BIOL 1544-201 General Botany  
Spring 2012 (CRN 20890) | MWF 11:00-11:50 a.m. | DB 101

Instructor  
Dr. Elizabeth Machunis-Masuoka, Ph.D., M.A.  
Email: elizabeth.masuoka@mwsu.edu  
Office: Bolin 306  
Office Hours: MWF 12:00-2:00pm, by appointment, or you may send questions via email.

Purpose of the Syllabus  
The purpose of this document is to apprise you of course expectations, policies, and content. It is your responsibility to read the syllabus and adhere to its requirements. The syllabus is a contract and, like all contracts, breaking it comes with penalties. Ignorance of course policies because you did not read your syllabus will not be an acceptable excuse for breaking the contract.

Purpose of the Course  
Botany is the study of plant biology, which means everything from how plant cells function, to how plants are structured, to how they form an integral part of the biosphere. Ecology, evolution, adaptation, and conservation will be stressed. While this course will be taught at the introductory level, you will still be exposed to key biological and chemical concepts. If you find yourself having trouble, you should come to me for help before it is too late to improve your grade.

Required Textbooks  

As a general note, you may buy a new or used lecture textbook, rent the textbook, or share textbooks to decrease book costs. However, I will expect you to have read all of the assigned readings and if you skip the book entirely you will not do well in the course. I do not have extra copies of books to loan, so please don’t ask. **Lab textbooks must be purchased new only.**

Attendance Policies  
Lecture attendance is strongly recommended. Class will begin promptly at 11:00am and you must be in your seat, ready to begin. A seating chart will be made and attendance will be taken on a regular, if not daily, basis. If you are not in your seat by 11:00am, you will be counted absent even if you show up late. If you leave class early without prior permission, you will also be counted absent. I will cover material in lecture that is not in your textbook so it is in your best interest to come. Students with poor attendance generally receive poor grades.

As General Botany is a laboratory science, **lab attendance is required.** Excused lab absences must be for dire situations or because of university sanctioned events and you must notify your TA immediately (within 48 hours) of the absence in order to be eligible for make-ups, if make-ups are available. It is your responsibility to contact your TA. Excused absences must be accompanied by written verification of the reason for the absence. If you fail to meet these
requirements, the absence will be declared un-excused. Students with THREE or more un-excused lab absences will fail the lab portion of the course.

All members of in-season sports teams or other campus organizations who will be missing class because of university sanctioned events MUST present to me a written statement on university letterhead and signed by a university official indicating those dates that will be missed because of travel or participation in the university event. Athletics documentation must be presented to me within the first 2 weeks of the beginning of the semester. Other documentation (such as for theater, etc.) must be presented to me at least one week prior to the time that will be missed.

**Course Policies**
Out of general courtesy for both your fellow classmates and the instructor, please observe the following course policies:

1) **Do not** walk through the classroom after the class has begun
2) **Do not** get up and leave the classroom before the end of class unless you are ill
3) **Do not** talk during lectures or exams except to ask questions of the instructor
4) **Do not** engage in disruptive or disrespectful behavior
5) **Do not** cheat on exams or assignments (see Student Handbook)
6) **Do not** play games on your electronic devices
7) **Do not** do homework for other classes
8) **Do not** read books, newspapers, sleep, listen to music, etc.
9) **Do not** play on your social media sites, etc.

Disruptive students will be given one verbal warning to improve their behavior. Second offenders will be asked to leave the classroom and will be referred to the Dean of Students. Abusive students will be dismissed from the class permanently. The instructor reserves the right to amend these rules as necessary throughout the term.

**Policy on Electronic Devices [READ THIS TWICE]**
Turn off or silence (note: vibrate is not the same as silent) all cell phones, pagers, and other electronic devices that make noise or have the potential to disrupt the class before you walk into class. Class should never be disrupted because of someone’s cell phone going off. NO cell phones are permitted to be out and/or in my (or your) sight in this class. If you want to use your phone to record the lecture, it must be placed at the front of the room. Laptops may only be used to take notes. If your phone is out and/or in sight, you will be asked to put it away and you will lose 2 points off of your final grade for each offense. If you are caught doing anything other than taking notes on your laptop, you will be asked to turn your laptop off and you will lose 2 points off of your final grade for each offense. Should your phone ring/vibrate during class, or your laptop sound incoming mail, etc., you are dismissed for the day. You are to silence your device immediately and quietly leave. You will be counted absent for the day. Continued abuse of the electronics policy will result in referral to the Dean of Students.

**University Policies**
Students with disabilities are required to register with Disability Support Services (DSS) before classroom accommodations can be provided. The instructor then needs to be notified by the student of the nature of these accommodations. This notification will take the form of an official letter obtained from DSS by the student and given to the instructor. Every effort should be made
to provide me with this documentation within the first 2 weeks of the semester to avoid losing accommodations because you failed to provide proper notification in a timely manner. It is always the responsibility of the student to arrange accommodations with DSS. Students with disabilities must still take their exams on the same day as the rest of the class.

