

HORT 421/521 FRUIT CROPS MANAGEMENT

SYLLABUS

Spring 2020
3 credit hours

**Advanced Fruit or Vegetable elective in
IPS Fruit & Vegetable Management major**

WSU Catalog	Current research and management strategies for production and quality of temperate-zone fruit crops.
Instructor	Dr. Matthew Whiting, Professor of Horticulture Department of Horticulture Irrigated Agriculture Research and Extension Center 24106 North Bunn Road, Prosser, WA 99350 509-786-9260 (office), 509-781-1580 (mobile) mdwhiting@wsu.edu
Class Meetings	Tuesday and Thursday, 9:10 – 10:25 a.m., Jan 14 – April 30
Locations	WSU-Pullman (CUE 114) WSU-TriCities (TWSC 202) IAREC-Prosser (V&E 102) Wenatchee (Overly Room) Mt. Vernon (VC Annex West) Puyallup (Conference room)
Contact	By email (best) or phone 509 781-1580
Prerequisite	6 credits HORT, BIOLOGY, or VIT ENOL. (HORT 310 and/or HORT 313 ideal) Credit not granted for both HORT 421 and HORT 521
Textbook	No required textbook

Learning Outcomes

1. Recognize, discuss, and evaluate the genetic, physiological, environmental, and socioeconomic advantages and limitations to the productivity, quality, and sustainability of fruit crops in the Pacific Northwest.
2. Propose management approaches to improve the productivity, quality, and sustainability of fruit crops.
3. Select and develop knowledge of a management issue related to fruit crops; obtain, organize, and evaluate relevant information on this issue by examining and synthesizing multiple perspectives; and communicate the findings in a management plan and oral presentation.
4. **HORT 521 credit only** Identify and analyze research priorities for a selected fruit crop; obtain, organize, and evaluate relevant information on these research priorities; formulate a research proposal plan; and complete a written research proposal.

Teaching/Learning Approaches

Presentations, required readings, Q&A's, and discussions with invited speakers; online discussion forums; writing assignments; and student presentations.

Course Expectations & Assignments

This course is a collaborative learning experience, with questions and discussion expected. Both written reports and oral presentations are required. To improve and to evaluate your analytical communication skills, the following assignments are required (details to be provided for each assignment):

Online group discussion forums on presentation topics:

Alternating with the written reports, students need to participate in the Blackboard discussion board. During these online discussion forums, 2 students, on a rotating basis, assigned each Monday on Blackboard, will be assigned to lead and moderate a discussion of the key points raised on the lecture. Each of the discussion leaders/moderators will begin the forum by making a primary post of one of the key points presented by the speaker, or that comes to mind from the presentation or supplementary materials provided by the speaker. Other students must then respond to the initial post to continue the discussion. Each of the primary posts will become separate major discussion threads. All students should make at least three (3) substantive contributions to either an initial contribution posted by one of the leaders/moderators or to another participant's contribution. To be considered a substantive contribution to the forum, each post must be well reasoned and thoughtful, and cannot consist of simply "Yes, I agree ...". The discussion leaders/moderators should also contribute responses in their discussion forums. These discussion boards are meant to provide a forum for digging deeper into key issues raised during lectures. Consider the big picture, not minutiae. Find supporting materials from peer-reviewed research, extension bulletins, etc to support your arguments. Share practical experiences you have had. Make connections among the other classes you have taken – bring an outside perspective. All comments must be made by the end of the week following the presentation (i.e., if the presentation was on Tuesday or Thursday of week 5, all discussion board posts must be submitted before the end of Friday on week 6).

Written reports on presentation topics:

Alternating with the online discussion forums will be written reports. In the reports you must present three key points made by each speaker in their presentations and/or supplementary materials, and the arguments or evidence that support these key points. Although speakers may present more than three key points, you should choose the most important points or try to coalesce each presentation into three key points. These reports must be between 500-1000 words in length. Do not simply submit your lecture notes on the subject, but, like the discussion boards, dig deeper and support your key points from the lectures with outside references. These reports will be due at the end of the week following the presentation. You may choose to write the report on either the Tuesday or Thursday lecture.

Fruit crops management plan:

All students will develop a comprehensive management plan for a specific area of production or handling of a fruit crop of your choice. For example:

- Crop load management in Honeycrisp
- Covers for blueberry production
- Nutrient management for sweet cherry
- Vegetative growth management in peach
- Powdery mildew management in sweet cherry

In this full semester assignment, you will obtain, organize, and evaluate relevant resources (e.g., published research) in support of that management plan and then present it in an organized manner. Choice of the crop and management topic will be instructor guided. There will be staged due dates for progressive aspects of the management plan, beginning with a

selected crop and management topic, an outline of the plan and an annotated bibliography of the resources to be used in support of it, a student review of the plan, and a final plan with revisions at the end of the semester (**due by the end of Friday, May 1**). The structure of the plan can take any form that you feel is appropriate and justifiable, as long as it efficiently communicates the management plan to an outside reader.

Presentation:

Oral presentations from each student on their management plan will take place on **April 21, 23, 28, and 30**, of the final weeks of classes. The presentation should be not more than 5 minutes long, with additional time given for discussion and Q & A's. Visual graphics are required, using Microsoft PowerPoint, Adobe Acrobat, [Prezi](#), or other instructor approved presentation media (if you intend to use any other format, please contact the instructor). Presentations will be graded according to specific grading criteria, to be posted on the Blackboard course page. Everyone is required to attend all four presentation sessions.

