

**322. Management and Leadership**  
Spring, 3(3-2)

P: AS 321.  
Leadership theory, traditional Air Force management functions, and current practices. Emphasizes the application of leadership concepts by junior officers. Leadership laboratory.

**421. American Defense Policy and the Management of Conflict**  
Fall, 3(3-2)

P: AS 322.  
Formation and implementation of defense policy and strategy. Bureaucratic interplay and impact of nuclear technology. Investigation of current defense issues. Leadership laboratory.

**422. The Military and Society**  
Spring, 3(3-2)

P: AS 421.  
Role of the professional officer in a democratic society. Global security issues. Military justice and the laws of war. Leadership laboratory.

**490. Independent Study**  
Fall, Spring, Summer, 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course.

R: Open only to juniors and seniors. Approval of department.  
Investigation of a particular aspect of aerospace studies.

**AFRICAN LANGUAGES AFR**

**Department of Linguistics and Germanic, Slavic, Asian and African Languages**  
College of Arts and Letters

**101A. Elementary Swahili I**  
Fall, 4(4-1)

Speaking, reading, and writing Swahili, with emphasis on developing oral proficiency.

**101B. Elementary African Language I**  
Fall, 4(4-1)

African language at the elementary level. Speaking, reading, and writing, with emphasis on developing oral proficiency skills. Specific language varies.

**102A. Elementary Swahili II**  
Spring, 4(4-1)

P: AFR 101A or approval of department.  
Further work on speaking, reading, and writing Swahili, with continued emphasis on developing oral proficiency skills.

**102B. Elementary African Language II**  
Spring, 4(4-1)

R: Approval of department.  
Further work on speaking, reading, and writing an African language, with continued emphasis on developing oral proficiency skills.

**151. Beginning Individualized African Language I**  
Fall, 4(4-1)

R: Approval of department.  
Individualized study of an African language at the elementary level. Speaking, reading, and writing, with emphasis on developing oral proficiency skills.

**152. Beginning Individualized African Language II**  
Spring, 4(4-1)

R: Approval of department.  
Further individualized work on speaking, reading, and writing an African language, with continued emphasis on developing oral proficiency skills.

**201A. Second Year Swahili I**  
Fall, 4(4-1)

P: AFR 102A or approval of department.  
Intermediate-level work on speaking, reading, and writing Swahili, with emphasis on developing oral proficiency skills.

**201B. Second Year African Language I**  
Fall, 4(4-1)

R: Approval of department.  
Intermediate-level work on speaking, reading, and writing an African language, with continued emphasis on developing oral proficiency skills.

**202A. Second-Year Swahili II**  
Spring, 4(4-1)

P: AFR 201A or approval of department.  
Further intermediate-level work on speaking, reading, and writing Swahili, with continued emphasis on developing oral proficiency skills.

**202B. Second-Year African Language II**  
Spring, 4(4-1)

R: Approval of department.  
Further intermediate-level work on speaking, reading, and writing an African language, with continued emphasis on developing oral proficiency skills.

**251. Intermediate Individualized African Language I**  
Fall, 4(4-1)

R: Approval of department.  
Intermediate-level individualized work on speaking, reading, and writing an African language, with emphasis on developing oral proficiency skills.

**252. Intermediate Individualized African Language II**  
Spring, 4(4-1)

R: Approval of department.  
Further intermediate-level individualized work on speaking, reading, and writing an African language, with continued emphasis on developing oral proficiency skills.

**290. Independent Study**  
Fall, Spring, 1 to 4 credits. A student may earn a maximum of 8 credits in all enrollments for this course.

R: Approval of department.  
Special projects arranged by an individual student and a faculty member in areas supplementing regular course offerings.

**450A. Advanced Swahili**  
Fall, Spring, 1 to 5 credits. A student may earn a maximum of 20 credits in all enrollments for this course.

P: AFR 202A or approval of department.  
Advanced study of Swahili. Speaking, reading, and writing, with emphasis on developing oral proficiency skills.

**450B. Advanced African Language**  
Fall, Spring, 1 to 5 credits. A student may earn a maximum of 24 credits in all enrollments for this course.

R: Approval of department.  
Advanced study of an African language. Speaking, reading, and writing, with emphasis on developing oral proficiency skills. Language varies.

**490. Independent Study**  
Fall, Spring, 1 to 4 credits. A student may earn a maximum of 8 credits in all enrollments for this course.

