“Introduction to Cultivated Plants” – Fall 2022
Crop/Hort Science 102 (3 credits)

Class Time and Location
MWF 11:10 – 12:00
Pullman – Spark Building G-45
Tri-Cities (via AMS) – wine science center -202
Everett – (via AMS) - TBA

Instructor
Carol Kawula
E-mail: carol.kawula@wsu.edu
Senior Instructor - Horticulture
Office: Clark Hall - Suite 205-211 (Pullman)
How to address me: Carol (my favorite) or Professor Kawula (Kah-woo-lah)

Teaching Assistants: office hours: by appointment
- Ty (Tymon Jamison) e-mail: Tymon.james@wsu.edu
- Amber (Amber Hauvermale) e-mail: ahauvermale@wsu.edu

Instructor Office Hours:
- office hours: Tuesdays from 1- 2:00 PM zoom (access through Canvas) or set up an appointment to meet in person.
  - We are here to help you learn, and we encourage you to ask questions early and often when the material or assignments are unclear.
- The best way to contact the instructor or TA’s is by email. Please include the course number in the email subject line. I check and respond to course emails every weekday (M-F) but not usually on the weekends.

Course Overview
Welcome to “Introduction to Cultivated Plants.” Most of you are here because you have an interest in plants. You may not know what you want to do with that interest, but after this semester, you should have a better understanding of the many plant-related career opportunities available to you.

The course introduces the principles of plant science with an emphasis on cultivated crops/plants of the Pacific Northwest. Topic areas include plant classification, plant anatomy and physiology, climatic influences on plants, plant metabolism, and the heredity of traits, crop breeding. You will also develop a paper or
presentation about a plant superpower of your choosing. The purpose of this project is to help you, as a science student, to develop writing skills that are crucial to becoming a successful scholar and/or scientist.

Throughout the semester, various faculty from the Crop and Soil Science, Horticulture, Plant Pathology, and other speakers will present lectures in their area of expertise. This exposes you to multiple perspectives in the diverse field of plant sciences while learning about the scientific and technological pursuit of crop production.

Students are encouraged to relate their ideas and experiences to their learning. The goal is for students to gain a better understanding of their academic major, 200- and 300-level courses they might wish to take, and their future careers. Classes will be mostly lecture-based, with time for discussion, collaborative learning, and small group work.

**Student Learning Outcomes:**

- Illustrate the diversity and importance of cultivated plants.
- Identify the anatomy and morphology of roots, stems, leaves, flowers, fruits, and seeds.
- Demonstrate knowledge of basic plant processes
- Classify cultivated species with taxonomical and scientific language.
- Identify and explain abiotic and biotic influences on plant growth.
- Compare and contrast the processes of plant growth for multiple species.
- Describe the production systems and related issues for several cultivated plant groups.
- Write with academically appropriate syntax, grammar, terminology
- Practice self-directed inquiry using both primary and background sources
- Examine peer perspectives during group work
- Communicate effectively (both orally and in writing)

**Course Materials:**

  - Recommended for students planning to take 200- and 300-level Crop Science, Biology, and Horticulture courses. Lectures, readings, and class discussions will usually provide most of the examinable content.
- **Electronic Device to access Canvas during class** (computer, phone, etc) to take daily quizzes.

**Distance Learning – video conferencing – (Tri-cities and Everett campuses)**

- Lectures will be recorded live from the Pullman campus Spark building and video streamed to the Tri-Cities and Everett campuses.
- Class recordings will be available through CANVAS usually 3-4 hours after class
- We encourage Tri-cities and Everett students to:
  - participate in class discussions, do not raise your hand but speak loudly and say “question from tri-cities”
  - Let me know if you are having audio/visual problems or email one of the TA’s and we will try to help.
  - Sit together in the same arrangement each day: this way the cameras can focus in on one section, and we can see you.

“Canvas” - **Online Course Management system**

- The online course management system is accessed via Canvas at the website [Canvas website](#).
- If you see references to “Blackboard”; that was the prior system before CANVAS.
- Please check CANVAS frequently for:
  - Announcements
  - Grades
• daily quizzes and tests will be taken in Canvas
• Lecture power points, articles to read
• Lecture outlines (blank study sheets)
• Detailed assignment information
• Recordings of class lectures

**Class Organization:**

- Due to the constraints of a large classroom, most course material is presented in a power point format. Speakers make it their responsibility to make the presentations interesting by including different media, providing narrative, and encouraging student-student interaction. Your attention and focus are important to creating a successful classroom environment.

