COURSE OUTLINE: FALL 2022

COURSE TITLE: INTRODUCTORY ECOLOGY

COURSE CODE: BIOL 2210

CREDITS: 0.5

WEEKLY HOURS: 3.0 (2 lectures per week: Tues & Thurs 12h30 to 14h00)
3.0 (lab: Thurs 08h00 to 11h00)

ROOM: lecture: M339
lab: N 111

REQUIRED TEXT: Smith, T.M., and Smith, R.L. (2015). *Elements of Ecology, 9th Edition*. Pearson Education.

https://www.pearson.com/store/p/elements-of-ecology/P100000209717/9780137502165

PROFESSOR: DR. GERARDO REYES

OFFICE: A125A / A135A (Barrie); OR 1035 (Orillia)

TELEPHONE: (705) 330-4008 x2698

E-MAIL: greyes@lakeheadu.ca

OFFICE HOURS: by appointment (e-mail's best)

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1. COURSE DESCRIPTION

Interrelationships of plants and animals with the environment. The distribution and dynamics of plant and animal communities. Aspects of applied ecology and conservation.

2. COURSE GOALS

BIOL 2210 familiarises students with key concepts, theories, and methods used to study ecology. Our lecture time will focus on understanding the key factors and mechanisms that determine the distribution and abundance of species. The laboratory consists of exercises that will help to facilitate understanding of the concepts addressed during lectures, as well as introduce you to contemporary methods used to collect, analyse, and interpret ecological data.

Thus, upon completion of the course you will be able to:

1. Demonstrate understanding of basic concepts, principles and theories associated with ecological research
2. Describe the key drivers and mechanisms that impact biological diversity at the individual, community, landscape, and global scales
3. Compile, summarise, and interpret ecological data
4. Appreciate the multidisciplinary nature of researching ecological systems
5. Understand how development can potentially impact ecosystem stability and drive unwanted change
6. Communicate ideas through written & oral communication skills developed via individual & group assignments and presentations (modules)
7. Develop & apply critical analytical skills

3. MODES OF INSTRUCTION

LECTURES

Assigned readings, lectures, group discussions, hands-on training, & self-directed learning are employed for the lecture component of this course. Students are expected to be prepared in advance prior to each lecture by completing assigned readings accessible on D2L. Class time will build upon this base, focusing on important and/or more difficult concepts through *lecture and discussion*. Essentially, discussions help to clarify concepts, offer you the opportunity to demonstrate and deepen your understanding of the subject matter, and hopefully, make the material more interesting to tackle.

Notice for Recording Lectures & Class Activities

In BIOL 2210, in the context of remote instruction and participation, video and audio recordings of class activities will be made to ensure students' and instructors' easy and comprehensive access to those activities. The recordings are confidential and are intended only for the use of the course students and instructors. They may otherwise not be used or disclosed. During recording, to protect others' privacy, each student should ensure that no one else is present in the location where they are being recorded without that non-student's consent. The recordings are made under the authority of Sections 3 and 14 of The Lakehead University Act, 1965. Questions about the collection of the images and sounds in the recordings may be directed to Dr Azim Mallik, Chair of Biology, 955 Oliver Road, Thunder Bay, ON, Canada, P7B 5E1, (807) 343-8927.

https://www.lakeheadu.ca/sites/default/files/policies_procedures/Student%20Code%20of%20Conduct%20-%20Academic%20Integrity.pdf

[tt]make sure that you have access to SPSS on your personal computer before this lecture! The download is free for all Lakehead students:

(https://www.lakeheadu.ca/faculty-and-staff/departments/services/helpdesk/software/spss)

LABS

Lab material compliments lectures by providing a more in-depth examination of theoretical models and concepts introduced in lectures. Lab expectations as well as assignment/evaluation requirements will be discussed during your first lab session. Note also, that there are mandatory field trips scheduled for several lab sessions; details for which will be provided by your lab instructor.

