Agricultural Technology Program
Detailed Program Curriculum

Program Code: ATL1

Program Description

Precision agriculture refers to the use of modern data-driven technologies for growing crops. Agriculture technology is pivotal in the effective and efficient daily operation of agriculture applications. Students will be introduced to foundational and core learning elements in computer fundamentals and essential skills training to set learners up for success. Students will also be trained in the basic elements of precision agriculture, soil management, the IoT (Internet of Things), and artificial intelligence (AI), including sensors, smart irrigation applications, data gathering, and GPS systems. Students will further learn agriculture technology applications, including systems and processes for setting up, maintaining, and sustaining these resources in their communities.

The program will provide strategic resources and practices that support community needs. Students will also learn a cross-section of sustainable practices in precision agriculture so that the systems that are developed provide food equity for the community using sustainable energy alternatives and effectively leaving a minimal carbon footprint. The program will further teach students the fundamentals and advantages of drone operation in agriculture. Agriculture safety and agri-business training are integral to this program to prepare the graduates to work within the community and provide the next steps in producing, processing, and distributing goods. This program includes focused training in professional development, so graduates are prepared to apply, interview, and start rewarding precision agriculture careers in their communities. This program accommodates training in remote and Indigenous communities and supports job placement in these regions.

Career Occupation

This program is intended to prepare a student for the following occupations:
- Precision Agriculture Operator
- Control Systems Operator
- Remote Sensing Analyst
- Automation Technician
- Greenhouse Coordinator
- Greenhouse Manager
- Hydro/Aero/Aquaponic Operator
- Farm Supervisor
- Farm Manager
- Farm Foreperson
- Vegetable Farm Foreperson
- Community Supported Agriculture (CSA) Manager
- Community Food Security Support Worker
- Food Security Coordinator

Admission Requirements

- Minimum grade 10 completion. If applicant is under 19, a parent or guardian must sign on behalf of the applicant.
- A copy of a government-issued piece of photo identification, such as a driver's licence, passport, or other, which shows the student's information, including date of birth.
- Distance Learning students must have a PC or laptop (Windows-based) with minimum computer requirements and Internet access (high speed is recommended) as highlighted under the Computer Requirements section.
- If English is not the student's native language, the student must provide confirmation that they have achieved the minimum test score from one of the following:
    1. IELTS 6 or higher with no module less than 5.5

2. TOEFL with a minimum score of 60
3. 5 Star English with a minimum grade of 70%

Minimum three years of work experience:
- Work experience can be outside of Canada.
- Work experience does not need to be three consecutive years.
- Work experience must be outside of full or part-time studies (high school or post-secondary).
- Work experience can include volunteer work.
- Three years can be a combination of full-time or part-time paid/volunteer work.

Instructors and Educational Assistants

All instructors and educational assistants employed by CanScribe Career College are highly qualified and bring a wealth of knowledge and experience. They are dedicated to assisting every student through the program. Students will complete the program individually, self-paced, and online. Students will be supported by our instructional, student services, and IT departments.

Program Learning Objectives

Upon successful completion of the Agricultural Technology Program, the student will be able to:
- define the important role of the Agricultural Technology worker
- demonstrate an understanding of computer equipment, keyboard kinetics, and Windows
- apply essential learning skills: adaptability, collaboration, communication, creativity and innovation, digital, numeracy problem solving, reading, and writing
- outline the meaning, applications, and technologies of precision agriculture and their impact on traditional farming
- define the three essential macronutrients in agriculture
- decipher actionable insights within precision agriculture
- compare traditional vs. precision irrigation methods, including the positive and negative impacts of both methods
- compare precision agriculture applications in uncontrolled, semi-controlled, and controlled environments
- describe the IoT (Internet of Things) and identify how these technologies can be used in agriculture systems
- evaluate the economic and environmental challenges and benefits of utilizing precision agriculture systems
- analyze data interpretation, precision agriculture programs, and real-time pest and disease management technologies
- distinguish the components of soil health and discern the importance of soil health for sustainable agriculture
- identify common soil health issues and their impacts on crop production
- compare basic soil testing techniques to assess soil health
- apply basic methods for improving soil structure, fertility, and overall health
- explain technologies and how they are used in precision agriculture
- analyze processes of capturing and recording data in precision agriculture applications
- identify the fundamental technologies used in precision agriculture and their applications
- utilize simple mapping tools for improved farm management
- describe how precision agriculture can lead to more sustainable farming practices
- explain principles governing vertical farms
- demonstrate the use of IoT, sensors, and automation in controlled environment agriculture (CEA)
- exercise data-driven decision-making in CEA
- analyze pest and disease management in CEA
- demonstrate germination processes in CEA
- explain how sustainable practices can be applied to small-scale farming to improve efficiency and sustainability
- distinguish a farm plan using sustainable precision agriculture principles
- incorporate simple mapping tools for improved sustainable farm management
- analyze techniques for optimizing water use and crop management through technology
- construct management strategies for pest control, fertilization, and pollination
- develop sustainable, innovative techniques in seed deployment, plant genomics, harvesting, and propagation
- interpret the basics of what makes an agri-business successful, including simple business models, understanding the target market, and basic financial principles
- construct a process of planning for a small agri-business, including setting simple objectives, planning for basic operational needs, and considering sustainability
- demonstrate the fundamentals of managing an agri-business, focusing on small to medium-sized enterprises
- apply fundamental skills in financial management, including budgeting and financial planning for agri-businesses

