

Department of Biology Course Outline

Winter 2025 SC/BIOL 2010 4.0 Plant Biology

Course Instructor: Dr. Junyan Zhang



How to address me: Professor Zhang

Personal Pronouns: (she/her/hers)

Course Email: plantbio@yorku.ca

Email: juzhang@yorku.ca

Laboratory Coordinator: Ivan Monsalvo-Montiel, PhD candidate

Email: plantbio@yorku.ca, Office hours by appointment

Note: If you have a 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 visit me during student hours (via Zoom).

Student Hours: Thursday 3:00–4:00pm

Zoom link (one for all)

<https://yorku.zoom.us/j/97152109874>

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

Study Spaces on Campus:

<https://currentstudents.yorku.ca/study-spaces>

Class Time: MWF, 10:30–11:20am

Class Location: ACW 109

[Click here for visual directions](#)

Laboratory Time: MTWR 10:00, 14:30 or 18:30

Laboratory Location: LUM 118

[Click here for visual directions](#)

Course Format:

BIOL 2010 is an interactive in-person course. Classes will have activities (clicker questions, weekly quizzes, discussion forum, etc). We understand that you might not be able to make it to every class and have accounted for this in the course assessment.

This course is offered in person. I plan to record in-class lectures for your convenience, however, this is entirely contingent upon whether Zoom and other classroom technology systems end up working. Lecture recordings pick up sounds in the classroom and thus your voice may be recorded.

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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 BIOL 2010!

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	<ul style="list-style-type: none"> Honestly demonstrate our knowledge and abilities on assignments and exams Communicate openly without using deception, including citing appropriate sources 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Speak openly with one another, while respecting diverse viewpoints and perspectives Provide sufficient space for others to voice their ideas 	<ul style="list-style-type: none"> Respect your perspectives even while we challenge you to think more deeply and critically Help facilitate respectful exchange of ideas
Fairness	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Create fair assignments and exams, and grade them in a fair, and timely manner Treat all students equitably
Trust	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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

Current advances in plant biology research, highlighting plant structure, physiology, development and diversity. Prerequisites: SC/BIOL 1000 3.00 and SC/BIOL 1001 3.00 or SC/ISCI 1110 6.00 or both SC/ISCI 1101 3.00 and SC/ISCI 1102 3.00

Overview

This course introduces you to botany. The lectures present information about prokaryotes, algae, fungi and plants, including their evolution, ecology, diversity, physiology, life cycles and their relevance to human society. The laboratories are integrated with lectures, and illustrate the biological diversity of algae, nonvascular, and vascular plants, and highlight key aspects of plant biology.

Course Structure & Organization

This course has formal lectures given by the course director and weekly laboratories, run by teaching assistants. The textbook and lectures are crucial, and evaluation on this component is worth 60% of the final grade.

Most of the materials presented in laboratory exercises focus on developing observational skills of the gross form and structure of plants and other organisms, and also microscopic form and structure, and some molecular analyses. We learn to identify material using keys, including those for identifying microscopic algae and multicellular conifers. We also do experiments and some laboratory write-ups that require statistical analysis. The lecture and laboratory components are integrated, and aim to be relatively synchronous.

The final grade is a combination of lecture and laboratory tests and written assignments.

Learning Objectives

Please note that the syllabus and lecture material will be posted on the course website (eClass) provides a detailed and practical presentation of the Learning Objectives.

Some specific learning objectives of the course:

Students will learn to:






1. differentiate amongst the diversity of major organismal groups, including their characteristics (general appearance) and life cycles.
2. understand the key evolutionary transitions from photosynthetic prokaryotes (cyanobacteria) to protist eukaryotes (unicellular algae) to multicellular complexity (algae, fungi and land plants), and appreciate the remarkable depth and breadth of four billion years of evolution.
3. develop and hone your observational skills.
4. develop the flexibility required to apply and integrate fundamental principles and mechanisms in the evolution of diverse organisms —both form and function.
5. become comfortable and familiar with the scientific language used to describe organismal diversity and the physiological basis of the life cycle of a flowering plant.
6. develop your ability to independently analyze organismal diversity and the life of a flowering plant.

Learning Materials

Evert RF and SE Eichorn, 2013. **Raven Biology of Plants**. 8th Edition. ISBN: 9781429219617. Achieve for Biology of Plants, Eighth Edition (1-Term Access) \$94.90. Paperback from \$70.00 at the [Publisher website](#) (Achieve is not required for the course).

Bazely, Lew and others, 2023. **Laboratory Manual for SC/BIOL 2010 4.0 Plant Biology**. This is provided on eClass as PDF files, electronically at zero cost. The laboratory manual provides explanations of each of the lab exercises, diagrammatic representations of diverse life cycles and identification keys for major groups.

