

# **BIOLOGY 3DD3**

## **Communities and Ecosystems**

### **Fall 2018**

- Instructor:** Dr. Jurek Kolasa (LS 340)  
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Office hours: by appointment via email. Lectures:  
ITB 137 – 2:30pm, Monday, Wednesday
- Teaching Assistants:** Stefan Weber, Morgan Kain
- Instructor Contact:** For all lab section changes, permission for missing coursework/midterms, contact your section TA via email.
- Calendar Description:** In depth exploration of assemblages made up by many species and of their relationship with the local environments at many scales.
- Course Objective:** The course attempts an in-depth presentation of how communities and ecosystems form and function, from the smallest to the global system. In addition to mechanism and principles governing multispecies ecological systems, topics may cover the effects of humans on such systems, in the context of local and global scale, global change, as well as the reciprocal interdependencies between humans and natural ecological systems. In terms of skills, the course aims at developing a broader and critical thinking about links between human activities and their consequences for natural ecological systems.

#### **Outcomes**

Upon successful completion of this course students will be able to:

1. Examine, explain and critique important, and often times unresolved, concepts and issues in ecology.
2. Demonstrate problem-solving abilities informed by critical literature research, problem identification, sound data analysis, and appropriate interpretation of results, communicated in a clear manner that adheres to modern standards of scientific communication (written and/or oral presentation).
3. Identify the strengths, weaknesses and requirements of different approaches to “doing ecology”, including: observation & description of natural patterns, model-building and laboratory & field experiments.

**Resources****you will need:**

Accompanying readings (provided for each major topic) and three SimBio software modules (“Community Ecology”, “Biogeography” and “Ecosystem Ecology”). The readings will be available through a TopHat education site as book chapters

**Lectures:**

Mon, Wed, 11:30-12:20; Friday 1:30-2:20, TSH B128

**Tutorials:**

1 hour tutorial once a week: date and time defined by your section. Group projects and presentations on environmental issues, computer exercises. Group meetings and discussions times and locations can be found according to your section in Mosaic.

**Grading Scheme:**

Midterm (multiple choice and short answers) - 25%; Tutorial (participation and assignments) – 25%; developing exam questions on PeerWise - 10%; Final exam (cumulative) – 40%. Details of the marking scheme will be discussed during the first lecture.

There will not be any deferred midterms or presentations. The final mark will be based on the best combination of all components, with the final exam used if it is better than other marks (details in class)

**Biology 3DD3 Important Information:**

- 1. Avenue to Learn (<http://avenue.mcmaster.ca/>)** will be used to communicate with students in this course and lecture handouts or supplements may be downloaded from Avenue. Please consult this regularly (minimum once each week) to keep up with updates and last-minute instructions. You are also encouraged to use this to further your class discussions with classmates and myself. Students should be aware that, when they access the electronic components of this course, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in this course will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.
- 3. Academic dishonesty.** You are expected to exhibit honesty and use ethical behavior in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity. Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behavior can lead to serious consequences, e.g. a grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: “Grade of F assigned for academic dishonesty”), and/or suspension or expulsion from the university.

It is your responsibility to understand what constitutes academic dishonesty. For

information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at <http://www.mcmaster.ca/academicintegrity>.

The following illustrates only three forms of academic dishonesty:

- Plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained.
- Improper collaboration in group-work.
- Copying or using unauthorized aids in tests and examinations.

The following are some pitfalls experienced by previous students:

- If you use any information from the internet, verbatim or paraphrased, and you do not acknowledge the source, then you have plagiarized.
- If you work with a classmate and have an identical written answer (i.e. sentences or phrases have the identical wording or phrasing), then you have plagiarized.
- If you copy a photograph or a graph from the internet and do not acknowledge the source, you have plagiarized.

If you are found to have committed plagiarism, you will automatically receive a grade of zero for the given assignment. There will not be any exceptions to this rule.

4. All assignments are due by **5pm** and must be delivered to your TA (see Avenue for the names and offices).
5. Policy on missed work, extensions, late penalties and missed exams:

Our policy is simple:

- There will not be any deferred midterms or presentations.
  - The final mark will be based on the final exam and marks achieved on the midterm and in the tutorials if the midterm and tutorial marks are higher than the final exam. Otherwise, those two components will be dropped. The final exam will have questions from the tutorials, though.
  - Consequently, midterm and tutorial marks will not affect your course mark negatively if they are lower than that achieved in the final exam but will boost your course mark if they are higher than the final exam.
6. The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.