MEMORIAL UNIVERSITY

Faculty of Science

Office of the Dean
St. John's, NL Canada A1B 3X7
Tel: 709 864 8154 Fax: 709 864 3316
deansci@mun.ca www.mun.ca/science

MEETING OF THE FACULTY COUNCIL OF THE FACULTY OF SCIENCE

A regular meeting of the Faculty Council of the Faculty of Science will be held on Wednesday, January 19, 2022, at 1:00 p.m. by Webex.

AGENDA

1. **Regrets**
2. **Adoption of the Minutes of December 1, 2021**
3. **Business Arising from the Minutes**
4. **Correspondence:** None
5. **Ms. Violet Ford, Associate Vice-President (Indigenous Research)**
6. **Reports of Standing Committees**:
   - **A. Undergraduate Studies Committee**: No business.
   - **B. Graduate Studies Committee:**
     - **a.** Department of Computer Science, Special Topics course, COMP 6982, Special Topics in Computer Vision, approved by the committee and presented to Faculty Council for information only, Paper B.a. (pages 6 to 11)
   - **C. Library Committee:** No business
7. **Reports of Delegates from Other Councils**
8. **Report of the Dean**
9. **Question Period**
10. **Adjournment**

Travis Fridgen, Ph.D.
Acting Dean of Science

MEMORIAL UNIVERSITY

Faculty of Science

Office of the Dean
St. John's, NL Canada A1B 3X7
Tel: 709 864 8154 Fax: 709 864 3316
deansci@mun.ca www.mun.ca/science

FACULTY OF SCIENCE
FACULTY COUNCIL OF SCIENCE
Minutes of Meeting of December 1, 2021

A meeting of the Faculty Council of the Faculty of Science was held on Wednesday, December 1, 2021, at 1:00 p.m. using Webex.

FSC 2896 **Present**

Biochemistry
G. Azam, M. Berry, R. Bertolo, V. Booth, J. Brunton, D. Hunt, M. Longjohn, S. Mayengbam, M. Mulligan

Biology
T. Chapman, E. Edinger, K. Tahlan, Y. Wiersma

Chemistry
C. Bottaro, H. Grover, M. Katz, F. Kerton, C. Kozak, S. Pansare, B. Power, JL Ralph, H. Therien-Aubin

Computer Science
S. Anthony, S. Bungay, M. Corbett, C. Dohey, M. Hatcher, O. Meruvia-Pastor, L. Peña-Castillo, K. Popuri, V. Prado da Fonseca, A. Soares, T. Tricco

Earth Sciences
G. Dunning, A. Langille, A. Malcolm, M. Miskell, K. Welford

Economics
K. Chu

Mathematics & Statistics
J. Alam, I. Booth, D. Dyer, C. Evans, Z. Fan, D. Harvey, R. Haynes, JC Loredo-Osti, S. MacLachlan, E. Martinez-Pedroza, T. Sheel, J. Singh, M. Strong, T. Stuckless, S. Sullivan, H. Usefi, A. Variyath, Y. Yilmaz

Ocean Sciences
I. Fleming, P. Gagnon, E. Ignatz, C. Parrish, S. Sullivan

Physics & Physical Oceanography
E. Demirov, M. Evstigneev, M. Geng, E. Hayden, J. LeBlanc

Psychology
R. Bennett, J. Dwyer, L. Fallon, C. Fitzpatrick, D. Hallett, K. Hourihan, J. LaMarre, C. Thorpe

Dean of Science Office
N. Bishop, J. Blundell, S. Dufour, T. Edmunds, M. Fitzpatrick, K. Foss, T. Fridgen, L. Frizzell, G. Jackson, G. Kenny, J. Major, T. Mackenzie, R. Newhook

Student Representatives:
A. Alfasool, A. Meyer

FSC 2897 **Regrets**:
C. Banfield, C. Bottaro, D. Bennett, S. Mantyka, D. McIlroy, K. Poduska, N. Ryan

FSC 2898 **Adoption of Minutes**
Moved: Minutes of the meeting of November 17, 2021, be adopted. (Sullivan/Berry)
Carried.

FSC 2899 **Business Arising:**
A concern was raised regarding voting procedures at Webex Faculty Council meetings. The request was made that, starting in 2022, the votes on motions be recorded in a more rigorous manner.

The Acting Dean has not had an opportunity to follow up on the concerns raised previously on CourseHero.

