

DAIRY SCIENCE (DASC)

DASC 1464 - Dairy Cattle Handling (1 credit)

Safety in dairy cattle handling; animal behavior; care, housing, and managerial practices related to dairy cattle. Experiential activities. Herding, sorting, halter training, health scoring, and milking.

Instructional Contact Hours: (3 Lab, 1 Crd)

DASC 1574 - Dairy Science First Year Experience (1 credit)

The scope of the dairy science undergraduate program, preparation for careers in dairy and related industries. Hands-on experience working with dairy cattle. Inquiry, problem solving, and integration of ideas and experiences with a focus on the dairy industry.

Instructional Contact Hours: (1 Lec, 1 Crd)

DASC 2204 - Entrepreneurship in Animal Agriculture (3 credits)

Impact of animal entrepreneurship on the US agricultural economy. Innovative products and services for the dairy and livestock industries. Strategic planning, human resources, production scheduling, marketing, and financial management for animal enterprises. Capital acquisition. Sensitivity analysis for key planning assumptions. Contingency planning and risk management. Identification of non-traditional career paths in the animal industry. Pre: Sophomore Standing.

Prerequisite(s): AAEC 1005

Instructional Contact Hours: (3 Lec, 3 Crd)

DASC 2474 - Dairy Science and Industry (3 credits)

Sustainable production, processing, and marketing of milk and milk products domestically and globally. Biology of dairy cattle with emphasis on genetics, reproduction, lactation, and nutrition. Management of dairy herds.

Instructional Contact Hours: (3 Lec, 3 Crd)

DASC 2484 - Dairy Cattle Evaluation (2 credits)

Critical appraisal of dairy cattle conformation and experience in linear trait scoring, linear trait relationships to profitability, competitive judging; written and oral justification; organization and conduct of shows and contests; showmanship. II.

Instructional Contact Hours: (6 Lab, 2 Crd)

DASC 2664 - Professional Discourse and Career Development (1 credit)

Emphasis on writing and speaking skills for livestock industry or post-baccalaureate education. Self-marketing, job acquisition, press relations, and conduct of meetings and labor management techniques.

Instructional Contact Hours: (1 Lec, 1 Crd)

DASC 2964 - Field Study (1-19 credits)

Instructional Contact Hours: Variable credit course

DASC 2974 - Independent Study (1-19 credits)

Instructional Contact Hours: Variable credit course

DASC 2984 - Special Study (1-19 credits)

Instructional Contact Hours: Variable credit course

DASC 3134 - Animal Agriculture and the Environment (3 credits)

Environmental issues associated with animal agriculture. Nutrient contamination of water resources, odor emission from livestock farms, environmental regulations affecting animal agriculture, and management practices to reduce the impacts of livestock farms on air and water quality.

Instructional Contact Hours: (3 Lec, 3 Crd)

Course Crosslist: APSC 3134

DASC 3274 - Applied Dairy Cattle Nutrition (3 credits)

Application of basic principles of nutrition in developing rations for dairy herds. Emphasis is placed on appropriate use of forages, ration formulation techniques, development of profitable rations, and ration delivery.

Corequisite(s): ALS 3204

Instructional Contact Hours: (3 Lec, 3 Crd)

DASC 3474 - Dairy Information Systems (3 credits)

Development, function, and use of dairy information systems including computerized performance testing programs for dairy cattle improvement and dairy herd management. Dairy management software applications. Precision dairy farming. Whole herd evaluation. Pre: Junior standing.

Prerequisite(s): DASC 2474

Instructional Contact Hours: (2 Lec, 3 Lab, 3 Crd)

DASC 3984 - Special Study (1-19 credits)

Instructional Contact Hours: Variable credit course

DASC 4174 - Applied Dairy Cattle Genetics (3 credits)

Application of genetic principles to dairy cattle improvement. Setting goals for genetic improvement, characteristics of traits included in selection, current methods of estimating breeding values, the role of artificial insemination and breed associations in genetic improvement, cattle genetics.

Prerequisite(s): ALS 3104

Instructional Contact Hours: (3 Lec, 3 Crd)

DASC 4274 - Dairy Ration Formulation (1 credit)

Develop entry level professional animal nutritionist skills; use customer and feed databases, use optimization algorithms to formulate least cost diets and feed mixes, simultaneous consideration of diet cost, animal product return, and environmental constraints; further develop integrative thinking and problem solving skills.