- **Lecture outlines** – Many presentations are organized in an outline form for you to take notes during class (if you choose). Important concepts and terms are listed in the order they are presented. These notes will help you review content and study for tests.

**Grading Breakdown:**

<table>
<thead>
<tr>
<th>Item</th>
<th>Points per item</th>
<th>Total points possible</th>
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<tbody>
<tr>
<td>Daily quizzes (33 total - drop 2 =31)</td>
<td>5</td>
<td>155</td>
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<tr>
<td>Tests (5)</td>
<td>75</td>
<td>375</td>
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<tr>
<td>Final Exam (cumulative)</td>
<td>75</td>
<td>75</td>
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<tr>
<td>Practicums (5 – test reviews)</td>
<td>30</td>
<td>150</td>
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<tr>
<td>Plant Superpower Project</td>
<td>200</td>
<td>200</td>
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<td></td>
<td></td>
<td><strong>955 (total points possible)</strong></td>
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<table>
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<tr>
<th>Grade</th>
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<tbody>
<tr>
<td>A = 93% +</td>
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<tr>
<td>B+ = 87-89%</td>
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<tr>
<td>C+ = 77-79%</td>
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<tr>
<td>D+ = 67-69%</td>
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<tr>
<td>F = below 60%</td>
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<tr>
<td>A- = 90-92%</td>
</tr>
<tr>
<td>B = 83-86%</td>
</tr>
<tr>
<td>C = 73-76%</td>
</tr>
<tr>
<td>D = 60-66%</td>
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<tr>
<td>B- = 80-82%</td>
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<tr>
<td>C- = 70-72%</td>
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• **Reading Assignments:**
  - Throughout the semester, you will have various reading assignments you will access in CANVAS. All reading assignments are “testable” information.

• **daily quizzes: (31 quizzes worth 5 pts each)**
  - Daily quizzes will be given each day on a previous presentation or something you were supposed to read. The time of the quiz will vary from day to day. You will access quizzes through Canvas with a password which will be given to you in class. If you are not in class, you cannot access the quiz. It will be important to queue up Canvas before class begins.
  - We encourage students to discuss the questions among yourselves before starting the quiz. Once you begin, you will have 4 minutes to answer three questions. Quizzes help students review past material.
  - If you forgot your electronic device (to access Canvas), you may use pen and paper (Tri-cities and Everett send an e-mail to one of the TA's during quizzing time).
  - Your lowest 2 quizzes will be dropped at the end of the semester.

• **Practicum Activities (5 practicums worth 30 pts each)**
  - Prior to online tests, we will devote a class period to review recent lecture material, answer student questions and prepare for tests.
  - Students will work in groups of 3 to complete a workbook assignment promoting higher-ordered comprehension of major themes, terms, and concepts presented in past lectures.
We design these practicums to develop critical thinking while developing interpersonal communication and peer collaboration skills.

- One person from each group turns in their groups assignment with all group member names (both first and last) and student ID numbers by 1:00pm that day in CANVAS.
- If you know ahead of time that you will have to miss class due to a WSU activity, please contact the instructor to make alternate plans.

- **Tests (5 tests worth 75 pts each, 1 final exam (test 6) – 75 pts)**
  - An online test will be given every 2 – 2.5 weeks of the semester through Canvas.
  - The tests will be available shortly after a review (practicum) period. All tests will open at 6:00 a.m. and close at 11:59pm on the assigned date. (Exception is test 6 (final test))
  - You will have 50 minutes to complete the tests. There are usually 22 questions/test. The tests are formatted as multiple-choice (1 answer), multiple answer (more than 1 answer), matching, ordering or true/false questions. These questions will assess student comprehension of major themes, terms, and concepts presented in lecture, readings, and discussion.
  - If you score higher on your final exam than one of your five tests, we will take your lowest test score and replace it with the score you receive on your final exam.
  - If you have technical difficulties, you must e-mail the instructor immediately.
  - You will take all tests alone without help from others. (Please see academic integrity policy below)
  - You may use your notes.

