



**LEBANESE  
INTERNATIONAL  
UNIVERSITY**

**Major Title:** Masters of Science in Electronic Engineering / Emphasis On Biomedical  
**Major Code:** MBENG  
**Level:** graduate  
**Number Of Credits:** 52  
**Date:** 18-05-2017

**Masters of Science in Electronic Engineering / Emphasis On Biomedical (MBENG)**

**Major Electives**

| Code  | Title          | Credits | Prerequisites | Corequisites |
|-------|----------------|---------|---------------|--------------|
|       | Major Elective | 3       |               |              |
| Total |                | 3       |               |              |

**Core Requirements**

| Code    | Title                              | Credits | Prerequisites | Corequisites |
|---------|------------------------------------|---------|---------------|--------------|
| EENG504 | Biomechanics                       | 3       |               |              |
| EENG554 | Biomaterials and Artificial Organs | 3       | EENG504       |              |
| EENG564 | Robotics and Telemedicine          | 3       |               |              |
| Total   |                                    | 9       |               |              |

**Major Requirements**

| Code     | Title  | Credits | Prerequisites   | Corequisites |
|----------|--|---------|---|--------------|
| EENG514  | Computer Simulations and Modeling for Medicine | 3       |   |              |
| EENG524  | Medical Imaging II                             | 3       |   |              |
| EENG534  | Signal Processing for Medicine I               | 3       |   | EENG534L     |
| EENG534L | Signal Processing for Medicine I Lab           | 1       |   | EENG534      |
| EENG574  | Medical Instrumentation II                     | 3       |   | EENG574L     |
| EENG574L | Medical Instrumentation II Lab                 | 1       |   | EENG574      |
| EENG584  | Adv. Signal Processing for Medicine            | 3       | EENG534   |              |
| EENG624  | Biomedical Optics                              | 3       |   |              |
| EENG634  | Image Processing for Medicine                  | 3       | EENG534   | EENG634L     |
| EENG634L | Image Processing for Medicine Lab              | 1       | EENG534   | EENG634      |
| EENG664  | Clinical Engineering                           | 3       | EENG564   |              |
| EENG674  | Medical Laboratory Instrumentation             | 3       | EENG574   | EENG674L     |
| EENG674L | Medical Laboratory Instrumentation Lab         | 1       |   | EENG674      |
| EENG694A | Master Thesis(Part I)                          | 3       | EENG524-EENG584-EENG574-EENG564-EENG554-EENG534-EENG514-EENG504 |              |
| EENG694B | Master Thesis(Part II)                         | 3       | EENG694A  |              |
| Total    |  | 37      |   |              |

**General Education Electives**

| Code  | Title                       | Credits | Prerequisites | Corequisites |
|-------|-----------------------------|---------|---------------|--------------|
|       | General Education Electives | 3       |               |              |
| Total |                             | 3       |               |              |

**Major Elective Courses**

| Code    | Title   | Credits | Prerequisites | Corequisites |
|---------|---|---------|---------------|--------------|
| EENG614 | Bionanotechnology                               | 3       | EENG554       |              |
| EENG644 | Inspection and Maintenance of Medical Equipment | 3       |               |              |
| EENG654 | Healthcare Technology Management                | 3       |               |              |