

# BIOL 350

## Evolution and Human Affairs

Fall Term (2020-21)

### CALENDAR DESCRIPTION

An exploration of how evolutionary thinking can affect our understanding of our lives, our species, and our ability to share the planet with other species.

Learning Hours may vary.

LEARNING HOURS 120 (36L;24O;60P)

PREREQUISITE Level 3 or above.

### SCHEDULE

Refer to SOLUS for details.

|                               |  |
|-------------------------------|--|
| <b>Instructor</b>             | Dr. L. Aarsen  |
| <b>Instructor Contact</b>     | <a href="mailto:aarsenl@queensu.ca">aarsenl@queensu.ca</a> Phone: 613-533-6133 |
| <b>Office Hours</b>           | TBA  |
| <b>TA:</b>                    | See onQ Website  |
| <b>TA Contact Information</b> | See onQ Website  |
| <b>Office Hours</b>           | TBA  |

### Course Outline

The 'project' of civilization is failing. If we want to know where we are headed, we need to understand how the past brought us to where we are now. In BIOL350, we examine the evolutionary roots of human motivation, social life, culture, and civilization, the evolutionary roots of the challenges that currently face our species, and hence the evolutionary roots of our future. Students explore how biological and cultural evolution interact in affecting how we think and behave, and hence how this interaction affects our understanding of a wide range of human affairs, including why we have arrived at our present predicament – the 'human condition'. An appreciation of this historical human journey is essential for guiding a new and improved Project of Civilization to replace the old one. Students in BIOL350 have an opportunity to be among the architects of this new project.

Darwinian evolution by natural selection is a major underlying theme, but students do not require a background in biology; the level of knowledge needed concerning biological evolution is presented during the course. Students from Biology and other programs are all encouraged to take the course.

### Textbooks/Readings

Aarsen LW (2015) What Are We? Exploring the Evolutionary Roots of Our Future. Queen's University.  
[http://www.campusebookstore.com/EBooks/Book.aspx?ID=9657344&bookseller\\_id=5](http://www.campusebookstore.com/EBooks/Book.aspx?ID=9657344&bookseller_id=5)

Other reference and required reading materials are provided in connection with lectures and available from online sources.

### Learning outcomes

After completing BIOL350, students will be better equipped to:

1. identify and define the urgent challenges facing human civilization today, and why many authorities warn that ‘business as usual’ cannot be sustained;
2. describe how and why the effects of Darwinian evolution have brought us to this critical stage in the history of humanity;
3. explain how an understanding of this ‘human journey’ helps to account for a wide range of contemporary human affairs and cultural norms;
4. evaluate why philosopher, Blaise Pascal considered that, “*All of humanity's problems stem from man's inability to sit quietly in a room alone*” (Pensées, 1670) — and why poet, T.S. Eliot mused, “*...humankind cannot bear very much reality*” (No. 1 of Four Quartets, 1943) — and why philosopher Albert Camus (1956) wrote: “*Man is the only creature who refuses to be what he is.*”
5. predict how the genetic legacies inherited from our ancestors, and how our continuing evolution as a species — informed by both natural selection and cultural selection — are likely to affect our human natures, our social lives, and our cultures in future generations;
6. participate in prescribing a way forward for the design of a new, more sustainable, and more humanistic model of civilization for our descendants.

### Learning Hours

| <i>Teaching method</i> |                        | <i>Average hours per week</i> | <i>Number of weeks</i> | <i>Total hours</i> |
|------------------------|------------------------|-------------------------------|------------------------|--------------------|
| In-class hours         | Lecture (recorded)     | 3                             | 12                     | 36                 |
|                        | Seminar                |                               |                        |                    |
|                        | Laboratory             |                               |                        |                    |
|                        | Tutorial               |                               |                        |                    |
|                        | Practicum              |                               |                        |                    |
|                        | Group learning         |                               |                        |                    |
|                        | Individual instruction |                               |                        |                    |
| Other                  | Online activity        | 2                             | 12                     | 24                 |
|                        | Off-campus activity    |                               |                        |                    |
|                        | Private study          | 5                             | 12                     | 60                 |
| Total hours on task    |                        |                               |                        | 120                |

### Grading Scheme

| <b>Component</b>                   | <b>Weight (%)</b> | <b>Date</b> |
|------------------------------------|-------------------|-------------|
| Participation in online discussion | 20                |             |
| Independent assignment             | 20                |             |
| Term tests or final exam           | 60                |             |

## **Grading Method**

For all components of evaluation, including the final course mark, letter grades only will be reported — consistent with Queen’s Official Grade Conversion Scale shown below.

***Queen’s Official Grade Conversion Scale***

| <b>Grade</b> | <b>Numerical Course Average (Range)</b> |
|--------------|---|
| A+           | 90-100                                  |
| A            | 85-89                                   |
| A-           | 80-84                                   |
| B+           | 77-79                                   |
| B            | 73-76                                   |
| B-           | 70-72                                   |
| C+           | 67-69                                   |
| C            | 63-66                                   |
| C-           | 60-62                                   |
| D+           | 57-59                                   |
| D            | 53-56                                   |
| D-           | 50-52                                   |
| F            | 49 and below                            |

### **Academic Integrity and Queen’s Code of Conduct**

Students are responsible for familiarizing themselves with the regulations concerning academic integrity and for ensuring that their assignments and conduct conform to the principles of academic integrity. Information is available in the Arts and Science Calendar (see Academic Regulation 1 - <http://www.queensu.ca/artsci/academic-calendars/regulations/academic-regulations>, on the Arts and Science website (see <http://www.queensu.ca/artsci/academics/undergraduate/academic-integrity>), and at Biology’s website (<http://biology.queensu.ca/academics/undergraduate/prepare-yourself/>) and from the instructor of this course. Departures from academic integrity include plagiarism, use of unauthorized materials, facilitation, forgery and falsification, and are antithetical to the development of an academic community at Queen's.

Given the seriousness of these matters, actions which contravene the regulations on academic integrity carry sanctions that can range from loss of grades or to course failure. In the most serious cases, a student will be required to withdraw from the university.

### **Academic Consideration and Accommodation Policy, Exam Conflicts, and Other Conflicts**

Students who feel they require academic consideration or accommodation for illnesses, disabilities or other extenuating circumstances, or have a conflict between exams or other commitments must submit an application to <https://www.queensu.ca/artsci/accommodations>. If approved, the course coordinators will receive confirmation of the accommodation request and alternate arrangements will be made. Students are encouraged to be proactive in anticipating difficulties, when it is possible to do so.

Students may also apply to <https://www.queensu.ca/artsci/accommodations> to write a make-up or deferred exam, if they have an exam conflict as defined in the Academic Regulations of the Faculty (See Arts and Science Calendar Regulation 8 - <http://www.queensu.ca/artsci/academic-calendars/regulations/academic-regulations>). In this case, the student should report to the Exams Office first to verify that there is a genuine exam conflict. Biology professors will not consider your situation to

be a conflict unless it has been confirmed by the Faculty of Arts and Sciences.

Students may request a make-up or deferred exam if they have an exam conflict with off-campus travel associated with a field course (e.g BIOL-307/3.0 or 407/3.0) that is held during the fall or winter terms.

### **Accommodation of Disabilities**

*Queen's University is committed to achieving full accessibility for persons 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 Student Wellness Services Office and register as early as possible. For more information, including important deadlines, please visit the website at:<http://www.queensu.ca/studentwellness/>*

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