4. COURSE OUTLINE

The tentative schedule is as follows:

Week 1	Sep 6	Welcome back! Introduction
	8	Guiding Ecological Principles
	Readings (R):	**1, 5**
Week 2	Sep 13	Abiotic Factors
	15	Terrestrial Ecosystems
	R:	**2, 4, 23**
Week 3	Sep 20	Aquatic Ecosystems
	22	Aquatic Ecosystems II
	R:	**3, 24**
Week 4	Sep 27	Population Structure & Dynamics
	29	**QUIZ**
	R:	**5, 12, 17**
Week 5	Oct 4	Landscape ecology
	6	Module I – landscape ecology[tt]
	R:	**19**
Week 6	Oct 11	Module I – landscape ecology
	13	Module I – landscape ecology
	R:	**19**
Week 7	Oct 18	Conservation Biology
	20	Module II – prioritising species conservation
	23	Module I report due midnight
	R:	**17, 18**
Week 8	Oct 25	READING WEEK
	27	READING WEEK
Week 9	Nov 1	**MIDTERM**
	3	Module II – prioritising species conservation
	R:	**17, 18**
Week 10	Nov 8	Module II – prioritising species conservation
	10	Module II – prioritising species conservation
	13	Module II report due midnight
	R:	**17, 18**

Week 11	Nov 15	Restoration ecology
	17	Module III – disturbance ecology
	R:	**22, 24**
Week 12	Nov 22	Module III – disturbance ecology
	24	Module III – disturbance ecology
	27	Module III report due midnight
	R:	**22, 24**
Week 13	Nov 29	Module III – disturbance ecology presentations
	Dec 1	Module III – disturbance ecology presentations
	R:	**22, 24**
		Exam period

5. EVALUATION OF ACHIEVEMENT

QUIZ:	**5 %**
MIDTERM:	**20 %**
MODULES:	**40 %**
LAB:	**35 %**

For your reference:

Table 1. Due dates for all graded components of our course

	Assignment	Due date	Proportion of grade
1	QUIZ	Sep 29	5
2	MODULE I	Oct 23	10
3	MIDTERM	Nov 1	20
4	MODULE II	Nov 13	10
5	MODULE III report	Nov 27	15
6	MODULE III presentation	Nov 29 or Dec 1	5
7	LABS - various	See lab schedule	35
	TOTAL		**100**

GRADING SCHEME:

A+ A	90 to 100% 80 to 89%	Outstanding understanding of the course concepts including integration of materials and ideas, ability to apply knowledge to situations
B	70 to 79%	Above average to excellent knowledge, ability to apply knowledge to situations
C	60 to 69%	Satisfactory knowledge including ability to recognise and apply major course concepts, and to progress to next level of course
D	50 to 59%	Some grasp of course concepts; will likely encounter difficulty with higher levels
E	40 to 49%	Failed to meet minimum requirements of the course
F	1 to 39%	Failure
F	0	Failure resulting from academic dishonesty

6. NETIQUETTE

Much like in a regular classroom, it is important that a positive, safe, dynamic, and constructive online learning environment is maintained. Thus, a set of guidelines for maintaining Netiquette are listed below. While you may not always agree with your instructor's or one of your peer's posts on the discussion board, please remember that everyone's opinions, thoughts, and responses must be respected. So, while you are strongly encouraged to comment, question, or critique a post, personal attacks on an individual are not permitted. Essentially, we wish to build and maintain an engaging and respectful online learning environment.

Our online classroom Netiquette guidelines are as follows:

- Do not dominate any discussion. Give other students the opportunity to join in the discussion.
- Do not use offensive language. Present ideas appropriately.
- Be cautious in using Internet language. For example, do not capitalize all letters since this suggests shouting.
- Popular emoticons such as 😊 or ☹ can be helpful to convey your tone but do not overdo or overuse them.
- Avoid using vernacular and/or slang language. This could possibly lead to misinterpretation. Essentially, take some time to formulate your ideas. Be clear, concise, and complete.
- Never make fun of someone's ability to read or write.
- Share tips with other students.
- Keep an open-mind and be willing to express even your minority opinion. Minority opinions must be respected.
- Think and edit before you push the *send* button.
- Do not hesitate to ask for feedback.
- Using humor is acceptable but be careful that it is not misinterpreted. For example, are you being humorous or sarcastic?

