

MASTER'S DEGREE REQUIREMENTS - BIOMEDICINE GRADUATE STUDIES

MS IN BIOMEDICINE: BIOMEDICAL SCIENCE CONCENTRATION

Degree: Master of Science

Semester Hours: 48

A master's from EMU can open doors. After earning a two-year master's, our students have proven that they are prepared for the rigors of professional health school. Our graduates have utilized their master's degree to obtain jobs at prestigious research facilities, non-profit organizations, and various healthcare centers.

EMU's Master of Science in Biomedicine degree allows you to pick and choose which graduate-level natural science courses you need and would like to take. Our curriculum will set your application apart with our built-in cross-cultural experience, practicum shadowing, thesis research, ethics and leadership training, and interdisciplinary course offerings.

Biomedical Courses (43-46 SH)

- ~BMC 561 Biochemistry Foundations - 3
- ~BMC 562 Human Physiology - 4
- BMC 598 Biomedicine Practicum - 1-4
- BMC 610 Interdisciplinary Seminar I - 2
- BMC 611 Interdisciplinary Seminar II - 2
- ~BMC 612 Human Gross & Microscopic Anatomy - 4
- BMC 613 Research Design and Statistics - 2
- BMC 623 Research in Biomedicine - 3
- ~BMS 517 Developmental and Stem Cell Biology - 4
- BMX 603 Cross Cultural Health Care - 3
- BMX 611 Biomedicine, Faith and Ethics - 2
- Select 13 SH from the following:
 - BMC 552 Cell Biology - 3 (Fall 2022)
 - BMC 562 Human Physiology - 4
 - +BMS 501 Biomedical Organic Chemistry I - 4
 - +BMS 502 Biomedical Organic Chemistry II - 4
 - BMS 540 Drugs: Discovery, Design & Action - 2
 - BMS 561 Immunology - 3
 - BMS 562 Neurobiology - 3 (Spring 2021)
 - BMS 563 Molecular Genetics - 3 (Spring 2022)
 - BMS 570 Medical Microbiology - 3 (Spring 2021)
 - BMS 572 Cognitive Psychology - 3
 - BMS 585 Infectious Diseases - 3
 - BMS 571 Abnormal Psychology - 3
 - BMS 573 Theories of Personality - 3
 - BMS 574 Neuropsychology - 3 (Spring 2022)
 - BMS 579 Analytical Chemistry I - 2 (Fall 2022)
 - BMS 580 Analytical Chemistry II - 2 (Fall 2021)
 - BMS 595 Bioinformatics - 2 (Spring 2023)

+ Requisite course if not completed as an undergraduate (applies to certain career paths)

~ Another natural science course may be substituted for BMC 561, BMC 562, BMC 612, or BMS 517.

Electives (5-6 SH)

- BMS 530 MCAT Preparation Course OR BMS 531 DAT Preparation Course - 3
- One EMU graduate course in education, business, counseling, or nursing
- Any course listed above

MS IN PRE-MEDICINE

Degree: Master of Science

Semester Hours: 30 graduate credits + 20-28 undergraduate credits

Graduate Pre-Medicine Courses (8 SH)

- BMC 598 Biomedicine Practicum - 1
- BMC 610 Interdisciplinary Seminar I - 2
- BMC 611 Interdisciplinary Seminar II - 2
- BMX 603 Cross Cultural Health Care - 3

Graduate Biomedical Science Courses (22 SH)

Select from the following:

- BMC 552 Cell Biology - 3 (Fall 2022)
- BMC 561 Biochemistry Foundations - 3
- BMC 562 Human Physiology - 4
- BMS 501 Biomedical Organic Chemistry I - 4
- BMS 502 Biomedical Organic Chemistry II - 4
- BMS 517 Developmental & Stem Cell Biology - 4
- BMS 530 MCAT Preparation Course OR BMS 531 DAT Preparation Course - 3
- BMS 561 Immunology - 3
- BMS 562 Neurobiology - 3 (Spring 2021)
- BMS 563 Molecular Genetics - 3 (Spring 2022)
- BMS 570 Medical Microbiology - 3 (Spring 2021)
- BMS 571 Abnormal Psychology - 3
- BMS 572 Cognitive Psychology - 3
- BMS 574 Neuropsychology - 3 (Spring 2022)
- BMS 585 Infectious Diseases - 3
- BMS 595 Bioinformatics - 2 (Spring 2023)

Recommended Undergraduate Courses (20-28 SH)

- BIOL 215 Organismal Biology - 4
- BIOL 240 Molecular & Cellular Biology - 4
- CHEM 223 General Chemistry I - 4
- CHEM 224 General Chemistry II - 4
- PHYS 252 University Physics I Lecture - 3, PHYS 253 University Physics I Lab - 1
- PHYS 262 University Physics II Lecture - 3, PHYS 263 University Physics II Lab - 1