MS AGRICULTURE, SPECIALIZATION IN WATER ENGINEERING

Program Learning Objectives

Graduates are prepared to:

1. Demonstrate expertise and the use of technology in their respective discipline.
2. Demonstrate effective oral and written communication skills.
3. Make choices based on an understanding of personal and professional ethics and respect for diversity of people and ideas.
4. Recognize leadership principles and skills.
5. Evaluate and solve problems using critical thinking.
6. Demonstrate an appreciation for sustainability and global perspectives.

Required Courses		
ESCI 501	Research Planning	4
STAT 511	Statistical Methods	4
STAT 513	Applied Experimental Design and Regression Models	4
Select from the Following:		2-3
AG 581	Graduate Seminar	
CE 591 & CE 592	Graduate Seminar I and Graduate Seminar II	
BRAE 414	Irrigation Engineering	4
BRAE 532	Water Wells and Pumps	4
BRAE 533	Irrigation Project Design	4
CE 533	Advanced Water Resources Engineering	4
BRAE 599	Thesis in BioResource and Agricultural Engineering (2, 2, 5)	9
Approved Electives		
Select from the following: [1]		6
BRAE 435	Drainage	
BRAE 440	Agricultural Irrigation Systems	
CE 434	Groundwater Hydraulics and Hydrology	
CE 435	Engineering Hydrology	
CE 440	Hydraulic Systems Engineering	
CE 536	Computer Applications in Water Resources with Geographic Info Systems (GIS)	
ENVE 436	Introduction to Hazardous Waste Management	
ENVE 438	Water and Wastewater Treatment Design	
ENVE 535	Physico-Chemical Water and Wastewater Treatment	
ENVE 542	Sustainable Environmental Engineering	
ECON 410	Public Finance and Cost-Benefit Analysis	
ECON 435	Economics of Land and Water	
Total units		**45-46**

[1] At least 60% of all units required by the committee as reflected on the formal study plan must be at the 500 level.