# BACHELOR'S + MASTER'S

Combination Degree Program

The Combination Degree is a program through which highly qualified students work toward a Master of Engineering or Master of Science degree while obtaining their Bachelor of Science degree.

## HOW IT WORKS

1 Talk to Your Academic Advisor.\* \* 3.3 Upper Division GPA Required

- 2 Complete the 'Combination Degree Program Request' form.
- **3** Receive Approval.

4 Complete your graduate coursework during your junior and senior years.\*

> \* Up to 12 credits of graduate coursework may be double-counted toward credit fulfillment of the BS and MS/ME degrees

#### **Questions?**

**Daphne Flournoy**, Academic Advisor dflournoy@ufl.edu / 352-294-6709 Frazier Rogers 111



AGRICULTURAL AND BIOLOGICAL ENGINEERING



Combines the Biological Engineering curriculum with a 30-hour Master of Science program to prepare students for a career in research and design of biobased products and technologies (e.g. food, feed, biofuels, biomaterials, biosensors, waste/wastewater resource recovery). Core courses will provide a foundation in bioprocess engineering and design, including coursework in instrumentation, statistics, and biosystems modeling.

## **Core Courses (21 Credits)**

ABE 5442: Bioprocess Engineering (3) MCB 3020 & Lab: Basic Biology of Microorganisms (4) ABE 5643C: Biological Systems Modeling (3) ABE 6031: Instrumentation in Agricultural Engineering Research (3) STA 6093: Introduction to Applied Statistics (3) ABE 6931: Seminar (1) ABE 6933: Applications of Life Cycle Assessment in Biological Engineering (3)

## **Elective Courses (9 Credits)**

ABE 5815C: Food and Bioprocess Engineering Design (4) AOM 6932: Advanced Intro to Biofuels (3) ABE 6654C: Biobased Products from Renewable Resources (3) ABE 5707C: Agricultural Waste Management (3) ABE 5038: Fundamentals and Applications of Biosensors (3) ABE 5663: Applied Microbial Biotechnology (3) ABE 6615: Advanced Heat and Mass Transfer in Biological Systems (3) Other

#### **Mentors**

**Dr. Ana Martin-Ryals**, admartin@ufl.edu Biological Engineering Undergraduate Coordinator

**Dr. Pratap Pullammanappallil**, pcpratap@ufl.edu Associate Professor, Bioprocessing