science | YORK UNIVERSITÉ UNIVERSITY

Department of Biology Course Outline

Winter 2026 SC/BIOL 3172 3.00 Community Ecology

Course Instructor: Dr. Junyan Zhang

Hear my name

How to address me: Professor Zhang

Personal Pronouns: (she/her/hers)

Email: juzhang@yorku.ca

Note: If you have or question or would like to talk with me, the best time to meet me is before or after class; you also can send an email or meet me during student hours via Zoom (see below).

Student Hours: Friday 9:00am–10:00am

Via Zoom
https://yorku.zoom.us/j/94257377221

Teaching Assistants:

Parsa Khani, audreykh@yorku.ca

Amanda Sabatino, sab85@yorku.ca

What are 'Student Hours'?
Student hours are dedicated times through the week for the course instructor and TAs to meet with YOU. Pop in to introduce yourself, ask questions about the course, or discuss content from the course.

Note: If these times don't work for you, email me and we can arrange an alternate time to meet.

Study Spaces on Campus:
https://currentstudents.yorku.ca/study-spaces

Class Times: Mon & Wed 13:00–14:20pm

Class Location: R S174

Click here for visual directions

Tutorial 01: Wed 14:30-15:20pm

Tutorial 02: Wed 15:30-16:20pm

Tutorial Location: PSE 321

Click here for visual directions

Course Format: In-person

Some elements of the course (e.g., assignments and office hours) will be online throughout the term. Access to high-speed internet is required.

Prerequisites: BIOL 2060 3.00 and BIOL 2050 3.00 or 4.00.

Course Credit Exclusion: BIOL 3170 3.00

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Land Acknowledgement

York University recognizes that many Indigenous Nations have longstanding relationships with the territories upon which York University campuses are located that precede the establishment of York University. York University acknowledges its presence on the traditional territory of many Indigenous Nations. The area known as Tkaronto has been care taken by the Anishinabek Nation, the Haudenosaunee Confederacy, and the Huron-Wendat. It is now home to many First Nation, Inuit, and Métis communities. We acknowledge the current treaty holders, the Mississaugas of the Credit First Nation. This territory is subject of the Dish with One Spoon Wampum Belt Covenant, an agreement to peaceably share and care for the Great Lakes region.

Welcome to Community Ecology!

My role as an instructor is to provide you with multiple learning opportunities in an environment that challenges you, encourages you to ask questions and engage in scientific thinking, such that you can achieve the course Learning Objectives. While I may not always be able to answer your questions, I can usually help you find out more. I also encourage you to seek answers to your questions on your own—an important skill to practise! To get the most of out of this course, you are expected to complete the required readings and online work prior to class time. As in all courses, you are expected to spend time beyond the regular course hours in preparation, review, studying, etc., related to the course.

This class is collaborative, not competitive. In class and on eClass, you'll have some opportunities to work with your peers, asking questions, explaining reasoning, and receiving feedback. From the literature on science education, we know that students can learn a lot from each other, in addition to the help they get from their instructors. We want this to be a strong, supportive, learning community for everyone.

Inclusive Teaching Statement

It is my hope that our class will support diversity of experience, thought, and perspective. All students in the class, the instructor and any guests should be treated with respect during all interactions. Please feel free to contact me via email or in person to let me know about any experiences you have had related to this class that have made you feel uncomfortable.

YorkU students come from far and wide and represent a diversity of cultures and backgrounds. To support students whose primary language is not English, services are available at York including individual appointments, and group events, such as ESL Café. See https://www.yorku.ca/laps/eslolc/ for more information.

Community Guidelines

The following values are fundamental to academic integrity and are adapted from the International Center for Academic Integrity*. In our course, we will seek to behave with these values in mind.