- **Plant Superpower Project - (200 points)**
  - This is a semester long writing and research project broken down into small pieces due throughout the semester
    - 14 Weekly Assignments will culminate into a final Plant Superpower Report
    - Weekly assignments are submitted in CANVAS
  - A more detailed set of guidelines and instructions for the Plant Superpower Assignment can be accessed on CANVAS

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**Course Policies**

**Instructor Policies**

- Please arrive on time for all class meetings. Students who habitually disturb the class by talking, arriving late, etc., and have been warned, may suffer a reduction in their final class grade
- Mobile phones, laptops etc. must be silenced during all classroom lectures. Those not heeding this rule will be asked to leave the classroom immediately to not disrupt the learning environment.
  - You may use a laptop or other electronic device only for note taking and quizzing.
  - Be respectful of your instructor, speakers, and fellow classmates by refraining from text messaging, online social media, games, etc. during class time. Such activities are a distraction to those around you and have no place in a lecture classroom.
- Be respectful of your classmates

**Submitting Assignments in CANVAS**

- **Submission Policy:**
  - When you submit assignments into CANVAS you must use only the acceptable file types (see below) If you try to submit a different file type, CANVAS will not accept your submission.
• Check to see if your submission has been accepted by clicking back into the assignment in the gradebook. Click here for instructions: How-do-I-know-when-my-assignment-has-been-submitted-in-CANVAS
• Label all assignments appropriately, beginning with your last name: “Kawula-phase 1 PSP”
• You are responsible to submit all files properly. If you are having trouble, please contact one of us for help.
  ○ **Acceptable Electronic File Policy:**
    • There are many types of electronic devices used to create documents. Due to the wide array of file types, we are limiting our acceptable file format. The following filetypes are acceptable:
      • pdf
      • doc
      • docx
      • ppt
      • pptx

**Attendance and Makeup Policy:**

- **Attendance:**
  • Attendance is crucial to your success in this course. Students are required to attend class in person. This includes students in tri-cities and Everett. The course zoom number is strictly for video-conferencing and not for the use of individual students. Exceptions to this policy may apply if students contact the instructor ahead of time. I do not take official attendance, however I do evaluate your attendance through daily quizzes.

- **Makeup policy:**
  • **Quizzes, tests, practicums,** – no makeups unless students contact instructor prior to the event. If there are extreme, extenuating circumstances, I may agree to an alternative arrangement.
  • **Plant Superpower Assignments Late policy:**
    • Phase 1 & 2: parts may be turned in late for ½ credit until September 21. After that, you will receive a zero for these phases. Since future phases build off each other, it is to your advantage to complete these assignments.
    • Phase 3: is due at its deadline, no late work accepted
    • Phase 4: parts may be turned in late for ½ credit until Wednesday October 26 (exception is peer review 1). After that, you will receive a zero for this phase Since future phases build off each other, it is to your advantage to complete these assignments.
    • Phases 5 and 6: due at their deadlines, no late work is accepted.

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**WSU POLICIES**

**WSU Reasonable Accommodation Statement**

- **Students with documented Disabilities or chronic medical or psychological conditions:**
  Reasonable accommodations are available for students with documented disabilities or chronic medical or psychological conditions. If you have a disability and need accommodations to fully participate in this class, please visit your campus’ Access Center/Services website to follow published procedures to request accommodations. Students may also contact their campus offices to schedule an appointment with a Access Advisor. All disability related accommodations are to be approved through the Access Center/Services on your campus. It is a university expectation that students visit with instructors (via
email, Zoom, or in person) to discuss logistics within two weeks after they have officially requested their accommodations.
For more information, contact a Disability Specialist on your home campus:

- **Pullman, Everett**: 509-335-3417 [Access Center](https://www.accesscenter.wsu.edu) or email at access.center@wsu.edu
- **Tri-Cities**: [Access Services](http://www.tricity.wsu.edu/disability/) or email tricities.AccessServices@wsu.edu

**Academic Integrity Policy** ([www.conduct.wsu.edu/](http://www.conduct.wsu.edu/))

- All members of the university community share responsibility for maintaining and promoting the principles of integrity in all activities, including academic integrity and honest scholarship. Academic integrity will be strongly enforced in this course. Students are responsible for understanding the full Academic Integrity Statement found here: [WSU academic policy](https://www.conduct.wsu.edu/)
- If the instructor thinks a student has violated the Academic integrity policy they will begin the process of reporting the offense: [WSU - academic integrity process](https://www.conduct.wsu.edu/)
- Students who violate WSU’s Academic Integrity Policy (identified in WAC 504-26-010(3) and -404) will receive a zero grade for the assignment and will be reported to the Office of Student Standards and Accountability. Students will not have the option to withdraw from the course pending an appeal. If you have any questions about what is and is not allowed in this course, you should ask course instructors.

