

# **AGRIBUSINESS SCIENCE & TECHNOLOGY**

## Program Number 10-006-2

Credit(s)

3

17

### Associate Degree in Applied Science • Four Terms

Catalog No. Class Title

#### **ABOUT THE PROGRAM**

Successful individuals employed in agribusiness occupations understand the importance of running efficient and profitable operations in the areas of records/business analysis, credit/ marketing/purchasing, farm business transfers, goal setting, human relations, crop/soil management, and livestock nutrition/management. Maximize your opportunities for success by increasing your agricultural business and production management knowledge.

#### **PROGRAM OUTCOMES**

- Develop an agri-business management plan.
- Apply economic and marketing strategies to agribusiness industry.
- Apply relevant technologies.
- Create a crop management plan.
- Create a livestock management plan.
- · Investigate opportunities in agribusiness.
- · Interact as a professional in agribusiness.

#### **CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES**

LTC credits transfer to over 30 universities. For more information visit gotoltc.edu/future-students/transfer.

#### **PROGRAM ADMISSIONS STEPS**

- Work with Career Coach to:
- Submit application and \$30 fee.
- Submit official transcripts (high school and other colleges).

#### ENROLLMENT PROCESS

After you are admitted to your program you will meet with your Advisor to plan your first semester schedule, review your entire plan of study, discuss placement assessment results and complete any additional enrollment requirements. Enrollment requirements for this program's courses include:

- Complete an assessment for placement (Accuplacer or ACT).
- Complete Functional Abilities Statement of Understanding form.
- Meet with your program's advisor.

#### **APPROXIMATE COSTS**

- \$140 per credit (resident)
- Other fees vary by program (books, supplies, materials, tools, uniforms, health related exams, etc.) Visit gotoltc.edu/financial-aid/tuition-and-fees for details.

#### **FINANCIAL AID**

This program is eligible for financial aid. Visit gotoltc.edu/Financial-Aid or talk with your Career Coach about how to apply for aid.

#### **SPECIAL NOTE**

Students may alternately choose to earn the Agriculture Technician Technical Diploma after completing Term 1 and Term 2 coursework. In addition, for students who are not seeking a diploma, select courses in this program will provide focused certificates of learning in agribusiness agronomy, agribusiness financial, and agribusiness livestock. Graduates of the Dairy Herd Management program can earn the Advanced Diary Herd Management Certificate by taking seven additional courses in Terms 3 and 4.

#### MPTC CLASSES

This program is shared with Moraine Park Technical College. MPTC district students follow LTC's admissions process; however, they are able to attend classes at a MPTC campus classroom by receiving both in-person and ITV-broadcast instruction. MPTC Agribusiness Science & Technology program students will be issued a laptop from LTC while learning and applying the program's software applications.

#### **ONLINE STUDENTS**

Out-of-district students, working adults, as well as high school students are able to take courses in the online format of both reviewing lectures and one-on-one activities with your instructor. Instructor led field trips and off campus activities are not an included requirement or opportunity.

#### CONTACT

LTC Career Coach 920.693.1162 • CareerCoach@gotoltc.edu



	Term 1	
10-006-110	Agricultural Finance	2
10-006-112	Farm Business Management	2
10-006-114	Intro to Animal Science	2
10-006-116	Intro to Soil Science	2
10-801-195	Written Communications	3
10-804-123	Math with Business Applications	3
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	Term 2	
10-006-120	Animal Health	2
10-006-122	Principles of Crop Production	3
10-006-124	Principles of Animal Breeding	3
10-006-132	Reproductive Physiology	3
10-006-126	Agribusiness Economics	3

#### Term 3

10-809-195 Economics

10-006-130	Agricultural Marketing & Sales	3
10-006-134	Computer Apps & Animal Records	3
10-006-136	Principles of Agronomy	3
10-806-112	Principles of Sustainability	3
10-801-196	Oral/Interpersonal Communication	3
10-809-198	Introduction to Psychology	3
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#### Term 4

10-006-140	Legal Aspects of Agribusiness	3
10-006-142	Advanced Dairy Management	3
10-006-144	Advanced Nutrition Principles	3
10-006-146	Precision Ag Technologies	3
10-809-196	Introduction to Sociology	3
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#### **TOTAL 64**

Curriculum and Program Acceptance requirements are subject to change. Program start dates vary; check with your advisor for details.



