

Agriculture - Student Learning Outcomes

AG 080	Pesticide Safety	1. demonstrate comprehension of chemical product use via label and MSDS sheet published. (ILO1, ILO2 & ILO4)
AG 110	Environmental Science	1. Identify important issues in environmental science at the local, state, national or international level(such as air and water quality, species diversity, soil and land use etc)including the various causes, possible long term repercussions and possible solutions. (ILO1, ILO2, ILO3 & ILO4)
		2. Identify traditional and alternative energy sources including advantages & disadvantages of each. (ILO2 & ILO4)
		3. Discuss the growing human population and the related demand for resources (water, power, soil, hunger, etc.) and the impact that it places on agriculture. (ILO1, ILO2, ILO4 & ILO5)
AG 120	Soil Science	1. Identify soil crop compatibility via research and reporting information obtained from lecture, journal study and text materials in either a written or verbal manner by assigned completion date (ILO1, ILO2, ILO3, ILO4).
		2. Conduct lab analysis using prescribed protocols on known samples to derive accurate & repeatable results that are reported in a useful format (ILO1, ILO2, ILO3, ILO4).
		3. Develop an accurate and useful recommendation for soil application or amendment for desired crop production within a reasonable soil/crop interaction (ILO1, ILO2, ILO4).
AG 130	Agricultural Economics	1. Analyze economic trends as they apply to US and world production. (ILO2, ILO3, ILO4, & ILO5)
		2. Develop production plan alternatives & communicate rationale. (ILO1 & ILO2)
		3. Identify interrelationships of local, national & world influences on agriculture production. (ILO2)
AG 132	Business Management	1. Successfully conclude a negotiation. (ILO1, ILO2, ILO3, ILO5)
		2. Demonstrate an ability to productively work as a team member with people of diverse experiences and backgrounds by exchanging ideas and viewpoints with other team members to develop a united position for negotiating a solution to a common business problem as posed in a negotiation scenario. (ILO1, ILO2, ILO3, ILO5)
		3. Identify and define the four functions of management and describe how each element applies to managers in a typical business environment (ILO1, ILO2, ILO3, ILO5)
		4. Identify and define the steps of the managerial decision-making process and follow the steps to make a decision in a simulated business case. (ILO1, ILO2, ILO3, ILO5)
AG 134	Agricultural Business Organization	1. Identify and explain the small business enterprise including types of ownership, production, marketing and sales (ILO1, ILO2, ILO4).
		2. Demonstrate knowledge of business management including management of personnel and identify opportunities for employment in management (ILO1, ILO2, ILO4).
		3. Discover and recognize the relationship between labor and management (ILO2, ILO4).
AG 136	Agricultural Sales and Service Management	1. Analyze marketing, service and production trends as they apply to US and world trade of agriculture. (ILO2, ILO3, ILO4, & ILO5)
		2. Develop marketing plan alternatives & communicate rationale. (ILO1 & ILO2)
		3. Identify interrelationships of local, national & world influences on agriculture markets. (ILO2)
AG 138	Computer Applications in Agriculture	1. Discuss the use and importance of GPS/GIS in the production of food and feed crops (ILO1, ILO2, ILO4).
		2. Read and interpret maps, identify key features and differences that would be expected to influence crop production (ILO2, ILO4).
		3. Demonstrate accurate use and repeatability of GPS equipment (ILO2, ILO4).