Corequisite(s): DASC 3274

Instructional Contact Hours: (0 Lec, 3 Lab, 1 Crd)

DASC 4304 - Principles and Practices of Bovine Reproduction (2 credits)

Principles and techniques in reproductive physiology and herd management related to health, record keeping, estrus detection and synchronization, uterus and ovary condition. Ovarian function and superovulation, semen handling, artificial insemination and pregnancy detection are also considered.

Prerequisite(s): ALS 2304

Instructional Contact Hours: (1 Lec, 3 Lab, 2 Crd)

Course Crosslist: APSC 4304

DASC 4374 - Physiology of Lactation (3 credits)

Anatomy of the mammary gland and physiology of lactation in domestic and laboratory mammals with emphasis on dairy cattle. Mammary gland health and factors affecting lactation. Principles and techniques in dairy herd milking management.

Prerequisite(s): ALS 2304

Instructional Contact Hours: (2 Lec, 3 Lab, 3 Crd)

DASC 4384 - Mammary Immunology (3 credits)

This course is designed to provide students with basic knowledge of immunology as related to diseases of the mammary gland. Concepts of mammary gland immunity, disease etiology, immunopathology, diagnosis and therapy will be covered with a focus on ungulate species. Host pathogen interactions, solving problems, writing intensive, literature search.

Prerequisite(s): ALS 2304 and ENGL 1106

Instructional Contact Hours: (3 Lec, 3 Crd)

DASC 4474 - Advanced Dairy Management Evaluation (2 credits)

Students will learn to critically evaluate all aspects of dairy farm management on working farms. The assessment and recommendations will be developed using information gathered from herd production records and financial statements, visual observations at the farm, and an interview of the farm owner and workers. Data assessed will include milk, growth, health, reproduction, and culling records; cash flow and profit loss statements; nutrition and nutrient management records; and labor management structure. The assessments and reports will further develop integrative thinking, oral communication, and written communication skills.

Prerequisite(s): DASC 3474 and ALS 3204 and ALS 3304

Corequisite(s): DASC 4475

Instructional Contact Hours: (6 Lec, 0 Lab, 2 Crd)

DASC 4475 - Dairy Enterprise Management (3 credits)

Decision strategies for modern dairy businesses. 4475: Emphasis on relationships of enterprises and techniques for evaluation of business alternatives, efficiency of production, and profit. Use of microcomputer software to support management decisions. 4476: Concentration on herd replacements, personnel, facilities and issues of management associated with rapidly changing national and international markets, environmental regulations, and computer applications. Group projects and hands-on management of university dairy herd.

Prerequisite(s): DASC 2474

Instructional Contact Hours: (3 Lec, 3 Crd)

DASC 4476 - Dairy Enterprise Management (3 credits)

Decision strategies for modern dairy businesses. 4475: Emphasis on relationships of enterprises and techniques for evaluation of business alternatives, efficiency of production, and profit. Use of microcomputer software to support management decision. 4476: Concentration on herd replacements, personnel, facilities and issues of management associated with rapidly changing national and international markets, environmental regulations, and computer applications. Group projects and hands-on management of university dairy herd. Pre-requisite may be waived with permission of instructor.

Prerequisite(s): (DASC 4475 or AAEC 3454) and DASC 3474

Instructional Contact Hours: (2 Lec, 3 Lab, 3 Crd)

DASC 4664 - Translating Dairy Science (1 credit)

Analysis and interpretation of peer-reviewed literature in dairy science. Focus on dairy industry issues discussed in social media. Critical reasoning, information synthesis, and oral and written discourse. Paper presentations and discussion. Pre: Senior Standing

Prerequisite(s): DASC 2664

Instructional Contact Hours: (1 Lec, 1 Crd)

DASC 4964 - Field Study (1-19 credits)

Instructional Contact Hours: Variable credit course

DASC 4974 - Independent Study (1-19 credits)

Instructional Contact Hours: Variable credit course

DASC 4984 - Special Study (1-19 credits)

Instructional Contact Hours: Variable credit course

DASC 4994 - Undergraduate Research (1-19 credits)

Instructional Contact Hours: Variable credit course