R: Not open to freshmen and sophomores. Approval of department.  
Special projects arranged by an individual student and a faculty member in areas supplementing regular course offerings.

**491. Special Topics in African Studies**  
Fall, Spring, 1 to 4 credits. A student may earn a maximum of 8 credits in all enrollments for this course.  
R: Approval of department.  
Special topics supplementing regular course offerings proposed by faculty on a group study basis.

**AGRICULTURAL AND EXTENSION EDUCATION AEE**

**Department of Agricultural and Extension Education**  
College of Agriculture and Natural Resources

**101. Introduction to Education and Communications in Agriculture and Natural Resource**  
Fall, 3(3-0)

R: Open only to freshmen and sophomores in the College of Agriculture and Natural Resources.  
Historical and philosophical foundations of agriscience education and Agriculture and Natural Resources communications. Theories and principles of learning, inductive teaching, communication, and leadership in the context of the land-grant system.

**201. Visual Communications in Agriculture and Natural Resources**  
Spring, 3(2-2)

P: AEE 101. R: Open only to students in the College of Agriculture and Natural Resources.  
Understanding, use, design, and production of visual communications in agriculture and natural resources. Posters, print advertisements, and presentation graphics.

**203. American Agrarian Movements**  
Spring, 3(3-0)

Historical perspectives of America by pioneers, farmers, ranchers and others who cultivated the land from 1700s to 1930. Agricultural movements, trends and development.

**301. Exploring World Agriculture and Natural Resources**  
Fall, 3(3-0)

P: AEE 101 or CSS 101 or FSM 200 or RD 201. R: Not open to freshmen and sophomores.  
International dimensions of agriculture and natural resources. Social, economic, geographic, natural and political constraints.

**302. Developing and Managing Agriscience and Natural Resources Education Programs**  
Fall, 3(2-2)

P: AEE 101 or TE 150.  
Development, management and relationships of key components in effective agriscience and natural resources education programs. Community resource use, leadership development, program evaluation.

**303. Issues in Agricultural and Environmental Education Programs**  
Fall, 3(2-2)

P: AEE 101 or TE 150; FW 203. R: Not open to freshmen and sophomores.  
Assessment and analysis of current issues and their impact on agricultural and environmental education programs.

**310. Environmental Communication**  
Fall, 3(3-0) Interdepartmental with Resource Development. Administered by Resource Development.  
P: RD 201, ZOL 250. R: Not open to freshmen and sophomores.  
Environmental risk communications. Conflict resolution. Mitigation and public forum management.

**Descriptions — Agricultural and Extension Education**

**Courses**

**12. American Agricultural Development and the Land-Grant System**  
Fall, 3(3-0)

AEE 203. R: Not open to freshmen. Historical overview of the evolution of American agricultural development and the land-grant system. Relationship between federal legislation and agrarian institutions such as farm organizations and land grant colleges.

**91. Agricultural and Natural Resources Communications Campaigns**  
Fall, Spring, Summer, 3(3-0)

: Open only to juniors or seniors in the College of Agriculture and Natural Resources or College of Communication Arts and Sciences.

Planning and execution of agricultural and natural resource communication campaigns. Emphasis on theories, strategies and techniques using mass and controlled media channels.

**93. Agricultural and Natural Resources Leadership and Education**  
Fall, Spring, Summer, 3(3-0)

: Open only to juniors or seniors.

Characteristics of leadership, group dynamics, and development of personal leadership skills. Educational methods and learning styles.

**90. Independent Study**

Fall, Spring, Summer, 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course.

: AEE 401. R: Open only to Agriscience or Agriculture and Natural Resources Communications majors. Approval of department; application required.

Individual study in areas of agriscience, extension education, or agricultural and natural resources communications.

**91. Selected Topics**

Fall, Spring, Summer, 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course.

: AEE 101 or AEE 401. R: Open only to Agriscience or Agriculture and Natural Resources Communications majors. Approval of department.

Topics selected to meet student needs in agriculture and natural resources communications or agriscience and natural resources education.

**01. Global Development through Agricultural and Extension Education**  
Fall, 3(3-0)

Application of education theories: principles and practices in planning, conducting, and evaluating formal and nonformal education programs on international development.

**02. Program Administration in Agricultural and Extension Education**  
Fall, 3(3-0)

Organizational and management concepts and practices in agricultural and extension education.

