

**Range Science Core Requirements**

AG E 250, Life with Microcomputers .....	3
ANSC 261, Principles of Animal Metabolism, or CHEM 211, Organic Chemistry 3	
BIOL 211G, Cell and Organismal Biology .....	3
BIOL 301, Ecology .....	3
CHEM 111, General Chemistry I .....	4
CHEM 112, General Chemistry II .....	4
COMM 265G, Principles of Human Communication, or AXED 201G, Effective Leadership and Communication in Agricultural Organizations .....	3
ECON 201G, Introduction to Economics; 251 G, Principles of Macroeconomics; or 252G, Principles of Microeconomics .....	3
EPWS 314, Plant Physiology .....	3
E ST 311 G, Statistical Applications .....	3
RGSC 150, Introduction to Range Science Major .....	1
RGSC 294, Rangeland Resource Management .....	3
RGSC 307, Rangeland Grasses .....	3
RGSC 316, Rangeland Plants .....	2
RGSC 317, Rangeland Communities .....	3
RGSC 318, Watershed Management .....	3
RGSC 325, Rangeland Restoration Ecology .....	3
RGSC 402, Seminar .....	1
RGSC 440, Rangeland Resource Ecology .....	4
RGSC 452, Rangeland Analysis .....	4
RGSC 460, Advanced Rangeland Management .....	4
SOIL 252, Soils .....	3
SOIL 252L, Soils Laboratory .....	1
SOIL 472, Soil Morphology and Classification .....	4
WLSC 255, Principles of Natural Resource Management .....	3

**MINOR: Horse Management**

A minor in Horse Management consists of at least 20 credits.

ANSC 103, Introductory Horse Science.....	3
ANSC 265, Horse Evaluation .....	2
ANSC 288, Horse Fitting and Selling.....	3
ANSC 289, Management of Equine Operations or ANSC 390, Internship .....	3
ANSC 304, Feeds and Feeding.....	3
ANSC 320, Applied Horsemanship or ANSC 321, Applied Horsemanship II.....	3
ANSC 383, Equine Reproductive Management or ANSC 415, Horse Production.....	3

**MINOR: Livestock Production**

A minor in Livestock Production consists of at least 19 credits

ANSC 100, Introductory Animal Science or ANSC 200, Introductions to Meat Animal Production.....	3
ANSC 262, Introduction to Meat Science.....	3
ANSC 303, Livestock, Meat, and Wool Evaluation.....	4
ANSC 304, Feeds and Feeding .....	3
Students must complete at least 2 courses from the following list: ANSC 314, Swine Production; ANSC 414, Sheep and Wool Production; ANSC 415, Horse Production; ANSC 416, Beef Production; ANSC 417, Dairy Production.....	6

**MINOR: Range Science**

A minor in Range Science consists of at least 18 credits.

RGSC 294, Rangeland Resource Management.....	3
RGSC 316, Rangeland Plants .....	2
RGSC 325, Rangeland Restoration Ecology.....	3
RGSC 452, Rangeland Analysis.....	4
Students must complete at least 2 courses from the following list:	
RGSC 302G, Forestry and Society.....	3
RGSC 307, Rangeland Grasses .....	3
RGSC 317, Rangeland Communities .....	3

RGSC 318, Watershed Management.....	3
RGSC 440, Rangeland Resource Ecology .....	4
RGSC 460, Advanced Rangeland Management.....	4

## ENTOMOLOGY, PLANT PATHOLOGY, and WEED SCIENCE

**Professor H. Grant Kinzer, department head**

**Professors** Byford, Ellington, Kemp, Lindsey, Schroeder, Sterling, Thomas; **Associate Professors** Creamer, English, Pierce, Sanderson, Thompson; **Assistant Professors** Bundy, Hanson, Sanogo; **Adjunct Professors** Banks, Berkson, Drake, Forbes, Miller

