

UNDERGRADUATE EMBEDDED CERTIFICATE IN BIOMEDICAL SCIENCE

Certificates are available in the following areas of concentration:

- **Biomedical Science**
- **Biomolecular Technology**
- **Bio-Inspired Design**
- **Computational & Quantitative Biology**
- **Environmental Science**
- **Marine Science**
- **Integrative Biology**
- Applied Physiology

For more information about Biological Sciences certificates, [click here](#).

Program of Study

Certificate programs in Biology and Physiology are available to students from any major. For Biology majors, the Certificate program is a way of customizing your Biology Electives to focus on a particular concentration in biology. For other majors, a Biology or Physiology certificate is a way of enhancing your degree to include an emphasis in biological concepts. Each certificate requires 12 credit hours of approved courses from that certificate's list, at least 9 of which must be at the 3000 level or higher. All courses counting toward the certificate must be taken on a letter-grade basis. Major electives can be counted toward certificates, but courses required by name and number in a student's major program of study will not be counted toward certificates. While students may complete more than one certificate, they may not double-count courses towards more than one certificate or minor. Non-Biology majors are required to include at least 9 credits of BIOS coursework for their certificate, except in the case of the Physiology certificate. Further information is available from **School of Biological Sciences advisors**.

For non-Biology majors:

Additional courses that can count towards any Biological Sciences certificate (*with the exception of the Physiology certificate*):

BIOS 1107/BIOS 1107L, BIOS 2300, BIOS 2310, BIOS 2600, BIOS 2601, BIOS 3450, BIOS 3451 (as long as these courses are not required for the major program of study, and only up to 3 credits of courses at the 1xxx-2xxx level can count). At least 9 credits of BIOS coursework are required for each certificate.

New special topics courses may be added to relevant biology certificates with approval from the School of Biological Sciences. Contact a Biology advisor to request approval.

| Code | Title | Credit Hours |
|-------------------------------------|-------------------------------------|--------------|
| Select 12 hours from the following: | | 12 |
| BIOS 3753 | Human Anatomy | |
| BIOS 3754 | Laboratory in Human Anatomy | |
| BIOS 3755 | Human Physiology | |
| BIOS 3756 | Physiology Laboratory | |
| BIOS 4150 | Genomics and Applied Bioinformatics | |
| BIOS 4340 | Medical Microbiology | |

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| BIOS 4401 | Experimental Design and Statistical Methods in Biological Sciences |
| BIOS 4464 | Developmental Biology |
| BIOS 4500 | Drug Discovery |
| BIOS 4520 | Health Genes Society |
| BIOS 4540 | Human Motor Control |
| BIOS 4560 | RNA Biology and Biotechnology |
| BIOS 4570 | Immunology |
| BIOS 4607 | Molecular Biology of Microbes: Disease, Nature, and Biotechnology |
| BIOS 4651 | Bioethics |
| BIOS 4668 | Eukaryotic Molecular Genetics |
| BMED 3100 | Systems Physiology |
| BMED 3110 | Quantitative Engineering Physiology Laboratory I |
| BMED 4400 | Neuroengineering Fundamentals |
| BMED 4500 | Cell and Tissue Engineering Laboratory |
| LMC 3219 | Literature and Medicine |
| PSYC 3020 | Biopsychology |
| PSYC 4090 | Cognitive Neuroscience |