**03. Instructional Strategies in Agricultural and Extension Education**  
Spring, 3(3-0)

Assessment of learning needs. Development, selection, use and evaluation of teaching strategies. Emphasis on agriscience education and adult learners.

**04. Communication Strategies in Agricultural and Extension Education**  
Fall, 3(3-0)

: Open only to seniors and graduate students in College of Agriculture and Natural Resources.

Information delivery systems and presentation techniques for varied agricultural and extension audiences.

**805. Leadership Development in Agricultural and Extension Education**  
Spring, 3(3-0)

Assessment of values, style, behavior, principles. Philosophical and sociological bases for leadership development. Applications.

**806. Program Planning and Evaluation in Agricultural and Extension Education**  
Spring of odd-numbered years, Summer of even-numbered years, 3(3-0)

Principles, theories, and practices in developing and evaluating state and local agricultural and extension education programs.

**807. Research in Agricultural and Extension Education**  
Fall, 3(3-0)

R: Open only to graduate students in College of Agriculture and Natural Resources.

Planning, designing, conducting, and reporting research in agricultural and extension education.

**811. Education Through Extension**  
Fall, 3(3-0)

Function, organization, and operation of extension education programs.

**821. Principles and Philosophies of Agriscience Education**  
Summer, 3(3-0)

Principles and philosophies for analyzing and developing agriscience education courses, curricula, and programs.

**822. Teaching Supervised Agriscience Experiences**

Summer of odd-numbered years, 3(3-0)

R: Open only to graduate students in Agricultural and Extension Education.

Principles and practices of agriscience laboratory teaching in high schools.

**890. Independent Study in Agricultural and Extension Education**

Fall, Spring, Summer, 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course.

R: Approval of department.

**891. Selected Topics in Agricultural and Extension Education**

Fall, Spring, Summer, 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.

R: Open only to graduate students in Agricultural and Extension Education.

Contemporary issues and problems in agricultural and extension education.

**892. Seminar in Agricultural and Extension Education**

Fall, Spring, 1(1-0) A student may earn a maximum of 2 credits in all enrollments for this course.

Selected issues in agricultural and extension education.

**893. Professional Field Experience in Agricultural and Extension Education**

Fall, Spring, Summer, 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course.

R: Open only to graduate students in Agricultural and Extension Education.

Practice, observation, and analysis through field experiences.

**898. Master's Research**

Fall, Spring, Summer, 1 to 5 credits. A student may earn a maximum of 5 credits in all enrollments for this course.

R: Open only to master's degree students in Agricultural and Extension Education. Master's Plan B Research.

**899. Master's Thesis Research**

Fall, Spring, Summer, 1 to 6 credits. A student may earn a maximum of 99 credits in all enrollments for this course.

R: Open only to master's degree students in Agricultural and Extension Education.

**901. International Agricultural and Extension Education Systems**  
Spring, 3(3-0)

P: AEE 801 or AEE 811 or AEE 821. R: Open only to graduate students in Agricultural and Extension Education.

Systems of agricultural and extension education in different countries. Philosophical and structural differences and similarities.

**907. Research Project Design and Implementation**  
Spring, 3(3-0)

P: AEE 807 or approval of department.

Selection and development of research instruments. Quantitative and qualitative data analysis in agricultural and extension education.

**911. Nonformal Learning**

Fall of even-numbered years, Summer of odd-numbered years, 3(3-0)

P: AEE 811. Theories and philosophies of learning in out-of-school settings. Alternative strategies.

**912. Advanced Extension Administration**  
Spring, 3(3-0)

P: AEE 802. R: Open only to graduate students in College of Agriculture and Natural Resources.

Advanced practices and applications necessary for effective management and administration within extension education.

**999. Doctoral Dissertation Research**

Fall, Spring, Summer, 1 to 24 credits. A student may earn a maximum of 99 credits in all enrollments for this course.

R: Open only to Ph.D. students in Agricultural and Extension Education.

**AGRICULTURAL ECONOMICS**

**AEC**

**Department of Agricultural Economics  
College of Agriculture and Natural Resources**

**481. Agricultural Research Systems in Developing Countries**

Summer, 2(2-0) Interdepartmental with Agriculture and Natural Resources, Animal Science, and Crop and Soil Sciences. Administered by Agriculture and Natural Resources.

R: Open only to seniors and graduate students in the College of Agriculture and Natural Resources.

Planning, organizing and managing agricultural research systems. Problems and alternative reforms to improve research productivity. Adapting new agricultural technology in developing countries.