PSPP - Plant Sciences/Plant Pathology

PSPP 516. Research Design and Analysis. 3 Credits. (3 Lec) F
Prerequisite: Stat 401. Data analysis and interpretation of problems unique to agricultural and biological research. Topics include: sample size determination, assumptions and transformation of data scale, completely random, randomized block and Latin square designs, comparisons among means, factorial experiments with restricted randomization and analysis of covariance, analysis of counts, and non-parametric methods.

PSPP 521. Plant Science for Teachers: It Grows on You. 1 Credit. (1 Lec) Su
Prerequisite: Two years of successful teaching experience. Graduate standing. In this course you will learn about the characteristics of plants, how abiotic factors influence plant growth and development, and experimental design and data collection methods. You will be challenged to create innovative lessons to deliver this content in your particular classroom setting.

PSPP 522. Insectology for Teachers. 3 Credits. (3 Lec) Su
Prerequisite: Graduate standing. Two years successful teaching experience. This exciting course is designed for elementary, middle school and high school teachers. The course provides an effective way to integrate instructional scientific strategies for teachers. Students will share cross-level instruction and constructive ideas. The goal of this course is to promote the study of insects and applications of insects. This eight-week course is intended for teachers enrolled in the Masters of Science in Science Education degree program, the NTEN Certificate Program, and other teachers with a minimum of two years teaching experience seeking professional development.

PSPP 524. Adv Plant Pathology. 3 Credits. (3 Lec) F alternate years, to be offered odd years.
This course is designed to give graduate students in the This course will serve as a companion to Genetic Plant Improvement (PSPP 542) taught in Spring odd alternate years by the plant breeding faculty.

PSPP 530. Crop Physiology. 3 Credits. (3 Lec) F
Prerequisite: Bcio 433; Chmy 211. This online offering examines interactions between plants and the environment. Light, environment, plant canopy development, photosynthesis, source-link relations, growth analysis, growth regulation, water relations, and environmental stresses are addressed.

PSPP 541. Advanced Plant Genetics. 3 Credits. (3 Lec) F alternate years, to be offered even years.
Genome and genetic analysis of flowering plants, including structure of the genome, methods of genetic analysis and the genetic basis of plant morphology and development. A familiarity with current and classical literature is stressed.

PSPP 542. Genetics of Plant Improvement. 3 Credits. (3 Lec) S odd years
Prerequisite: Agsc 441, Stat 401. The past, present and future of plant improvement. Emphasis on genetic principles underlying classical plant breeding, and on molecular biological principles underlying plant genetic engineering.

PSPP 546. Herbicide Physiology. 3 Credits. (3 Lec) F
Offered Even Years Prerequisite: Bch 380 and Bcio 433 or equivalents. A team-taught, distance delivery course on the biochemistry and physiology of herbicide action in plants. Herbicide discovery, classification, and mechanisms of action and resistance are explored.

PSPP 547. Biomimicry for Teachers. 2 Credits.
PSPP 548. Flowering Plants of the Northern Rocky Mountains. 2 Credits. (2 Lec) Su
A field oriented study of the flowering plants of Montana with an emphasis on plant keying skills. Objectives are: 1) to identify the parts of flowering plants and become familiar with botanical terms; 2) to learn morphological characteristics of common plant families; 3) to learn how to use a plant key to successfully identify flowering plants; application of these skills and botanical texts to the classroom. Mon - Tues are class/lecture days; Wed - Fri are day field trips to local trail heads.

PSPP 549. Plants, People, Health for Teachers. 2 Credits. (1 Lec, 1 Lab) Su
Prerequisite: Teacher of science with two year minimum teaching experience. This interdisciplinary course investigates how plants and people intersect, with a focus on the current popular and scientific interest in using plants and their compounds for health and medicine. The subject will be applied to ethnobotany, botany, and phytochemistry. The last day will be spent with hands-on experience making some herbal products to enhance the learning opportunity.
Font Notice

This document should contain certain fonts with restrictive licenses. For this draft, substitutions were made using less legally restrictive fonts. Specifically:

Times was used instead of Adobe Garamond Pro.

The editor may contact Leepfrog for a draft with the correct fonts in place.