	As students, we will...	As a teaching team, we will...
Honesty	• Honestly demonstrate our knowledge and abilities on assignments and exams • Communicate openly without using deception, including citing appropriate sources	• Provide honest feedback on your demonstration of knowledge and abilities on assignments and exams • Communicate openly and honestly about the expectations and standards of the course via the syllabus, and with respect to assignments and exams
Responsibility	• Complete assignments on time and in full preparation for class • Show up to class on time, and be mentally/physically present • Participate fully and contribute to team learning and activities	• Provide timely feedback on your assignments and exams • Show up to class on time, and be mentally and physically present • Create relevant assessments and class activities
Respect	• Speak openly with one another, while respecting diverse viewpoints and perspectives • Provide sufficient space for others to voice their ideas	• Respect your perspectives even while we challenge you to think more deeply and critically • Help facilitate respectful exchange of ideas
Fairness	• Contribute fully and equally to collaborative work, so that we are not freeloading off others • Not seek unfair advantage over fellow students in the course	• Create fair assignments and exams, and grade them in a fair, and timely manner • Treat all students equitably
Trust	• Not engage in personal affairs while on class time • Be open and transparent about what we are doing in class • Not distribute course materials to others without authorization	• Be available to all students when we say we will be • Follow through on our promises • Not modify the expectations or standards without communicating with everyone in the course
Courage	• Say or do something when we see actions that undermine any of the above values • Accept a lower or failing grade or other consequences of upholding and protecting the above values	• Say or do something when we see actions that undermine any of the above values • Accept the consequences (e.g., lower teaching evaluations) of upholding and protecting the above values

[2] This class statement of values is adapted from Tricia Bertram Gallant, Ph.D.

Course Description

What drives the incredible diversity and complexity of life on earth? Species interactions! (well, among a couple other things.) In this course, we will learn to 'read' biological communities for the interactions that make them tick, and come to appreciate why generations of scientists have been scratching their heads over just why species wind up where they do.

Course Description: Using lectures and tutorials, this course explores the many ways that species interact over diverse spatial and temporal scales. Major themes include scales of interaction; mutualistic and antagonistic relationships; communities as coevolved relationships; community assembly, structure, and stability; responses to disruptions; ecological succession; measures of diversity; and methods for assessing the correlation between animal species distributions with plant species distributions. Three lecture hours per week, and one tutorial hour per week.

Learning Objectives

Upon successful completion of this course students should be able to.....

1. **Demonstrate a fundamental understanding of community ecology:**
    - Use terminology appropriate to the field of community ecology
    - Contrast antagonistic and mutualistic species interactions
    - Differentiate among consumption (predation, herbivory, parasitism), competition, mutualism, and commensalism
    - Recognize key conceptual ideas central to Community Ecology, such as the competitive exclusion principle
    - Using fundamental principles from evolutionary biology, demonstrate an understanding of co- evolution, including the identification of biotic factors as selective forces
    - Demonstrate a knowledge of the effects of other species on population dynamics
    - Apply the principles of community ecology to issues of conservation
    - Distinguish between the view that community development is random and the view that communities develop in a predictable, orderly manner
    - Identify and contrast different types of community succession, including the events that trigger succession
    - Compare the effects on community structure when disturbances are minor and infrequent on one hand, and major and recurrent on the other
    - Apply community ecology principles to wildlife management challenges

2. **Think critically:**
    - Draw generalized concepts from the results of particular scientific studies or experiments (inductive reasoning)
    - Present arguments that explain evolutionary phenomena such as co-evolutionary consequences of long-term species interactions
    - Employ metaphors for conveying the principles of community ecology

3. **Solve problems:**
   - Accept a position regarding a contentious theory in community ecology and formulate the argument in favour of that position
   - Apply principles from the scientific literature to new fact situations
   - Conduct and interpret an ordination analysis
4. **Communicate effectively:**
   - Clearly communicate concepts in community ecology using multiple modalities, including orally, graphically, and in writing

Learning Materials

Recommended Textbook: Mittelbach and McGill, **Community Ecology**, 2e, 2019. Oxford University Press. ISBN-10 0198835868; ISBN-13 978-0198835868; Day1Digital Ebook 180 Days Access $38.

Tutorial readings: Will be made available on eClass.
SimBio: Learning exercises from SimBio are an important component of the course, and account for 5% of the final grade. You will need to purchase and download the two assignments; Purchase information and link are available on eClass course page. Cost purchase directly from Bookstore is $40.54+HST, https://campus.bookstore.yorku.ca/CEB-Access-Code-for-BIOL-3172-W26) or SimBio site ($23 USD, variable exchange rates).

If you are having issues with SimUText/SimBio, it's best to contact their support team directly at https://simutext.zendesk.com/hc/en-us, rather than me.

