DASC - DAIRY SCIENCE (DASC)

DASC 202 Dairying
Credits 3. 2 Lecture Hours. 2 Lab Hours.
(AGRI 1311) Dairying. Survey of dairy industry; dairy breeds, standards for selection and culling, herd replacements, feeding, management, physiology and health maintenance; food value of milk, tests for composition and quality, use and processing of market milk and dairy products.

DASC 218 Introduction to Dairy Science
Credits 3. 3 Lecture Hours.
Overview of dairy production principles and practices; major disciplines including dairy herd evaluations, dairy nutrition, basics of reproduction and reproductive programs, genetics and sire selection, mastitis and milk quality, milking machine management and animal welfare.
Prerequisites: Grade of C or better in ANSC 111 and ANSC 113.

DASC 312/NFSC 312 Food Chemistry
Credits 3. 3 Lecture Hours.
The fundamental and relevant chemistry and functionality of the major food constituents (water, carbohydrates, lipids, proteins, phytochemical nutraceuticals) and study of food emulsion systems, acids, enzymes, gels, colors, flavors and toxins.
Prerequisite: NFSC 201; CHEM 227; CHEM 237 or approval of department head or instructor.
Cross Listing: NFSC 312/DASC 312.

DASC 313/NFSC 313 Food Chemistry Laboratory
Credit 1. 3 Lab Hours.
Laboratory exercises investigating specific molecules, such as food acids, enzymes, pigments and flavors, and chemical interactions in foods, such as oxidation reactions, emulsion systems, and functional properties from a fundamental chemistry rather than an analytical perspective.
Prerequisite: NFSC 201; CHEM 227; CHEM 237 or approval of department head or instructor.
Cross Listing: NFSC 313/DASC 313.

DASC 314/NFSC 314 Food Analysis
Credits 3. 1 Lecture Hour. 4 Lab Hours.
Selected standard methods for assay of food components; principles and methodology of both classical and instrumental techniques for food analysis.
Prerequisite: NFSC 201; NFSC 311/HORT 311; CHEM 227; CHEM 237 or approval of department head or instructor.
Cross Listing: NFSC 314/DASC 314.

DASC 326/NFSC 326 Food Bacteriology
Credits 3. 3 Lecture Hours.
Microbiology of human foods and accessory substances; raw and processed foods; physical, chemical and biological phases of spoilage; standard industry techniques of inspection and control.
Prerequisites: BIOL 206 or approval of instructor; junior or senior classification.
Cross Listing: NFSC 326/DASC 326.

DASC 400 Animal Science Industry Studies
Credits 1 to 3. 1 to 3 Other Hours.
Organized instruction based on well-planned visits to selected industry operations which produce, process or market animal and dairy products, or produce and market supplies and materials to support animal industries; acquaint students with such operations, to reinforce campus-based instruction and to acquaint prospective employers with Texas A&M students. Field trips will normally be made during holidays or between sessions for which departmental fees may be assessed to cover costs.
Prerequisites: Junior or senior classification; approval of instructor organizing study tour; 2.0 GPR in major and overall.

DASC 418 Dairy Science Consortium
Credits 4. 3 Lecture Hours. 2 Lab Hours.
Advanced topics including concepts of herd dynamic modeling, advanced dairy nutrition and forage production, human resource development, OSHA safety concepts and training for dairy, advanced reproductive programs, young-stock and heifer management, precision management, facilities and heat stress reduction programs.
Prerequisites: Grade of C or better in ANSC 305, ANSC 307/NFSC 307, ANSC 318, and ANSC 333; junior or senior classification or approval of instructor.

DASC 485 Directed Studies
Credits 0 to 4. 0 to 4 Other Hours.
Special problems in dairy production or dairy manufacturing.
Prerequisites: Junior or senior classification; written approval of professor supervising the activity; 2.0 GPR in major and overall.