- distinguish risks associated with agri-business and learn basic strategies for risk management
- design and prepare a cover letter and resume and identify key job-searching skills
- demonstrate the ability to conduct an interview over the phone with an instructor

Method of Evaluation

1. **Course Tests**   **30%**
Course tests are weighted equally, combined, and averaged for a final grade.

2. **Activities**   **50%**
Students will be directed to complete activities throughout the program. Students will work through critical thinking activities that apply to the content of the course. Specific assignments will be identified as graded at the end of each course before the course test.

3. **Final Examination**   **20%**
The final exam is cumulative from the beginning of the course. The final exam will comprise questions from every course in the program.

TOTAL   100%

Completion Requirements

To meet the **graduation requirement** for the Agricultural Technology Program, the student must have achieved a grade of C (60% or higher). The following table denotes CanScribe's Final Grade Percentages:

A+	95 – 100%	Dean's List
A	90 – 94%	High Honours
A-	85 - 89%	Honours
B+	80 – 84%	Merit
B	75 – 79%	
B-	70 – 74%	
C+	65 – 69%	
C	60 – 64%	Pass
C-	55 – 59%	
D	50 – 54%	
F	Below 50%	

Students have access to an online gradebook in their program platform. This tool is for the student to access grades throughout the program. There are three components within the gradebook: 1. Course Tests 2. Course Activities 3. Final Exam.

Program Duration

Upon registration, each student is provided with a program timeline with completion dates to guide and assist with the program's time management. Students working on a full-time schedule of five hours per day/five days per week will finish the program within 12 weeks. An example of the full-time timeline is as follows:

Agricultural Technology Program Timeline		
Course	**Estimated # of hours to complete**	**Estimated # of days to complete (5-day study week)**
Introduction	1	1
Computer Fundamentals	15	3

Essential Skills and Career Training	15	3
Safety Skills Training	5	1
Foundations of Agriculture and Food Security	50	10
Milestone 1		
IoT (Internet of Things)	15	3
Soil and Water Management	25	5
Basics of Precision Agriculture Technology	50	10
Data and Technology	30	6
Milestone 2		
Indigenous Leadership in Agriculture	25	5
Sustainable Practices in Precision Agriculture	25	5
Fundamentals of Drone Training in Agriculture	10	2
Agriculture Business Training	20	4
Milestone 3		
Professional Development	15	3
Final Exam	4	1
Total	**305**	**62**

Homework Hours

N/A. Online delivery. Homework hours are integrated into the program curriculum with an online delivery model; however, a student can expect to review and study materials to successfully complete course activities, tests and exams.

Delivery Methods

This program can be delivered through in-class instruction and distance education methods.

Milestones

Milestones occur three times throughout the program and are triggered when the student reaches specific points in the program. The instructor initiates contact to see how the student is doing, answers any questions or concerns, and ensures the student is making satisfactory progress in the program. Students are encouraged to contact the instructors when they need assistance.

