Welcome to Bio3316! My goal is to help you learn and be successful! Please, read and keep this course outline handy, because it is an official document that contains important course information.

COURSE DESCRIPTION
Modern cell biology is a rapidly evolving field with a unifying discipline that combines genetics, biochemistry, and molecular biology with traditional morphological descriptions to study how cells function at the molecular level. This course will emphasize the original literature and experimental approaches for a select set of topics in cell biology. The focus topic of this course will involve the biology of neuronal and glial cells. Since there will be no textbook for the class, published reviews and original research articles will serve as course material, which will be posted to OWL for downloading and reading. Please consult on a regular basis, as every other week there will be a quiz on the content to be covered.

COURSE COMMUNICATION
Lectures: M-Th 11:30-12:30
Instructor: Rachelle Kanippayoor
Office Hours: Appointment only (Location TBD)
E-mail: rkanippa@uwo.ca
Room: BGS 0165

Tutorials:
Section 1: 2:30-3:30pm
WSC 240
Section 2: 3:30-4:30pm
WSC 240
Section 3: 2:30-3:30pm
BGS 0153
Section 4: 3:30-4:30pm
BGS 0153

Teaching Assistants:
Nicole Cuthbert
Hooman Hosseinzadeh Namin
Emails:
tcuthbe2@uwo.ca
hhossei8@uwo.ca

2 lecture hours, 2 tutorial hours, 0.5 course.
Prerequisites: Biochemistry 2280A; Biology 2382B

Email Policies
Email hours: Emails are checked from 9:30 am to 4:30 pm, weekdays only. Answered within 2 business days, with the limitations below:

Your instructor's email should only be used for administrative purposes. In order to maximize efficiency and to allow your instructors to respond to legitimate concerns as quickly as possible, emails of the following nature will not be responded to:

• Questions about course material or on how to prepare for quizzes, exams, or annotation. Such questions should be taken to the tutorial or posted on the OWL forum.
• Questions that can be answered based on the information found in this course outline. Being able to find information yourself is an important soft-skill and an employability outcome.
• Requests for grade increases, extra assignments, make-up exams, etc. (see pages 3-4).
• If you email your instructor, you must use your Western email address and include Bio3316 in the subject line. Messages from a non-Western account or those that do not include Bio3316 may be blocked by the university's anti-spam system. Please do not hesitate to contact your instructor if you have any constructive comments or feedback on any aspect of Bio3316. I, and the TAs, are always trying to improve the course!

COURSE MATERIAL
There is no required textbook for the course. But you may find the following books helpful to review the appropriate background: Lodish et al. Mol Cell Biology; Karp, G. Cell and Molecular Biology. We will also use the related free online resource: http://bcs.whfreeman.com/lodish7e/#t_800911____

Course Website: Most lectures will be supplemented by readings from the primary literature. PDFs of these will be posted on OWL and updated weekly. Students should check OWL (http://owl.uwo.ca) on a regular basis for news and updates. This is the primary method by which information will be disseminated to all students in the class. Students are responsible for checking OWL on a regular basis.

TEACHING METHODS:
1. Reading prior to attending class, from book or the web, as indicated on schedule.
   This course is challenging and fast paced. To be successful, you must attend all lectures and read the assigned material BEFORE and AFTER each lecture. Do not fall behind! If after the lecture and after you study, you do not understand something, please first consult the OWL forum, where your question might have already been addressed. The OWL forum is a useful tool to collaborate with your fellow students (and future colleagues!) on understand concepts within the course. Students may book an appointment with the instructor for clarification if all available resources have been exhausted.

2. Class lectures, discussions, group work, and minute-papers.
3. Tutorial - The goals of the tutorials will be to understand recent progress in research, through the discussion of primary literature results presented in lecture, and discussion of quizzes and mid-term.
   a. Quizzes (20%): Best 4 out of 5 Quizzes. 15 min. (multiple choices and/or short answers) at the beginning of every OTHER tutorial (see schedule on OWL). The lowest quiz will be dropped from your final mark, resulting in each quiz being worth 5%. Each quiz will cover what has been done in lecture since the prior quiz, unless stated otherwise in lecture.
   b. Written Annotations (12%) and Group Presentation (8%): every OTHER week (see schedule on OWL). Students will be given a total of 5 primary research articles during the course to submit as a written annotation, or delivered as an oral presentation. The layout of this will be discussed further in the first lecture and during the first tutorial.

4. Mid-term, Final
   a. Mid-term and Final format: multiple choice (25%) and short answers (75%), with cheat-sheet (one sided 11’ X 8’ page similar to the page on which this syllabus is printed, with the student’s name, to be handed along with the exam).
   b. The final exam will be scheduled by the registrar during the regular exam period. It will be cumulative, covering material from the entire year.
EXPECTED WORKLOAD (approximate number of hours per week spent by students in):

<table>
<thead>
<tr>
<th></th>
<th>Lectures</th>
<th>Tutorials</th>
<th>Studying lectures = quiz + exam preparation</th>
<th>Annotations preparation</th>
<th>Total per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per average week</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>1</td>
<td>11</td>
</tr>
</tbody>
</table>

EVALUATION

Components:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm</td>
<td>25%</td>
</tr>
<tr>
<td>Final</td>
<td>35%</td>
</tr>
<tr>
<td>Group Presentation</td>
<td>12%</td>
</tr>
<tr>
<td>Written Annotations</td>
<td>8%</td>
</tr>
<tr>
<td>Quizzes (best 4 of 5)</td>
<td>20%</td>
</tr>
</tbody>
</table>

Important legalities

Marks will be posted regularly to the class OWL website.

