

Minor in Agricultural Engineering

The undergraduate minor in Agricultural Engineering provides a foundation in agriculture for students who are pursuing a BS in Engineering degree program. The minor includes courses in three engineering application areas in agriculture: Machinery/Power, Soil and Water, and Processing. The minor will serve to prepare students for careers in agriculture, which is the number one industry in Missouri.

Requirements

Students who are majoring in a BS in Engineering degree program are eligible for the undergraduate minor in Agricultural Engineering. The minor requires a total of 18 credit hours, (6 courses), selected from the list below. Students are required to take at least one course from at least three of the areas identified within the eight American Society of Agricultural and Biological Engineers (ASABE) Communities.

Ag Engineering Emphasis: Machinery/Power

AG_S_TCH 4320	Agricultural Equipment and Machinery	4
AG_S_TCH 4140	Electricity: Wiring and Equipment	3
AG_S_TCH 4365	Advanced Applications of Precision Agriculture	3
MAE 4710	Hydraulic Control Systems	3
MAE 4290	Welding Engineering	3
ECE 2100	Circuit Theory I	4

Ag Engineering Emphasis: Soil & Water

BIOL_EN 4350	Watershed Modeling Using GIS	3
AG_S_TCH 4360	Precision Agriculture Basics	3
AG_S_TCH 4366	Data Analytics in Precision Agriculture	3
AG_S_TCH 4460	Irrigation and Drainage	3

Ag Engineering Emphasis: Processing

AG_S_TCH 4140	Electricity: Wiring and Equipment	3
AG_S_TCH 4160	Internet of Things for Agricultural Technology	3
AG_S_TCH 4220	Material Handling and Conditioning	3
BIOL_EN 3180	Heat and Mass Transfer in Biological Systems	3
BIOL_EN 4316	Biomass Refinery Operations	3
BIOL_EN 4380	Applied Electronic Instrumentation	4
MAE 4270	Nondestructive Evaluation of Materials	3