Technology Checklist

 <p>An internet-enabled device to access eClass</p>	 <p>Zoom (or similar) software for Q&A</p>	 <p>Webcam for Q&A</p>	 <p>Microphone for Q&A</p>	 <p>iClicker for in-class activities (free; use your YorkU email)</p>
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Assessment

COMPONENT	GRADE VALUE
PRE-CLASS PREPARATION QUIZZES	5% (best 8 of 10)
ACTIVITIES	5% (best 75%)
MIDTERM TEST	15% (Feb 10, in class)
FINAL EXAM	35%
LABS (detailed breakdown is provided in the lab manual)	40%

Online pre-class preparation quizzes (5%): based on the material (readings and/or pre-recorded lectures) to complete prior to class, although some review or reflection questions may be included. Most questions are multiple choice and **are marked for correctness** (some exceptions may apply) and you will have two attempts at each quiz.

The best 8 of 10 quizzes will be used to calculate your total Pre-class Prep Quiz mark. This accounts for missed quizzes for any reason (including missing the deadline, technological/internet problems, illness, late registration to the course, etc.) and means that **additional exemptions/extensions will not be granted**. Although the time in which to complete a quiz is limited, in keeping with UDL principles the time limit for quizzes already includes, at minimum, an additional 100% time on top of the longest time normally needed to complete the quizzes and as such self-accommodation is possible. Because quizzes ensure that you are prepared for the coming week's activities, **they cannot**

be submitted late. If you are completing a quiz when the deadline passes you will not earn any marks for that quiz. Similarly, late quizzes will not receive any marks. Please see your eClass page for dates.

Activities (5%) may include short answer questions, reflection questions, etc. on weekly basis. It will be online and completed outside of class time. Items in the activities category are graded for reasonable participation/completion; you must make a reasonable effort at answering all questions and for collaborative submissions you must have made substantial contributions. No points may be awarded if little effort was made (e.g., missing answers to some questions).

During class we'll apply the knowledge gained from pre-class readings/videos, practice problem solving and address questions, which is an opportunity for you to interact with your instructor and peers and get timely feedback on your understanding of the course material. To maintain the evidence-based benefits of interaction and active learning, **class attendance is strongly encouraged.**

We will use *iClicker* for in-class questions. ***iClicker* activities are not count for grades.** There would be occasions that you miss in-class activities or due to technical issues your *iClicker* shows absence, it will NOT affect your grade.

Midterm test (15%) will be in-person during the class time. The test will focus on lecture materials and consist of multiple choice questions.

Marks will be posted in eClass gradebook within one week after the test and are non-negotiable. Your midterm will NOT be handed back to you, but **you will have opportunities to review your midterm.** These dates will be posted in eClass and will be time sensitive.

Note: Once you have written an exam, your mark will stand regardless of the reason you may have.

Missed midterm test: 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 (35%) covers the entire term's material, though emphasis is placed on the lectures post to midterm exam. The final exam will be 2 hours (120 minutes) long and consist of multiple choice and short answer questions. 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.**

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.

If you miss the Final Exam, you will need to:

- a. Email us at plantbio@yorku.ca within two (2 days) of the final exam with completed APS and DSA forms. **Per university policy, students must provide an Attending Physician's Statement (APS) to support a request for deferred standing.** Students can obtain both the APS and the DSA at the Deferred Standing information [website](#).
- b. Petition your home faculty for deferred standing. It is the Petition Committee's decision whether deferred standing is granted; if it is, the committee will set the deadline for writing the deferred final exam. 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 plane tickets, family plans, your friend's wedding, lack of preparation, or too many other tests/assignments are not acceptable excuses for missing an

assessment, an exam, an item of term work, or requesting an extension of time. Such requests will be denied.

Laboratory exercises (40%), includes write-ups and lab quizzes. See your lab manual introduction for a detailed breakdown of the laboratories. If you are unable to attend a lab, or if you cannot submit a report on time, you must notify the lab coordinator, Ivan Monsalvo-Montiel (plantbio@yorku.ca), before the lab if possible, or within 24 hours of the lab or due date if not.

Assignment Submission: Proper academic performance depends on students doing their work not only well, but on time. Accordingly, lab assignments for this course must be received on the due date specified for the assignment. Assignments are to be handed in to the TA for your laboratory section per their instructions.

Lateness Penalty: Written assignments received later than the due date will incur a 10% penalty per day (including weekends) for five days; after this time the grade will be zero. Students needing special accommodations on assignment deadlines, please inform your TA and the lab coordinator, Ivan Monsalvo-Montiel (plantbio@yorku.ca) prior to the due date for accommodation requests.

