

## MS in Agricultural Engineering (Thesis)

### Curriculum Checklist

Please refer to the program of study website below as your reference for course selection.

<https://engineering.uga.edu/degree/ms-agricultural-engineering/>

Student Name: \_\_\_\_\_

Student ID (810/811): \_\_\_\_\_ First term of enrollment: \_\_\_\_\_

**The MS Agricultural Engineering under a thesis option requires a minimum of 33 credit hours in the Program of Study.**

Subject/ Number	Hours	Title	Semester	Emphasis Course (Y/N)	Graduate only course (Y/N)	Course Sub. (Y/N)
<b>Required Courses</b>	ENGR 8950	1	Graduate Seminar*		Y	
	GRSC 7001	1	GradFIRST Seminar (UGA required)		Y	
<b>Agricultural Area of Emphasis</b> (at least 9 credit hours)						
<b>Elective Graduate only</b> (at least 12 credit hours)						
<b>Research Courses</b>	ENGR 7000	6 (at least)	Master's Research	List Semesters and Credit Hours:		
	ENGR 7010		Project-Focused Master's Research	List Semesters and Credit Hours:		
	ENGR 7300	3	Thesis Preparation and Writing	List Semesters and Credit Hours:		
<b>Total Credit Hours</b> (by adding all taken courses above – at least 33 hours + GradFIRST)		<b>Credit Hours Requirement Guideline</b>				
		<p>1. A minimum of 24 semester hours of coursework, which must include:</p> <ul style="list-style-type: none"> <li>• at least 21 hours of graduate-level coursework, including                             <ul style="list-style-type: none"> <li>○ at least <b>9 hours selected from one of the Agricultural Engineering Emphasis</b> course lists.</li> <li>○ at least <b>12 hours from UGA courses open only to graduate students</b> and exclusive of thesis (ENGR 7300, Master's Thesis) and research (ENGR 7000, Master's Research, and ENGR 7010, Project-Focused Masters Research)</li> </ul> </li> <li>• <b>1 hour of ENGR 8950</b> Graduate Seminar (*Only up to 1 hours of ENGR 8950 may apply on the Program of Study if the student takes it more than once)</li> </ul> <p>2. A minimum of <b>6 hours of research</b> (ENGR 7000 Doctoral Research or ENGR 7010 Project-focused Master's Research).</p> <p>3. <b>3 hours of ENGR 7300</b> Thesis Preparation and Writing.</p>				

If you need course substitution, please complete and attach course substitution form.  
Course substitute form can be found at:  
<https://engineering.uga.edu/students/graduate/ms-student-program-milestones/>

**Comments:**

Major Professor (sign and date): \_\_\_\_\_ Date

ECAM (Mech, Ag) Graduate Coordinator (sign and date): \_\_\_\_\_ Date

# UGA CENGR M.S. Agricultural Engineering

## AGRICULTURAL ENGINEERING EMPAHSIS COURSE LIST

### Food Systems Engineering

- BIOE 8490 Advanced Biomaterials
- BCHE 8150 Heterogeneous Reactor Design and Bio-Catalysis
- ENGR 6350 Introduction to Finite Element Analysis
- CVLE/MCHE 8160 Advanced Fluid Mechanics
- ELEE 6210 Linear Systems
- ELEE 6220 Feedback Control Systems
- ELEE 6230 Sensors & Transducers
- ELEE 6235 Industrial Control Systems
- ELEE 6250 Advanced Microcontrollers
- ELEE 6540 Applied Machine Vision
- ELEE 8240 Instrumentation Programming
- ENGR 6490 Renewable Energy Engineering
- CVLE(MCHE)(LAND) 6660 Sustainable Building Design
- ENGR 6910 Foundations for Engineering Research
- ENGR 8103 Computational Engineering
- ENGR 8180 Advanced Mass Transfer
- ENGR 8930 Optimization Theory & Engineering Applications
- FDST 6011 Food Processing I
- FDST 6012 Food Processing II
- FDST 6013 Food Processing III
- FORS 6530 Wood Properties & Utilization
- HORT/CRSS 6430 Plant Physiology
- MCHE 6650 HVAC Systems for Buildings and Industry
- MCHE 8170 Advanced Heat Transfer
- POUL/FDST 6860&L Poultry Processing
- STAT 6315 Statistical Methods for Researchers

### Natural Resource Management

- CVLE 8110 Environmental River Mechanics
- CVLE 8130 Mechanics of Jets and Plumes
- CVLE 8140 Transport and Mixing in Natural Flows
- CVLE/MCHE 8160 Advanced Fluid Mechanics
- CVLE 8420 Geomechanics
- CVLE 8460 Soil Improvement
- CRSS 6600 Soil Physics
- ELEE 6230 Sensors & Transducers
- ELEE 8240 Instrumentation Programming
- ENGR/GEOG 6161&L Environmental Microclimatology
- CVLE(MCHE)(LAND) 6660 Sustainable Building Design
- ENGR 6490 Renewable Energy Engineering
- ENGR 6910 Foundations for Engineering Research
- ENGR 8103 Computational Engineering

- ENGR 8220 Microfluidic Transport Phenomena
- ENGR 8930 Optimization Theory & Engineering Applications
- ENVE 6410 Open Channel Hydraulics
- ENVE 6435 Natural Resources Engineering
- ENVE 6440 Computer Modeling in Water Resources
- ENVE 6460 Groundwater Hydrology for Engineers
- ENVE 6470 Environmental Engineering Unit Operations
- ENVE 6450 Engineering Hydrology and Hydraulics
- MCHE 6590 Fluid Mechanics II
- MCHE 6650 HVAC Systems for Buildings and Industry
- MCHE 8710 Engineering Properties of Animal and Plant Materials: Form & Function
- STAT 6315 Statistical Methods for Researchers
- WASR 6500 Quantitative Methods in Hydrology
- WASR 6700L Hydrology, Geology & Soils of Georgia