# Syllabus

## BIOL 330 Cell Biology, Fall 2022

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| ***WELCOME!*** | Welcome to Biol330! We are looking forward to exploring the wonders of cell biology with you! ☺ |
| **Professor:** | Dr. Wayne Snedden - sneddenw@queensu.ca<br>Dr Maria Aristizabal - maria.aristizabal@queensu.ca |
| **Office Hours:** | TBA, see onQ course site |
| **Program Associate**: | Dr. Baharul Choudhury - baharul.choudhury@queensu.ca |
| **Contact Email**: | **Biol330@queensu.ca** Use this for all course content, accommodation, and related matters |
| **Lectures:** | Lectures are live and will not be recorded. We will move to recorded sessions if circumstances and Queen's policy requires a change.<br><br>**Mon 11:30am, Tues 1:30pm, Thurs 12:30pm Chernoff Auditorium** |
| **Tutorials:** | See Solus Timetable for your particular tutorial session time/location<br>Sessions are 1.5h<br><br>**Mon 4pm, Goodwin Hall Rm254**<br>**Fri 2:30pm, Goodwin Hall Rm254** |
| **TAs:** | TBA |
| **Textbook:** | "The Cell: A Molecular Approach", 8th Ed, by GM Cooper |
| **Grading Scheme:** | 15% Quizzes (10 x 1.5% each)<br>20% Tutorial Assignments (4 x 5% each)<br>20% Final Exam (Cumulative)<br>15% Assignment 1 – Press Release<br>10% Assignment 2 – Virtual Cloning<br>15% Assignment 3 – Specialized Cell Infographic<br>5% In-class participation, Qlicker |
| **Course Outline:** | An introduction to the cellular basis of biological variation. The course explores the control of cell function exerted by the nucleus, the pathways for building and fueling cells, and the control of integrative cellular events. |

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

**Learning Objectives:** To complete this course, students will demonstrate their ability to:

1. Describe structural, biochemical, molecular, and regulatory aspects of the cell, including processes common to all cells and processes unique to certain specialized cells.
2. Describe the flow of genetic information from DNA to protein in a cellular context.
3. Design a molecular cloning experiment.
4. Critically evaluate scientific literature and communicate the main conclusions to a general audience.

**Learning Hours:** this are estimates and will vary week to week. A typical course is expected to occupy ~110-125h/term.

| Teaching Method | Avg Hr per wk | # of weeks | Total Hours |
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| Lectures (in class) | 3 | 12 | 36 |
| Tutorials (in class) | 1.5 | 5 | 7.5 |
| Private Study – including reading, assignment work | 5 | 12 | 60 |
| Online quizzes and related | 1.5 | 10 | 15 |
| Total | 11 | 12 | ~122 |

**Expectations:** Although the lecturers will provide the bulk of the course content, it is expected that students take an active and independent role in their learning. This course is more than just memorizing cell biology concepts – **emphasis will be placed on critical thinking and synthesis**. Assessments are designed to help you appreciate the scientific method in practice, including how experiments are designed and how results are interpreted. Students are expected to read the appropriate sections in the textbook and are encouraged to ask questions either in class or in the online forum.

**Zoom:** In addition to regular office hours, we may run occasional zoom 'help' sessions and students will be informed in advance if any such meetings are scheduled.

**Tutorials:** Tutorial sessions are meant to enhance your learning. These include pre-tutorial activities which are completed individually before group activities that are designed around tutorial learning objectives. Group activities run in class in your tutorial sections. There are 5 tutorials, and we will use your best four of five for final grades (i.e. 5% each, total 20%). **All group members will get the same grade on a given tutorial**. If a student misses two or more tutorials for valid reason(s), their lost grades will go towards their final exam. Worksheets have been carefully crafted with equity in mind, and as such no accommodations are necessary. More specific information for policies associated with Extenuating Circumstances that prevent you from participating in tutorial activity will be available in the Syllabus.

**Quizzes:** **Ten times this term, a quiz will be released on Thurs at 16:00; students have until 21:00 the following Sunday to complete it.** Because the quizzes will be open for several days, there will be no make-up quizzes offered unless proper documentation for academic consideration is provided. Quizzes are designed to give students an opportunity to show their understanding of course material. Students will have **90 mins** to complete the quiz. The quiz can be completed in 45 mins, but 90 mins is allotted to accommodate individuals that may need extra time. Most quiz questions are marked automatically, so it is important to be careful with spelling and to follow the instructions precisely. Don't lose marks because you didn't follow the instructions!!! Each quiz is worth 1.5% of your final grade.

**Assignments**: Assignments are designed to complement course material and with science communication in mind. A short informational quiz is due weeks before Assignments 1 and 3, each worth 1% of your final grade. All assignments can be completed in a number of days but several weeks are allotted to accommodate individuals that have a special need for extra time. Because all information regarding the Assignments is released at the beginning of the course, no extensions will be approved unless appropriate documentation is provided. Otherwise, late assignments will be accepted with a penalty of -5% per day, up to a maximum of 5 days (-25%). More details are provided in the "Assignments" folder on onQ.

**Final Exam:** A final, written-in-person, cumulative exam will be administered by Queen's University during the normal examination period in December.

**Online forum**: Students should first post questions on course material in the online forum before seeking instructor input. Those who understand the material are encouraged to answer their peers' questions. The forum will be monitored regularly by TAs and ProfsB to make sure everyone is on track. Participation in the forum is a great way to improve your understanding of the material!

**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. Accommodation letters are to be sent to Biol330@queensu.ca.

**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. Accommodation letters are to be sent to Biol330@queensu.ca.

**Grievances:** It is the student's responsibility to contact Dr. Baharul or 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.

**Turnitin:**

Queen's University has engaged the services of Turnitin to collect personal information on its behalf under the authority of the Queen's University Royal Charter, 1841, as amended. Please read Turnitin's Privacy Pledge, Privacy Policy, and Terms of Service (link below). The Terms of Service constitute a legal agreement between you and Turnitin so please read these documents carefully. Please note that Turnitin uses cookies and other tracking technologies; however, Queen's has negotiated with Turnitin such that neither Turnintin nor its third-party partners will use data collected through cookies or other tracking technologies for marketing or advertising purposes. For further information about how you can exercise control over cookies, see Turnitin's Privacy Policy (link below). By continuing to use Turnitin, you consent to the collection, use and disclosure of your personal information as described above. Turnitin may provide other services that are not connected to the purpose for which Queen's University has engaged Turnitin. Your independent use of Turnitin's services is subject solely to Turnitin's Terms of Service and Privacy Policy, and Queen's University has no liability for any independent interaction you choose to have with Turnitin.

**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:

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| 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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