The laboratory centers on the practical application of the principles presented in the lecture. Prerequisites: Biology I and II or Biological Science I and II. 3 hours Lecture and three hours Laboratory — 4 credits

**DS 3120**  
**Advanced Selection of Dairy Animals**  
Comprehensive judging and selection of dairy cattle using evaluative techniques as well as an in-depth study and presentation of oral reasons in defense of placings and subsequent decisions. Limited enrollment as field visits to various farms may be utilized. Prerequisite: Dairy Cattle Judging. 3 hours Laboratory — 1 credit

**DS 3211**  
**Applied Dairy Cattle Genetics**  
This course is a study of current developments and programs associated with the major dairy breeds. The course also includes the current methods and technology used in evaluating sires. Considerable time will be spent on the selection of sires to use in a dairy herd mating program. Studies are made of breed classification programs, pedigree evaluation, sire summaries and prominent bloodlines. Prerequisite: Dairy Cattle Judging or Permission of Instructor. 1 hour Lecture and 3 hours Laboratory — 2 credits

**DS 4041**  
**Senior Research**  
Selected seniors engage in this course in supervised investigations involving library work and laboratory or field experiments related to Dairy Science. Prerequisite: Permission of Department Chairperson — 1-3 credits

**DS 4115**  
**Seminar (Dairy Science)**  
A study of the technical and scientific literature in the field of Dairy Science with special emphasis on discussion of the literature reviewed. 1 hour Lecture and Discussion — 1 credit

**DS 4116**  
**Advanced Dairy Judging**  
This course provides intensive training in selection of dairy cattle using subjective and objective measurements as well as the use of oral reasons to explain and defend decisions. An Intercollegiate Dairy Judging Team is selected from students taking this course. Due to considerable travel and time required, enrollment is limited and a 2.0 academic average is required. This course begins one week prior to the start of the Fall Semester. Prerequisite: Dairy Cattle Judging and Permission of Instructor. 3 hours Lab — 1 credit

**DS 4134**  
**Physiology of Reproduction**  
This course covers the physiology of reproduction in farm animals. The sexual characteristics of the male and female, the physiology of the semen and ova, hormonal control of reproduction, and reproduction in each of the farm species are discussed. Prerequisite: Anatomy and Physiology of Animals. 2 hours Lecture and 3 hours Laboratory — 3 credits

**DS 4235**  
**Dairy Systems and Management**  
A comprehensive study of the business of dairy farming and the dairy industry, including pertinent economic, nutritional, and environmental problems. Prerequisite: Animal Feeding and Nutrition. 2 hours Lecture and 3 hours Laboratory — 3 credits

**Specialized Methods and Techniques**  
Each major department offers a series of courses designed to acquaint the student with various applications of the professional specialty.

**DS 3226**  
**Dairy Husbandry Techniques I**  
This course covers the application of hormones, feed additives, chemicals and drugs in the feeding, breeding and management of dairy animals. The student works with various dairy improvement programs. Throughout the course, emphasis is placed on the general care and management of dairy animals. Co-requisite: Animal Feeding and Nutrition or Permission of Instructor. 1 hour Lecture and 3 hours Laboratory — 2 credits

**DS 4143**  
**Dairy Husbandry Techniques II**  
This course is a continuation of DS 3226 and incorporates the practical aspects of dairy cattle management, mastitis control, feeding and breeding. Students are involved in heat detection, feeding and milking as well as the study of Dairy Herd Improvement proceedings. Prerequisite: Dairy Husbandry Techniques I or Permission of Instructor. 1 hour Lecture and 3 hours Laboratory — 2 credits

**EDUCATION**

**ED 0015**  
**College Reading**  
The needs of the students enrolled in this course will determine the techniques used to build skill in reading. Included among the reading skills to be devel-
oped will be recognizing stated and implied ideas, designating major and minor supporting details, identifying types of sequencing and appropriate ordering, restating questions, using contextual clues, and differentiating literal and inferential information. 3 hours Lecture and Discussion — 3 institutional credits (Institutional credit will not be applied to either required or elective credits, but will be counted toward determining full-time status.)

**ED 0016**

**Learning Strategies**

This course involves instruction and practice in techniques of time management, notetaking, reading for greater retention, test taking and memory. Students identify and use a range of campus and community resources, including the library. Effective listening techniques and communication skills are presented as well as ways to enhance creativity and stimulate critical thinking. Students explore their own styles of learning and personal value systems as they contribute to becoming successful students. 3 hours Lecture and Discussion — 3 institutional credits (Institutional credit will not be applied to either required or elective credits, but will be counted toward determining full-time status.)

**ED 0018**

**CHOICES Seminar**

CHOICES students will continue to integrate skills gained in Learning Strategies and apply them across the curriculum through structured activities. Students will continue to clarify academic career and personal goals as well as develop skills in rational analysis and critical thinking. The seminar will maintain focus on the students’ selection of a major and assist in the transition process. This course is limited to CHOICES students. 2 hours Lecture and Discussion — 2 institutional credits (Institutional credit will not be applied to either required or elective credits, but will be counted toward determining full-time status.)