(505) 646-3225

**DEGREE: Bachelor of Science in Agriculture**

**MAJOR: Agricultural Biology**

**OPTION: Agricultural Chemical Sales**

**Applied Biology**

**Entomology**

**Environmental Biology**

**Pest Management**

**MINORS: Pest Management**

**Entomology**

**Plant Pathology**

**Weed Science**

College requirements are 35 credits in the College of Agriculture and Home Economics. Specific courses that meet these and the university general education requirements and additional courses in biology, chemistry, mathematics, and seminar are included below in departmental requirements. A total of 128 credits are required for graduation. At least 55 credits must be 300-level courses and above. Schedules in specific semesters will be developed with the help of a student's academic adviser.

**DEGREE: Bachelor of Science in Agriculture**

**MAJOR: Agricultural Biology**

The agricultural biology course work prepares you for a variety of careers in the biological sciences and agriculture. You will develop your curriculum with an academic adviser to attain your individual goals. Many will pursue advanced degrees in the sciences or prepare for admittance to professional schools (medical, dental, etc.). A diverse program is offered with five separate options that allow you to tailor your program for careers in the commercial sector, such as agricultural consulting, chemical sales, and pest management or for careers with county, state, or federal agencies, such as research technicians, inspectors, and extension agents.

**Departmental Requirements**

Courses marked with an asterisk (\*) are required to fulfill general education requirements.

AG E 250G, Life with Microcomputers, or C S 110G, Computer Literacy.....	3
ANSC/BIOL 305, Genetics.....	3
BIOL 111G, Natural History of Life, and BIOL 211G, Cellular and Organismal Biology.....	6
BIOL 311, General Microbiology.....	3
BIOL 313, Structure and Function of Plants, or BIOL 322, Zoology.....	3
CHEM 111, 112, General Chemistry I, II*.....	8
COMM 265G, Principles of Human Communication, or COMM 253G, Public Speaking, or AXED 201G, Effective Leadership and Communication in Agricultural Organizations*.....	3
ECON 201G, ECON 251G, or ECON 252G*.....	3
ENGL 111G, Freshman Composition* .....	4
ENGL 311G, Advanced Composition, or ENGL 318G, Advanced Technical and Professional Communication* .....	3
EPWS 100, Introduction to Pest Management.....	3
EPWS 100L, Pest Management Laboratory .....	1

EPWS 303, Economic Entomology.....	4
EPWS 310, Plant Pathology.....	4
EPWS 311, Weed Science.....	4
EPWS 447, Seminar.....	1
E ST311G, Statistical Applications*.....	3
SOIL 252, Soils.....	3

**General education electives from the following categories:**

• Historical Perspectives.....	3
• Human Thought and Behavior.....	3
• Literature or Fine Arts.....	3
• Viewing a Wider World.....	6

**Agricultural Biology Options**

In addition to the departmental requirements listed above, you must also complete all of the courses in at least one of the options listed below. Courses with higher numbered prefixes may replace courses listed as departmental requirements in some cases. Courses marked with an asterisk (\*) are required to fulfill general education requirements.

**OPTION: Agricultural Chemical Sales**

Offered jointly with the Department of Agricultural Economics and Agricultural Business.

ACCT 251, Management Accounting.....	3
BLAW 316, Legal Environment of Business.....	3
EPWS 390, Internship.....	2-3
EPWS 481, Nematology, or EPWS 462, Parasitology.....	3
EPWS 492, Diagnosing Plant Disorders.....	3
MATH 120, Intermediate Algebra or above.....	3
MATH 142G, Calculus for Biological and Management Sciences I*.....	3
MKTG 312, Personal Selling.....	3
PHYS 110G, Introduction to Physics or above.....	4
Approved Electives in AG E.....	9

**OPTION: Applied Biology/Preprofessional**

The Applied Biology option prepares you for professional advancement including admittance to medical, dental, veterinary, and graduate schools. Students interested in the health professions must register with the Health Professional Advisory Committee no later than the sophomore year.