Guidelines adapted from:

Mintu-Wimsatt, A., Kernek, C., & Lozada, H. R. (2010). Netiquette: Make it part of your syllabus. *Journal of Online Learning and Teaching* 6(1). Retrieved from http://jolt.merlot.org/vol6no1/mintu-wimsatt_0310.htm

7. STUDENT RESPONSIBILITIES

Students are expected to participate in all course activities and complete all assignments on time. Late assignments carry a 25% reduction in value per day, no exceptions. This may seem rather severe, but it's just not fair to those who hand assignments in on time.

General regulations

It is the responsibility of each student registered at Lakehead University to be familiar with, and comply with all the terms, requirements, regulations, policies and conditions in the Lakehead University Academic Calendar. This includes, but is not limited to, Academic Program Requirements, Academic Schedule of Dates, University and Faculty/School Policies and Regulations and the Fees and Refund Policies and Schedules

- Academic and student policies and procedures for those enrolled in the Lakehead-Georgian programs can be found on the Lakehead-Georgian Student Portal.
- All Lakehead-Georgian programs will follow the Lakehead Regulations as list in the Lakehead University Academic Calendar (http://csdc.lakeheadu.ca/Catalog/ViewCatalog.aspx?pageid=viewcatalog&loaduseredits=False).The University Regulations include but are not limited to Registration, Examinations, Reappraisals and Academic Appeals, Special Examinations, Academic Misconduct, Withdrawal, and Timely Feedback. Additional Faculty Regulations may also apply. Please review the Academic Calendar.
- The Lakehead University Student Code of Conduct - Academic Integrity (https://www.lakeheadu.ca/students/student-life/student-conduct) will apply to all Lakehead-Georgian students regardless of campus of study.
- The Lakehead University Student Code of Conduct - Appeals (https://www.lakeheadu.ca/students/student-life/student-conduct) will apply to all Lakehead-Georgian students regardless of campus of study.
- The Georgian College Student Code of Conduct (http://www.georgiancollege.ca/student-code-of-conduct/) will apply to the Lakehead-Georgian students studying at the Barrie campus. Additional campus policies of Sexual Violence Procedure and Protocol (https://www.georgiancollege.ca/about-georgian/campus-safety-services/tab/sexual-violence), Alcohol, Drugs and Tobacco (https://www.georgiancollege.ca/about-georgian/campus-safety-services/tab/alcohol-drugs-and-tobacco), and Information Technology Acceptable Use Procedure (http://www.georgiancollege.ca/wp-content/uploads/2-117IT-acceptable-use.pdf)also apply.
- The Lakehead University Student Code of Conduct – Non-Academic (https://www.lakeheadu.ca/students/student-life/student-conduct) will apply to the Lakehead-Georgian students studying at the Orillia campus.

Student Support

There are many resources available to support our students. These include but are not limited to:

- Health and Wellness
- Student Success Centre
- Student Accessibility Centre
- Library
- Academic Support Zone (Writing and Math Tutoring Centre)

Lakehead University is committed to achieving full accessibility for persons with disabilities. Part of this commitment includes arranging academic accommodations for students with disabilities and/or medical conditions 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 Student Accessibility Services (SAS) and register as early as possible. For more information, please contact Student Accessibility Services http://studentaccessibility.lakeheadu.ca (SC0003, 343-8047 or sas@lakeheadu.ca)

Student Accessibility Services (SAS) (Thunder Bay) and Student Affairs (Orillia) coordinate services and facilitates reasonable academic accommodations for students with disabilities. Academic accommodations are provided on the basis of documentation of a disability. Additional information is available at the following campus websites:

Thunder Bay:	https://www.lakeheadu.ca/students/student-life/student-services/accessibility/
Orillia:	https://www.lakeheadu.ca/students/student-life/student-services/or

Academic dishonesty (plagiarism):

The most common offense under the Academic Code of Conduct is plagiarism.

This could be material copied word for word from books, journals, internet sites, professor's course notes, etc. It could be material that is paraphrased but closely resembles the original source. It could be the work of a fellow student, for example, an answer on a quiz, data for a lab report, a paper or assignment completed by another student. It might be a paper purchased through one of the many available sources. Plagiarism does not refer to words alone - it can also refer to copying images, graphs, tables, and ideas. "Presentation" is not limited to written work. It also includes oral presentations, computer assignments and artistic works. Finally, if you translate the work of another person into French or English and do not cite the source, this is also plagiarism.

