The Systems Science in Agriculture (SSA) concentration features coursework in agricultural engineering technology, management science, and agricultural economics providing a well-rounded graduate education for professionals seeking careers in agricultural industries and government agencies.

Students must satisfy the university general requirements and the following requirements specific to the degree.

**Resumé of Degree Requirements**

<table>
<thead>
<tr>
<th>Systems Science in Agriculture Concentration (1193)</th>
<th>18 hours</th>
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</table>

- Management Science (3 hours)
  - Agricultural Engineering Technology 784 Applied Mgt Science in Agricultural Systems I (3) OR
  - Agricultural Economics 784 Applied Management Science in Agricultural Systems I (3)

AND

- Agricultural Systems Technology;
  - choose four courses (12 hours) from the following:
    - Agricultural Engineering Technology 710 Safety and Ergonomic Sciences in Agriculture (3)
    - Agricultural Engineering Technology 720 Advanced Soil and Water Conservation Engineering (3)
    - Agricultural Engineering Technology 760 Comprehensive Nutrient Management Planning and System Design (3)
    - Agricultural Engineering Technology 782 GIS for Agricultural and Natural Resources Mgt (3)
    - Natural Resources Management 722 Production of Biorenewable Resources (3) OR
      - Plant Science 722 Production of Biorenewable Resources (3)
    - A 600 level or higher course (3 hours) in agricultural engineering technology, or related applied science approved by the M.S.A.N.R. Graduate Coordinator

AND

- Agricultural Economics;
  - choose one course (3 hours) from the following:
    - Agricultural Economics 705 Advanced Agricultural Marketing (3)
    - Agricultural Economics 710 Commodity Futures and Options Markets (3)
    - Agricultural Economics 745 Agricultural Production Economics (3)
    - Agricultural Economics 750 Agricultural Risk Analysis and Decision Making (3)
    - Agricultural Economics 751 Strategic Management Issues in Agriculture (3)
    - Agricultural Economics 780 Project Management Issues in Agriculture (3)
## Systems Science in Agriculture Concentration

### II. Agriculture, Geosciences, and Natural Resources Electives 9 hours
- Choose nine (9) hours of course work from 600 level or higher courses in agriculture, agricultural economics, geosciences, natural resources, education, natural or physical sciences, or other graduate course approved by the M.S.A.N.R Graduate Coordinator.

*Three hours in this category must include globalization component.

### III. Statistics/Advanced Mathematics 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 Coordinator (3). Students in the Agribusiness and Risk Management ARM option are required to complete AGEC 740 Advanced Econometric Applications in Agribusiness (3) to complete the statistics requirement.

### IV. Research 6 hours
- **Non Thesis Option**
  - Agriculture 790 Scientific Writing and Presentations (3) OR Natural Resources Management 790 Scientific Writing and Presentations (3)
  - Agriculture 791 Master’s Research Project in Agriculture (1-3) OR Natural Resources Mgt 791 Master’s Research Project in Natural Resources Management (1-3)

- **Thesis Option**
  - Agriculture 701-702 Master’s Thesis (3, 1-3) OR Natural Resources Management 701-702 Master’s Thesis (3, 1-3)

### Minimum hours required for degree 36