Instructor: Dr. Michael Maurer
Class Time: Lecture MW 8:00 to 8:50 a.m. Lab. M 3:00 to 4:50 p.m.
Classroom: AG 118
Telephone: (936) 468-1729
E-mail: via D2L
Office: AG 119
Office Hours: MW 9:00 to 11:50 a.m. and TR 9:00 to 11:00 a.m. or by appointment

**Course Description:**

Principles of greenhouse management

**Course Purpose:**

Students successfully completing this course will learn the basic aspects of greenhouse management. Topics of discovery include greenhouse heating and cooling, cultural practices used in production of floricultural crops (media, sterilization, propagation, fertilization, irrigation, plant growth regulators and use of greenhouse mathematics).

**Text:**


**Expected Learning Outcomes:**

Upon completion of this course, the student will be able to:

A. Understand the methods and cultural practices used in the production of floricultural crops
B. Calculate rates for agricultural products used in various types of greenhouse application.
C. Basic understanding of scheduling crops in a greenhouse operation.

**Methods for Assessing the Expected Learning Outcomes:**

The expected learning outcomes for the course will be assessed through several of the following methods: exams, content application exercises, class discussion, writing assignments, projects and laboratory practical.
Course Assignments and Grading Procedures:

Lecture (66%)
- Exam I 22%
- Exam II 22%
- Final 22%

Lab (34%)
- Crop Production Guide 4%
- Crop Journal and Experiments 15%
- Greenhouse Project 15%

Total 100%

Point Distribution:

Grades will be assigned according to the following scale:
- A = 90 - 100%
- B = 80 - 89.9%
- C = 70 - 79.9%
- D = 60 - 69.9%
- F < 59.9%

General Information:

Acceptable Classroom Behavior: Classroom behavior should not interfere with the instructor’s ability to conduct the class or the ability of other students to learn from the instructional program (see the Student Conduct Code, policy D-34.1). Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic, or other penalties. This prohibition applies to all instructional forums, including electronic/online forums, classroom meetings, labs, discussion groups, field trips, etc. The instructor shall have full discretion over what behavior is appropriate/inappropriate in the classroom. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the iCare program http://www.sfasu.edu/judicial/earlyalert.asp. This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed.

Responsible Use of Technology: It is expected that all students will only use cell phones, PDAs, laptop or tablet computers, MP3 players, and related devices outside of class time or when appropriate in class. Answering a cell phone, texting, listening to music or using a laptop/tablet for matters unrelated to the course may be grounds for dismissal from class or other penalties.
Students are expected to assist in maintaining a classroom environment which is conducive to learning. In order to assure that all students have an opportunity to gain from time spent in class, unless otherwise approved by the instructor, students are prohibited from using cellular phones or beepers, eating in class, making offensive remarks, reading newspapers, sleeping or engaging in any other form of distraction. Inappropriate behavior in the classroom shall result in, minimally, a request to leave the classroom.

**Attendance Policy:**

**Class Attendance**
Attendance is the best way to succeed in this course. Regular and punctual attendance is expected for all classes, and other activities for which a student is registered. If a student has excessive absences, the instructor reserves the right not to give individual tutoring, special consideration regarding make-up work, or other help the student needs because of missing class. Attendance will also play a crucial role in decisions concerning borderline final grades.

No make-up exams will be given unless previous arrangements have been made.

**Excused Absences**
Students may be excused from attendance for certain reasons, among these are absences related to health, family emergencies, and student participation in certain university-sponsored events. However, students are responsible for notifying their instructors in advance whenever possible for excusable absences.

Students are responsible for providing timely documentation satisfactory to the instructor for each absence. Students with acceptable excuses may be permitted to make up work for absences to a maximum of three weeks of a semester when the nature of the work missed permits. Whether excused or unexcused, a student is still responsible for all course content and assignments.

**Academic Integrity (A-9.1)**
Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

**Definition of Academic Dishonesty**
Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism
are (1) submitting an assignment as if it were one’s own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one’s paper without giving the author due credit.

Please read the complete policy at http://www.sfasu.edu/policies/academic_integrity.asp

Integrity and professionalism are expected at this level of education. Unauthorized collaboration on assignments or projects, as well as dishonesty on exams and quizzes will not be tolerated. Suspected cases of cheating or plagiarism in class and labs as well as grade disputes and appeals will be handled according to the academic regulations of the University. If it is determined cheating occurred, the student will be dismissed and fail the course

Withheld Grades Semester Grades Policy (A-54)
Ordinaril, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average.

Students with Disabilities
To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.

Tentative Lecture Schedule

GREENHOUSE MANAGEMENT
HRT 321, Section 001
Topic outline and Exam dates
(Exam dates or topics may change with prior notification)

Topic (Suggested reading/chapter in text book).

Wk 1 - The Floriculture Industry - 1:
Wk 2 - Greenhouse construction and layout – 2:
Wk 3 - Greenhouse heating - 3:
Wk 4 - Greenhouse cooling – 4:
Wk 5 - Root substrate – 6 and 7:
Wk 6 - Watering – 8:
Wk 7 - Fertilization – 9:
Wk 8 - Carbon dioxide fertilization – 11:
Wk 9 - Light and temperature – 12:
Wk 10 - Plant growth regulators – 13:
Wk 11 - Insects – 14:
Wk 12 - Diseases – 15:
Wk 13 - Postproduction quality – 16:
Wk 14 - Marketing – 17:
Wk 15 - Business management – 18:

Due Dates:
Crop Production Guide January 30, 2019
Exam I (lab) February 25, 2019
Exam II (lab) April 8, 2019
Greenhouse Project April 29, 2019
Crop Journal & Experiments May 6, 2019
Final Mon. May 13, 2019, 8:00 to 10:00 a.m.

Program Learning Outcomes:
1. The student will demonstrate entry level skills needed for success in horticulture, agronomy and other related fields in the area of a) plant physiology and anatomy, b) practical experience in plant management systems, c) basic knowledge of plant genetics and reproduction, d) identification and knowledge of crops and e) management of soils and soilless media.
2. The student will demonstrate quantitative competence related to horticulture and agronomy.
3. The student will exhibit problem solving skills based on quantitative and analytical reasoning.
4. The student will demonstrate effective communication skills
5. The student will exhibit leadership and other interpersonal skills needed for career placement and advancement.

Program learning outcome 1 to 5 are addressed in this class.

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<th>Course</th>
<th>PLO 1 Plant Science</th>
<th>PLO 2 Quantitative</th>
<th>PLO 3 Problem Solving</th>
<th>PLO 4 Communications</th>
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