Research proposal (Hort 521 students only):

Students taking the course for graduate credit are required to submit a research proposal for a fruit crop and key issue of their choice. Please email instructor with your idea before pursuing it – you need approval. For your proposal, you need to obtain, organize, and evaluate information on current international, national, and regional research priorities for your selected crop, and develop a persuasive plan for a specific research effort. This proposal should be effectively organized and presented in an efficient manner, and include relevant supporting justification, detailed outline of proposed approach, a budget, and a short literature review. Students should follow the proposal guidelines outlined by the Washington Tree Fruit Research Commission. These can be accessed at: <https://treefruitresearch.com/proposals-reports/new-proposal-instructions> Your proposal does not need to be for a tree fruit crop, but should follow the proposal guidelines outlined on the WTFRC page.

A complete draft of this assignment is due on 3 April. Each student will be assigned a proposal to peer-review. These reviews are due on 10 April. The final proposal with revisions is due at the end of the semester (**due by the end of Friday, May 1**).

There are no textbooks for the course and there will be no final exam.

All written assignments are due by the end of the due date (11:59 pm) in the appropriate content folder on the Blackboard course space. Unless a legitimate reason is provided in advance, 5% will be subtracted from the grade for an assignment for each day the assignment is late. Grading of the preliminary stages of the fruit crops management plan (crop/topic, outline/annotated bibliography) is based only on the degree to which these are completed. However, the quality of the early stages of the management plan usually impacts its final grade.

Course Grade

<u>Assignment</u>	<u>Points of final grade</u>
Written reports	25
Online discussion forums	25
Management plan	40
Crop and management area proposal (<u>due Friday, Jan. 31</u>)	
Outline and annotated bibliography (5%) (<u>due Friday, Feb. 21</u>)	
Complete management plan (due Friday April 3)	
Review of management plans (10%) (<u>due Friday, Apr. 17</u>)	
Final plan (25%) (due May 1)	
Presentation	10

Research priorities report (HORT 521 credit only)

25

Grade calculation will be based on the following percentages: A = 100-94%, A- = 93-90%, B+ = 89-86%, B = 85-82% = B, B- = 81-78% =, C+ = 77-73%, C = 72-68%, C- = 67-60%, D+ = 59-51%, D <50%, F = no assignments submitted

Course Website

- Course communication will take place in the *Blackboard* course space. Browse to <http://learn.wsu.edu/> and use your Network ID and password to get into the course content.
- Regardless of which section you are enrolled in, use the merged course “**Fruit Crops Management (2020-SPRI-PULLM-HORT-421-7005-LEC)**”, as it is the only course space for HORT 421/521 that is enabled and active (all other sections are merged to this section).
- *Blackboard* forwards all emails ONLY to WSU's new student email address (i.e., not to your gmail or other personal email address).

The HORT 421/521 course space will contain files for the syllabus, schedule, assignments, resource materials, and other pertinent information about the class. In addition, the course space will contain notes, reading materials, news, industry or scientific articles, and other supporting documentation, as well as PDF files of lecture presentations for each course topic. Lecture presentations and any associated resource materials will be added to the website as they are presented in class to help you prepare for the required assignments.

Academic Integrity

Academic integrity is the cornerstone of higher education. As such, 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 who violate WSU's Academic Integrity Policy (identified in Washington Administrative Code (WAC) 504-26-010(3) and -404) will fail the assignment, will not have the option to withdraw from the course pending an appeal, and will be reported to the Office of Student Conduct.

Cheating includes, but is not limited to, plagiarism and unauthorized collaboration as defined in the Standards of Conduct for Students, WAC 504-26-010(3). You need to read and understand all of the definitions of cheating: <http://app.leg.wa.gov/WAC/default.aspx?cite=504-26-010>. If you have any questions about what is and is not allowed in this course, you should ask course instructors before proceeding.

If you wish to appeal a faculty member's decision relating to academic integrity, please use the form available at conduct.wsu.edu.

Cell Phones and Laptops

Use of cell phones, pagers, PDAs, or similar personal communication devices is not allowed during class unless it supports class activities. In order to ensure a productive learning environment, you are required to turn off or set your personal communication device to silent contact during class time. Laptops and tablets may be used in class but only for class-related activities (taking notes, completing in-class or group assignments, etc.). If it becomes apparent you are using the personal communication device or computer for non-class activities (checking email, texting, playing games, Facebooking, etc.) then you will be asked to turn off your personal communication device or computer and refrain from bringing it to class in the future. Exceptions to these policies may be granted upon request.

Reasonable Disability Accommodations

Students with Disabilities: Reasonable accommodations are available for students with a documented disability. If you have a disability and need accommodations to fully participate in this class, please either visit or call the [Access Center](#) (Washington Building 217; 509-335-3417) to schedule an appointment with an Access Advisor. All accommodations MUST be approved through the Access Center. For more information contact a Disability Specialist on your home campus.

- **Pullman or WSU Online:** 509-335-3417, Washington Building 217; <http://accesscenter.wsu.edu>, Access.Center@wsu.edu
- **Spokane:** <https://spokane.wsu.edu/studentaffairs/disability-resources/>
- **Tri-Cities:** <http://www.tricity.wsu.edu/disability/>
- **Vancouver:** 360-546-9138, <http://studentaffairs.vancouver.wsu.edu/student-resource-center/disability-services>

Campus Safety

Classroom and campus safety are of paramount importance at Washington State University, and are the shared responsibility of the entire campus population. WSU urges students to follow the “Alert, Assess, Act,” protocol for all types of emergencies and the [“Run, Hide, Fight”](#) response for an active shooter incident. Remain ALERT (through direct observation or emergency notification), ASSESS your specific situation, and ACT in the most appropriate way to assure your own safety (and the safety of others if you are able).

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 [WSU safety portal](#).