**WSU Safety Information**

Please sign up for emergency alerts on your account at MyWSU. For more information on this subject, campus safety, and related topics, please view the FBI’s Run, Hide, Fight video and visit the classroom safety page [https://provost.wsu.edu/classroom-safety/](http://www.provost.wsu.edu/classroom-safety/).

**Discrimination and Harassment Policy Statement**

Discrimination, including discriminatory harassment, sexual harassment, and sexual misconduct (including stalking, intimate partner violence, and sexual violence) is prohibited at WSU (See [WSU Policy Prohibiting Discrimination and Harassment](https://www.conduct.wsu.edu/) and the [WSU Standards of Conduct for Students](https://www.conduct.wsu.edu/)). If you feel you have experienced or have witnessed discriminatory conduct, you can contact the WSU Compliance & Civil Rights (CCR) and/or the [WSU Title IX Coordinator](https://www.conduct.wsu.edu/) at 509-335-8288 to discuss resources, including confidential resources, and reporting options. (Visit [ccr.wsu.edu](https://www.conduct.wsu.edu/) for more information). Most WSU employees, including faculty, who have information regarding sexual harassment or sexual misconduct are required to report the information to CCR or a designated Title IX Coordinator or Liaison. (Visit [ccr.wsu.edu/reporting-requirements](https://www.conduct.wsu.edu/reporting-requirements) for more info)

**“Lauren’s Promise” – I will listen and believe you if someone is threatening you.**

Lauren McCluskey, a 21-year-old honors student athlete, was murdered on October 22, 2018, on the University of Utah campus by a man she briefly dated. **We must all take actions to ensure that this never happens again.**

**University Support and Response for Discrimination and Harassment:**

- Discrimination, discriminatory harassment, sexual harassment, and sexual misconduct (including stalking, intimate partner violence, and sexual violence) are prohibited at WSU (see Executive Policy 15 - [WSU Policy Prohibiting Discrimination and Harassment](https://www.conduct.wsu.edu/) and the [WSU Standards of Conduct for Students](https://www.conduct.wsu.edu/), and relevant employee manuals). WSU has instituted procedures to respond to violations of these laws and standards, programs aimed at the prevention of such conduct, and intervention on behalf of victims.
Accommodation for Religious Observances or Activities

- If you are in immediate danger, call 911. If you are experiencing sexual assault, domestic violence, stalking, discrimination or harassment, you have support and options. If you share information with me, please know that I am required to reach out to the Title IX Coordinator in WSU Compliance and Civil Rights (CCR), and CCR will reach out to you with information about on and off campus reporting options and resources. CCR is a system-wide resource (all campuses) which is available for intake consultations for you to learn more about available support. You can reach them directly at 509-335-8288, ccr@wsu.edu, or report online (anonymous reports accepted).
- You can also speak to a victim advocate, a medical provider, or counselor confidentially about your concerns. Advocates help survivors of crime determine their own needs in regard to their physical and emotional health, reporting options, and academic concerns. At no cost, advocates connect survivors to campus and community services, and provide accompaniment to important appointments.

FERPA compliance guidelines for Class Recordings

- We will use technology for virtual meetings and/or recordings in this course. Our use of such technology is governed by FERPA, WSU’s Electronic Communication Policy (EP4: https://policies.wsu.edu/prf/index/manuals/executive-policy-manual-contents/ep4- electronic-communication-policy/), and WSU’s Student Code of Conduct (https://communitystandards.wsu.edu/). A record of all meetings and recordings is kept and stored by WSU, in accordance with WSU’s Executive Policies and FERPA. Your instructor will not share recordings of your class activities outside of course participants, which includes your fellow students, TAs, and/or other instructional partners engaged with this course. You may not share recordings with individuals outside of this course. Doing so may result in disciplinary action.

Accommodation for Religious Observances or Activities

- reasonably accommodates absences allowing for students to take holidays for reasons of faith or conscience or organized activities conducted under the auspices of a religious denomination, church, or religious organization. Reasonable accommodation requires the student to coordinate with the instructor on scheduling examinations or other activities necessary for course completion. Students requesting accommodation must provide written notification within the first two weeks of the beginning of the course and include specific dates for absences. Approved accommodations for absences will not adversely impact student grades. Absence from classes or examinations for religious reasons does not relieve students from responsibility for any part of the course work required during the period of absence. Students who feel they have been treated unfairly in terms of this accommodation may refer to Academic Regulation 104 - Academic Complaint Procedures. See also Rule 82, available at https://registrar.wsu.edu/academic-regulations/
# Crops/Hort 102