Course Surveys

Upon completing each course, the student is encouraged to fill out a short survey. It will ask for the student's experience with basic directions, activities, materials and resources, visual and audio elements, and instructor assistance for that course. There is room for comments, and all comments are welcomed. As many concerns can be resolved directly, we encourage students to leave their email contact information on the survey. Constructive feedback is welcomed and viewed as an excellent opportunity for CanScribe to enhance the program.

Required Reference Materials and Industry Platforms

The following resources are required for the program and will be used for all courses, activities, and tests, except where referenced separately. Comparable replacements may be substituted at CanScribe's discretion.

Microsoft 365 is a software package that can be used for routine tasks. Multiple mandatory assignments throughout the program will require the use of Microsoft 365. Students are responsible for having Microsoft 365 installed on their computers before starting their program.

Sensors and Platforms will be utilized so students can gather data for predictive analytics.

Drone Simulator Platform will offer students comprehensive drone simulation training to mimic real-world experiences.

Wokwi, Microsoft Maker Code, and/or the Autodesk Tinkercad Circuits Platform will be utilized so students can simulate IoT, including sensor technology and Precision Agriculture hardware and software, without needing to write code.

Computer Requirements

A computer is required for the entire program. Computer requirements are as follows:
- Access to high-speed Internet
    - minimum download speed of 15 mbps
    - minimum upload speed of 10 mbps
- A minimum of 8 gigabytes of RAM (Random Access Memory)
- For Windows Operating Systems:
    - Windows 10 or newer
    - Chrome, Edge, or Firefox

Academic Honesty

CanScribe Career College is committed to the highest standards of academic integrity and honesty. Students are urged to avoid any behaviour that could lead to suspicion of cheating, plagiarism, misrepresentation of facts, and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or dismissal from the program. Please see further details under the **Appropriate Conduct/Dismissal Policy** section in the CanScribe Student Handbook.

AI and Its Use in Learning

CanScribe Career College encourages students to use AI, such as ChatGPT, as a tool to assist students in their learning. Students can use AI tools for specific parts of their assignments, such as brainstorming, researching, locating peer-reviewed publications, and providing assistance in editing the student's work, but the core content and conclusions need to be the student's original creation. AI should never be used to write information on behalf of the student. Copying and pasting information that AI has generated is considered plagiarism. It is also very important to remember that all information submitted to open AI is public domain. **NEVER** share any sensitive or confidential information when using AI.

Program Outline

Introduction
Course Code: AGTL1011
Prerequisites: None
Learning Objectives: Upon successful completion of the Introduction, the student will be able to:
- discern the overall course objectives and expected learning outcomes of the program
- identify the important role of the Agricultural Technology worker in the agriculture sector
- evaluate career outlooks and why people choose this career

Length: 1 hour
Teaching Methods: Online, self-directed learning through LMS using written content, videos, quizzes, and activities. Instructional assistance is available via email, phone, or live chat.
Method of Evaluation: No evaluative content for this course.
Completion Requirement: View all course material.
Course Outline:

1.0 Academic Integrity
2.0 Agricultural Technology Introduction
3.0 The Role of an Agricultural Technology Worker
4.0 Learning Objectives
5.0 Required Reference Materials

6.0 Other Resources
7.0 Career Outlook for Agricultural Technology Roles
8.0 Why People Train in Precision Agricultural Technology

Computer Fundamentals

Course Code: COMP1021

Prerequisites: Introduction

Learning Objectives: Upon successful completion of the Computer Fundamentals course, the student will be able to:

- apply basic computer skills, peripherals, and wireless technology
- identify the use of the Internet as a resource
- recognize various methods for data storage and networking
- describe hardware/software and Internet components
- identify related equipment and how to use it

Length: 15 hours

Teaching Methods: Online, self-directed learning through LMS using written content, videos, quizzes, and activities. Instructional assistance is available via email, phone, or live chat.

Method of Evaluation: Computer Fundamentals activities and course test.

Completion Requirement: View all course material, attempt course activity, and complete Computer Fundamentals course test.

