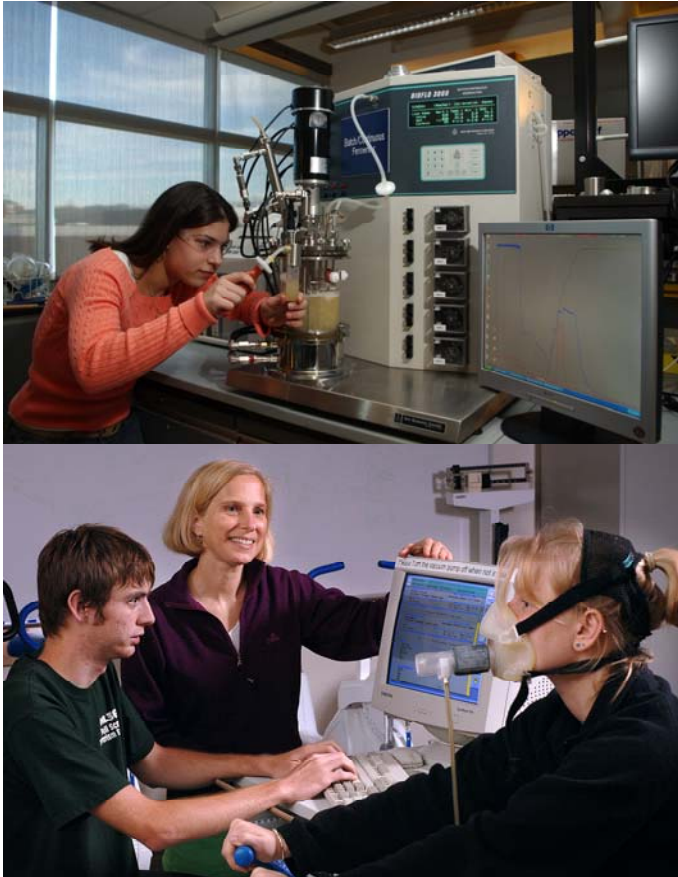


Graduate Research
Opportunities in

Bioengineering, Biomedical, Food, and Pharmaceuticals

the MS in Engineering program at Rowan University



Rowan University is located in Glassboro, NJ, 30 minutes from Philadelphia and one hour from the Jersey Shore. The College of Engineering at Rowan University is renowned for its multidisciplinary, hands-on approach to engineering education. The College has an excellent student to faculty ratio, allowing MS Students to receive significant individual attention from faculty.

The Bioengineering, Biomedical, Food, and Pharmaceuticals focus is available to graduate students in the Chemical, Electrical and Computer and Mechanical Engineering programs. The sequence involves three semesters and one summer of interdisciplinary coursework, plus research that culminates in a Master's Thesis. Students pursuing this focus will develop a strong foundation in bioengineering, biomedical, biomechanics, food, and pharmaceutical through 24 credit hours of coursework, complemented by research where the student works closely with one or more faculty members. Most projects are externally sponsored, allowing students to receive tuition scholarships and stipends, while working on cutting-edge topics. Depending on the chosen electives and research topic, this focus is appropriate for students interested in biomedical/biomechanical devices, pharmaceutical drugs manufacturing, or food science and processing.

Recent graduates have gone on to careers in government and industry, or pursued doctorates.

Typical Course of Study

Fall Semester	
3 cr.	Elective
3 cr.	Elective
3 cr.	Research
Spring Semester	
3 cr.	Elective
3 cr.	Elective
3 cr.	Research
Summer	
3 cr.	Engineering Applications of Analysis
3 cr.	Strategic Engineering Management
Fall Semester	
3 cr.	Elective
3 cr.	Research

Affiliated Faculty in Chemical Engineering (ChE), Electrical and Computer Engineering (ECE), and Mechanical Engineering (ME).

Dr. Stephanie Farrell (ChE) – Biomedical processes
 Dr. Zenaida Gephardt (ChE) – Quality Control
 Dr. Linda Head (ECE) – Bioinstrumentation
 Dr. Jennifer Kadlowec (ME) – Biomechanics
 Dr. Thomas Merrill (ME) – Biofluids
 Dr. Mariano Savelski (ChE) – Food manufacturing
 Dr. C. Stewart Slater (ChE) – Pharmaceuticals
 Dr. Robi Polikar (ECE) – Biomedical signal processing

Electives offered in

Bioengineering Principles in Sports
 Bioseparation Processes
 Biomedical Process Engineering
 Biomedical Signal Processing
 Cardiovascular Support Devices
 Control Release Theory, Techniques/Applications
 Engineering Exercise Dynamics
 Engineering Quality Control
 Food Engineering Systems
 Introduction to Biofluids
 Introduction to Biomechanics
 Principles of Biomedical Systems and Devices

Funding Opportunities

Research assistantships are awarded competitively, based on funded projects. For full consideration for a research assistant position, we recommend that your application is submitted by March 1st. Initial decisions on funding are typically made in April. However, additional offers are sometimes made later, as additional sources of funding are secured.

Recent Funded Projects

Passive Cervical Range of Motion, Biomechanical Analysis of the Pose Running Method, Kinematics and Pressure Analysis in Walking, Motion Capture for Biomechanics, Biomimetic Arm, Circulatory Loop for Catheter Testing, Cooling Catheter Structural Analysis, Cooling Catheter Blood Flow Drag Reduction, Drug Delivery from Tablets. Pharma Particulates, Feeding Tube Occlusion, Pfizer Pharmaceutical Waste Stream Reduction/Recovery, Early diagnosis of Alzheimer's disease using EEG signals, Brain-Machine Interface, Optimal Brain Imaging, and Instrumentation for Functional Near Infrared Spectroscopy.

For More Information:

<http://engineering.rowan.edu/>

Application Materials:

http://www.rowan.edu/graduateschool/prospective_students/grad_application/index.htm

