Code # AG23

**Bulletin Change Transmittal Form**

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| **Bulletin Change** Please attach a copy of all catalogue pages requiring editorial changes. |

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|  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Vice Chancellor for Academic Affairs** |

**1.Contact Person** (Name, Email Address, Phone Number)

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**2.Proposed Change**

PSSC 2813, Soils: add Spring to offering time.

PSSC 4713, Soil Quality and Interpretion, change time to Fall, even.

PSSC 4813, Soil Fertility: change prerequisites to include the new chemistry courses being required for Plant and Soil Science majors, include: OR Chem 1043 and Chem 1041 in addition to the currently listed pre-requisites. Change offering time to Spring, delete ‘even.’

**3.Effective Date**

Fall 2014

**4.Justification**

Demand for PSSC 2813 and PSSC 4813 has increased and they are offered more frequently.

Plant and Soil Science major now requires CHEM 1043 and CHEM 1041 be taken instead of CHEM 1013 and CHEM 1011 (though those are still an option for our students). CHEM 1043 and 1041 are adequate preparation for Soil Fertility (PSSC 4813).

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**PSSC 2813. Soils** Origin, classification, physical and chemical properties of soil and environmental considerations. Prerequisite, CHEM 1013 and CHEM 1011 or CHEM 1043 and CHEM 1041. Fall, Spring .

**PSSC 3313. Plant Disease Management** Introduction to management of plant diseases. Ma- jor concepts include genetic, cultural, and biological controls as related to management of plant systems. Self study course utilizing computer technology, seminars, and laboratory exercises. Prerequisites, PSSC 1303. Spring.

**PSSC 3323. Weeds and Weed Control** Identification and pest management of weeds in agro- nomic, horticultural, and urban systems. Survey of herbicides, their chemistry, toxicology, modes of action, uses, and environmental impact. Lecture two hours and laboratory two hours per week. Prerequisites, CHEM 1013 or CHEM 1043; and PSSC 1303. Spring.

**PSSC 3333. Plant Breeding** History of plant improvement, methods of plant breeding, and the basic application of these methods to various agronomic and horticultural crops. Demand.

**PSSC 3503. Agriculture Spatial Technologies I** Basic understanding and utilization of data collection and assessment using global position system receivers, direct and remote sensing, and geographic information system software related to crop production and nutrient management. Prerequisite, PSSC 2813. Fall.

**PSSC 3513. Agriculture Spatial Technologies II** The course will concentrate on a study of the electromagnetic properties of earth objects, vegetation, soils, water, and, the principles and operations of different sensors used to measure this energy. Prerequisite, PSSC 3503. Spring.

**PSSC 3802. Pasture and Forage Crops** Introduction to important forage and pasture crops in the mid south region. Discussions will include cropping systems, plant growth and develop- ment, physiology, and environmental considerations. Prerequisite, PSSC 1303. Fall, odd.

**PSSC 4313. Plant Growth and Development** Auxins, gibberellins, and various other regulators of plant growth, also phenomena such as flowering and dormancy. Prerequisites, CHEM 1052, HORT 2253 and PSSC 1303. Fall.

**PSSC 4342. Seed Analysis and Processing** Techniques and principles of seed analysis and

grading, methods of producing and processing quality seeds and seed stocks. Demand.

**PSSC 4513. Plant Biotechnology** Course materials will address the why and how of plant gene transfer plus the issues involved in making those plants part of the agricultural landscape. Dual listed as PSSC 5513. Prerequisite: AGRI 2213 or BIOL 3013 or permission of instructor. Spring.

**PSSC 4713. Soil Quality Assessment and Interpretation** A study of the indicators of soil quality, documentation and measurement of soil quality, interpretations of soil quality, impacts and effects of management of soil quality, and the role of conservation planning in improving soil quality. Pre- requisite, PSSC 2813. ~~Demand~~ Fall, even.

**PSSC 4804. Principles of Crop Production** Introduction to agronomic cropping systems which includes production systems, concepts related to crop selection and genetics, establishment and management of the crop, and harvest management. Environmental issues related to crop produc- tion and sustainability are also evaluated. Prerequisites, PSSC 1303 and PSSC 2813. Spring, Odd.

**PSSC 4813. Soil Fertility** Principles involved in maintaining and increasing fertility of soil. Pre- requisite, PSSC 2813, CHEM 1013, and CHEM 1011 or CHEM 1043 and CHEM 1041. Spring, ~~even~~.

**PSSC 4822. Environmental Factors Affecting Plant Growth** Affect of environmental factors on growth of important crop species. Primary emphasis will be on water utilization, solar irradiance, and temperature on plant development. Methods of measurement of environmental factors will be included. Prerequisites, PSSC 1303. Demand.

**PSSC 4853. Soil and Water Conservation** Properties of soil which affect erosion and water infil- tration, with practical methods of holding water and soil. Dual listed as PSSC 5853. Prerequisite, PSSC 2813. Spring, odd..