



John G. Rangos, Sr.  
School of Health Sciences

## ENGINEERING

### Biomedical Engineering – Master of Science – 32 Credits

In most cases, courses listed in bold must be taken in the exact semester indicated; all other courses are interchangeable.

This 32-credit MS-BME program was designed to be flexible to serve both full-time students and working professionals seeking to become innovators in the biomedical engineering field. Students will have significant opportunities for research in state-of-the-art labs, working alongside accomplished faculty.

Graduates of the program will have the experience to perform research and engineering design for academia, government and industries related to human health. Additionally, students with the desire to continue on to a PhD program or professional medical education will have the appropriate basis upon which to build.

Prospective applicants must have an undergraduate degree in engineering, science or a clinical field and must have completed math through Differential Equations.

#### New Graduate Students

##### Fall of Graduate Year 1 – 7 Credits

**BMED-501 BME Graduate Seminar I (1 cr.)**  
**BMED-510 Modern Methods in BME (3 cr.)**  
**BMED-530 Engineering Computation (3 cr.)**

##### Spring of Graduate Year 1 – 7 Credits

**BMED-502 BME Graduate Seminar II (1 cr.)**  
**BMED-511 Modern Methods in BME II (3 cr.)**  
**BMED-531 Engineering Computation II (3 cr.)**

##### Fall of Graduate Year 2 – 9 Credits

Ethics (3 cr.)  
BME Elective (3 cr.)  
BME Elective / Thesis Research (3 cr.)

##### Spring of Graduate Year 2 – 9 Credits

BME Elective (3 cr.)  
BME Elective (3 cr.)  
BME Elective / Thesis Research (3 cr.)

#### Duquesne Biomedical Engineering Graduates

##### Fall of Graduate Year 1 – 10 Credits

**BMED-501 BME Graduate Seminar I (1 cr.)**  
**BMED-510 Modern Methods in BME (3 cr.)**  
Ethics (3 cr.)  
BME Elective / Thesis Research (3 cr.)

##### Spring of Graduate Year 1 – 10 Credits

**BMED-502 BME Graduate Seminar II (1 cr.)**  
**BMED-511 Modern Methods in BME II (3 cr.)**  
BME Elective (3 cr.)  
BME Elective / Thesis Research (3 cr.)

- Duquesne students can apply up to 12 credits (500-level) from their undergraduate programs towards the 32 required credits
- Students can take up to 6 elective credits outside of the department with approval

IMPORTANT NOTE: The material contained herein is subject to change, and this publication cannot be considered an agreement or contract between individual students and the School. The Rangos School of Health Sciences reserves the right to alter or amend the terms, conditions, and requirements herein, and to eliminate programs or courses as necessary. Once enrolled, students should consult on a regular basis with their Faculty Mentor and/or Academic Advisor for specific information regarding academic policies pertaining to their respective program.