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AG 140	Principles of Plant Science	1. Identify and discuss basic needs of plant crops found in Imperial County, California & major crop producing states in the US (ILO1, ILO2, ILO4).
		2. Accurately discuss and explain a crop rotation program as well as the benefits that are derived from that production system (ILO1, ILO2, ILO4).
		3. Identify and discuss major crop commodities grown in Imperial as well as the season that those crops are planted and harvested (ILO1, ILO2, ILO4).
		4. Identify and discuss basic pest avoidance procedures for commonly grown crops in the Imperial Valley (ILO1, ILO2, ILO4).
AG 142	Introduction to Biofuel Input and Production	1. Read and understand current trade and research published material. (ILO4)
		2. Discuss positive benefit of biomass energy production as well as be able to discuss alternative cost analysis as it applies to competing use of the input material. (ILO1)
		3. Develop clear case to explain and support use of biomass for energy production when appropriate. (ILO2)
AG 160	Food & Fiber in a Changing World	1. Identify and discuss disproportion of food/feed/fiber production relative to human population growth centers (ILO1, ILO2, ILO4, ILO5).
		2. Identify and discuss technical and biological advancements in the production of food/feed/fiber commodities (ILO1, ILO2, ILO4).
		3. Identify alternative products/crops/commodities that may augment or replace existing crops to provide for human need (ILO1, ILO2, ILO4, ILO5).
AG 170	Principles of Entomology	1. Identify, link and report common pests to the crop and type of damage (ILO1, ILO2, ILO4).
		2. Prepare mounted specimens and label according to discipline protocol (ILO1, ILO2, ILO4).
		3. Identify and discuss interrelations between host crop, pest insect & beneficial insects (ILO1, ILO2, ILO4).
AG 220	Irrigation and Drainage	1. Discuss various irrigation systems and benefits/compromises of each system based on a given crop system/soil type/geographic condition (ILO1, ILO2, ILO3, ILO4).
		2. Discuss irrigation system and design as it influences plant nutrient application and utilization (ILO1, ILO2, ILO4).
		3. Plan out and defend schedule for irrigation of a given crop over the life cycle based on system type, soil type and season of growth (ILO2, ILO4).
AG 230	Fertilizers & Soil Amendments	1. Plan out and defend schedule for fertilization of a given crop over the life cycle based on system soil type, stage and season of growth (ILO2, ILO4).
		2. Discuss fertilization system and design as it influences plant nutrient uptake and utilization (ILO1, ILO2, ILO4).
		3. Discuss various fertilization systems and benefits/compromises of each system based on a given crop system/soil type/geographic condition (ILO1, ILO2, ILO3, ILO4).
AG 240	Field and Cereal Crops	1. Identify and discuss biotechnical advancements in the production of field & cereal crops (ILO1, ILO2, ILO4).
		2. Identify and discuss trends that influence cereal production here and abroad (ILO1, ILO2, ILO4, ILO5).
		3. Identify and discuss field and cereal crops relevant to the Imperial Valley, California and the USofA (ILO1, ILO2, ILO4).
		4. Identify and discuss basic nutrition comparison to corn for crops grown in the Imperial Valley (ILO1, ILO2 & ILO4).
AG 250	Vegetable Crop Production	1. Identify and discuss biotechnical advancements in the production of vegetable crops (ILO1, ILO2, ILO4).
		2. Identify and discuss trends that influence vegetable production here and abroad (ILO1, ILO2, ILO4, ILO5).
		3. Identify and discuss vegetable crops relevant to the Imperial Valley, California and the USofA (ILO1, ILO2, ILO4).

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AG 260	Plant Protection and Integrated Pest Management	1. Identify and discuss biotechnical advancements in the protection of crops (ILO1, ILO2, ILO4).
		2. Identify and discuss trends that influence crop production in regard to pest management here and abroad (ILO1, ILO2, ILO4, ILO5).
		3. Identify and discuss basic needs of plant crops found in Imperial County, California & major crop producing states in the US & how they impact pest management & crop health (ILO1, ILO2, ILO4).
AG 270	Weeds and Weed Control	1. Identify and discuss biotechnical advancements in the control weeds (ILO1, ILO2, ILO4).
		2. Identify and discuss trends that influence weed management here and abroad (ILO1, ILO2, ILO4, ILO5).
		3. Identify and discuss common weed species and integrated systems of control here and abroad (ILO1, ILO2, ILO4, ILO5).