I.E., DO NOT COPY, PARAPHRASE OR TRANSLATE ANYTHING FROM ANYWHERE WITHOUT CITING WHERE YOU OBTAINED IT!

University guidelines on the matter:

The University takes a most serious view of offences against academic honesty such as plagiarism, cheating and impersonation. Penalties for dealing with such offences will be strictly enforced.

A copy of the "Code of Student Behaviour and Disciplinary Procedures" including sections on plagiarism and other forms of misconduct may be obtained from the Office of the Registrar.

The following rules shall govern the treatment of candidates who have been found guilty of attempting to obtain academic credit dishonestly.
(a) The minimum penalty for a candidate found guilty of plagiarism, or of cheating on any part of a course will be a zero for the work concerned.
(b) A candidate found guilty of cheating on a formal examination or a test, or of serious or repeated plagiarism, or of unofficially obtaining a copy of an examination paper before the examination is scheduled to be written, will receive zero for the course and may be expelled from the University.

Students disciplined under the Code of Student Behaviour and Disciplinary Procedures may appeal their case through the Judicial Panel.

Note: "Plagiarism" shall be deemed to include:

1. Plagiarism of ideas as where an idea of an author or speaker is incorporated into the body of an assignment as though it were the writer's idea, i.e. no credit is given the person through referencing or footnoting or endnoting.
2. Plagiarism of words occurs when phrases, sentences, tables or illustrations of an author or speaker are incorporated into the body of a writer's own, i.e. no quotations or indentations (depending on the format followed) are present but referencing or footnoting or endnoting is given.
3. Plagiarism of ideas and words as where words and an idea(s) of an author or speaker are incorporated into the body of a written assignment as though they were the writer's own words and ideas, i.e. no quotations or indentations (depending on format followed) are present and no referencing or footnoting or endnoting is given.

A listing of University Regulations can be found at: http://csdc.lakeheadu.ca/Catalog/ViewCatalog.aspx?pageid=viewcatalog&catalogid=27&chapterid=8325&loaduseredits=False

The code of student behaviour and disciplinary procedures (effective May 1, 2019) can be found at:

https://www.lakeheadu.ca/sites/default/files/policies_procedures/Student%20Code%20of%20Conduct%20-%20Academic%20Integrity.pdf

8. STUDENT SERVICES AND SUPPORT

Student Advisors (https://georgiancollege.sharepoint.com/sites/student/Student-Services/StudentAdvisors/SitePages/Home.aspx)

Help students build both academic and personal resilience so that they can flourish at Georgian and beyond

Provide individual, group and web-based advising sessions

Are housed within the academic areas

- To book an appointment with your advisor go to the **Student Portal (preferred)** or call **705-728-1968 Ext. 1307**

Library (http://library.georgiancollege.ca/main)

Customer Service

- Off campus access

Research help

- Help finding books, articles and credible sources.
- Using specialty databases.
- Creating a search strategy.

Academic Success (https://library.georgiancollege.ca/help/contact-academic-success)

Writing Centre (http://library.georgiancollege.ca/writing_centre)

- Improve your writing.
- Help with citing sources and laying out your paper.

Math Centre (http://library.georgiancollege.ca/math_centre)

- Make sense of math questions.
- Understand concepts and develop skills.

Tutors (http://library.georgiancollege.ca/tutoring)

- Further understand course content.
- Build your study practices.