Course Outline:

1.0 Basic Computer Components and Terminology
2.0 Online Applications and Cyber Security
3.0 Windows 11 – Level 1
4.0 Microsoft Training: Word, Excel, Outlook
5.0 Course Test

Essential Skills and Career Training

Course Code: BUPD1031

Prerequisites: Computer Fundamentals

Learning Objectives: Upon successful completion of the Essential Skills Training course, the student will be able to:

- recognize skills for success
- identify adaptability, collaboration, communication, creativity and innovation, digital, numeracy problem solving, reading and writing skills
- apply these practices to learning and the training experience
- training projects and activities
- interact with colleagues, employers, and industry experts

Length: 15 hours

Teaching Methods: Online, self-directed learning through LMS using written content, videos, quizzes, and activities. Instructional assistance is available via email, phone, or live chat.

Method of Evaluation: Essential Skills Training activities and course test.

Completion Requirement: View all course material, attempt course activity, and complete the Essential Skills Training course test.

Course Outline:

1.0 Introduction to Skills for Success
2.0 Practice Skills for Success
3.0 Apply Skills for Succes
4.0 Course Test

Safety Skills Training

Course Code: AGTL1021

Prerequisites: Essential Skills Training

Learning Objectives: Upon successful completion of the Safety Skills Training course, the student will be able to:

- define agricultural safety
- differentiate between health and safety hazards
- describe common health and safety practices used in a variety of agriculture settings
- identify equipment that should be used in a variety of agriculture settings
- define Workplace Hazardous Materials Information System (WHMIS)
- explain the purpose of an Emergency Response Plan
- explain agriculture job safety and legalities
- discern employer responsibility and employee accountability

Length: 5 hours

Teaching Methods: Online, self-directed learning through LMS using written content, videos, quizzes, and activities. Instructional assistance is available via email, phone, or live chat.

Method of Evaluation: Safety Skills Training activities and course test.

Completion Requirement: View all course material, attempt course activity, and complete the Safety Skills Training course test.

Course Outline:

1.0 Introduction to Safety Skills
2.0 Health and Safety Practices in Agriculture
3.0 Risk Assessment and Management
4.0 Safety Preparedness for the Agriculture Sector
5.0 Course Test

Foundations of Agriculture and Food Security

Course Code: AGTL1031

Prerequisites: Safety Skills Training

Learning Objectives: Upon successful completion of the Foundations of Agriculture and Food Security course, the student will be able to:

- outline the meaning, applications, and technologies of precision agriculture and their impact on traditional farming
- define the three essential macronutrients in agriculture
- analyze useful measurable data
- decipher actionable insights within precision agriculture
- compare traditional vs. precision irrigation methods, including the positive and negative impacts of both methods
- interpret soil and crop spatial variability
- compare precision agriculture applications in uncontrolled, semi-controlled, and controlled environments

Length: 50 hours

Teaching Methods: Online, self-directed learning through LMS using written content, videos, quizzes, and activities. Instructional assistance is available via email, phone, or live chat.

Method of Evaluation: Foundations of Agriculture and Food Security activities and course test.

Completion Requirement: View all course material, attempt course activities, and complete the Foundations of Agriculture and Food Security course test

Course Outline:

1.0 Introduction to Agriculture and Food Security
2.0 The Three Essential Macronutrients in Agriculture: NPK
3.0 Problems with Traditional Agriculture
4.0 Soil and Crop Spatial Variability
5.0 Fertilizer Runoff
6.0 Monoculture
7.0 Traditional vs. Precision Irrigation Methods
8.0 Useful Data that can be Measured
9.0 Actionable Insights that Precision Agriculture Provides
10.0 Introduction to Uncontrolled, Semi-controlled, and Controlled Agriculture Environments
11.0 Assigned Activity
12.0 Course Test

Milestone1

Mandatory check-in with an instructor.

IoT (Internet of Things)

Course Code: AGTL1041

Prerequisites: Foundations of Agriculture and Food Security

Learning Objective: Upon successful completion of the IoT course, the student will be able to:

- describe the IoT (Internet of Things)
- identify how IoT technologies can be used in agriculture systems
- evaluate the economic and environmental challenges and benefits of utilizing precision agriculture systems
- examine the basics of crop and soil sensors
- analyze data interpretation, precision agriculture programs, and real-time pest and disease management technologies

Length: 15 hours

Teaching Methods: Online, self-directed learning through LMS using written content, videos, quizzes, and activities. Instructional assistance is available via email, phone, or live chat.

Method of Evaluation: IoT activities and course test.

Completion Requirement: View all course material, attempt course activities, and complete the IoT course test.

