

**Master of Science in Agriculture and Natural Resources Systems Management (1180)**  
**Resume of Degree Requirements**

**Ia. Systems Science in Agriculture Group (12 hours) (1183)**

All Systems Science in Agriculture students must complete the following courses:

<b>Management Science in Agriculture</b>	<b>6 hours</b>
Agricultural Engineering Technology 784	Agricultural Systems Science (3)
Agricultural Engineering Technology 785	Decision and Information Systems in Agriculture (3)
<b>and</b>	
<b>Agricultural Engineering Technology</b>	<b>6 hours</b>
Choose two courses (6 hours) from:	
Agricultural Engineering Technology 650	Agricultural Structures (3)
Agricultural Engineering Technology 660	Waste Management Technology (3)
Agricultural Engineering Technology 710	Safety and Ergonomic Sciences in Agriculture (3)
Agricultural Engineering Technology 760	Comprehensive Nutrient Management Planning and Design (3)
Agricultural Engineering Technology 782	Advanced Precision Technologies for Ag & NRM (3)
<b>Technology/Science Elective (3)</b> - Any 600 level or higher course in agricultural engineering technology, biotechnology, or the sciences approved by MSANR Graduate Supervisory Committee. Only one Technology/Science Elective course (3 hours) may be applied toward the MSANR Systems Science in Agriculture Group requirement.	

**OR**

**Ib. Agricultural Education and Leadership Group (12 hours) (1181)**

All Agricultural Education and Leadership students must complete the following courses:

<b>Leadership and Instruction</b>	<b>9 hours</b>
Educational Studies 710	Models of Instruction, Curriculum Development, and Advanced Teaching Strategies (3)
Educational Administration and Supervision 720	Leadership Theories in the Educational Setting (3)
Agricultural Education 770	Program Development for Agricultural Mechanics Instruction (3)
<b>and</b>	
<b>Agricultural Education and Leadership Elective</b>	<b>3 hours</b>
Choose one course (3 hours) from:	
Educational Administration and Supervision 710	Introduction to Supervising and Leading Educational Change (3)
Educational Foundations 720	Educational Studies: Multicultural Issues in Education and Counseling (3)
Educational Studies 750	Advanced Computer Applications and Technologies in Education (3)
<b>Teaching and Leadership Elective (3)</b> - Any 700 level or higher course in agricultural education or education approved by the MSANR Graduate Supervisory Committee. Only one Agricultural Education and Leadership Elective course (3 hours) may be applied toward the MSANR Agricultural Education and Leadership Group requirement.	

**OR**

**Ic. Natural Resources Systems Management Group (12 hours) (1182)**

Students in the Natural Resources Systems Management group must complete 12 hours of course work from the Natural Resources Distance Learning Consortium (NRDLC) as approved by the MSANR Graduate Supervisory Committee. The University of Tennessee-Martin is a member of the NRDLC. The U.S. Forest Service (U.S. Dept. of Agriculture) and the Department of the Interior (Bureau of Land Management) are alliance partners with the NRDEC.

**Natural Resources Distance Education Consortium 12 hours**

**II. Agribusiness/Business Group (9 hours)**

Choose three courses (9 hours) from:

Agricultural Economics 645	Natural Resources Economics (3)
Agricultural Economics 665	Agricultural Finance (3)
Agricultural Economics 671	Agricultural Management (3)
Agricultural Economics 715	Advanced Farm Real Estate Appraisal (3)
Agricultural Economics 745	Agricultural Production Economics (3)
Agricultural Economics 750	Agricultural Risk Analysis & Decision Making (3)
Agricultural Economics 751	Strategic Management Issues in Agriculture (3)
Information Systems 761*	Information Systems (3)
Management 730*	Operations Management (3)
Management 740*	Management of Innovation and Technology (3)
Natural Resources Management 730	Advanced Natural Resources Economics (3)
Agribusiness/Business Elective (3) - Any 700 level or higher course in agribusiness, marketing, or management approved by the MSANR Graduate Supervisory Committee. Only one Agribusiness/Business Elective course (3 hours) may be applied toward the MSANR Agribusiness/Business requirement.	

\*Consult the graduate coordinator of the College of Business and Public Affairs regarding applicable prerequisites.

**III. Internship or Research Group (6 hours)**

**Non-Thesis Option**

Agriculture 791

or

Natural Resources Management 791

and

Internship/Research Elective (3)

**6 hours**

Research/Internship in Agriculture (1-3)

Research/Internship in Natural Resources Management (1-3)

Any 700 level or higher course from Groups Ia, Ib, Ic, II, or VI (3)

**OR**

**Thesis Option**

Agriculture 701-702

or

Natural Resources Management 701-702

**6 hours**

Thesis Research (3, 3)

Thesis Research (3, 3)

Thesis option students will complete a research study in an approved area of agriculture or natural resources management. The thesis research director must have a terminal degree and be actively involved in research or extension. The student's thesis research director and the student must submit a written research proposal to the MSANR Graduate Coordinator at least 14 days prior to personally appearing before the MSANR Graduate Supervisory Committee for thesis consideration. The research and thesis will be directed by a graduate committee composed of minimum of three faculty members with graduate faculty status.

**IV. Statistics/Advanced Mathematics Group (3 hours)**

Agriculture 741

Statistical Methods in Agriculture and Natural Resources (3)

Or a graduate level statistics or mathematics course approved by the MSANR Graduate Supervisory Committee (3)

**V. International Agriculture and Natural Resources Group (3 hours)**

Choose one course (3 hours) from:

Agricultural Economics 735

Seminar in International Agricultural Trade (3)

Agriculture 732

International Travel Study (3)

Any 700 level or higher course in international studies approved by the MSANR-Graduate Supervisory Committee (3).

**VI. Agriculture and Natural Resources Elective Group (3 hours)**

Any 600 level or higher course in agriculture, natural resources, the sciences, or other course approved by the MSANR Graduate Supervisory Committee.

**MINIMUM HOURS REQUIRED .....36**