Technology Checklist

Internet-enabled device (eClass & iClicker)	Zoom for online student hours some labs	Microphone for Q&A	SimBio BIOL 3172 W2026 activation key	RStudio (free download)

Course Assessment

Item	Weight	Date
SimBio Assignments	5%	Total two, 2.5% each; due Jan 16 & 30 @ 11:59pm
Tutorial – Leading Discussion	10%	On-going, see details on eClass course page
Tutorial – Participation	5%	On-going, see details on eClass course page
Multivariate Community Analysis	10%	Due Friday, March 20 @ 11:59pm
Research Review Paper	25%	Due Friday, March 27 @ 11:59pm
Midterm Test	15%	Monday, Feb 9, during class, 60 minutes
Final Exam	30%	2-hours, scheduled by the Registrar's office

SimBio Assignments

You will complete 2 SimBio interactive chapters as part of this course, to help you better understand the models and concepts we discuss in lecture. These assignments are due by 11:59PM on the date listed below.

ASSIGNMENT	GRADE VALUE	DUE
SIMBIO 1: PREDATION, HERBIVORY & PARASITISM	2.5%	Friday, January 16
SIMBIO 2: COMPETITION	2.5%	Friday, January 30

Multivariate Community Analysis

This assignment gives you the opportunity to use multivariate statistical analysis to understand how species interact with one another and the environment. You will use the statistical computing language R to analyze an existing dataset, and write up your results in the format of a research article. No prior background in R is expected, but you should have a solid understanding of statistical analysis (i.e., have taken BIOL 2060). Expect this assignment to take significant time and effort.

Research Review Paper

This is an opportunity for you to do a deep dive on a topic of interest to you. You will develop a question related to some aspect of community ecology that can be evaluated using peer-reviewed scientific articles, use a search of the primary literature to answer your question, and write an essay presenting your findings.

Note: your question needs to be focused enough that you can answer it by reviewing 10-20 articles, and the answer should be something you don't know going into it. We will talk about how to ask a good question in lecture.

This assignment is broken down into pieces, and includes critical engagement with AI (i.e., ChatGPT) as a tool for (hopefully) enhancing your writing while maintaining academic integrity.

COMPONENT	GRADE VALUE	DUE
1. QUESTION & INITIAL BIBLIOGRAPHY	5%	Friday, February 13
2. CHAT GPT ASSIGNMENT	5%	Friday, March 6
3. FINAL ESSAY	15%	Friday, March 27

Course and University Policies

This course relies on your consistent attendance and participation in both lecture and tutorial. Lectures will be interactive, including structured activities, questions from me that you will be expected to discuss with a classmate, and opportunities to ask questions you have.

Attendance at tutorials is mandatory. You MUST attend on time and participate in the activities in order to get marks for your participation. See the Tutorial schedule on the eClass course page for schedule details and for details on Tutorial assignments and deadlines. **There are no Make-up tutorials.**

Tutorials will provide an opportunity for you to discuss topics in community ecology in a small-group setting, and give you practice presenting scientific research to your peers. Each week, you will read 1-2 peer-reviewed research articles, and come to tutorial ready to discuss them.

Each tutorial session after the first week will be led by a small group of students. Discussion leaders will prepare a short (~10min) presentation with slides that introduces the article(s) and provides relevant context (e.g., How does the article fit into what we've been discussing in lecture? Who are the researchers who wrote the article?). The point of the presentation is NOT to summarize the article, but to help deepen the class discussion. After the presentation, the remainder of class will be spent discussing the article(s). Discussion leaders will facilitate this, e.g., by providing question prompts. Everyone is expected to participate. I encourage discussion leaders to use creative approaches to encourage discussion. Examples will be provided in lecture and/or during the first week of tutorial.

Discussion leaders will need to meet with your TA (during tutorial or TA office hours) in advance to prepare to lead the class to go over your plan and confirm that you are prepared to lead the class.

You will sign up to lead tutorial during the first week of class. For more details, see eClass. Unfortunately, if a student misses their scheduled date, the tutorial cannot run effectively. Therefore, every student has a responsibility to present and facilitate discussions on their chosen date and no extensions should be granted. **If the student misses their discussion/presentation, they will receive a mark of 0 on the assignment.** Extensions on the presentation will only be granted if illness, injury or an emergency precludes you from presenting on the day of your choice.

Written Assignments: Students must submit assignments to Turnitin similarity check on e-Class.
Lateness Penalty: 10% of the mark of the assignment will be deducted for each day the assignment is late (weekend and holiday included) for maximum five days. Assignments submitted five calendar days beyond the due date will be assigned a grade of zero. **Deadlines are all firm**. Extensions on the assignments will only be granted if illness, injury or an emergency precludes you from completing the work. Students must inform the course instructors within 48 hours of an extenuating circumstance that prevents the submission of the assignment. Extensions will be granted at the discretion of the professor.

