

Welcome to Biol502!

Professor: Dr. Wayne Snedden - sneddenw@queensu.ca

Office Hours: TBA, see onQ course site

Contact Email: sneddenw@queensu.ca

Lectures/Seminar: Lectures/seminars are live and will not be recorded. We will move to recorded sessions if circumstances and Queen's policy requires a change. **Fri 9:30am-noon, Biosci 3110**

Textbook: not applicable

Grading Scheme: see table below

Course Outline: This module will examine the subcellular mechanisms employed by plant cells to cope with environmental stresses such as pathogen attack, drought, and salinity. Using current literature, the course will investigate the molecular and biochemical processes and signal transduction pathways that are evoked in plants during stress response. As an understanding of these processes is relevant to the biotechnology and agricultural industries as well as basic science, the potential for the genetic engineering of stress-adaptive traits will also be discussed.

Due Dates: See the course onQ site for all relevant due dates, announcements, and access to course material.

Recommended prerequisites: any one of: BIOL-341, BIOL-334, BIOL-330, or related BCHM

Timeline: Like any typical undergrad course, Biol502 is designed to require an **average of 10h of student time per week**. In a typical week, time commitment is divided up into reading papers, composing short documents, and offering peer feedback. **Each week there are several activities** to attend to but most are relatively straightforward. Nevertheless, it will be important to stay on top of each component of the course and be aware of weekly deadlines.

Mark Breakdown: see also due dates and related information onQ

Activity	Grade	Comment
Seminar 1	20%	Major presentations
Peer evaluations of seminars	5%	Required for all seminars
Popular press articles (grade includes peer rev of 2)	10%	You will be assigned 2 seminars to write a 1-2 pg popular press article about
Synopses of research papers	10%	These are very brief – any 10 of 12
Seminar 2	20%	Major presentation
Peer evaluations 2 nd seminars	5%	Required for all seminars
Literature Review	20%	Major written project
Peer evaluations of Lit Revs	5%	2 assigned to each student
Participation	5%	

Main Course Components (Subject to minor changes, depending on enrolment)

- 1. Two student seminars:** Students must view every seminar and provide recommended marks (peer evaluation) based on analysis of strengths and weaknesses. These seminars will enhance your communication skills and strengthen your knowledge of the relevant topic that you present on.
- 2. Short synopses of research papers:** For each week's seminars, the papers being presented will be circulated at least 1 week in advance. Students will read the papers in advance and prepare a brief (1/2 page) synopsis for each indicating the main research question(s) investigated, the general experimental strategies used, and the main conclusions. **Do any 10 of the 12 from the course.**
- 3. Popular press articles:** Students will compose brief (1-2 pg) 'popular press' style articles based on **2** (assigned by WS) of the 1st set of student presentations in the course. The aim is to improve your ability to communicate to a broad (educated, non-scientific) audience and to enhance your writing skills in general. Students will be assigned popular press articles to peer review.
- 4. Major review paper:** Due at the end of term (~Dec 5). Topics are subject to approval by Dr Snedden. The objectives of the assignment are to improve your written communication skills and to help you develop expertise on a specific and current topic in plant stress biology. Papers will be submitted via TurnItIn on onQ.

Accommodations: Queen's University is committed to achieving full accessibility for people with disabilities. Part of this commitment includes arranging academic accommodations for students with disabilities to ensure they have an equitable opportunity to participate in all of their academic activities. If you are a student with a disability and think you may need accommodations, you are strongly encouraged to contact the **Queen's Student Accessibility Services (QSAS)** and register as early as possible. For more information, including important deadlines, please visit the [QSAS website](#).

Considerations: Queen's University is committed to providing academic consideration to students experiencing extenuating circumstances that are beyond their control and are interfering with their ability to complete academic requirements related to a course for a short period of time, not to exceed three months. Students receiving academic consideration must meet all essential requirements of a course. The Senate Policy on Academic Consideration for Students in Extenuating Circumstances was approved at Senate in April, 2017 (info [here](#)) Each Faculty has developed a protocol to provide a consistent and equitable approach in dealing with requests for academic consideration for students facing extenuating circumstances. Arts and Science undergraduate students can find the Faculty of Arts and Science protocol and the portal where a request can be submitted [here](#). Students in other Faculties and Schools who are enrolled in this course should refer to the protocol for their home Faculty. If you need to request academic consideration for this course, you will be required to provide the name and email address of the instructor/coordinator: Dr. Snedden.

Grievances: It is the student's responsibility to contact Dr. Snedden within 2 weeks of receiving a grade if there are any problems.

Academic Integrity: Queen's students, faculty, administrators and staff therefore all have responsibilities for supporting and upholding the fundamental values of academic integrity. Academic integrity is constituted by the five core fundamental values of honesty, trust, fairness, respect and responsibility (see <http://www.academicintegrity.org>) and by the quality of courage. These values and qualities are central to the building, nurturing and sustaining of an

academic community in which all members of the community will thrive. Adherence to the values expressed through academic integrity forms a foundation for the "freedom of inquiry and exchange of ideas" essential to the intellectual life of the University. Students are responsible for familiarizing themselves with and adhering to the regulations concerning academic integrity. General information on academic integrity is available at [Academic Integrity @ Queen's University](#), along with Faculty or School specific information. Departures from academic integrity include, but are not limited to, plagiarism, use of unauthorized materials, facilitation, forgery and falsification. Actions which contravene the regulation on academic integrity carry sanctions that can range from a warning, to loss of grades on an assignment, to failure of a course, to requirement to withdraw from the university.

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Grading Method:

All components of this course will receive numerical percentage marks. The final grade you receive for the course will be derived by converting your numerical course average to a letter grade according to Queen's Official Grade Conversion Scale:

A+	90-100%	C+	67-69%
A	85-90%	C	63-66%
A-	80-84%	C-	60-62%
B+	77-79%	D+	57-59%
B	73-76%	D	53-56%
B-	70-72%	D-	50-52%
		F	49% and below

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