ADVANCED DAIRY MANAGEMENT...advances the study of dairy herd management systems including milking and feeding arrangements, herd health, herd replacements, use of computer systems, personnel issues, and financial impact of management decisions. PREREQUISITE: 10006134 Computer Apps and Animal Records OR CONDITION: 310911 Dairy Herd management

ADVANCED NUTRITION PRINCIPLES...analyzes the anatomy and physiology of the ruminant and mono-gastric digestive tract and factors affecting nutrient digestibility. Biochemical and physiological functions of nutrients in ruminant and mono-gastric animals will be compared. PREREQUISITE: 10006132 Reproductive Physiology OR CONDITION: 310911 Dairy Herd Management

AGRIBUSINESS ECONOMICS...introduces agricultural economic dimensions and impacts, economic principles, calculation of economic returns, and evaluation of economic alternatives. Other topics include capital use, cost appraisal, risk considerations under a variety of economic conditions, farm credit sources, and creditor relationships. PREREQUISITE: 10006110 Agricultural Finance

AGRICULTURAL FINANCE...introduces learner to major aspects of agribusiness financial management through extensive problem solving, financial analysis and financial planning. Students will describe and calculate sweet 16 ratios, business cash flows, inventory controls, budgeting and borrowing considerations of various types of agribusinesses. Software tools, such as QuickBooks and FINPACK, will be introduced.

AGRICULTURAL MARKETING AND SALES...provides the fundamental principles and methods of marketing agricultural products, marketing processes and agencies, pricing and merchandising of various products, and obtaining bargaining power. Other topics include futures market structure andfunction; futures commodity contract specifications; futures trading procedures; commodity futures trading strategies; and an introduction to commodity options. PREREQUISITE: 10006110 Agribusiness Economics OR CONDITION: 310911 Dairy Herd Management

ANIMAL HEALTH...examines the disease process and the immune response in animals, common diseases of domestic livestock, and related intervention practices with emphasis on maintaining healthy animals. PREREQUISITE: 10006114 Intro to Animal Science

COMPUTER APPLICATIONS AND ANIMAL RECORDS...introduces learner to records management, the setup and use of a computerized record-keeping software package, completion of a sample farm record problem utilizing a computerized record program, a review of various recordkeeping systems, as well asthe selection and implementation of various computerized record programs. Software tools, such as QuickBooks, FINPACK, PCDART, and DairyCOMP 305, will be utilized. PREREQUISITES: 10006110 Agricultural Finance and 10006124 Principles of Animal Breeding OR CONDITION: 310911 Dairy Herd Management

ECONOMICS...provides the participant with an overview of how a market-oriented economic system operates, and it surveys the factors which influence national economic policy. Basic concepts and analyses are illustrated by reference to a variety of contemporary problems and public policy issues. Concepts include scarcity, resources, alternative economic systems. growth, supply and demand, monetary and fiscal policy, inflation, unemployment and global economic issues. COREQUISITE: 10838105 Intro Readingand Study Skills or equivalent

FARM BUSINESS MANAGEMENT...provides learner with basic business management practices including the development of a business plan, establishment of short and long range goals, identification and implementation alternatives for reaching goals, and development of strategies to monitor progress. The importance of designing a business mission statement based on goals is emphasized. Software tools, such as QuickBooks, FINPACK, PCDART and DairyCOMP 305, will be incorporated.

**INTRO TO ANIMAL SCIENCE**...provides animal science fundamentals including animal health, animal environments, anatomy and physiology, genetics and reproduction, animal feedstuffs, and animal-related safety. Participants will experience animal concepts through the completion of hands-on activities.

