Plant & Soil Science Courses

PLS 501 - Plant Science Instrumentation
Hours: 3
Principles, equipment, and techniques for measuring variables in plant, soil and environmental sciences. Advanced laboratory exercises measuring soil and plant physical and chemical properties will be explored. (Every fall).

PLS 502 - Ecological Plant Physiology
Hours: 3
This class covers plant physiological responses to the environment, including water, temperature and light, and how these affect plant production, growth and distribution.

PLS 503 - Plant Nutrition
Hours: 3
A study of essential elements for plant growth, including uptake and function. Nutrients will be studied in relation to sources of nutrient elements, application methods, effects on plant growth, and production of horticultural and agronomic plants.

PLS 504 - Advanced Hydroponic Crop Production
Hours: 3
Advanced knowledge on principles and practices of hydroponic crop production in controlled environment agriculture (CEA), including types of hydroponic systems, nutrient solution preparation and management, aerial environmental production factors and their manipulation, emerging indoor vertical farming. Specific cases of hydroponic production practices of major vegetables (leafy greens, culinary herbs, and fruit crops such as tomatoes, peppers, cucumbers, and strawberries) will be discussed. Prerequisites: PLS 1315 or PLS 1307.

PLS 506 - Weed Science
Hours: 3
Three semester hours (2 lec / 2 lab) An introduction to the principles of weeds, weed control, and herbicides. Crosslisted with: PLS 434.

PLS 515 - Pasture Management
Hours: 3
A careful study of the literature concerning the soil and vegetative problems in regard to establishing, restoring, and maintaining pastures. Consideration will be given to pasture plans for this section of Texas, fertilizers to use, and good pasture practices to be observed.

PLS 518 - Plant Science Thesis
Hours: 3-6
Three to six semester hours. Development of a plant science research project under the supervision of a Plant Science faculty member. Granting of credit for this project is dependent upon the completion and approval of the thesis.

PLS 521 - Microclimates in Agriculture
Hours: 3
This course is designed to help students understand, describe and analyze microclimates, including local and anatomical microclimates and the role they play in plant stress and productivity.

PLS 589 - Independent Study
Hours: 1-4
Individualized instruction/research at an advanced level in a specialized content area under the direction of a faculty member. Prerequisites Consent of department head. Note May be repeated when the topic varies.

PLS 597 - Special Topics
Hours: 0-4
Special Topics. One to four semester hours. Organized class. May be repeated when topics vary.