For university **standards of conduct** please refer to the MSU Student Handbook. In general, students are to attend all meetings of all classes; instructors may drop students for excessive absences, indifference, disruptive behavior, or failure to meet class assignments; students are prohibited from cheating, plagiarizing, or colluding. The Student Handbook is also a contract, and it really is expected that you have actually read the document.

**Lecture Exams**

Dates for the lecture exams are listed on the Lecture Schedule and will **NOT** be moved. **There will be no make-up exams given to any student for any reason.** However, if you have a legitimate, excusable reason for missing one of the midterm exams, a substitute score based on the portion of the comprehensive final corresponding to the missed exam will be used to replace the zero received. Students are **NOT** allowed to miss the final exam; failure to take the final exam results in a failing grade for the course.

**Excusable** reasons for missing an exam include the following:
1. Extreme and verifiable illness (colds don’t count and you must have a doctor’s note)
2. Accident or injury (must present verification, e.g., tow slip)
3. MSU sanctioned event (you must be active participant, not support staff)
4. Extreme family emergency (e.g. funeral the day of the exam; must show proof)

In all cases, students MUST notify me, the instructor, **PRIOR** to the start of the exam to receive consideration for an excused absence. If you are physically unable to notify me, then have a friend or family member notify me. **Notifying me after the fact will result in an unexcused absence and a zero for the exam.**

**Inexcusable** reasons for missing an exam include the following:
1. Scheduling doctor/dentist, therapy or other appointments for the day/time of the exam  
   (Possible exception: court dates)
2. Failure to show up (missed bus, forgot, slept in, etc.)
3. Weather (if the MSU campus is open, you need to be here)  
   (Possible exception: travel distance over an hour in length)
4. Congested exam schedule or overlapping classes
5. Failure to obtain babysitter or caregiver
6. Work schedule conflict

In general, none of these excuses will be accepted for missed exams as all of them stem from a lack of responsibility on the part of the student to maintain control over their own schedules. You know exactly when your exams are scheduled and you should make every effort to take them.

Absolutely no electronic devices of any kind may be used during exams. All exams are closed book and will be monitored for cheating. If you are caught doing anything suspicious, your exam will be taken away from you and you will receive an automatic zero for the exam.
Extra Credit
There isn’t any extra credit, so don’t ask for it. You must work for the grade you want from the first day of the semester.

Final Grade Assessment
Final grades will be calculated as follows:

- Lecture portion of the course: 75% of final grade (450 points)
- Lab portion of the course: 25% of final grade (normalized to 150 points)
  100% (600 points)

Lecture points are distributed as follows:

- Exam #1: 100 points
- Exam #2: 100 points
- Writing Assignment: 50 points
- Comprehensive Final: 200 points

Grade ranges: A (90% or higher); B (80-89.9%); C (70-79.9%); D (60-69.9%); F (59.9% or less).
Thus, if you want to get an A in the course, you need to achieve a minimum of 540 combined points out of the total 600 possible.

Instructor’s Expectations of the Student
1. The instructor expects all students to try.
2. The laboratory portion of the course provides a nice base of points to work with, but the majority of your grade comes from the lecture exams and so you MUST do well on the exams to do well in the course.
3. You are strongly encouraged to work for the final grade you want in the course starting on the first day of class.
4. You should read the chapters before coming to class, take good notes, and begin studying for exams well in advance of the exam day. Reading is critical – time does not allow a full exposition of all material during lecture so students must keep up with the reading and take the time to study the book chapters on their own outside of class.
5. As a rule, for every 1 hour you spend in class you should be spending 3 hours outside of class studying for it.
6. If you truly wait until the day before to “cram” for an exam, you should not expect to do well. This is especially true of the final – a comprehensive exam is different from a midterm and must be studied for well in advance.
7. I can help you, but only if you help yourself as well. If you do not come to class, take notes, read, and study every day, then there is nothing that can be done at the end of the semester to “fix” your grade.
Semester Writing Assignment
One of the most important things you should learn in life is how to think critically, analyze a problem and come up with a rational solution. The purpose of the writing assignment is to get you to think about a problem in plant biology, form an opinion, and then communicate that opinion clearly in writing. External research is not required for this assignment.

MECHANICS: Essays are to be limited to one side of one page, typed in 12-point Times New Roman, 1-inch margins, double-spaced. Include your name in the upper right hand corner and a descriptive title (not just “essay”). Both content and grammar will be graded and poorly written essays will receive failing grades no matter how good your ideas are. Essays should contain only your own words – do not quote or paraphrase the work of others.

READING ASSIGNMENT: Read pages 256-257 on transgenic plants in your lecture text. You will most likely need to skim the rest of Chapter 14 to familiarize yourself with how transgenic plants are made and why. We will not cover this chapter in any depth, so if there is more you need to know you will need to talk to me about it or look it up on your own.

ESSAY QUESTION: Given the pros and cons of transgenic plants, do you believe that transgenic plants should or should not be used on a large scale to combat the growing problems of starvation, not only in the third world, but also in America?

