

(g) Student Union Information: [VP Academic](#) Phone: 220-3911 Email: suvpaca@ucalgary.ca.
SU Faculty Rep. Phone: 220-3913 Email: sciencerep@su.ucalgary.ca; [Student Ombudsman](#)

(h) Internet and Electronic Device Information: You can assume that in all classes that you attend, your cell phone should be turned off unless instructed otherwise. Also, communication with other individuals, via laptop computers, Blackberries or other devices connectable to the Internet is not allowed in class time unless specifically permitted by the instructor. If you violate this policy you may be asked to leave the classroom. Repeated abuse may result in a charge of misconduct.

(i) At the University of Calgary, feedback provided by students through the Universal Student Ratings of Instruction (USRI) survey provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses (www.ucalgary.ca/usri). Your responses make a difference - please participate in USRI Surveys.

Department Approval _____ Date _____

Department Approval
For NO Final Exam : _____ Date: _____
M519 F14; 8/25/2014 2:00 PM

UNIVERSITY OF CALGARY
DEPARTMENT OF BIOLOGICAL SCIENCES

COURSE OUTLINE
CMMB 519
ADVANCED CELL BIOLOGY

TERM: Fall 2014 SECTION NO: 01

PREREQUISITE(S): Biology 311 and 331 and one of Biochemistry 401 or 443

A student may not register in this course unless she/he has a grade of at least C- in each prerequisite course.

COURSE COORDINATOR: Dr. D.G. Muench

LECTURER(S): Dr. D.G. Muench BI 397 220-7935 dmuench@ucalgary.ca
Dr. P. D. Vize BI 039 220-8502 pvize@ucalgary.ca

LECTURES: TR 12:30 ST 061

MARK DISTRIBUTION: A. Composition of Final Grade

Assignments (3 x 25%)	75%
Presentation	20%
<u>Class participation</u>	<u>5%</u>
TOTAL:	100%

B. Final Exam

There will not be a Final Examination scheduled by the Registrar's Office.

C. Components of course for which a passing grade is essential: N/A

GRADING SCALE

Letter Grade	Cut-Off
A+	90+
A	85
A-	80
B+	77
B	73
B-	70
C+	67
C	63
C-	60
D+	55
D	50
F	<50

TENTATIVE SCHEDULE FOR CMMB 519 Fall 2014

		<u>Instructor</u>
September	9 - Introduction, course outline, assignments, and overview of cell biology techniques. 11 - Cytoskeleton – components, dynamics and organization 16 - Cytoskeleton – components, dynamics and organization 18 - Cytoskeleton – associated proteins and motors 23 - Cytoskeleton – associated proteins and motors 25 - Cytoskeleton – cell shape and cell migration 30 - Lab session	DGM
October	2 - Lab session 7 - hedgehog signal transduction and IFT 9 - Primary cilia 14 - GECI 16 - Cilia and GECI 21 - Cilia and septins 23 – Wnt signaling and cilia 28 - GFP reporters – neural activity 30 - GFP reporters – cell cycle	PDV
November	4 - RNA trafficking – general 6 - Visualization of RNA localization 13 - RNPs and RNA export 18 - RNA localization – Trans-acting factors 20- RNA granule types and function, processing bodies (P bodies) 25 - RNA localization – Translational control 27 - Peroxisome dynamics	DGM
December	2 - Peroxisome biogenesis and protein import 4 - Peroxisome biogenesis and protein import	

CMMB 519 covers several cell biology topics. The course has a focus on understanding how to approach problems associated with cell biology research. The course involves instructor lecturing, critical reading of key research papers, student presentations, group discussion, and take home assignments. There is an emphasis on the techniques used to study cell biology. A laboratory session on advanced fluorescence microscopy is included. Upon completion of the course, students will have improved their ability to critically read research papers and will have an applied understanding of how cell biology research is conducted. Students are expected to keep up with their readings so that they are able to participate in active discussion and have a good understanding of the material covered in class.

There are no required textbooks for this course. However, a useful resource for some of the course material is "Molecular Biology of the Cell" Alberts et al., 2008, 5th Ed. This book is available on reserve at the main Library.