

HORT 421/521 FRUIT CROPS MANAGEMENT

SYLLABUS

Spring 2024
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.

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Class Meetings Tuesday and Thursday, 9:10 – 10:25 a.m., Jan 9 – April 25

Locations WSU-Pullman (Clark 149)

WSU-TriCities (TBD)
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 perennial tree 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 a research priority 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; 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:

Every week, each student needs to participate in the week's Canvas discussion boards. These online discussion forums will be established by the instructor by making a primary post of one or more of the key points presented during the lecture, or one that comes to mind from the presentation or supplementary materials provided that week. Some weeks will have two discussion boards if the lectures are sufficiently distinct; in other weeks there may be only one discussion board to address topics that span both lectures from that week. All 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". These discussion boards are meant to provide a forum for digging deeper into key issues raised during lectures. Consider the big picture, not minutiae. It is especially valuable to find supporting materials from peer-reviewed research, extension bulletins, etc. to support your points. It can be really valuable also to 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 (i.e., for lectures from Tuesday or Thursday, all discussion board posts must be submitted before the end of Sunday that week).

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
- Managing bitter pit in Honeycrisp

In this full-semester assignment, you will obtain, organize, and evaluate relevant resources (e.g., published research) in support of your management plan and then present it in an organized manner at the end of the semester. 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 the semester Friday, April 26**). 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 18, 23, and 25**, of the final weeks of classes. The presentation should be not more than 7 minutes long, with additional time given for discussion and Q & A's. Visual aids 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 Canvas course page. Everyone is required to attend all student 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.org/proposal-process-instructions-and-documents/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 2 April. Each student will be assigned a proposal to peer-review. These reviews are due on 12 April. The final proposal with revisions is due at the end of the semester (**due by the end of Friday, 26 April**).

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 Canvas 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> |
|--|------------------------------|
| Online discussion forums | 50 |
| Management plan | 40 |
| Crop and management area proposal (<u>due Friday, Jan. 26</u>) | |
| Outline and annotated bibliography (5%) (<u>due Friday, Feb. 23</u>) | |
| Complete management plan (due Friday April 5) | |
| Review of management plans (10%) (<u>due Friday, Apr. 12</u>) | |
| Final plan (25%) (due April 26) | |
| Presentation | 10 |
| Research priorities report (HORT 521 credit only) | 25 |

Grade calculation will 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 *Canvas* course space. Browse to <https://wsu.instructure.com/> 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 “**2024-Spr-HORT-421-PULLM-1-04-07430-Fruit Crops Management**”, as it is the only course space for HORT 421/521 that is enabled and active (all other sections are merged to this section).

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.

Students are responsible for reading and understanding all university-wide policies and resources pertaining to all courses (for instance: accommodations, care resources, policies on discrimination or harassment), which can be found in the [university syllabus](#).

Academic Integrity

You are responsible for reading WSU’s [Academic Integrity Policy](#), which is based on [Washington State law](#). If you cheat in your work in this class you will:

- ***Fail the assignment***
- Be reported to the [Center for Community Standards](#).
- Have the right to appeal my decision.
- Not be able to drop the course or withdraw from the course until the **appeals** process is finished.

If you have any questions about what you can and cannot do in this course, ask me.

If you want to ask for a change in my decision about academic integrity, use [the form](#) at the [Center for Community Standards](#) website. You must submit this request within 21 calendar days of the decision.”

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.

Classroom decorum

In support of fruitful and open academic discourse, we are all are expected to engage in courteous, civil, and mutually respectful exchanges focused on and relevant to the course materials. Students should not engage in disruptive behavior which obstructs or disrupts the learning environment, including, but not limited to, dominating the classroom or online discussion, behavior that disrupts the flow of instruction, or failure to cooperate in maintaining classroom decorum. Students engaging in behavior that is disruptive to the course objectives may be asked to leave or be referred to the appropriate disciplinary process. I am similarly committed to creating a civil and productive environment for the free exchange of ideas; students who have concerns about this should contact the department chair or director for [that course] (department chairs and directors are available in the academic catalog: <https://catalog.wsu.edu>).