Course Outline:

1.0 Introduction to the Internet of Things (IoT)
2.0 Common Sensors in Agriculture
3.0 Basic IoT Hardware, Communication Technologies, and Network Structures
4.0 Challenges of Deploying IoT Hardware
5.0 Introduction to No-Code IoT Software Development
6.0 QuickStart Guide on Agri IoT for your Agriculture Project with Simulations

7.0   Assigned Activity   8.0   Course Test

Soil and Water Management

Course Code: AGTL2051

Prerequisites: IoT

Learning Objective: Upon successful completion of the Soil and Water Management course, the student will be able to:
- distinguish the components of soil health
- discern the importance of soil health for sustainable agriculture
- identify common soil health issues and their impacts on crop production
- compare basic soil-testing techniques to assess soil health
- apply basic methods for improving soil structure, fertility, and overall health
- describe water conservation practices and their role in maintaining soil health

Length: 25 hours

Teaching Methods: Online, self-directed learning through LMS using written content, videos, quizzes, and activities. Instructional assistance is available via email, phone, or live chat.

Method of Evaluation: Soil and Water Management activities and course test.

Completion Requirement: View all course material, attempt course activities, and complete the Soil and Water Management course test.

Course Outline:

1.0   Introduction to Soil Health and Water Management
2.0   Identifying Soil Health Issues
3.0   Basic Soil Testing Techniques
4.0   Improving Soil Structure and Fertility
5.0   Organic Matter and Composting
6.0   Water Conservation and Soil Health
7.0   Soil Cover and Living Roots
8.0   Assigned Activity
9.0   Course Test

Basics of Precision Agriculture Technology

Course Code: AGTL2061

Prerequisites: Soil and Water Management

Learning Objective: Upon successful completion of the Precision Agriculture Technology Applications course, the student will be able to:
- explain the core concepts of precision agriculture and its importance
- identify the basic technologies used in precision agriculture and their applications
- utilize simple mapping tools for improved farm management
- describe how precision agriculture can lead to more sustainable farming practices
- analyze processes of optimizing water use and crop management through technology
- explain principles governing vertical farms
- demonstrate how vertical farming can contribute to environmental and economic sustainability
- examine the challenges faced while operating vertical farms
- demonstrate the use of IoT, sensors, and automation in controlled environment agriculture (CEA)
- exercise data-driven decision-making in CEA
- analyze pest and disease management in CEA
- recognize optimal plant-growth parameters, i.e. lighting, humidity, temperature
- demonstrate germination processes in CEA

Length: 50 hours

Teaching Methods: Online, self-directed learning through LMS using written content, videos, quizzes, and activities. Instructional assistance is available via email, phone, or live chat.

Method of Evaluation: Precision Agriculture Technology Applications activities and course test.

Completion Requirement: View all course material, attempt course activities, and complete Precision Agriculture Technology Applications course test.

Course Outline:

1.0   Introduction to Precision Agriculture Technology
2.0   Core Concepts of Applied Precision Agriculture
3.0   Basic Technologies in Precision Agriculture Today
4.0   Mapping Tools for Farm Management
5.0   Introduction to Sustainable Farming Practices
6.0   Introduction to Vertical Farming and Controlled Environment Agriculture (CEA)
7.0   IoT in CEA and Greenhouse Farming
8.0   Data-Driven Decisions in CEA and Greenhouse Farming
9.0   Pest Management in Greenhouse and CEA Farming

10.0 Introduction to Plant Growth Parameter Optimization for Precision Agriculture
11.0 Challenges of CEA
12.0 Germination Practices in Farms, CEA, Greenhouses, and Nurseries

13.0 Nutrition Management Practices
14.0 Cost-Benefit Analysis Frameworks
15.0 Assigned Activity
16.0 Course Test

Data and Technology

Course Code: AGTL2071

Prerequisites: Precision Agriculture Technology Applications

Learning Objective: Upon successful completion of the Data and Technology course, the student will be able to:
- explain technologies and how they are used in precision agriculture
- summarize the importance of data collection in precision agriculture
- analyze processes of capturing and recording data in precision agriculture applications
- discern how to store and share data in compliance with privacy regulations

Length: 30 hours

Teaching Methods: Online, self-directed learning through LMS using written content, videos, quizzes, and activities. Instructional assistance is available via email, phone, or live chat.