BCHE 341, Survey of Biochemistry.....	4
CHEM 313, 314, 315, Organic Chemistry I, II, and Lab.....	8
MATH 180, Matrices and Linear Programming.....	3
MATH 121, College Algebra.....	3
MATH 191, 192, Calculus and Analytical Geometry I, II.....	6
PHYS 211, 211L, General Physics I, General Physics I Laboratory.....	4
PHYS 212, General Physics II.....	3

Choose two of the following courses:

ANSC 370, Anatomy and Physiology of Farm Animals; BIOL 312, Plant Taxonomy; BIOL 330, Comparative Anatomy and Embryology; BIOL 354, Physiology of Humans; BIOL 377, Cell Biology; EPWS 314, Plant Physiology; EPWS 434, Insect Taxonomy; EPWS 472, Mycology.....	6-8
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**OPTION: Environmental Biology**

The Environmental Biology option prepares you for professional positions in environmental impact, regulation, compliance, and improvement.

AGHE 380G, Ecosystem Earth.....	3
CH E 330, CH E 430, Environmental Seminars I, II.....	2
CHEM 211, Organic Chemistry.....	3
EPWS 314, Plant Physiology.....	3
EPWS 390, Internship.....	2-3
EPWS 451, Special Topics, Environmental Biology.....	3
MATH 120, Intermediate Algebra.....	3
MATH 142G, Calculus for Biological and Management Sciences I*.....	3
PHYS 211, 211L, General Physics I.....	4
SOIL 257, Meteorology.....	3
TOX 361, Basic Toxicology.....	3

**Electives may be chosen from the areas of:**

- Basic Science—biology, botany, zoology
- Environment—meteorology, pollution, agricultural practices, biodiversity
- Toxicology—pesticides, worker safety, food safety
- Communication skills
- Math, statistics, modeling

**OPTION: Entomology**

The Entomology option prepares you for graduate degrees in entomology. Emphasis is placed on a broad background in field and laboratory aspects of insect biology and management.

AGRO 471, Plant Mineral Nutrition.....	3
CHEM 313, 314, 315, Organic Chemistry I, II, and Lab.....	8
BCHE 341, Survey of Biochemistry.....	3
EPWS 314, Plant Physiology.....	3
EPWS 434, Insect Taxonomy, or EPWS 451, Special Topics or Immature Insects.....	3
EPWS 462, Parasitology.....	3
EPWS 481, Nematology.....	3
EPWS 491, Insect Physiology.....	3
EPWS 492, Diagnosing Plant Disorders.....	3
MATH 120, Intermediate Algebra or above.....	3
MATH 142G, Calculus for Biological and Management Sciences I*.....	3
PHYS 110G, Introduction to Physics or above.....	4

**OPTION: Pest Management**

The Pest Management option prepares you for careers such as agricultural consulting, chemical sales, insect, weed and disease management, research technicians, inspectors, and extension agents. You can also go on to graduate programs in many applied biology/pest management programs.

AGRO 471, Plant Mineral Nutrition.....	3
CHEM 211, Organic Chemistry.....	4
EPWS 314, Plant Physiology.....	3
EPWS 434, Insect Taxonomy, or EPWS 451, Special Topics or Immature Insects.....	3
EPWS 452, Pesticide Toxicology.....	3
EPWS 455, Advanced Insect Pest Management, or EPWS 456, Biological Control.....	3
EPWS 481, Plant Nematology, or EPWS 462, Parasitology.....	3
EPWS 492, Diagnosing Plant Disorders.....	3
MATH 120, Intermediate Algebra or above.....	3
MATH 142G, Calculus for Biological and Management Sciences I*.....	3
PHYS 110G, Introduction to Physics or above.....	4
SOIL 312, Soil Management and Fertility.....	4