FSC 2900 **Correspondence:** None

FSC 2901 **Reports of Standing Committees:**

A. Undergraduate Studies Committee:

Presented by Shannon Sullivan, Chair, Undergraduate Studies Committee:

- **a.** Department of Biology, proposal to amend pre-requisite for Biology courses (Sullivan/Haynes) **Carried** with a note that Biology will update the submission regarding a clarification of prerequisites.
- **b.** Department of Psychology, proposal to amend program regulations, Psychology 11.11.1 regulations (and subsequent renumbering of existing regulations, and 4.3 Core Requirements and Academic Advising (Sullivan/Thorpe) **Carried**
- **c.** Department of Psychology, new course proposal, PSYC 4920, Psychological Testing (Sullivan/Thorpe) **Carried**
- **d.** Department of Mathematics and Statistics, new course proposal, MATH 1005, Calculus for Business (Sullivan/Dyer) **Carried**
- **e.** Department of Mathematics and Statistics, new course proposal, MATH 4250, Reinforcement Learning (Sullivan/Loredo-Osti) **Carried**

f. Department of Mathematics and Statistics, proposal to amend prerequisites for STAT 2500, Statistics for Business and Arts Students (Sullivan/Yilmaz) **Carried**

g. Department of Mathematics and Statistics, proposal to amend course description for STAT 3585 (Sullivan/Yilmaz) **Carried**

h. Department of Biochemistry, proposal to amend pre-requisites to BIOC 2200, 2201 and 4210 (Sullivan/Berry) **Carried**

i. Department of Computer Science, proposal to amend Program Regulations 11.4.9 Co-operative Internship in Computer Science, and 12.4.3. Third Year Courses (Sullivan/Newhook) **Carried**

j. Department of Computer Science, new program proposal, Major in Computer Science (Data Science) (B.Sc. only (Sullivan/Peña-Castillo) one abstention. **Carried**

k. Department of Computer Science, proposal to amend requirements for admission to Computer Science Minor Program (Sullivan/Bungay) **Carried**

l. Department of Computer Science, new course proposal, Computer Science 3400, Data Preparation Techniques (Sullivan/Bungay) **Carried**

m. Department of Computer Science, proposal to amend Program Regulations, 11.4.4 Major in Computer Science (Smart Systems) (B.Sc. only) (Sullivan/Bungay) **Carried**

n. Department of Computer Science, proposal to amend statistics requirement for the Computer Science and Economics Joint Major and Computer Science and Geography Joint Major Programs (Sullivan/Bungay) **Carried**

o. Department of Computer Science, proposal to amend Program Regulations 11.4.5 Major in Computer Science (Visual Computing and Games) (B.Sc. only) (Sullivan/Bungay) **Carried**

p. Department of Biology, cross-list BIOL 4910 with OCSC 4923 with an amendment to the course title and course description (Sullivan/Bungay) **Carried**

q. Department of Ocean Sciences, proposed special topics course, OCSC 4945, Practical Approaches in Molecular Marine Sciences, presented for information only.

B. **Graduate Studies Committee:**
Department of Earth Sciences, Request for Approval of a Graduate Course, EASC 6120, Kinematic modelling of plate tectonics (Layne/Haynes) one abstention **Carried**

C. **Library Committee:** None.

FSC 2902 **Reports of Delegates from Other Councils:** None

FSC 2903 **Report of the Dean**

Presented by Dr. Travis Fridgen, Acting Dean

I have no remarks prepared anticipating that the meeting would be a long one, but I would like to thank everyone for a successful semester and for your hard work during this past semester. We have 2.5 days before the start of exams, then everyone can enjoy a nice,

well-deserved break. I urge you to take a break. Maybe next semester will be a little more normal. I would like to thank the staff from the departments of Chemistry, Biology and Biochemistry for their work moving the three departments over to the Core Science Facility. It took a lot of work to get the teaching and research labs up and running, and I want you to know that I appreciate all the work you did, as does the Faculty as a whole.

FSC 2904 **Question Period**

No questions

FSC 2905 **Adjournment**

The meeting adjourned at 2:20 p.m.

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

MEMORIAL UNIVERSITY

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.

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
☐ Laboratory course
☐ Directed readings
☑ Lecture course with laboratory
☐ Undergraduate course[1]
☐ 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.)? If yes, please specify: ☐ Yes ☑ No

D. Will additional library resources be required (if yes, please contact 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	

[1] 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	MH
2.	double credit	MH
3.	work that is a faculty research product	MH
4.	overlap with existing courses	MH*(see attachment)

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' — October 13, 2021

Course instructor — Date

Dr. Oscar Meruvia-Pastor Digitally signed by Dr. Oscar Meruvia-Pastor Date: 2021.11.24 21:04:33 -03'30' — 24Nov2021

Approval of the head of the academic unit — 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

MEMORIAL UNIVERSITY

Department of Computer Science

Instructor: Matthew Hamilton
E-mail: 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.