

Required Courses

Bachelor of Digital Agriculture Degree

YEAR 2 TERM 1	
1	AGF 1000 - Survey of Agriculture and Food Systems in Rural and Urban Environments
	Students will gain experience in the operation of precision agriculture equipment, combining and applying their knowledge of cropping systems with that of machinery systems.
2	AGT 2000 - Crop Production Technology
	Through the examination of the principles of crop production, digital analytics, and prescriptions, students will examine advanced cropping systems, including digital twinning, genealogy, and phenology for sustainability, yield, and profit optimization.
3	ATI 3006 - Project Management for Sustainable Systems
	Students will use project management principles through case studies and teamwork environments to better understand how project management facilitates problem-solving and innovative solutions in the agriculture technology industry. Using technology, students will engage in problem definition in a sustainable context.
4	AGS 2100 - Foundations of Applied Engineering
	Students will be introduced to problem solving related to fundamental agricultural and/or industrial technology systems and the mathematical tools needed for data analysis. Basic laws of energy, force, and mass are applied to technology systems, such as the mechanical power transmission, HVAC, and electrical circuits. Students will also be introduced to engineering economics: using the time value of money to make economic decisions. <i>Pre-req: MTH 1100 - Applied Math</i>
5	AGT 2110 - Automation in Digital Agriculture
	Students will gain an understanding of the theory and applications of automation systems. This course emphasizes features, capabilities, design, and programming skills of Programmable Logic Controller (PLC) industrial control systems. Students will also be introduced to industrial robots and sensors. <i>Pre-req: AGT 1510 - Experiencing Technology</i>

YEAR 2 | TERM 2

1	<p>AGT 2100 - Internet of Things in Agriculture</p> <p>Students will learn about different technologies to deploy Internet Of Things (IOT) that exist on a Smart Farm. They will build awareness on the basic operating principles, installation, and troubleshooting of a typical IoT Integration. Students will understand the importance of utilizing IoT in data sharing among farm managers, operators, and the farm office. Students will learn the economic benefits of utilizing IoT and communicating with customers.</p>
2	<p>MGL 2100 - Foundations in Professional Leadership and Learning</p> <p>Students will develop foundational self-knowledge to help them identify how they work with others, identify personal strengths, and identify areas for growth in the pursuit of professional learning. This self-knowledge will enable students to recognize the lenses through which they analyze information as an introduction to professional leadership skills. Students will demonstrate respect for ethical conduct within the agriculture technology industry.</p>
3	<p>MGL 2000 - Business and Entrepreneurship Mindset</p> <p>Students will develop a familiarity with agricultural business structures, economic systems, and considerations of a business lifecycle, from incubation to exit, including management and leadership, organizational considerations, and decision making processes.</p>
4	<p>AGT 2200 - Exponential Thinking In Agriculture and Food Systems</p> <p>Students will explore forces that drive exponential change, learn how to anticipate these changes, and how to stay ahead of the curve. Students will be immersed in Peter Diamandis' 6Ds to develop an understanding of the growth cycle of digital technologies and develop a mindset to identify how converging technologies are disrupting life and business. Students will develop an awareness of ethical, moral, legal, and political implications of new technologies.</p>
5	<p>COM 2100 - Applied Composition</p> <p>Students will be introduced to business and technical writing that accommodates diverse perspectives and fosters client relationships. Students will synthesize research and produce formal documents, such as proposals, analyses, and recommendation reports for clients based on relevant industry cases.</p>