role players in these systems are analyzed. Interface with the community is reviewed in detail. 3 hours Lecture and Discussion — 3 credits

CJ 4220
**Criminalistics**
The scientific aspects of the investigation of crimes are the focus of this course. The major emphasis is placed upon the collection, analysis, preservation and processing of evidence. Advanced work is undertaken concerning criminal investigation utilizing fingerprints, genetic fingerprinting, firearms, hair, fibers, blood tools, paint and other potential clues. 3 hours Lecture and Discussion — 3 credits

CJ 4240
**Senior Seminar: Research Methods in Criminal Justice Administration**
Utilizing the research methods and techniques employed in the criminal justice field, students examine current issues in criminal justice. Prerequisite: Senior status. 3 hours Discussion and Analysis — 3 credits

**DAIRY SCIENCE**

DS 1065
**Principles of Dairy Science**
This course is a study of the extent and importance of the dairy industry in the U.S. It is designed to develop an understanding of the principles of nutrition, breeding, selection, records, and improvement programs employed by the dairy industry. Attention is also given to milk quality and the spectrum of dairy products. 2 hours Lecture and 3 hours Lab — 3 credits

DS 2213
**Dairy Cattle Judging**
The judging of dairy cattle for the purpose of understanding ideal dairy type and applying type as a measure of utility is considered. Introduction to oral reasons in defense of placing a class of dairy animals is discussed and how to deliver an effective set of oral reasons is presented. 3 hours Laboratory — 1 credit

DS 2230
**Physiology of Lactation**
This course is a study of the anatomy and physiology of the mammary gland. Special emphasis is placed on the hormonal control of mammary growth and on the initiation and maintenance of lactation. Consideration is also given to the biochemistry of milk secretion and factors affecting milk yield and composition. 3 hours Lecture — 3 credits

DS 2370
**Employment Program**
Each student in Dairy Science is required to spend 500 hours in approved jobs related to the major. Each employment experience that will be used toward the Employment Program must be registered with the Office of Career and Life Education before employment commences — 4 credits

DS 3000, 4000
**Selected Topics I and II**
Special projects designed to meet individual needs of students in the specialized fields of agriculture. Projects will be arranged on a one-to-one basis with a department faculty member and with the approval of the Department Chairperson. Total Selected Topics credit accepted toward graduation is limited to 2 credits. 3 hours of student/faculty instruction per week — 1 credit

DS 3010
**Animal Feeding and Nutrition**
A comprehensive study is presented of the principles of animal nutrition and how different kinds of feeds are used in the formulation of rations for farm animals. Attention is given to the methods that are used in feeding all large animals in relation to their different digestive systems. Major emphasis is placed on the practice of developing rations for farm animals. Prerequisite: Principles of Animal Nutrition or Permission of Instructor. 2 hours Lecture and 3 hours Laboratory — 3 credits

DS 3029
**Genetics of Livestock**
The study of factors responsible for changes in the genetic composition of animal populations is presented. Using current concepts in genetics and statistics, the relationships of both heredity and environment to individual performance are considered. Various mating systems and their consequences on animal production are also studied. Prerequisite: Biological Science I and Introduction to Animal Science 2 hours Lecture — 2 credits

DS 3118
**Anatomy and Physiology of Animals**
A comprehensive study of the functions of mammalian bodies with special emphasis on domestic animals. A detailed examination is provided concerning the principles of physiology at the cellular, tissue, and organ system levels. Emphasis is placed upon the correlation between anatomical structure and function.
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 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-