Midterm
Midterm will be in-person during the class time for 60 minutes (13:00-14:00pm). The midterm will consist of multiple choice, short-answer and problem-solving questions, focusing on understanding models and applying them to ecological communities, and analyzing data. More details will be provided in class and on eClass closer to the midterm date.

Missed Midterm Exam: There is NO makeup midterm. If you miss the midterm, the weight will be transferred to the final exam, no questions asked (no documentation will be required).

Final Exam: The final exam will be 120 minutes and will take place in person during the Final Exam period. Dates/times/rooms for final exams are scheduled and published by the Registrar's Office (RO); **instructors find out when exams are the same day as you**.

Missed Final Exam: If you miss the final exam, you will need to:

A. Submit a completed Deferred Standing Agreement (DSA) with appropriate documentation to my email (juzhang@yorku.ca) within 48 hours after the exam (including weekends and holidays), **AND** then
B. Petition your home faculty for deferred standing. Petitions to defer a final exam require an Attending Physician's Statement (this is not the same as a doctor's note) and must be submitted to the Office of the Registrar within 1 week of the missed final exam. It is up to the Petition Committee whether you will be allowed to write the deferred final exam; if you are approved to write the deferred final exam, the committee will set the deadline for writing it. The format of the make-up final exam can differ from the original final exam format. Denied petitions will result in a zero on the final exam.

Note: Holidays and pre-purchased air tickets, family plans, your friend's wedding, lack of preparation, or too many other tests/assignments are not acceptable excuses for missing a lab, an exam, an item of term work, or requesting an extension of time. Such requests will be denied.

If you are ill, please do not enter the exam room; once you have written an exam, your mark will stand regardless of the reason you may have once the exam is over.

This course is **IN PERSON** and it is expected that you will attend class and labs and arrange to catch up on anything you miss independently.

We will aim to **return marks two weeks following submission**. Emails requesting updates on marks or faster marking will not receive a response.

Requests for extra credit or extra assignments: To be fair and consistent regarding the entire class, individual grades are NOT negotiable. There are NO extra assignments for extra credit or to boost marks. Requests for this will not receive a response.

Students who feel that there are extenuating circumstances that may interfere with their ability to successfully complete the course requirements are encouraged to discuss the matter with the Course Director or Biology Department office (biology@yorku.ca) as soon as possible.

Use of Generative AI

AI, including large language models (LLMs) like ChatGPT, can be very useful for many tasks. However, there are significant ethical concerns around its use in an academic context, and it has the potential to really lead you astray.
In this course, the use of generative AI is not permitted, except for on the review paper. For the review paper, you will be given further instruction on productive use of ChatGPT, and you will be required to describe in detail how you used ChatGPT in writing your essay, including screenshots of all your interactions with ChatGPT.

Email Policy

Please use juzhang@yorku.ca to contact me, **not** eClass. In your email correspondence, please:

- **Emails are for administrative matters only. The best time to talk to me is after each class.**
- Use your yorku.ca email address (other addresses are likely to be filtered as spam/junk).
- Put a **relevant description** in the email **subject line**.
- **Include which course you are in (i.e. BIOL 3172)**; include your NAME and student number at the end of your email.

- **Consider booking an appointment**, rather than sending a long email if you have a concern/ question that will take a considerable amount of time to read or answer.
- **Please allow 2 business days (not including weekends) for a response.**
- **Questions about course topics?** Please post them in the eClass lecture forum or ask during class or in your lab sessions as many other students may have the same or similar question.
- **Please do not use eClass Messenger for contact as it is not used for this course.**

Regrading/Reappraisal Procedures

- For all re-grading requests, please submit your request via the reappraisal form on eClass course page within 1 week of reviewing your grade. We will strive to review all re-grading requests within 2 weeks.
- Requests not based on academic grounds** or beyond the 2-week limit will not receive a regrade or response.

****Academic grounds** means that you make an academic argument for why your answer is correct. That is, it should show why you believe your answer was correct and be well communicated. Statements such as 'this mark doesn't reflect how hard I studied' or 'I need a higher mark' or 'the grading was not fair' do not have academic merit and will not receive responses. If a written rationale is not included, requests for remarking will not be considered, nor will they receive a reply. In your rationale, your answer must have merit on its own; you cannot compare you answers to other students' answers. Regrades take some time, typically around 1 week.

