AGRICULTURAL MECHANIZATION (AM)

# Course numbers with the # symbol included (e.g. #400) have not been taught in the last 3 years.

**AM 451 - Welding/Fabrication Technology**  
**Credits:** 4  
Processes and procedures of welding including: Shielded Metal Arc Welding (SMAW), Shielded Metal Arc Cutting (SMAC), Oxyacetylene Welding (OAW), Oxy-Fuel Gas Cutting (OFC-A), Gas Metal Arc Welding (GMAW), Plasma Arc Cutting (PAC), and Gas Tungsten Arc Welding (GTAW). Welding metallurgy and control of distortion. Special fee. Prereq: permission. 2 lec/2-hr rec.  
**Equivalent(s):** AM 251, AOE 451, EDUC 451

**AM 461 - Internal Combustion Engines I**  
**Credits:** 4  
Internal combustion engines (spark-ignited and diesel) and their subsystems with emphasis on their design, how they function, preventive maintenance, and troubleshooting. 2 lec/2-hr rec.  
**Equivalent(s):** AM 261, AOE 461, EDUC 461, VTAE 461

**AM #462 - Internal Combustion Engines II**  
**Credits:** 4  
Advanced engine principles and theory. Detailed major failure analysis and overhaul techniques. Prereq: permission, AM 461 or EDUC 461. 2 lec/2-hr rec.  
**Equivalent(s):** AM 262, EDUC 462

**AM 470 - Residential Electricity**  
**Credits:** 2  
Electrical principles, laws, and installation with emphasis on the "National Electrical Code." While modeled at the residential level, concepts and terminology will be applicable to the commercial and light industrial sectors as well. Concepts and methodologies will be supported with design and when appropriate, hands on application to enhance the learning environment. 2 lec/2-hr rec. (half semester course.)  
**Equivalent(s):** AM 270, AOE 470, EDUC 470, VTAE 470

**AM 591 - Studies in Agricultural Mechanization**  
**Credits:** 1-4  
Students who have the ability and adequate preparation to work independently may propose a contract to design a course or research project on a topic not available through existing course offerings. The purpose of this research is to explore new areas in the student's field of study or to pursue course material in greater depth. Work is supervised by an appropriate faculty/staff member; credit varies depending on the proposed project/research. Areas may include welding, engines, building construction, electricity, or computers.  
**Equivalent(s):** AM 291

**AM 592 - Studies in Agricultural Mechanization**  
**Credits:** 1-4  
Students who have the ability and adequate preparation to work independently may propose a contract to design a course or research project on a topic not available through existing course offerings. The purpose of this research is to explore new areas in the student's field of study or to pursue course material in greater depth. Work is supervised by an appropriate faculty/staff member; credit varies depending on the proposed project/research. Areas may include welding, engines, building construction, electricity, or computers.  
**Equivalent(s):** AM 292