

PLANT SCIENCE (PLSC)

PLSC 5150. Design and Analysis of Agricultural Experiments. (4 Credits)

Design and analysis of experiments commonly conducted in agricultural field, greenhouse, and laboratory research. Emphasis on replicated treatment experiments based on completely random, randomized block, Latin square, split-plot, and split-block designs. Limited coverage of non-replicated treatment observational-type experiments. Statistical analyses performed primarily in SAS (Statistical Analysis System) software. Presentation of summarized data using computer generated graphics from various software packages.

Enrollment Requirements: Recommended Preparation: Introductory college-level statistics.

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PLSC%205150>)

PLSC 5210. Molecular Laboratory Technology. (3 Credits)

Laboratory technologies for identification and characterization of molecules important for molecular biology research, genetic manipulation and disease diagnosis. Labs will provide hands-on experience performing basic molecular biology techniques, lectures will cover theoretical basis and application.

Enrollment Requirements: Not open to students who have passed SPSS 3210.

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PLSC%205210>)

PLSC 5245. Plant Breeding and Biotechnology. (3 Credits)

Principles and applications, economic, social and environmental impacts, advantages, potentials and limitations of major traditional and modern plant breeding technologies including crossing/hybridization, polyploidy, mutagenesis, genetic engineering and genome editing.

Enrollment Requirements: One of BIOL 1102, 1108, 1110; MCB 2410; SPSS 3210, 3230, 4210, or instructor consent.

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PLSC 5255. Modern and Traditional Plant Breeding Techniques. (3 Credits)

Hands-on experiments for traditional and modern plant breeding techniques, including artificial crossing/hybridization, polyploidy induction, plant tissue culture and transgenic plant production, and radiation- and genome editing-mediate mutagenesis.

Enrollment Requirements: PLSC 5245.

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PLSC%205255>)

PLSC 5410. Soil Chemistry Components. (4 Credits)

Basic concepts of the physical chemistry of soil constituents. Topics include soil atmospheres, soil solutions, soil organic matter, soil mineralogy, and surface characteristics and analysis. Term paper required.

Enrollment Requirements: Not open for credit to students who have passed SPSS 3420 or SOIL 3410.

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PLSC%205410>)

PLSC 5620. Soil Fertility. (3 Credits)

Factors governing nutrient uptake by plants, fate of nutrients applied to soils, principles and practices in the use of fertilizers and amendments for crop production, laboratory and field studies of social and plant response to applied nutrients.

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PLSC%205620>)

PLSC 5820. Ecology and Control of Weeds. (3 Credits)

Weed identification. Weed origin and classification. Losses caused by weeds. Weed competition. Weed seed production, dormancy, and germination. Weed growth and development. Weed biology and life cycles. Cultural, mechanical, and biological weed control methods based on ecological principles. Overview of chemical weed control practices and associated environmental and ecological risks.

Enrollment Requirements: Not open to students who have passed SPSS 3820.

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PLSC%205820>)

PLSC 5895. Special Topics. (1-6 Credits)

May be repeated for a total of 12 credits

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PLSC%205895>)

PLSC 5897. Seminar. (1 Credit)

May be repeated for a total of 2 credits

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PLSC%205897>)

PLSC 5898. Variable Topics in Plant Science. (1-6 Credits)

Topics and credits to be published prior to the registration period preceding the semester offerings.

May be repeated for a total of 24 credits

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PLSC%205898>)

PLSC 5899. Independent Study. (1-6 Credits)

May be repeated for a total of 24 credits

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PLSC%205899>)