GREENHOUSE MANAGEMENT AND CROP PRODUCTION - LAB  
HORT 358 (1-CREDIT)

INSTRUCTOR  
Jamie Holden  
Ensminger Pavilion  
Office phone: 335-7125  
Email: holdenjw@wsu.edu  
Office hours: available to meet with students any day by appointment

LAB:  Friday 1:10 to 3 PM  
Greenhouse by Ferdinand’s, Vogel Plant Biosciences Bldg 43

PREREQUISITES: Hort 202 recommended. Should be taken same semester as Hort 357

RECOMMENDED TEXT BOOKS  
Beytes, C. Volume 1: Greenhouses and Equipment  
Hamrick, D. Volume 2: Crop Production

COURSE OBJECTIVES  
1) To be able to identify selected greenhouse crops,  
2) To experience production practices for spring greenhouse crops,  
3) To understand the environmental factors involved in manipulating growth and development of greenhouse crops,  
4) To apply the knowledge learned in the lecture to decision-making practices in the greenhouse
Student Learning Outcomes

1) Students can describe cultural details required to produce the following crops in a greenhouse environment:
   - Begonias in hanging baskets
   - Fuchsias in hanging baskets
   - Large pulp hanging baskets
   - Deck planters
   - Zonal geraniums in 5 and ½ pots
   - Bedding plants
   - Vegetables

2) Students have expertise to determine crop scheduling for plant sales at future dates. Students can select seeds for germination, transplanting, and growing on for sale.

3) Students can grow plants listed in 1 and 2, in a production greenhouse setting.

4) Students will evaluate crop growth using personal observations made week by week during the production cycle of spring crops.

5) Students will grow quality crops. This determination will be made by the public purchasing crops grown by students in Hort 358.

6) Students will observe and evaluate greenhouse management practices used in production of crops for Mom’s Weekend.
STUDENT EVALUATION
Grades will be based on total accumulated points throughout the semester from:
  1) Quizzes, class attendance, and participation - 75%
  2) Each lab is worth 10 points
  3) Final exam – 25%,
  4) A review sheet will be provided prior to the final which will be given on Friday, May 1, 2020 during lab.

GRADING SCALE
<table>
<thead>
<tr>
<th>Percentage</th>
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<tbody>
<tr>
<td>100 - 93%</td>
<td>A</td>
<td>77 - 79%</td>
<td>C+</td>
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<tr>
<td>90 - 92%</td>
<td>A-</td>
<td>73 - 76%</td>
<td>C</td>
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<tr>
<td>87 - 89%</td>
<td>B+</td>
<td>70 - 72%</td>
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Quizzes and labs cannot be made up if missed unless a legitimate excuse is presented to the instructor.
# GENERAL LAB TOPICS TO BE COVERED IN HORT 358

<table>
<thead>
<tr>
<th>WEEK</th>
<th>LAB ACTIVITY</th>
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<tbody>
<tr>
<td>1</td>
<td>Greenhouse structures, heating and cooling systems</td>
</tr>
<tr>
<td>2</td>
<td>Media, fertilizer (fertigation systems) and water quality</td>
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<tr>
<td>3</td>
<td>Scheduling crops</td>
</tr>
</tbody>
</table>
| 4    | Germination and seedling development  
       | Sexual propagation (production requirements) |
| 5    | Bedding plants |
| 6    | Vegetable transplants |
| 7    | Seed geraniums |
| 8    | Plant identification |
| 9    | Pest management  
       | Asexual propagation (production requirements) |
| 10   | Ivy geraniums |
| 11   | Begonias |
| 12   | Retail marketing (preparation of plants for the Mom’s Day Plant Sale) |
| 13   | Fuchsias |
| 14   | Vegetatively propagated annuals |
| 15   | Lab final exam |
Disability statement
Reasonable accommodations are available for students who have a documented disability. Please notify the instructor during the first week of class of any accommodations needed for the course. Late notification may cause the requested accommodations to be unavailable. All accommodations must be approved through the Disability Resource Center (DRC) in Administration Annex 206 (Tel. 335-1566).

Cheating (WAC 504-25-310)
Cheating is the intentional use of, or attempt to use, unauthorized material, information, or study aids in any academic activity to gain advantage. Cheating includes, but is not limited to, communicating improperly with others, especially other students, during tests or the preparation of assignments for classes; copying from books, notes, or other sources during a test when this is not permitted; copying from another student’s work (reports, laboratory work, computer programs, files, etc.); making improper use of calculators or other devices during a test; illegitimately procuring or using copies of current examinations; allowing a substitute to take an examination or write a paper for oneself.

Plagiarism (WAC 504-25-310)
Plagiarism is knowingly representing the work of another as one’s own, without proper acknowledgment of the source. The only exceptions to the requirement that sources be acknowledged occur when the information, ideas, etc., are common knowledge. Plagiarism includes, but is not limited to, submitting as one’s own work the work of a “ghost writer” or work obtained from a commercial writing service; quoting directly or paraphrasing closely from a source without giving proper credit; using figures, graphs, charts, or other such material without identifying the sources.

Academic Integrity Processes (WAC 504-25-315)
Every act of academic dishonesty affects academic evaluation of the student and also is a violation of the University’s standards of conduct. Responsible instructors retain the authority and responsibility to assign grades to students, considering from an academic standpoint the nature of the student’s action. This is the case even when the case is referred to the University Academic Integrity Process. Students have recourse to appealing the responsible instructor’s assignment of grades according to usual academic policy. See Academic Regulation 104.

All clear instances of academic dishonesty shall be reported to the Office of Student Conduct as outlined in 504-35-335(2). The first reported instance at WSU of academic dishonesty by a student will be treated as purely an academic matter unless, in the judgment of the responsible instructor, more serious action should be taken through the disciplinary process. Any allegation of subsequent academic dishonesty will be treated as a matter to be referred to the Office of Student Conduct.
Reports of Academic Dishonesty (WAC 504-35-320)
Any member of the University community who witnesses an apparent act of academic dishonesty shall report the act either to the instructor responsible for the course or activity or to the Office of Student Conduct.

Student and classroom emergency information is provided at the university emergency management web site http://oem.wsu.edu/emergencies.

WSU Safety Procedures
Washington State University is committed to maintaining a safe environment for its faculty, staff, and students. Safety is the responsibility of every member of the campus community and individuals should know the appropriate actions to take when an emergency arises. Please, go to:
WSU Pullman Campus Safety Plan at: http://safetyplan.wsu.edu
WSU Emergency Management web site: http://oem.wsu.edu/emergencies

WSU Tri-Cities Campus Safety Plan at: http://www.tricity.wsu.edu/safetyplan/