### Course numbers with the # symbol included (e.g. #400) have not been taught in the last 3 years.

**ANFS 840 - Aquaponics**  
**Credits:** 4  
Aquaponics integrates aquaculture and hydroponic systems producing fish and plants. The integration of these systems first requires an understanding of the needs for each system. This experiential course will dive into the concept of turning wastes into resources with hands-on growing and management experience in aquaponic food production systems. We will cover the fundamentals, and challenges of integrating recirculating aquaculture and hydroponic systems. Students are required to sign up for one farm day per week.

**ANFS 895 - Special Topics**  
**Credits:** 1-4  
Advanced studies in specific areas of relevance to agriculture, nutrition, and/or food systems. Prereq: permission. Open to COLSA graduate students only.  
**Repeat Rule:** May be repeated for a maximum of 8 credits.

**ANFS 899 - Master's Thesis**  
**Credits:** 1-10  
Master's thesis research. Cr/F.  
**Repeat Rule:** May be repeated for a maximum of 10 credits.

**ANFS 901 - Introduction to Agriculture, Nutrition, and Food Systems**  
**Graduate Studies**  
**Credits:** 1  
This course explores foundational ANFS graduate program expectations (proposed timelines, programmatic requirements, resources, and research opportunities) while modeling collaborative, interdisciplinary, and inquiry-based systems learning. Students will investigate selected topics that permeate across traditional discipline boundaries, thus developing skills ubiquitously applicable to all. Students will sharpen critical thinking, writing and presentation skills to apply systems thinking to graduate research studies. The importance of values, ethics, networking, and work/life balance will be explored.

**ANFS 933 - Design, Analysis, and Interpretation of Experiments**  
**Credits:** 4  
Through in-depth consideration of common general linear models used in the analysis of variance, this course introduces graduate students to the fundamental concepts and statistical methods necessary to plan, conduct, and interpret effective experiments. The course provides an opportunity for graduate students to receive critical input on the experimental design and analysis of their individual research projects. All analyses are conducted using the open-source package R; no previous coding experience is required. Prereq: Intro statistics (e.g. BIOL 528) or permission of instructor.

**ANFS 997 - Agriculture, Nutrition, and Food Systems Seminar**  
**Credits:** 1  
Graduate student, faculty and invited presenters on current topics in agriculture, animal science, plant science, nutritional sciences and food systems. Open to COLSA graduate students only.  
**Repeat Rule:** May be repeated for a maximum of 4 credits.

**ANFS 999 - Doctoral Dissertation Research**  
**Credits:** 0  
Doctoral dissertation research. Cr/F.