Method of Evaluation: Data and Technology activities and course test.

Completion Requirement: View all course material, attempt course activities, and complete the Data and Technology course test.

Course Outline:

1.0 Introduction to Agriculture Data
2.0 Basic Data Collection Methods
3.0 Using Spreadsheets for Data Analysis
4.0 Simple Technologies for Data Collection
5.0 Making Data-Based Decisions

6.0 Application of IoT Learnings
7.0 Basics of Technology Implementation
8.0 Assigned Activity
9.0 Course Test

Milestone 2

Mandatory check-in with an instructor.

Indigenous Leadership in Agriculture

Course Code: AGTL3081

Prerequisites: Data and Technology

Learning Objective: Upon successful completion of the Indigenous Leadership in Precision Agriculture course, the student will be able to:
- define different leadership styles in Indigenous communities
- recognize approaches using resiliency in leadership
- examine traditional forms of Indigenous leadership
- analyze team collaboration, team building, and how to be an effective team leader
- apply the standards of practice in a supervisory role
- build business leadership through traditional knowledge, culture, and community

Length: 25 hours

Teaching Methods: Online, self-directed learning through LMS using written content, videos, quizzes, and activities. Instructional assistance is available via email, phone, or live chat.

Method of Evaluation: Indigenous Leadership in Precision Agriculture activities and course test.

Completion Requirement: View all course material, attempt course activities, and complete the Indigenous Leadership in Precision Agriculture course test.

Course Outline:

1.0 Introduction to Indigenous Leadership
2.0 Foundations of Indigenous Leadership in Precision Agriculture
3.0 Traditional Ecological Knowledge in Precision Agriculture
4.0 Team Building in Indigenous Communities

5.0 Resilient Leadership in Precision Agriculture
6.0 Supervising and Managing Precision Agriculture Applications
7.0 Business Leadership

Sustainable Practices in Precision Agriculture

Course Code: AGTL3091

Prerequisites: Indigenous Leadership in Precision Agriculture

Learning Objective: Upon successful completion of Sustainable Practices in Precision Agriculture, the student will be able to:
- recall fundamental concepts of sustainable precision agriculture
- explain how sustainable practices can be applied to small-scale farming to improve efficiency and sustainability
- identify how different agricultural practices affect the environment and how precision agriculture can mitigate these impacts
- distinguish farm plans using sustainable precision agriculture principles
- incorporate simple mapping tools for improved sustainable farm management
- analyze techniques in optimizing water use and crop management through technology
- build strategies for carbon capture and utilization
- construct management strategies for pest control, fertilization, and pollination
- develop sustainable, innovative techniques in seed deployment, plant genomics, harvesting and propagation

Length: 25 hours

Teaching Methods: Online, self-directed learning through LMS using written content, videos, quizzes, and activities. Instructional assistance is available via email, phone, or live chat.

Method of Evaluation: Sustainable Practices in Precision Agriculture activities and course test.

Completion Requirement: View all course material, attempt course activities, and complete the Sustainable Practices in Precision Agriculture course test.

Course Outline:

1.0 Introduction to Sustainable Agricultural Technologies	8.0 Precision Fertilization
2.0 Water and Fertilizer Use in Traditional and CEA Farming	9.0 Promoting On-Farm Pollinators
3.0 Water Management Techniques	10.0 Sustainable Innovations in Seed Deployment
4.0 Carbon Capture and Utilization	11.0 Sustainable Innovations in Plant Genomics
5.0 On-Farm Data-Driven Decisions to Reduce Crop Inputs	12.0 Non-Destructive Harvesting and Propagation
6.0 Precision Irrigation	13.0 Assigned Activity
7.0 Precision Pest Management	14.0 Course Test

Fundamentals of Drone Training in Agriculture

Course Code: AGTL2101

Prerequisites: Sustainable Practices in Precision Agriculture

Learning Objective: Upon successful completion of Fundamentals of Drone Training in Agriculture, the student will be able to:
- interpret the basics of drone technology, system components, and their functionality and broader applications
- list the steps required to achieve and maintain a Canadian drone pilot certification
- identify various applications of drones beyond agriculture, highlighting their versatility and benefits
- explore specific applications of drones in precision agriculture, including mapping, crop monitoring, and spraying
- analyze examples of drones being used in agriculture to improve yields, reduce waste, and enhance sustainability
- discuss future trends and potential advancements in drone technology and their implications for agriculture

Length: 10 hours

Teaching Methods: Online, self-directed learning through LMS using written content, videos, and activities. Instructional assistance is available via email, phone, or live chat.

