

# Agriculture Courses

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## **AG 501 - Instrumentation for Agricultural Sciences**

Hours: 3

Principles, equipment, and techniques for measuring variables in animal, plant, soil, and environmental sciences. Advanced exercises measuring physical and chemical properties will be explored.

## **AG 503 - Adult Education**

Hours: 3

The purpose of this course is to advance the understanding of the basic principles behind motivating adults to learn. Procedures in implementing these principles to bring about change in adult behavior will be explored.

## **AG 504 - Qualitative Research**

Hours: 3

Qualitative Research - Three semester hours This course investigates the different strategies/methods of conducting qualitative research such as conducting effective interviews, participant observation, and document analysis (data mining). Students will learn about the different research designs associated with qualitative research and explore data analysis and establishing validity/reliability for qualitative research.

## **AG 505 - Statistical Methods in Agriculture**

Hours: 3

Introductory statistics course for graduate students in agricultural sciences. Topics include descriptive statistics, measures of dispersion, hypothesis testing, confidence intervals, analysis of variance, pairwise comparisons, and linear regression. Prerequisites: Admission to graduate school.

## **AG 506 - Advanced Statistical Methods in Agriculture**

Hours: 3

Students will learn to work with various probability distributions (including F-distribution, Chi-square, t-distribution, standard normal distribution, normal), as well as hypothesis tests, including tests for normality, correlation, advanced regression analysis, CRD, ANOVA, general factorial models, nesting versus crossing, and non-parametric statistics. The course covers commonly used features and advanced statistical analysis using Statistical Analysis System (SAS) programming, including summarizing, combining, visualizing, and analyzing data.

## **AG 507 - Water Issues and Ethics**

Hours: 3

This course will explore critical issues and ethical considerations related to existing and proposed water management policies and conservation promotion. Perspectives from rural and urban consumers, agricultural producers, and industry will be examined in context to these issues at the local, state, national, and global levels. Prerequisites: Admission to graduate school.

## **AG 508 - Gardening Across the Curriculum**

Hours: 3

This course provides a review of research and resources related to school and university-based gardening programs for academic enrichment, nature awareness, nutrition improvement, and other aspects of garden-based learning. Prerequisites: Admission to graduate school.

## **AG 509 - Contemporary Issues in Sustainable Agriculture**

Hours: 3

This course will examine the philosophical, theoretical, and practical aspects of sustainable agriculture. Course activities will provide the current or aspiring agricultural professional with sufficient background to engage and assist clientele with planning and decision-making related to the adoption of sustainable agriculture practices.

## **AG 512 - Methods of Technol Change**

Hours: 3

Methods of Technological Change - Three semester hours This course will focus on the processes by which professional change agents (for example, extension agents) influence the introduction, adoption, and diffusion of technological change. The interlocking relationships of technology, culture, and society and the role of the change agent in affecting those relationships will be covered. Students will learn how to predict and minimize the undesirable consequences of change and how to enhance the development of communication skills required when working with people.

## **AG 518 - Thesis**

Hours: 3-6

Thesis. Three to six semester hours. Development of a research project under the supervision of a staff member. Granting of credit for this project is dependent upon the completion and approval of the thesis.

**AG 532 - Sci Meth Ag Research**

Hours: 3

The course is for graduate students in an option 1 (thesis) graduate program and introduces students to the processes of scientific investigation, research methodologies and techniques, data interpretation, experimental design options, and scientific methodologies involved with planning, executing, interpreting and the scientific writing of research projects.

**AG 533 - Grant Writing**

Hours: 3

This course provides the student with practical skills in identifying grant sources and developing proposals. The course will focus primarily on agriculture, food, family, community, and youth initiatives appropriate for master's students, as well educational projects applicable to professionals at the secondary, postsecondary, or extension/outreach level.

**AG 574 - Records Rep Voc Tc**

Hours: 3

**AG 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.

**AG 595 - Research Lit Techniques**

Hours: 3

Research Literature and Techniques. Three semester hours. A careful study of the latest research literature and techniques available in different fields of agriculture. A research paper will be required according to the interests of the individual student.

**AG 597 - Special Topics**

Hours: 1-5

Special Topics. One to four semester hours. Organized class. May be repeated when topics vary.