**ED 1010**

**American Education**

An examination of American education with emphasis on history, aims, organization, and control of public schools. Emphasis is placed on the development of American educational ideas and institutions in a multicultural society. Study of the school curriculum/overview. Strongly recommended as the first Education course. 3 hours Lecture and Discussion — 3 credits

**ED 2040 and ED 3040**

**Field Experience/Pre-Student Teaching I and II**

Practical experiences in the classroom and the school prior to student teaching are designed to acquaint the student with classroom problems and school problems and school practices. Direct experience with pupils and educational professionals in the school on a paraprofessional basis through organized activities. Minimum 40 clock hours — 20 hours in the sophomore and the junior years respectively. Prerequisites: American Education and Sophomore status. 1-2 hours Lecture, Discussion and Practicum — 1 credit

**ED 2230/LA 2230**

**Educational Psychology**

This course is a practical treatment of the theory and practice of psychology as it applies to teaching, learning, student development and the classroom environment. Topics include: growth and development, learning and achievement, motivation, learning disabilities and psychoeducational aspects of adolescents. ED 2230 is required for Education majors, all others enroll in LA 2230. 3 hours Lecture and Discussion — 3 credits

**ED 2210**

**Reading in the Secondary School**

This course examines the reading process with emphasis placed on understandings and skills needed by secondary school students in their subject fields. 3 hrs Lecture and Discussion — 3 credits

**ED 3010**

**Secondary School Curriculum: Methods and Materials**

This course is a study of teaching procedures and learning activities in the secondary school; a critical examination of lesson plans. Methodology for creating a learning situation, developing the subject matter and teaching field, use of appropriate methods and techniques, and classroom management. Student will be guided in the analysis of specific content and techniques for teaching that content. “Micro teaching” experience. Prerequisites: American Education, Educational Psychology, Practicum I, and Junior status. Students must also have been formally accepted into the certificate program and successfully passed the Praxis Level 1 tests. 3 hours Lecture and Discussion — 3 credits

**ED 3120**

**Tests and Measurements**

This course is designed to acquaint the student with intelligence and achievement tests and to give a work-
ing knowledge of various standard tests and scales available for classroom use. In addition, elementary statistics, construction of teacher-made tests, and performance assessment will be studied. Prerequisite: American Education and Junior status. Students must also have been formally accepted into the certificate program and successfully passed the Praxis Level I tests. 3 hours Lecture and Discussion — 3 credits

**ED 3230**  
**Multicultural Education and Classroom Diversity**  
Students will develop an understanding of our multicultural-pluralistic society and acquire the pedagogical skills and concepts needed to provide optimum learning opportunities for all students in the secondary classroom. Prerequisites: American Education, Educational Psychology and Junior status. Students must also have been formally accepted into the certificate program and successfully passed the Praxis Level I tests. 3 hours Lecture and Discussion — 3 credits

**ED 4010**  
**Student Teaching and Professional Seminar**  
Student teaching in an approved secondary school under the direct supervision of a cooperating teacher. Seminar and individual conferences are held by supervisors. Prerequisites: Senior status, completion of Education core, subject area courses, and Praxis I tests, and 3.00 cumulative grade point average. 1-2 hours seminar meetings and semester length practicum — 12 credits

**Special Methods in Content Area**

**ED 3011**  
**Teaching Science: Methods and Experiences**  
This course is a study of various methodologies and experiences that will be unique to the teaching of science at the secondary level. Prerequisites: American Education and Educational Psychology. 2 hours Lecture, Discussion and Practicum — 2 credits

**ED 3012**  
**Teaching Mathematics: Methods and Experiences**  
This course is a study of various methodologies and experiences that will be unique to the teaching of mathematics at the secondary level. Prerequisites: American Education and Educational Psychology. 2 hours Lecture, Discussion and Practicum — 2 credits

**ED 3013**  
**Teaching English: Methods and Experiences**  
This course is a study of various methodologies and experiences that will be unique to the teaching of English at the secondary level. Prerequisites: American Education and Educational Psychology. 2 hours Lecture, Discussion and Practicum — 2 credits

**ED 3014**  
**Teaching Agriculture: Methods and Experiences**  
This course is a study of various methodologies and experiences that will be unique to the teaching of agriculture at the secondary level. Prerequisites: American Education and Educational Psychology. 2 hours Lecture, Discussion and Practicum — 2 credits

**ED 3015**  
**Teaching Business: Methods and Experiences**  
This course is a study of various methodologies and experiences that will be unique to the teaching of business at the secondary level. Prerequisites: American Education and Educational Psychology. 2 hours Lecture, Discussion and Practicum — 2 credits

**ENGLISH**

**EN 0012**  
**English Essentials**  
This course provides intensive training in grammar and syntax for students who require assistance in written expression. The course objectives include a review of the fundamentals of grammar and improvement of sentence structure. Students assigned to this course are required to take English I and II in addition. 3 hours Lecture and Discussion — 3 institutional credits (Institutional credit will not be applied to either required or elective credits, but will be counted toward determining full-time status.)

**EN 1045**  
**English as a Second Language**  
This course is open to students for whom English is a second language. Such students should take this course instead of Developmental English. It covers fundamentals of grammar, writing, and reading. 3 hours Lecture and Discussion — 3 institutional credits (Institutional credit will not be applied to either required or elective credits, but will be counted toward determining full-time status.)