## Course Schedule

### Important Dates:

<table>
<thead>
<tr>
<th>Practicums: during class time</th>
<th>Tests: (open at 6:00 a.m., close at 11:59 p.m.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practicum 1 – Mon. Sept 12&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Test 1 – Thursday Sept. 15</td>
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<tr>
<td>Practicum 2 – Mon. Sept. 26</td>
<td>Test 2 – Thursday Sept. 29</td>
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<tr>
<td>Practicum 4 – Mon. Nov. 7</td>
<td>Test 4 – Friday, Nov. 10</td>
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<tr>
<td>Practicum 5 – Mon. Nov. 28</td>
<td>Test 5 – Thursday Dec. 1</td>
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<tr>
<td>Test 6 – final exam – Thursday Dec. 15, 10:30 – 12:30 – test</td>
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<thead>
<tr>
<th>Plant Superpower Project Assignments:</th>
<th>Date Due (all due by 11:59 pm)</th>
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</thead>
<tbody>
<tr>
<td>1 Phase 1 – Form</td>
<td>Sun. Aug. 28</td>
</tr>
<tr>
<td>2 Phase 2: part 1 “Background Sources” Form</td>
<td>Sun. Sept. 4</td>
</tr>
<tr>
<td>3 Phase 2: part 2 “Thinking about your primary sources” - form</td>
<td>Sun. Sept. 11</td>
</tr>
<tr>
<td>4 Phase 2: part 3 “Primary Sources” – form</td>
<td>Sun. Sept. 18</td>
</tr>
<tr>
<td>5 Phase 3 – “Storyboard of Plant Superpower”</td>
<td>Sun. Sept. 25</td>
</tr>
<tr>
<td>6 Phase 4: part 1 “Plant Background Paragraphs”</td>
<td>Sun. Oct. 2</td>
</tr>
<tr>
<td>7 Phase 4: part 2 “Superpower Background Paragraphs”</td>
<td>Sun. Oct 9</td>
</tr>
<tr>
<td>8 Phase 4: part 3 “Scientific Details Paragraphs”</td>
<td>Sun. Oct. 16</td>
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<tr>
<td>9 Phase 4 - PEER OBSERVATION 1 (paragraph)</td>
<td>Sun. Oct. 16</td>
</tr>
<tr>
<td>12 Phase 5: part 1- PEER OBSERVATION 2 “FULL TEXT OF PROJECT”</td>
<td>Sun. Nov. 6</td>
</tr>
<tr>
<td>13 Phase 5: part 2 – Complete second DRAFT of project</td>
<td>Sun Nov. 13</td>
</tr>
<tr>
<td>14 Phase 6 – Presenting Your Scientific Story</td>
<td>Sunday Dec. 4</td>
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## Topics for Crops/Hort 102:

- domestication of plants
- Agriculture and anthropology
- Agriculture classifications
- Plant classification/nomenclature
- Intro to plant tissues/monocot, dicot
- morphology and anatomy of leaves, stems, roots, flowers, fruit
- plant biochemistry: photosynthesis, respiration, transpiration
- influence of light, climate and temp, Precipitation/water
- intro to inheritance
- soils and fertility
- disease
- Production systems
Potential Speakers for Crops/Hort102:

<table>
<thead>
<tr>
<th>Name</th>
<th>Topic</th>
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</thead>
<tbody>
<tr>
<td>Dr. Michelle Moyer (tri-cities)</td>
<td>viticulture</td>
</tr>
<tr>
<td>Dr. Lindsey du Toit (Mt. Vernon)</td>
<td>vegetable seed production</td>
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<tr>
<td>Dr. Kate Evans (tri-cities)</td>
<td>Apple breeding</td>
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<tr>
<td>Dr. Paul Milkovik</td>
<td>Cannabis breeding</td>
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<tr>
<td>Dr. Lisa de Vetter (Mt. Vernon)</td>
<td>small fruits</td>
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<tr>
<td>Dr. Lynn Carpenter Boggs</td>
<td>soil systems - sustainable</td>
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<tr>
<td>Dr. Michael Neff</td>
<td>Gmo’s</td>
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<tr>
<td>Dr. Kevin Murphy</td>
<td>Alternative crops</td>
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<tr>
<td>Dr. Mark Swanson</td>
<td>Forestry</td>
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</tbody>
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Syllabus Changes: Information in this syllabus, on CANVAS, and in-class handouts is correct, but could change if something unexpected occurs. Changes will be presented in class, in CANVAS announcements and sometimes through e-mail.