offered in conjunction with undergraduate Computer Visions course (COMP 4301/ENGI 8410), graduate students projects should reflect a higher level of sophistication and should be based on the implementation of techniques or algorithms presented in a journal publication. Graduate students will also be given extra work as part of assignments involving evaluation and comprehension of selected research papers in the area.

In terms of the evaluation scheme in comparison to the undergraduate COMP 4301/ENGI 8410, the Project has a higher weight (35% vs. 30%) and the Assignments a lower weight (15% vs. 20%) than the undergraduate version.