ESSAY FORMAT: Your essay needs to be composed of three well-written paragraphs as indicated here. Paragraph 1 is the introduction and should contain: 1) a statement of what a transgenic plant is; 2) a statement explaining why many scientists want to use transgenic plants (what can they do that non-transgenic plants cannot); and 3) a thesis statement that provides your answer to the essay question. Paragraph 2 is the body of the essay and should contain three reasons supporting your thesis statement. State each reason and explain why that reason matters to your thesis. Make sure your reasons actually support your thesis! Paragraph 3 is a conclusion where you summarize your reasons, restate your thesis, and link the reasons to the thesis to show why you are right. Then, whether you support or don’t support transgenic plants, I want each of you to suggest one other plant-based alternative to combating starvation. NOTE: your alternative must be based on plants and their biology – you are not allowed to manipulate human population numbers, either directly or indirectly.

THIS IS YOUR ESSAY – I already know what I think so I don’t need you to tell me what I think. I want you to tell me what YOU think and why. There is no right or wrong answer to this assignment, there are only well written arguments and poorly written ones.

The content of your essay must be limited to scientific arguments only. All other arguments (religion, philosophy, etc.) are to be excluded from your essays.

DUE DATE: WEDNESDAY, MARCH 21, 2012. No late essays will be accepted from anyone for any reason. This due date is non-negotiable. Essays are due before I start lecturing – as soon as I start talking the essay is late and will not be accepted.
### Lecture and Exam Schedule

<table>
<thead>
<tr>
<th>DAY</th>
<th>TOPIC</th>
<th>READ</th>
<th>DAY</th>
<th>TOPIC</th>
<th>READ</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/16 M</td>
<td>MLK HOLIDAY – NO CLASS</td>
<td></td>
<td>3/12 M</td>
<td>SPRING BREAK</td>
<td></td>
</tr>
<tr>
<td>1/18</td>
<td>Introduction</td>
<td>Cp. 1, 14</td>
<td>3/14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/20</td>
<td>General Chemistry</td>
<td>Cp. 2</td>
<td>3/16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/23 M</td>
<td>Cell Structure</td>
<td>Cp. 3</td>
<td>3/19 M</td>
<td>Evolution</td>
<td>Cp. 15</td>
</tr>
<tr>
<td>1/25</td>
<td>Plant Tissues</td>
<td>Cp. 4</td>
<td>3/21</td>
<td>ESSAYS DUE</td>
<td></td>
</tr>
<tr>
<td>1/27</td>
<td>Roots, Stems, Leaves</td>
<td>Cp. 5, 6, 7</td>
<td>3/23</td>
<td>Ecology</td>
<td>Cp. 25, 26</td>
</tr>
<tr>
<td>1/30 M</td>
<td></td>
<td></td>
<td>3/26 M</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2/1</td>
<td></td>
<td></td>
<td>3/28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2/3</td>
<td>3/30 EXAM 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2/6 M</td>
<td></td>
<td></td>
<td>4/2 M</td>
<td>Classification</td>
<td>Cp. 16</td>
</tr>
<tr>
<td>2/8</td>
<td>Flowers, Fruits, Seeds</td>
<td>Cp. 8</td>
<td>4/4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2/10</td>
<td></td>
<td></td>
<td>4/6</td>
<td>EASTER BREAK – NO CLASS</td>
<td></td>
</tr>
<tr>
<td>2/13 M</td>
<td>Water</td>
<td>Cp. 9</td>
<td>4/9 M</td>
<td>Bryophytes</td>
<td>Cp. 20</td>
</tr>
<tr>
<td>2/15</td>
<td></td>
<td></td>
<td>4/11</td>
<td>Ferns</td>
<td>Cp. 21</td>
</tr>
<tr>
<td>2/17</td>
<td>EXAM 1</td>
<td></td>
<td>4/13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2/20 M</td>
<td>Plant Metabolism</td>
<td>Cp. 10</td>
<td>4/16 M</td>
<td>Seed Plants</td>
<td>Cp. 22, 23</td>
</tr>
<tr>
<td>2/22</td>
<td></td>
<td></td>
<td>4/18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2/24</td>
<td></td>
<td></td>
<td>4/20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2/27 M</td>
<td>Soils and Growth</td>
<td>Cp. 5, 9, 11</td>
<td>4/23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/2</td>
<td>Genetics</td>
<td>Cp. 12, 13</td>
<td>4/27</td>
<td>Plants that Heal</td>
<td>Ap. 3</td>
</tr>
<tr>
<td>3/5 M</td>
<td></td>
<td></td>
<td>4/30 M</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/7</td>
<td></td>
<td></td>
<td>5/2</td>
<td>Plants that Kill</td>
<td>Ap. 3</td>
</tr>
<tr>
<td>3/9</td>
<td></td>
<td></td>
<td>5/4</td>
<td>LAST DAY OF CLASS</td>
<td></td>
</tr>
</tbody>
</table>

**COMPREHENSIVE FINAL EXAM:**
Monday, May 7, 2012; 10:30am-12:30pm