**MINORS**

*Courses marked with † are required for the minor.*

**MINOR: Pest Management (18 credits)**

EPWS 100, Introduction to Pest Management.....	3
EPWS 100L, Introduction to Pest Management Lab.....	1
†EPWS 303, Economic Entomology.....	4
†EPWS 310, Plant Pathology.....	4
†EPWS 311, Weed Science.....	4
EPWS 434, Insect Taxonomy.....	3
Upper-division EPWS course(s).....	3-6

**MINOR: Entomology (18 credits)**

EPWS 100, Introduction to Pest Management.....	3
EPWS 100L, Introduction to Pest Management Lab.....	1
†EPWS 303, Economic Entomology.....	4
EPWS 434, Insect Taxonomy.....	3
EPWS 451, Special Topics.....	3-9
EPWS 455, Advanced Insect Pest Management.....	3
EPWS 456, Biological Control.....	3
EPWS 462, Parasitology.....	3
EPWS 491, Insect Physiology.....	3

**MINOR: Plant Pathology (18 credits)**

BIOL 311, General Microbiology.....	3
BIOL 311L, General Microbiology Lab.....	1
EPWS 100, Introduction to Pest Management.....	3
EPWS 100L, Introduction to Pest Management Lab.....	1
†EPWS 310, Plant Pathology.....	4
EPWS 314, Plant Physiology.....	3
EPWS 449, Special Problems in Plant Pathology.....	1-3
†EPWS 472, Mycology.....	3
†EPWS 481, Plant Nematology.....	3
EPWS 492, Diagnosing Plant Disorders.....	3

**MINOR: Weed Science (18 credits)**

BIOL 312, Plant Taxonomy.....	4
BIOL 470, Plant Community Ecology.....	3
EPWS 100, Introduction to Pest Management.....	3
EPWS 100L, Introduction to Pest Management Lab.....	1
TEPWS 311, Weed Science.....	4
TEPWS 314, Plant Physiology.....	3
TEPWS 449, Special Problems in Weed Science.....	1-3
EPWS 452, Applied Pesticide Toxicology.....	3

## FAMILY and CONSUMER SCIENCES

**Professor Martha Archuleta, interim department head**

**Professors** Bock, Cummings, Del Campo, McKee; **Associate Professors** Devall, Eastman, Smitley; **Assistant Professors** Krishnan, Montanez

(505) 646-3936

**DEGREE: Bachelor of Science in Family and Consumer Sciences**

**MAJOR: Clothing, Textiles, and Fashion Merchandising**

**MAJOR: Family and Child Science**

**OPTION: Family Science**

**OPTION: Child Science**

**MAJOR: Family and Consumer Sciences Education**

**MAJOR: Human Nutrition and Food Science**

**OPTION: Dietetics**

**OPTION: Food Science and Technology**

**OPTION: Community Nutrition**

**OPTION: Nutrition and Fitness**

**OPTION: Prehealth with Emphasis in Nutrition**

**MINORS: Clothing, Textiles and Fashion Merchandising**

**Family and Child Science**

**Family and Consumer Sciences Education**

**Food Science**

**Nutrition**

Courses and curricula in the department are designed to educate you as an individual and as a citizen in a changing society. They also develop a scientific attitude and the ability to conduct research directed toward solutions of problems affecting the quality of life.

You must complete general education requirements, and a sequence of specialized course work is then identified for each major.

The following prefixes are used for courses: CTFM—Clothing, Textiles, and Fashion Merchandising; FCS—Family and Child Science; FCSE—Family and Consumer Sciences Education; FRMG—Family Resource Management; HNFS—Human Nutrition and Food Science.

### MAJOR: Clothing, Textiles, and Fashion Merchandising

This major prepares you for careers in the fashion industry. Courses are provided for you to study cultural, sociological, and psychological aspects of dress, business, textiles, fashion merchandising, and apparel production. You may also minor in related disciplines such as marketing, retail management, accounting, and other fields. You must have a GPA of 2.5 or better before enrolling in CTFM 402, Field Experience; FCSE 348, Teaching in Informal Family and Consumer Sciences Settings; and FCSC 400, Research Methods in Family and Consumer Sciences.