**INTRODUCTION TO PSYCHOLOGY**...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. COREQUISITE: 10838105 Intro Reading and Study Skills or equivalent

**INTRO TO SOIL SCIENCE**...provides fundamental of soil's physical properties, chemical properties, biological properties, soil formation, classification, essential nutrient and soil survey. There will be emphasis on soil and water conservation practices that can be used to reduce soil erosion. Participants will experience soils concepts through lab and in the field activities.

**INTRODUCTION TO SOCIOLOGY**...introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions, including family, government, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, social organization, and workplace issues. COREQUISITE: 10838105 Intro Reading and Study Skills or equivalent

**LEGAL ASPECTS OF AGRIBUSINESS**...provides students with pertinent information of the legal liabilities and regulations for both state and federal of an agribusiness. Course content includes legal descriptions, contractual agreements, employee and consumer rights, insurance, debt collection, as well as bankruptcy and employment protection issues as regulated by DOL, OSHA and DILHR. PREREQUISITE: 10006130 Agricultural Marketing and Sales OR CONDITION: 310911 Dairy Herd Management

MATH WITH BUSINESS APPLICATIONS ... covers real numbers, basic operations, linear equations, proportions with one variable, percents, simple interest, compound interest, annuity, apply math concepts to the purchasing/buying process, apply math concepts to the selling process, and basic statistics with business/consumer applications. PREREQUISITE: 10834109 Pre-Algebra or equivalent and COREQUISITE: 10838105 Intro Reading and Study Skills or equivalent

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. COREQUISITE: 10838105 Intro Reading and Study Skills or equivalent

PRECISION AG TECHNOLOGIES...provides the student the opportunity to experience studies in agricultural precision technologies including bio-technologies, application industries, livestock equipment, precision farming, financial resource management, plant protection, sustainable agriculture, environmental impacts of agriculture, agricultural workforce, and agricultural production. COREQUISITES: 10006140 Legal Aspects of Agribusiness and 10006142 Advanced Dairy Management OR CONDITION: 310911 Dairy Herd Management

**PRINCIPLES OF AGRONOMY**...examines agronomy principles for Midwest crops including basic components of plant growth, seed quality, plant parts, plant growth and development, plant classification, maturity systems, and seeding rates. PREREQUISITE: 10006122 Principles of Crop Production

**PRINCIPLES OF ANIMAL BREEDING**...applies genetic principles to livestock improvement including elementary population genetics, phenotypic and genotypic effects of selection, selection methods, and systems of mating. PREREQUISITE: 10006114 Intro to Animal Science

PRINCIPLES OF CROP PRODUCTION...provides knowledge of crop and soil nutrient management, including use of both commercial fertilizers and manure. Course topics include purchase or lease options for land, agronomy consulting programs, tillage and conservation plans, soil nutrient plans, cropping plans, managing nutrient waste, crop harvest and storage and production records. PREREQUISITE: 10006116 Intro to Soil Science

PRINCIPLES OF SUSTAINABILITY...prepares students to develop sustainable literacy, analyze interconnections among physical and biological sciences and environmental systems, summarize effects of sustainability on health and well-being, analyze connections among social, economic, and environmental systems, employ energy conservation strategies to reduce use of fossil fuels, investigate alternative energy options, evaluate options to current waste disposal/recycling in the U.S., and analyze approaches used by your community.COREQUISITE: 10838105 Intro Reading and Study Skills or equivalent

**REPRODUCTIVE PHYSIOLOGY**...provides advanced study of the reproductive processes of livestock including anatomy, endocrinology, gonadal function, fertility, and factors influencing reproductive performance. COREQUISITE: 10006124 Principles of Animal Breeding

WRITTEN COMMUNICATION...teaches the writing process, which includes prewriting, drafting, revising, and editing. Through a variety of writing assignments, the student will analyze audience and purpose, research and organize ideas, and format and design documents based on subject matter and content. Keyboarding skills are required for this course. It also develops critical reading and thinking skills through the analysis of a variety of written documents. PREREQUISITE: 10831103 Intro to College Wrtg equivalent and COREQUISITE: 10838105 Intro Rdg & Study Skills or equivalent

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