Please note that individual grades are not negotiable. There are no extra credit assignments. Individual grades are not 'bumped' and course grades are not 'curved' (i.e., adjusted).

Copyright and Intellectual Property

All BIOL 3172 course material is copyrighted, including images, recordings, questions, and other materials (*e.g.,* slides). **Copying this material for distribution *(e.g.,* uploading material to a commercial third-party website) is a violation of copyright law and may lead to a charge of misconduct under** York's Code of Student Rights and Responsibilities and the Senate Policy on Academic Honesty and/or legal consequences if copyright law has been violated. **You do NOT have the right to post course materials anywhere or share them with anyone outside of this course.** Lecture and lab materials for SC/BIOL 3172 3.0 designed by instructors are the intellectual property of the Instructors. They cannot be distributed without explicit written permission. Third-party copyrighted materials (*e.g.,* book chapters, articles) have been licensed either for use in this course or fall under and exception or limitation in Canadian copyright law or permission for their use in this course has been obtained from the copyright holder. Please be respectful and do not share any conversations, recordings, etc., outside of this course.

University Policies

Important Dates

Drop Deadline: March 9 (last day to drop without course on transcript)
NOTE: for additional important dates such as holidays, refer to the "Important Dates" section of the Registrar's Website at: https://registrar.yorku.ca/enrol/dates/2025-2026/fall-winter

Grading Scheme

In accordance with the York University Undergraduate Calendar Regulations, the letter grades assigned in undergraduate courses at York conform to the descriptions and grade ranges shown here: https://calendars.students.yorku.ca/2025-2026/grades-and-grading-schemes

Academic Honesty and Integrity

Academic misconduct undermines the values of honesty, trust, respect, fairness, and responsibility that we expect in this class. York University provides supports such as academic integrity workshops to ensure that all students understand the norms and standards of academic integrity that we expect you to uphold.

York students are required to maintain the highest standards of academic honesty and they are subject to the Senate Policy on Academic Honesty (http://secretariat-policies.info.yorku.ca/policies/academic-honesty-senate-policy-on/). The Policy affirms the responsibility of faculty members to foster acceptable standards of academic conduct and of the student to abide by such standards. Please review and familiarize yourself with the policy.

There is also an academic integrity website with comprehensive information about academic honesty and how to find resources at York to help improve your research and writing skills, and cope with University life. Students are expected to review the materials on the Academic Integrity website:

Examples of actions that do not adhere to York's Academic Integrity Policy include:

- Plagiarism (passing off someone else's work as your own)
- Accessing unauthorized sites for assignments or tests
- Unauthorized collaboration on assignment and exams
- Uploading work to third party repository sites (e.g., Course Hero, One Class, etc.)
- Scanning, sharing, uploading, or publishing exams, tests, or scholarly work

For more information on what academic integrity is and why it is important see: https://spark.library.yorku.ca/academic-integrity-what-is-academic-integrity/. Information on the process of investigations into breaches of academic honesty: https://spark.library.yorku.ca/academic-integrity-breach-of-policy-on-academic-honesty/

Important Note from the Faculty of Science Committee on Examinations & Academic Standards (CEAS): Numerous students in Faculty of Science courses have been charged with academic misconduct when materials they uploaded to third party repository sites (e.g., Course Hero, One Class, etc.) were taken and used by unknown students in later offerings of the course. Whenever a student submits work obtained through an external site (e.g., Course Hero, Chegg), the **submitting student will be charged with plagiarism** and the **uploading student will be charged with aiding and abetting**. To avoid this risk, students are urged not to upload their work to these sites.