Accessibility Services (https://www.georgiancollege.ca/student-life/student-services/accessibility-services/)

If you are a student experiencing a disability who may require academic accommodations and have not yet registered with Accessibility Services, please contact their office at 705-722-1523, email studentsuccess@georgiancollege.ca, or visit their offices in B110. You must be registered with Accessibility Services to access academic accommodations. Support for those students whose success at college may be affected by a disability include:

- Ongoing support from our Accessibility Advisors including arranging a confidential psychoeducational assessment where required
- Training in the use of specialized computer technology
- Classroom and test accommodations

Testing Services (http://www.georgiancollege.ca/student-life/student-services/testing/)

- Accommodated testing
- Missed/Makeup testing
- Proctoring services are also available for external and Ontario Learn exams

Counselling (http://www.georgiancollege.ca/student-life/student-services/counselling/)

- Free, confidential counselling is available to all students
- Walk in counselling is available on a daily basis Monday to Friday

Career Success (http://www.georgiancollege.ca/student-life/student-services/co-op-and-career-services/)

Career assessments and exploring options

- Job search workshops
- Labour market information
- Resume/cover letter help
- Interview practice
- Graduate employment information
- Links to job postings and online resource

9. CONTACTS

STUDENT ADVISING (NON-ACADEMIC)	
Becca Allan Advisor, Accessibility and Academic Success Services	Tel: 705-728-1968, Ext. 5373 Becca.Allan@GeorgianCollege.ca (Georgian, Barrie) Room A143L

APPLIED LIFE SCIENCES		
Lakehead University Program Coordinator	Dr. Heidi Schraft	Tel: 807-343-8351 heidi.schraft@lakeheadu.ca (Lakehead, Thunder Bay) Room CB 4015
Georgian College Program Lead	Dr. Sean Madorin	Tel: 705-728-1968, Ext. 1085 sean.madorin@georgiancollege.ca (Georgian, Barrie) Room M312B
Lakehead University Academic Advisor	Dr. David Law	Tel: 705-330-4008, Ext. 2646 dlaw@lakeheadu.ca (Lakehead, Orillia) Room OA3018
Georgian College Program Assistant	Sabrina Chun	Tel: 705-728-1968, Ext. 1173 sabrina.chun@georgiancollege.ca (Georgian, Barrie) Room M312

COMPUTER SCIENCE		
Lakehead University Department Chair	Dr. Vijay Mago	Tel: 807-343-8310 vmago@lakeheadu.ca (Lakehead, Thunder Bay) Room AT 5016
Georgian College Program Coordinator	Ross Bigelow	Tel: 705-728-1968, Ext. 5325 ross.bigelow@georgiancollege.ca (Georgian, Barrie) Room A155
Lakehead University Professor and Student Advisor	Dr. Ruizhong Wei	rwei@lakeheadu.ca (Lakehead, Orillia)
Georgian College Program Assistant	Cheryl McWilliam	Tel: 705-728-1968, Ext. 1255 cheryl.mcwilliam@georgiancollege.ca (Georgian, Barrie) Room D125
Georgian College Lab Technician	Computer Science Help Desk	Tel: 705-728-1968, Ext. 1173 cstech@georgiancollege.ca (Georgian, Barrie) Room A155

ELECTRICAL ENGINEERING		
Lakehead University Department Chair	Dr. Carlos Christoffersen	Tel: 807-343-8352 carlos.christoffersen@lakeheadu.ca (Lakehead, Thunder Bay) Room AT 5017
Lakehead University Program Coordinator	Dr. Mohammad Uddin	Tel: 705-728-1968, Ext. TBA mohammad.uddin@lakeheadu.ca (Georgian, Barrie) Room A143E-1
Georgian College Program Coordinator	Dr. Majid Ostad Rahimi	Tel: 705-728-1968, Ext. 1948 majid.ostadrahimi@georgiancollege.ca (Georgian, Barrie) Room A143

Georgian College Program Assistant	Jacqueline Huggard	Tel: 705-728-1968, Ext. 5225 jacqueline.huggard@georgiancollege.ca (Georgian, Barrie) Room A143L

ENVIRONMENTAL SUSTAINABILITY		
Lakehead University Department Chair	Dr. Sreekumari Kurissery	Tel: 705-330-4008, Ext. 2629 skurrisse@lakeheadu.ca (Lakehead, Orillia) Room OA 3010
Georgian College Program Coordinator	Samantha Sullivan Sauer	Tel: 705-728-1968, Ext. 6280 samantha.sullivansauer@georgiancollege.ca (Georgian, Barrie) Room A143K
Georgian College Program Assistant	Jacqueline Huggard	Tel: 705-728-1968, Ext. 5225 jacqueline.huggard@georgiancollege.ca (Georgian, Barrie) Room A143L