Method of Evaluation: Fundamentals of Drone Training in Agriculture activities and course test.

Completion Requirement: View all course material, attempt course activities, and complete Fundamentals of Drone Training in Agriculture course test.

Course Outline:

1.0 Introduction to Drones	4.0 Next Steps in Drone Technology and Agriculture
2.0 Drones as Tools	5.0 Graded Activity
3.0 Drones in Precision Agriculture	6.0 Course Test

Agriculture Business Training

Course Code: AGTL3101

Prerequisites: Fundamentals of Drone Training in Agriculture

Learning Objective: Upon successful completion of the Agriculture Business Training course, the student will be able to:
- interpret the basics of what makes an agri-business successful, including simple business models, understanding the target market, and basic financial principles
- gain a foundational understanding of the target market and basic financial principles

- identify market trends, how they impact agriculture, and how to prepare for potential risks to their business
- construct a process of planning for a small agri-business, including setting simple objectives, planning for basic operational needs, and considering sustainability
- demonstrate the fundamentals of managing an agri-business, focusing on small to medium-sized enterprises
- develop and implement simple marketing strategies for agricultural products
- interpret the agricultural value chain and its components
- apply fundamental skills in financial management, including budgeting and financial planning for agri-businesses
- distinguish risks associated with agri-business and learn basic strategies for risk management

Length: 20 hours

Teaching Methods: Online, self-directed learning through LMS using written content, videos, and activities. Instructional assistance is available via email, phone, or live chat.

Method of Evaluation: Agriculture Business Training activities and course test.

Completion Requirement: View all course material, attempt activities, and complete the Agriculture Business Training course test.

Course Outline:

1.0 Introduction to Agriculture Business
2.0 Understanding Agri-business Concepts
3.0 Market Trends and Risk Awareness
4.0 Introduction to Business Planning in Agri-business
5.0 Agri-business Management Fundamentals
6.0 Understanding the Agriculture Value Chain
7.0 Basic Financial Management in Agriculture
8.0 Simple Marketing Strategies for Agri-Products

9.0 Identifying Market Opportunities
10.0 Risk Management
11.0 Planning For Small Agri-business Startups
12.0 Selling to Independent Grocery Stores and Large Chains
13.0 Farm Labour Management
14.0 Unit Economics Of CEA Companies
15.0 Graded Activity
16.0 Course Test

Milestone 3

Mandatory check-in with an instructor.

Professional Development

Course Code: BUPD1001

Prerequisites: Agriculture Business Training

Learning Objective: Upon successful completion of the Professional Development course, the student will be able to:
- design and prepare a cover letter and resume
- identify key job-searching skills
- define and discuss all aspects of the interview process
- demonstrate the ability to conduct an interview over the phone with an instructor

Length: 15 hours

Teaching Methods: Online, self-directed learning through LMS using written content, videos, quizzes, and activities. Instructional assistance is available via email, phone, or live chat.

Method of Evaluation: Professional Development activities and course test.

Completion Requirement: View all course material, attempt activities, and complete the Professional Development course test.

Course Outline:

1.0 Introduction to Professional Development
2.0 The Next Steps
3.0 Resumes
4.0 Applications and Cover Letters

5.0 Job Searching
6.0 Interviewing
7.0 Practice Interview Activity
8.0 Course Test

Final Exam

Course Code: AGTL3111

Prerequisites: Professional Development

Learning Objective: The purpose of this exam is to assess the student's learning outcomes at this final stage of the program. Upon completion of the exam, the student should possess a skill-level assessment of all the courses completed to date.

Length: 4 hours

Teaching Methods: Online, timed exam. Instructional assistance will be available, if required, before beginning the exam.

Method of Evaluation: Completion of the final exam.

Completion Requirement: Students must attempt the Final Exam and obtain a minimum program grade of 60%.

Conclusion

Congratulations, and good luck in all your future endeavours!