

BIOLOGY
3DD3
Communities and Ecosystems
Fall 2014

- Instructor:** **Dr. Jurek Kolasa** (LS 340)
kolasa@mcmaster.ca
Office hours: by appointment via email.
- Course Coordinator:** **Mr. Marvin Gunderman** (LS 116)
gundermn@mcmaster.ca
- Teaching Assistants:**
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| Jimmy Lee | jimili3@hotmail.com |
| Katie Monster | monsteka@mcmaster.ca |
| Devika Peraiyur Premkumar | sharan.coral@gmail.com |
| Sangeena Salam | s.sangeena@gmail.com |
- Instructor Contact:** For all lab section changes, permission for missing coursework/midterms, contact Mr. Gunderman 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.
- Required Resources:** Accompanying readings (provided for each topic) and three SimBio software modules (“Community Ecology”, “Biogeography” and “Ecosystem Ecology”).
- Lectures:** Monday, Wednesday, Thursday 10:30 11:20, ITB/137
- Tutorials:** 3 hour tutorial once a week: date and time defined by your section. Presentations on environmental issues, computer exercises.
Group meetings and discussions:

T01	Tu	9:30	10:20	BSB/122
T02	Mo	16:30	17:20	BSB/122
T03	We	11:30	12:20	BSB/122
T04	We	09:30	10:20	BSB/122
T05	Tu	13:30	14:20	BSB/238
T06	Fr	15:30	16:20	BSB/238
T07	Th	12:30	13:20	BSB/122
T08	Th	08:30	09:20	BSB/122
T09	Mo	09:30	10:20	BSB/238A
T10	We	13:30	14:20	BSB/122

Grading Scheme: Midterm (multiple choice and short answers): 25% Tutorial participation (possible assignments): 25% Final exam (cumulative): 50%

There will not be any deferred midterms or presentations. The final mark will be based on the final exam and marks achieved in the tutorial and midterm. The calculation of these components that leads to the highest mark will be used. Thus, except for the final exam, a student can choose not to participate in the midterm test and tutorials. It is in the student interest though to participate in all course work to increase the chance of receiving a high mark.

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 regarding meeting 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 any additional work or components completed.
 - The calculation of all completed work that leads to the highest mark will be used.
 - Thus, except for the final exam, tests and assignments can be seen as optional. It is in the student interest to participate in all course work to increase the chance of receiving a high mark.
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.

Topics and approximate dates

Topic

Comments

Date		
4-Sep	About the course	
8-Sep	Introduction, species and habitats	
10-Sep	Methods	
11-Sep	Methods	
15-Sep	Site creation	
17-Sep	Dispersal	
18-Sep	Dispersal	
22-Sep	Indirect interactions	
24-Sep	Indirect interactions	
25-Sep	Assembly rules	
29-Sep	Assembly rules	
1-Oct	Succession (Okavango islands)	
2-Oct	Succession (Okavango islands)	
6-Oct	Succession on land	
8-Oct	Succession on land	
9-Oct	Catch up lecture	
13-Oct	Thanksgiving	
15-Oct	Midterm test	
16-Oct	Succession in water	in class
20-Oct	Succession in water	
22-Oct	Ecosystem concept	
23-Oct	Ecosystem concept	
27-Oct	Ecosystem change	
29-Oct	Metacommunities	
30-Oct	Metacommunities	
3-Nov	Catch up lecture	
3-Nov	Island biogeography	
6-Nov	Island biogeography	
10-Nov	Island biogeography	
12-Nov	Biodiversity gradients	
13-Nov	Biodiversity gradients	
17-Nov	Biodiversity gradients	
19-Nov	Catch up lecture	
20-Nov	Global ecology	

24-Nov	Global ecology	
26-Nov	TBA: ? news items relevant to 3DD3	
27-Nov	TBA: ? news items relevant to 3DD3	
1-Dec	TBA: ? news items relevant to 3DD3	
3-Dec	Review of the material	