

Mechanized Agriculture Assessment Plan
Rev. 2/19/2021

Mechanized Agriculture	16-17	17-18	18-19	19-20	20-21	21-22
MCAGB2 - Introduction to Mechanized Agriculture						
• Upon completion the student will be able to: Develop an accurate construction plan that includes a bill of materials, project measurements, machine setups and material types for a given project to be constructed in class.		C				
• Upon completion the student will be able to: Identify safe shop practices and potentially hazardous safety conditions in the work environment.		C				
• Upon completion the student will be able to: Illustrate knowledge of concrete by forming, pouring, screeding, and finishing a slab to a proper size and slope.		C				
• Upon completion the student will be able to: Assemble an electrical wiring board or display as per instructions.		C				
MCAGB3 - Small Gas Engines						
• Upon completion the student will be able to: Differentiate an understanding of two and four stroke small engines.						P
• Upon completion the student will be able to: Demonstrate basic technical skill and knowledge to perform routine maintenance.						P
• Upon completion the student will be able to: Assess the basic technical skill and knowledge to troubleshoot and diagnose small engine problems, perform tune-ups, engine overhauls and read and understand technical manuals.						P
MCAGB4 - Agriculture Safety						
• Upon completion of the course, the student will be able to demonstrate safe tractor and machinery maintenance. • Ascertain the value of an organized effort to obtain maximum service from tractor units at optimum efficiency • Identify and apply lubricants and lubrication techniques used on tractors and equipment and perform minor tractor maintenance • Perform tasks that are necessary to assure maximum economy and efficiency of operation of farm tractors under varying situations and conditions • Acquire desirable skills, abilities, and techniques used in safe equipment operation		C				
• Upon completion the student will be able to: Analyze work safety procedures and regulations and explain why they are in place and how they are developed for the equipment required for an agricultural operation. • Perform HASMAT safety procedures and practices • Demonstrate a knowledge of Material Safety Data Sheets • Identify Personal Protective Equipment, their use and care		C				
• Upon completion the student will be able to: List on-site safety requirements and potential hazards for a field work site. • Demonstrate the ability to communicate and work cooperatively with others • Develop a record system for safety training and schedules		C				
MCAGB5 - Agriculture Irrigation Technology						
• Upon completion of the course, the student will be able identify irrigation system components and discuss their purposes and functions.						P
• Upon completion the student will be able to: Describe the need to use water conservatively as a natural resource.						P
• Upon completion the student will be able to: Summarize the principles involved in the procurement, distribution, application, and management of water in agriculture.						P
MCAGB10 - Farm Power Operation						
• Upon completion of the course, the student will be able to develop a general understanding of the parts and systems of farm power equipment and create a maintenance program to keep the equipment functioning properly.		C				
• Upon completion the student will be able to: Evaluate tasks to be performed, select proper equipment needed and operate it to safely to perform needed tasks.		C				
• Upon completion the student will be able to: Communicate to others in the field and work cooperatively to meet required tasks.		C				
MCAGB11 - Introduction to Diesel Engine Repair						
• 1. Upon Completion of the course, the student will be able to communicate basic diesel engine principles			C			
• 2. Upon Completion of the course, the student will be able to identify diesel engine parts and components			C			
• 3. Upon Completion of the course, the student will be able to measure serviceable engine components, and compare them to manufacturers specifications			C			

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MCAGB12 - Advanced Diesel Engine Repair						
• 1. Upon completion of the course, the student will be able to communicate diesel engine emissions principles			C			
• 2. Upon completion of the course, the student will be able to demonstrate electrical diagnostic troubleshooting			C			
• 3. Upon completion of the course, the student will be able to read and interpret manufacturers technical service manuals			C			
MCAGB13 - Hydraulics						
• 1. Upon completion of the course, the student will be able to communicate hydraulic system principles			C			
• 2. Upon completion of the course, the student will be able to identify common hydraulic system components			C			
• 3. Upon completion of the course, the student will be able to read and interpret manufacturers technical service manuals			C			
MCAGB14 - Heavy Equipment Systems						
• 1. Upon completion of the course, the student will be able to communicate equipment system principles			C			
• 2. Upon completion of the course, the student will be able to test electrical components with industry standard tools			C			
• 3. Upon completion of the course, the student will be able to read and interpret manufacturers technical service manuals			C			
• 4. Upon completion of the course, the student will be able to complete a pre-delivery inspection according to manufacturer guidelines			C			
MCAGB48WE - Occupational Work Experience Education/Internship						
• Upon completion the student will be able to: Articulate the specific work experience objectives in Mechanized Agriculture as described by employer and identify the various skills, knowledge and attitudes necessary to the accomplishment of those objectives.			C			
• Upon completion the student will be able to: Demonstrate the acquisition of the various skills, knowledge and attitudes necessary to the completion of the work experience objectives in Mechanized Agriculture and the ability to effectively meet employer's job expectations.			C			
• Upon completion the student will be able to: Identify and analyze the application of acquired skills, knowledge and attitudes to career opportunities in Mechanized Agriculture.			C			