Name: Dr. Michael Maurer
Email: use D2L email
Phone: (936) 468-1729
Office: Agriculture Bldg. Rm. 119
Office Hours: MW 9:00 to 11:50 am, TR 8:00 to 11:00 am, or by appointment.
Department: Agriculture
Class and laboratory meeting time and place: Lecture MW 8:00 to 8:50 am;
Lab M 3:00 to 4:50 pm Agriculture Bldg. Rm. 118

Course Description:
Prevention, biological, chemical, cultural and physical control of insects, diseases
and weeds, including the concepts of integrated pest management.

Course Justification:
AGN 469 and AGN 469L "Plant Protection" (3 credits lecture, 0 credit lab). The
lecture and lab are taken concurrently. The points for the lecture and lab are
combined into one grade for the course. The class meets three times a week
(two 50-minute lectures and one 110-minute lab) for 15 weeks and also meets for
a 2.5-hour final exam. Students have weekly reading assignments and are
required to complete, two semester exams, calculation final and a final
examination. The laboratory requires calculation and calibration problem sets,
plus three written reports and presentations. These requirements take at least 6
hours of out-of-class student work each week to complete.

Student Learning Outcomes:
Upon completion of this course, the student will be able to:
1. Use the techniques associated with integrated pest management
2. Understand methods of plant protection in various production systems.
3. Calibrate various types of application equipment for pesticide use.
4. Basic understanding of pesticides.
5. Safe application and use of pesticides.

Text and Materials:
There is not a specific text for this course, but select reading will be assigned
throughout the semester. These will be handed out or made available via D2L

Course Requirements:
Exam I 17%
Exam II 17%
Final 17%
Calculations 25%
Written assignments/presentations:
- Plant nutrient 8%
- Insect 8%
- Pathogen 8%

Course Calendar:

Tentative Lecture Schedule

*Topic outline and Exam dates*
(Exam dates or topics may change with prior notification)

**Topic (Suggested reading/chapter in text book).**

**PLANT NUTRIENTS – Wk 1 - 3**
- Macronutrients
- Micronutrients
- Function and plant nutrient deficiencies

**INTEGRATED PEST MANAGEMENT: - Wk 4 - 5**
- Prevention
- Mechanical
- Cultural
- Biological
- Chemical

**INSECTS - Entomology: Wk 6 - 7**
- Insect life cycles
- Thresholds
- Natural enemies - biological agents
- Insecticides

**DISEASES – Plant Pathology: Wk 8 - 10**
- Types of plant diseases
- Disease triangle
- Identification of plant diseases
- Environmental factors
- Fungicides

**NEMATODES: Wk 11**
- Life cycles – morphology and anatomy
- Plant symptoms
- Control of nematodes

**WEEDS: Wk 12**
- Life cycles – annual, biennial and perennial
- Weed identification
- Control strategies
APPLICATION EQUIPMENT USE AND CALIBRATION: Wk 13-15

Pesticide safety
Granular application
Liquid application
Powder applications
Calculations

Exam and Report Schedule:
Exam I             February 17, 2020
Exam II            March 30, 2020
Final              Monday May 4, 2020, 8:00 – 10:30 a.m.

Written assignments/presentations:
Plant nutrient     February 10, 2020
Insect             March 2, 2020
Pathogen           April 6, 2020

Grading Policy:
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%

Student Conduct:
Students are expected to assist in maintaining a classroom environment which is
c 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
Regular and punctual attendance is expected for all classes, laboratories, 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.
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)
Ordinarily, 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
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/.

The following information is for administrative purposes as required by university guidelines.

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 outcomes 1, 2, 3 and 4 are addressed in this class.

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<tr>
<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>
<th>PLO 5 Leadership</th>
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<td>AGN 469/469L</td>
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B-S. Horticulture Program Learning Outcomes

B- Basic I-Intermediate A-Advanced M-Mastery