All appeals must be submitted in writing to the instructor within two weeks of the mark posting with a clear explanation of the reason for the appeal. Exams written in pencil may not be appealed.

The instructor may re-grade all or part of the exam to look for additional errors, which may lower or raise the final mark of the assessment.

It is Faculty of Science policy that a student who chooses to write a test or exam deems themselves fit enough to do so, and the student must accept the mark obtained. Claims of medical, physical, or emotional distress after the fact will not be considered.

Missed Course Components

If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or supporting documentation to the Academic Counseling Office of your home faculty as soon as possible.

If you are a Science student, the Academic Counseling Office of the Faculty of Science is located in WSC 140, and can be contacted at 519-661-3040 or scibmsac@uwo.ca. Their website is [http://www.uwo.ca/sci/undergrad/academic_counselling/index.html](http://www.uwo.ca/sci/undergrad/academic_counselling/index.html).

**Absence from Tests or Final Exam**

- **Quizzes:** As your mark is based on the best 4 quizzes (whether 5 quizzes were actually taken), no make-up quiz will be given. An absence is an automatic 0, and there will be no exceptions. Note that this allows you to miss 1 quiz due to illness or personal reason without penalty.

- **Annotations:** Note that annotations can also be provided by email, as long as the email is sent no later than 10 min. prior to the start of lecture. If you decide to provide a late annotations, you also decide to accept a reduced grading (80% of the grade if received within 24 hours after the submission date/time, 0% if received beyond 24 hours after submission date/time).

- **Mid-term:** If a student has prior knowledge of a conflict with the scheduled term test, they must inform the instructor prior to the date of the term test. With the authorization from the Associate Dean, Faculty of Science, the grade for the mid-term will be reported to the final. There will be NO make-up mid-term. The weight of the mid-term will be transferred to the final, thus resulting in a final that is worth 60% of your final mark.

- **Final examination:** If you miss the Final Exam, please contact your faculty’s Academic Counseling Office as soon as you are able to do so. They will assess your eligibility to write the Special Exam (the name given by the university to a makeup Final Exam). The department will provide one make-up test that may be written With the authorization from the Associate Dean, Faculty of Science.

- You may also be eligible to write the Special Exam if you are in a “Multiple Exam Situation” (see [http://www.registrar.uwo.ca/examinations/exam_schedule.html](http://www.registrar.uwo.ca/examinations/exam_schedule.html)).

**STATEMENT ON THE USE OF ELECTRONIC DEVICES.**

No electronic devices (including but not limited to laptop computers, cell phones, iPods, etc...) will be allowed during examinations unless expressly authorized by the instructor.

**LEARNING EXPECTATIONS**

<table>
<thead>
<tr>
<th>Course Objectives</th>
<th>Specific Learning Outcomes Students will:</th>
<th>Assessment Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide breadth of knowledge of basic principles and concepts</td>
<td>Master a wide range of basic concepts in cell biology</td>
<td>Tutorial annotations and quizzes</td>
</tr>
<tr>
<td>Provide depth within specialized areas</td>
<td>Acquire in depth understanding and advanced knowledge of a range of specialized areas in cell biology and obtain detailed understanding of how cellular processes are mediated by hierarchical levels of organization from molecules to whole cell to cell−cell interactions</td>
<td>Lecture quizzes, mid-term and finals</td>
</tr>
<tr>
<td>Provide an understanding of experimental design and methodology</td>
<td>Become familiar with the experimental approaches of selected topics in cell biology.</td>
<td>Lecture quizzes, mid-term and finals</td>
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<tr>
<td>Develop approaches for integration of contemporary information</td>
<td>Describe examples of studies demonstrating the relevance of Cell Biology to understand human disorders</td>
<td>Lecture quizzes, mid-term and finals</td>
</tr>
<tr>
<td>Encourage critical thinking</td>
<td>Determine how specific experimental findings support basic principles</td>
<td>In-class</td>
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</table>
Provide opportunities to develop communication skills

<table>
<thead>
<tr>
<th>thinking and hypothesis building</th>
<th>concepts as well as considering alternative interpretations of the findings</th>
<th>exercises, midterm, final</th>
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</thead>
<tbody>
<tr>
<td>Develop skills in reading scientific literature</td>
<td>Develop oral communication skills</td>
<td>Tutorial discussions and quizzes</td>
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<tr>
<td>Develop research skills through the use of research journal, and internet database</td>
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**ACADEMIC OFFENCES.**

**Plagiarism:**
- Students must write their annotation in their own words, and not copy paste the article. Scholastic offences are taken seriously and students are directed to read the policy at: [http://www.uwo.ca/univsec/handbook/appeals/scholastic_discipline_undergrad.pdf](http://www.uwo.ca/univsec/handbook/appeals/scholastic_discipline_undergrad.pdf)
- Also take a look at "The Fine Print: University Rules And Regulations" [http://www.uwo.ca/biology/undergraduate/counsellingrules.htm](http://www.uwo.ca/biology/undergraduate/counsellingrules.htm)
- All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (http://www.turnitin.com).
- Computer-marked, multiple-choice tests and exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating

**ACCESSIBILITY STATEMENT:**
Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 x 82147 for any specific question regarding an accommodation

**STUDY / LIFE BALANCE:**
Learning-skills counsellors at the Student Development Centre ([http://www.sdc.uwo.ca](http://www.sdc.uwo.ca)) are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling.
Students who are in emotional/mental distress should refer to Mental Health@Western [http://www.uwo.ca/uwocom/mentalhealth/](http://www.uwo.ca/uwocom/mentalhealth/) for a complete list of options about how to obtain help.