



BIOM*6110 Research Methods in Biomedical Sciences - DRAFT

Fall 2019
Section(s): C01

Department of Biomedical Sciences
Credit Weight: 0.50
Version 2.00 - July 11, 2019

1 Course Details

1.1 Calendar Description

To provide a theoretical and practical introduction to basic and advanced laboratory techniques for graduate students in Biomedical Sciences. Routine and specialized procedures for light microscopy and various lab techniques, including but not limited to qPCR, protein assays, HPLC, Histology, cell culture and flow cytometry, are examined. Each technique is extensively examined through lectures, discussions and practical exercises. (This is a two semester course that begins in the Fall semester.)

1.2 Course Description

Objective:

To provide a theoretical and practical introduction to basic and advanced laboratory techniques for graduate students in Biomedical Sciences.

Course Format:

All Students must take Module 1 and this module counts towards one of your 4 modules. Module 1 introduces students to practices required for safe conduct in a laboratory. Students must select 3 modules other modules from the list provided on the CourseLink site. Examples of modules typically offered include protein assays, qRT-PCR, Immunohistochemistry and HPLC but these modules can change from year to year. Please note that some modules have student minimum and maximum numbers. Modules will be assigned on a first come, first serve basis. If you have signed up for a module that does not get the required number of students, you will be notified and asked to select an alternative elective module. Please email your module selections to Roger Moorehead at rmoorehe@uoguelph.ca

Most modules consist of one or more lectures and one or more hands-on components. Lectures will occur during the designated lecture slots (Monday or Wednesday 10-11:30) however the lab components of the modules may take place outside the designated class times. **Students must attend all lectures and labs in order to obtain credit for that module.** Please see the CourseLink site for module dates and times.

1.3 Timetable

Classes are typically Monday and Wednesday 10-11:20am and lab times vary with each module. Please see the CourseLink site for details.

1.4 Final Exam

There is no final exam however each module will have an evaluation component.

2 Instructional Support

3 Learning Resources

4 Learning Outcomes

5 Teaching and Learning Activities

6 Assessments

6.1 Marking Schemes & Distributions

Students are required to take 4 modules and each module will contribute 25% towards the student's final grade. The type of assignment varies for each module and is set by the instructor for that module.

7 University Statements

7.1 Email Communication

As per university regulations, all students are required to check their e-mail account regularly: e-mail is the official route of communication between the University and its students.

7.2 When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons please advise the course instructor (or designated person, such as a teaching assistant) in writing, with your name, id#, and e-mail contact. The grounds for Academic Consideration are detailed in the Undergraduate and Graduate Calendars.

Undergraduate Calendar - Academic Consideration and Appeals

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml>

Graduate Calendar - Grounds for Academic Consideration

<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml>

7.3 Drop Date

Students will have until the last day of classes to drop courses without academic penalty. The deadline to drop two-semester courses will be the last day of classes in the second semester. This applies to all students (undergraduate, graduate and diploma) except for Doctor of Veterinary Medicine and Associate Diploma in Veterinary Technology (conventional and alternative delivery) students. The regulations and procedures for course registration are available in their respective Academic Calendars.

Undergraduate Calendar - Dropping Courses

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml>

Graduate Calendar - Registration Changes

<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/genreg-reg-regchg.shtml>

Associate Diploma Calendar - Dropping Courses

<https://www.uoguelph.ca/registrar/calendars/diploma/current/c08/c08-drop.shtml>

7.4 Copies of Out-of-class Assignments

Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

7.5 Accessibility

The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required; however, interim accommodations may be possible while that process is underway.

Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability.

Use of the SAS Exam Centre requires students to book their exams at least 7 days in advance and not later than the 40th Class Day.

More information can be found on the SAS website
<https://www.uoguelph.ca/sas>

7.6 Academic Integrity

The University of Guelph is committed to upholding the highest standards of academic integrity, and it is the responsibility of all members of the University community—faculty, staff, and students—to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff, and students have the responsibility of supporting an environment that encourages academic integrity. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

Undergraduate Calendar - Academic Misconduct
<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml>

Graduate Calendar - Academic Misconduct
<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml>

7.7 Recording of Materials

Presentations that are made in relation to course work - including lectures - cannot be

recorded or copied without the permission of the presenter, whether the instructor, a student, or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

7.8 Resources

The Academic Calendars are the source of information about the University of Guelph's procedures, policies, and regulations that apply to undergraduate, graduate, and diploma programs.

Academic Calendars

<https://www.uoguelph.ca/academics/calendars>

DRAFT