

## Teaching Plan for HORT 488 (Greenhouse Management)

Instructor: G.A. Picchioni

Semester: Fall 2020

HORT 488. Greenhouse Management. 4 Credits (3+3P). Principles and practices involved in greenhouse structures and construction, site considerations, heating and cooling systems, greenhouse crop production techniques, sustainability practices.

HORT 488 is a four-credit course that meets twice per week for lecture (T/TH 1030-1145 am), and once per week for lab (W 430-630 pm). Historically, the lectures have been scheduled to meet in Skeen Hall W129 and the labs in Skeen Hall W139. We typically have 15 to 20 students in the class. Daily attendance is recorded. I intend to teach the course with a similar content as in prior semesters. However, in the Fall 2020 offering of HORT 488, the following exceptions for course delivery will be enforced to help mitigate COVID-19 transmission.

1. Lectures. Lecture activities and lecture exams will be planned for online dissemination using Zoom. Lectures will not be meeting in person in Skeen W129. The new online practice will eliminate student presence in the building and its vicinity during our lecture times. Following is my consideration for proposed changes to the online lectures in the event of change in the severity of health threats. **Scenario 1: There are no longer any significant health threats.** My lectures and exams will be held online for the duration of the semester. If the health threats lessen, I do not propose changing from an online format to a physical presence format. **Scenario 2: Significant health threats have emerged during the semester and face-to-face instruction is no longer tenable.** Since I will be teaching the lectures and giving exams online from the outset, no changes will be necessary to accommodate an increased health threat. **Scenario 3: My class has more than 50 students and health guidelines state that such large gatherings are prohibited.** As of June 30, a total of 20 students have registered for Fall 2020 HORT 488, thus this scenario is not applicable.
2. Labs. Discrete instructions will be provided in the syllabus and practiced during the semester, as per CDC guidelines, to prevent COVID-19 transmission during lab meetings. These instructions will include 1) self-monitoring using guidelines from the Aggie Health and Wellness Center; 2) 'remaining at home if ill' policy; 3) wearing an approved facemask when on campus if such a directive remains in effect; 4) maintaining six feet social distancing as work duties permit; 5) cleaning and disinfecting countertops, common areas, and shared equipment during and after use; 6) practicing frequent hand washing; and 7) immediately notifying the instructor (G.A. Picchioni) by telephone or email if a student suspects they are ill (body temperature in excess of 100.4F, cough, or shortness of breath), or if they are notified that they may have potentially been exposed to COVID-19.

*Online labs.* To reduce the density of student lab gatherings, enhance social distancing, and minimize face-to-face contact, I will deploy several measures. Firstly, I will change in-person lab meetings to online virtual (Zoom) lab meetings for 9 of the 15 semester lab topics (60% of total meetings) devoted to field trips, guest lectures, Worker Protection Standard training, and self-guided computer assignments each with their own tutorial (due dates TBD). To address the different health threat scenarios for these online labs, see part 1 above.

*Physical presence labs.* For the remaining six semester lab meetings, I will employ two measures depending on lab topic, in order to effectively reduce student density of this relatively small class by 50%. The first measure will be to stagger the 2-h instructional laboratory sessions in Skeen Hall W139, Skeen greenhouse, or other lab sites to accommodate one-half of the students from 4:30 to 5:30 pm, and the other half from 5:30 to 6:30 pm. With this measure, I expect no more than 10 students per session when maintaining a minimum of six feet social distancing will be feasible. The Fabian Garcia Agricultural Science Center will also be used for laboratory activities, and reserved for one to two groups consisting of three to four students, each of whom will (individually) water plants throughout the semester. A second measure, if TA support is available, will be to run concurrent, 2-h lab meetings in two different locations, each led by one of the two instructors. When necessary, the instructor will incorporate a combination of recorded video clips and powerpoint presentations so that, ultimately, each student will be generally engaged with all lab activities.

Following is my consideration for proposed changes to the physical presence labs in the event of change in the severity of health threats. **Scenario 1: There are no longer any significant health threats.** In this scenario, there are no proposed changes to the physical presence labs. **Scenario 2: Significant health threats have emerged during the semester and face-to-face instruction is no longer tenable.** The six lab sessions in question will include filling pots, planting and inspecting the crops, collecting data (light, irrigation, soil nutrients, growth, quality, etc.), and several service learning plantings on the campus grounds. If scenario 2 takes effect, these labs will be converted to online Zoom meetings using a combination of powerpoint presentations, videos, and other materials. Recent experience shows that if the HORT 488 crops can be established during in-person meetings for only the first two weeks of the semester, we will be able to provide online labs for the remainder of the semester. While this is not our desired teaching modality for this lab-intensive course, it will allow the students to meet their learning objectives. **Scenario 3: My class has more than 50 students and health guidelines state that such large gatherings are prohibited.** See part 1.

3. Contact tracing. A student will immediately notify me and the Aggie Health and Wellness Center by email or telephone if they suspect they are ill (body temperature in excess of 100.4F, cough, or shortness of breath), or if they are notified that they may have potentially been exposed to COVID-19. Once I discover via email or telephone that a student may have a virus or has been tested as presumptively positive, I will work with the student promptly via email or telephone to i) assert that they are isolated and do not transmit further, ii) ask them who they have come in contact with for up to 14 days before they experienced symptoms, and iii) attempt to secure the name(s) and contact information for the human contact(s) in question. I will maintain email and telephone records of affected students and their contacts. The names and contact information (telephone and email) of the affected student and their recent contact(s) will be reported to my Department Head, Dr. Rolston St. Hilaire. The affected student will be instructed to call their physician, the New Mexico Department of Health COVID Hotline, or the Aggie Health and Wellness Center to arrange for a test, if the student has not already done so. In extreme cases, they will be instructed to call 911. The affected student will return to class only if they have been tested, and only after a negative test. If the test is positive, I will notify Dr. Rolston St. Hilaire, and the student will self-quarantine for 14 days.