As well, in designing BIOL 2010, we have adhered to the principles of UDL that address many accommodations and allow for self-accommodation. There is built-in flexibility to accommodate different circumstances for almost all course elements—including illness, accidentally missing a deadline (some exceptions apply), technical difficulties, late course registration, etc. — to give everyone a chance to complete the course successfully. For example, best 8 out of 10 pre-class preparation quizzes, and best 75% of weekly activities, allow you to miss the occasional assessment without penalty. As such **there should be no need for additional exceptions (including for illness) and for that reason, modifications to the grading scheme will not be considered.** Although this course is designed to allow for self-accommodation, you may have accommodations other than this; please bring these to our attention.

Repeating the course? Even if you have taken this course previously, you **MUST** complete the labs again and from scratch. You cannot submit a lab report that you have submitted previously, you must write a new one. Failing to do so constitutes a breach of academic integrity and will be escalated. For all inquiries about labs, please email plantbio@yorku.ca.

Please ensure that your Instructor Dr. Junyan Zhang (juzhang@yorku.ca) and the lab coordinator, Ivan Monsalvo-Montiel (plantbio@yorku.ca) are aware of any [religious observance conflicts](#) at least two weeks in advance of the conflict.

Use of ChatGPT/Generative AI

The use of generative artificial intelligence tools or apps for assignments in this course, including tools like ChatGPT, Gemini, Claude, Microsoft Copilot and other AI writing or coding assistants, is prohibited. Representing as one's own an idea, or expression of an idea, that was AI-generated is considered an academic offense in this course. This course policy is designed to promote your learning and intellectual development and to help you reach the course learning outcomes.

Email Policy

Please use email to contact the teaching team, **not** eClass. In your email correspondence, please:

- 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 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 as many other students may have the same or similar question.

Regrading Procedures

To be fair and consistent with the entire class, individual grades are **NOT** negotiable and individual 'extra credit' assignments are not available during or after the course. Contact your instructor about marks **ONLY** if there is a clear error in your mark (calculation, clerical, etc.). You will not receive a response regarding any other mark-related queries.

If you think a written answer was marked incorrectly, please follow the procedures below. Please note that re-marking can result in the mark being raised, confirmed, or lowered and the grade from a remark/reappraisal is final.

- You must complete the reappraisal form available on eClass detailing your rationale (based on academic grounds**) within 1 week of viewing your test.
- Please avoid inflammatory language in your rationale. We are humans and make mistakes just like everyone else.
- **Emails about regrades will not receive a response.** Please use the procedure outlined above.
- Requests not based on academic grounds** or beyond the 1-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 your answers to other students' answers. Regrades take some time, typically around 1 week.

Please note that individual grades are not negotiable. This course has a flexible marking scheme with buffer built into it and takes considerable effort to administer, hence 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 2010 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 designed for SC/BIOL 1001 3.0 designed by instructors are the intellectual property of the instructor. 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 an 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 14 (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/2024-2025/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/2023-2024/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://rights.info.yorku.ca>

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 Commons (general academic learning supports including library research, time management, study skills, career planning, etc.): <https://learningcommons.yorku.ca/>

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>

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>

Course Overview

Schedule subject to change; see eClass for topic schedule.

Monday	Tuesday	Wednesday	Thursday	Friday
January				
Classes start 6 Introduction	7	8 Origin of Life	9	10 Origin of Life
13 How do plant affect the Earth?	14	15 Review, Metabolites Photosynthesis	16	17 Review, Metabolites Photosynthesis
20 Review, Metabolites Photosynthesis	21	22 Review, Metabolites Photosynthesis	23	24 Review, Metabolites Photosynthesis
27 Review, Metabolites Photosynthesis	28	29 Systematics	30	31 Systematics
February				
3 Systematics	4	5 Evolution	6	7 Evolution
10 Midterm Test	11	12 Evolution	13	14 Evolution
17 Reading Week	18	19	20	21
24 Bryophytes	25	26 Vascular Plants	27	28 Angiosperms
March				
3 Angiosperms	4	5 Plant growth and development	6	7 Plant growth and development
10 Plant growth and development	11	12 The challenge of being a plant	13	14 Drop deadline The challenge of being a plant
17 Soil and nutrition	18	19 Water movement	20	21 Water movement
24 The rise of agriculture	25	26 Plant biotech & genomic	27	28 Plant biotech & genomic
April				
31 Global change and plants	1	2 Global change and plants	3	4 Classes end Course wrap up
7	Exam 8	9	10	11
14	15	16	17	18
21	22	23	24	25
Final exam period: April 8-25				