Assistance for Students (Academic and Well-Being)

Academic Advising*: https://www.yorku.ca/science/academic-advising/ * Departments also offer program-specific advising. Check with your Department's Undergraduate Office.
Centre for Human Rights, Equity, and Inclusion: https://www.yorku.ca/services/rights/
Centre for Indigenous Students Services: https://aboriginal.info.yorku.ca/
Food Access, Funding, & Supports/Resources: https://students.yorku.ca/food
Good2Talk 24-hour Ontario Student Helpline: 1-866-925-5454 /Text: GOOD2TALKON to 686868

Keep.meSAFE: https://myssp.app/keepmesafe/ca/home
Learning Skills Resources: https://www.yorku.ca/scld/learning-skills/
Peer Assisted Study Sessions (PASS): https://www.yorku.ca/colleges/bethune/get-help/pass/
Sexual Violence Response and Support: https://thecentre.yorku.ca
Support Services for International Students: https://yorkinternational.yorku.ca/international-student-support/
Writing Services: https://www.yorku.ca/colleges/bethune/get-help/writing/
York University Student Services: https://family.yorku.ca/student-services/#SCD
York University Student Well-being Resources: https://www.yorku.ca/well-being/resources/students/

Accessibility

York University is committed to principles of respect, inclusion, and equality of all persons with accessibility needs across campus. The University provides services for students with accessibility needs (including physical, medical, learning, and psychiatric needs) needing accommodation related to teaching and evaluation methods/materials. These services are made available to students in all Faculties and programs at York University.
If you are in need of these services, please register with accessibility services as early as possible to ensure that appropriate academic accommodation can be provided with advance notice. You are encouraged to schedule a time early in the term to meet with each professor to discuss your accommodation needs. Please note that registering with accessibility services and discussing your needs with your professors is necessary to avoid any impediment to receiving the necessary academic accommodations to meet your needs. Additional information is available at the following websites:
Student Accessibility Services: https://accessibility.students.yorku.ca
York Accessibility Hub: http://accessibilityhub.info.yorku.ca/

Religious Observance Accommodation

York University is committed to respecting the religious beliefs and practices of all members of the community and making accommodations for observances of special significance to adherents. Should any of the dates specified in this syllabus for an in-class test or examination pose such a conflict for you, contact the Course Director within the first three weeks of class. Similarly, should an assignment to be completed in a lab, practicum placement, workshop, etc., scheduled later in the term pose such a conflict, contact the Course Director immediately. To arrange an alternative date or time for an examination scheduled in the formal examination periods (December and April/May), students must complete and submit an accommodation request form at least 3 weeks before the exam period begins. https://secure.students.yorku.ca/pdf/religious-accommodation-agreement-final-examinations.pdf

Student and Instructor Conduct in Academic Situations

Students and instructors are expected to maintain a professional relationship characterized by courtesy and mutual respect. Moreover, it is the responsibility of the instructor to maintain an appropriate academic atmosphere in the classroom and other academic settings, and the responsibility of the student to cooperate in that endeavour. Further, the instructor is the best person to decide, in the first instance, whether such an atmosphere is present in the class. The policy and procedures governing disruptive and/or harassing behaviour by students in academic situations is available at http://secretariat-policies.info.yorku.ca/policies/disruptive-andor-harassing-behaviour-in-academic-situations-senate-policy/.

University rules regarding registration, withdrawal, appealing marks, and most anything else you might need to know can be found on the university's website, here:
https://calendars.students.yorku.ca/policies-and-regulations

Tentative Course Schedule

Note: Lecture and tutorial topics subject to change!

Week of	Lecture topic	Tutorial	Assessments (Due MIDNIGHT FRIDAY unless otherwise noted)
January 5	Course intro; Niches & trophic interactions	*No tutorial*	Tutorial sign-up
January 12	Predator-prey dynamics	Tutorial 1: *TBA*	SimBio 1
January 19	Parasitism & disease	Tutorial 2: *TBA*	
January 26	Competition I	Tutorial 3: *TBA*	SimBio 2
February 2	Competition II; Developing a research question	Tutorial 4: *TBA*	
February 9	Midterm Exam: Monday, Feb 9 Mutualism I; Using ChatGPT	Tutorial 5: *TBA*	Review: Question & bibliography
February 16	***READING WEEK***		
February 23	Mutualism II	Tutorial 6: *TBA*	Review: ChatGPT
March 2	Ecological networks	Tutorial 7: *TBA*	
March 19	Multivariate community analysis	Tutorial 8: *TBA*	Multivariate analysis
March 16	Community assembly: niche vs. neutral	Tutorial 9: *TBA*	
March 23	Diversity-ecosystem function	*No tutorial*	Research paper
March 30	Diversity patterns; Global change	*No tutorial*	
Finals Period	Final Exam (Date TBA, scheduled by the registrar's office); 2 hours, Accumulative		

I wish you great success in BIOL 3172!
If you need any help, please do not hesitate to contact your Instructor or your TA, depending on your question.