SCIENCE LABORATORY SUPPORT		
Lakehead University Laboratory Technician	Chase Moser	Tel: 705-728-1968, Ext. 1839 cmoser@lakeheadu.ca (Georgian, Barrie) Room A143Q

COOP CONTACTS		
Georgian College Co-op Consultant (Student Services for Computer Science-Computer Programmer; Course only for Electrical Engineering)	Beth Salt	Tel: 705-728-1968, Ext. 1642 beth.salt@georgiancollege.ca (Georgian, Barrie) Room B110V
Georgian College Employer Relations Consultant (Employer relations and co-op monitor for Computer Science-Computer Programmer)	Jodi Derrick	Tel: 705-728-1968, Ext. 1493 jodi.derrick@georgiancollege.ca (Georgian, Barrie) Room F118A
Lakehead University Co-op Coordinator (Student and Employer Services for Electrical Engineering)	Meagan Shwetz	Tel: 807-766-7190 coop@lakeheadu.ca (Lakehead, Thunder Bay) Room SC 0017B

10. CAMPUS SAFETY AND SECURITY

Emergency Evacuation (https://www.georgiancollege.ca/about-georgian/campus-safety-services/tab/fire)

- Evacuate buildings when a fire alarm is activated or an official announcement is given. Review evacuation guidelines. (https://www.georgiancollege.ca/about-georgian/campus-safety-services/tab/fire)
- Students requiring assistance in emergency situations must inform their faculty during the first week of class.
- Familiarize yourself with all fire exit doors of classrooms and buildings you may occupy.
- Do not re-enter a building until instructions are given by the Fire Department or college personnel.

Lockdown (https://www.georgiancollege.ca/about-georgian/campus-safety-services/tab/lockdown)

- Lockdown is initiated when there is a potential or actual violent incident on campus that could result in a serious injury or threat to life.
- Students can download the new Safe@Georgian app to stay updated on Campus Safety and Security information including lockdown.
- Familiarize yourself with the College Lockdown procedure (https://www.georgiancollege.ca/wp-content/uploads/Lockdown.pdf)
- Lockdown tests occur each semester.

Resources:

- Get Out, Hide, Fight Lockdown Video (http://youtu.be/JA8cckMbVDk)
- Lockdown quick reference sheet (http://www.georgiancollege.ca/wp-content/uploads/COM-15-416_LockdownProcedure_Signage_FVR3_print.pdf)
- Lockdown Model – Get Out, Hide, Fight: Lockdown Tools and Tactics and FAQs.

Unscheduled Campus Closure (https://www.georgiancollege.ca/about-georgian/campus-safety-services/tab/campus-closures)

Resources:

- How to find out if your campus is closed (http://www.georgiancollege.ca/about-georgian/campus-safety-services/#how-to-find-out-if-your-campus-is-closed)
- Unscheduled Campus Closure Procedure (https://www.georgiancollege.ca/wp-content/uploads/2-102Unscheduled-college-closure-2018.02.10.pdf)

Timing of Closures/Notification:

Closure	Decision	Communication / Notification*	Notes
College has made the decision to close a campus or location in the morning:	6:00 a.m.	By 6:30 a.m.	If re-opening for noon or evening classes is being considered, this will be mentioned in the message
College closes a campus(s) in the morning and expects to re-open by 12:00 noon	9:30 a.m.	By 10:00 a.m.	Only affects classes beginning at 12 noon or later
Closure expected to continue past 12:00 noon	9:30 a.m.	By 10:00 a.m.	
College intends to re-open for evening classes which commence at 5 p.m. or later	2:30 p.m.	By 3:00 p.m.	
College intends to NOT re-open for evening classes:	2:30 p.m.	By 3:00 p.m.	

****Notification will be made via:***

- Georgian social media (Facebook, Twitter)
- Safe@Georgian app
- Georgian website (homepage)
- Recorded message when you call into Barrie campus at 705-728-1968
- Student or employee portal
- Georgian email account
- Radio and television announcements through local and regional media

Note: We only announce the names of campuses that are closed. If your campus is not named in a closure, it is open.