Agricultural Engineering

440. Agricultural Machinery Systems
   Fall, 3(3-0)
   P: CSS 210; MTH 110 or MTH 116; CPS 100 or CPS 150 or CPS 301; R: Juniors and Above
   Agriculture and Natural Resources
   Principles, analysis, management, and economics of agricultural machinery systems considering weather conditions, cultural practices, crop rotation, labor, and energy.
   QP: MTH 108 or MTH 111 or CPS 1000R
   QA: ATM 400

490. Independent Study
   Fall, Spring, Summer. 1 to 4 credits.
   May reenroll for a maximum of 9 credits.
   P: ATM 231 or ATM 240 or BCM 311 R: Juniors and above
   ATM Approval of department; application required
   Supervised individual student research and study in Agricultural Technology and Systems Management.
   QP: ATM 231 OR ATM 240 OR ATM 311 QA: ATM 490

491. Special Topics in Agricultural Technology and Systems Management
   Fall, Spring, Summer. 1 to 4 credits.
   May reenroll for a maximum of 8 credits.
   P: ATM 231 or ATM 240 or BCM 311 R: Juniors and above
   ATM Special Topics in Agricultural Technology and Systems Management.
   QP: ATM 231 OR ATM 240 OR ATM 311 QA: ATM 490

Agriculture and Natural Resources

840. Analysis of Physical Systems
   Fall. 3(3-0)
   P: ATM 440 or BCM 311 or MGT 304 R: Seniors and above
   Identification and definition of systems problems in the agriculture and construction industries. Model formulation and estimation. Consideration of current approaches and models.
   QA: ATM 806

845. Process Network Theory Applied To Agroecosystems
   Spring of odd numbered years. 4(4-0)
   P: 1 Year of Calculus R: Seniors and above
   Process network theory providing a numerical framework for the technical, economic and environmental analysis of agricultural and biological systems.
   QA: ATM 890

890. Special Problems
   Fall, Spring. Summer. 1 to 4 credits.
   May reenroll for a maximum of 6 credits.
   P: Approval of department R: Graduate
   students
   Individual study or research on selected topic.
   QA: ATM 880

891. Advanced Topics in Agricultural Technology and Systems Management
   Fall, Spring, Summer. 2 to 4 credits.
   May reenroll for a maximum of 12 credits.
   R: Juniors and above
   New developments in agricultural technology and systems management.
   QA: ATM 890

899. Doctoral Dissertation Research
   Fall, Spring, Summer. 1 to 24 credits.
   May reenroll for a maximum of 8 credits.
   P: Approval of department R: Graduate
   students
   ATM
   QA: ATM 899