#### General Education Requirements

A list of specific general education requirements is available in the department. Please check with your adviser.

#### Departmental Requirements

CTFM 178, Fundamentals of Fashion.....	3
CTFM 255, Applied Clothing Design.....	3
CTFM 270, Fashion Illustration.....	3

CTFM 273, Concepts in Apparel Construction.....	3
CTFM 366, Historic Fashion.....	3
CTFM 371, Textile Science.....	3
CTFM 372, Fashion Merchandising.....	3
CTFM 402, Field Experience.....	3-6
CTFM 474, Fashion Promotion.....	3
CTFM 475, Fashion Buying.....	3
Two from the following: FCS 300+; FCSE 348, Teaching in Informal Family and Consumer Sciences Settings; FRMG 330, Personal and Family Finance; FRMG 333, Consumer Practices and Problems.....	6

#### Nondepartmental Requirements

ACCT 251, Management Accounting, or ACCT 252, Financial Accounting.....	3
ART 110G, Visual Concepts.....	3
CHEM 110G, Principles and Applications of Chemistry.....	4
COMM 265G, Principles of Human Communication; AXED 201G, Effective Leadership and Communication in Agricultural Organizations; or COMM 253G, Public Speaking.....	3
C S 110G, Computer Literacy, or AG E 250G, Life with Microcomputers.....	3
ECON 252G, Principles of Microeconomics.....	3
ENGL 111G, Rhetoric and Composition.....	4
ENGL 203G, Business and Professional Communication; ENGL 211G, Writing in the Humanities; ENGL 218G, Technical and Scientific Communication; ENGL 311G, Advanced Composition; or ENGL 318G, Advanced Technical and Professional Communication.....	3
E ST 311G, Statistical Applications, or STAT 251, Statistics for Business and the Behavioral Sciences.....	3
MATH 120, Intermediate Algebra.....	3
MATH 210G, Math Appreciation.....	3
MGT 309, Human Behavior in Organizations, or MGT 315G, Human Relations in Organizations.....	3
MKTG 303, Principles of Marketing.....	3
MKTG 313, Retail Management, or MKTG 324, Product Innovation.....	3
PSY 201G, Introduction to Psychology.....	3
SOC 101G, Introductory Sociology.....	3
Historical Perspectives.....	3
Viewing a Wider World.....	6

#### Electives

Choose in consultation with CTFM adviser to round out curriculum of 128 credits. At least 54 credits must be courses labeled 300 or above. Choose from the following:

B A 301, Career Planning in Business.....	1
CTFM 384, Clothing for Special Needs.....	3
CTFM 470, Fashion Trend Analysis.....	3
CTFM 476, Apparel Design by Draping.....	3
CTFM 489, Fashion Markets.....	2-8
HON 323G, Cultural Perspectives on Dress.....	3
MGT 332, Human Resources Management.....	3
MGT 453, Leadership and Motivation.....	3
MKTG 317, International Marketing.....	3

(Check prerequisites before enrolling in courses.)

### MAJOR: Family and Child Science

This major stresses the interrelationship of individuals throughout the life span and the impact of social and economic factors on the family system. Graduates are prepared for professional work with social and community agencies and other activities serving families and consumers. You must work closely with an adviser. You must achieve a grade of C or higher in your required core and option courses, and must retake required courses with a grade lower than C. You must have a GPA of 2.5 or higher before enrolling in FCS 424, Field Experience; FCSC 400, Research Methods in Family and Consumer Sciences; and FCSE 348, Teaching in Informal Family and Consumer Sciences Settings.

#### General Education Requirements

A list of specific general education requirements is available in the department. Please check with your adviser.

#### Core Classes

FCS 181, Interpersonal Skills in Intimate Relationships.....	3
FCS 380, Family Dynamics.....	3
FCS 381, Middle Childhood Development in the Family.....	3