

Degree Requirements

Students pursuing the MSBME degree must complete a minimum of 30 credits with a minimum cumulative grade point average of 3.00 out of 4.00. Students can choose from three options: thesis, project, or courses. Students in all options will be required to complete research-oriented class projects within many of the biomedical engineering graduate courses. Students who receive an assistantship from AUS must select the thesis option. The requirements for each are delineated in the table below. Students in the thesis and project options may elect to take one course outside the program with the approval of their advisor. Students in the course option may elect to take up to two courses outside the program with the approval of their advisor. The degree requirements are aligned with internationally recognized MSC in biomedical engineering programs, especially in the United States.

Requirement	Course(s)	Thesis Option	Project Option	Course Option
College Core	NGN 500 Advanced Engineering Mathematics or MTH 508 Mathematical Biology	3 credits	3 credits	3 credits
	NGN 505 Random Variables and Stochastic Processes or NGN 509 Advanced Computational Methods	3 credits	3 credits	3 credits
Program Core	BME 511 Human Anatomy and Physiology	3 credits	3 credits	3 credits
Seminar	BME 695 Seminar	0 credits	0 credits	0 credits
Electives		12 credits	18 credits	21 credits
Thesis/Project	BME 698 Professional Project or BME 699 Master's Thesis	9 credits BME 699	3 credits BME 698	Not Applicable
Total		30 credits	30 credits	30 credits

Students can select elective courses from the following list:

- BME 541 Biomedical Measurements and Devices
- BME 543 Biomedical Imaging Technologies
- BME 544 Neuroengineering
- BME 551 Biofluid Mechanics
- BME 552 Drug Delivery
- BME 561 Healthcare Operations Management
- BME 562 Healthcare Planning and Risk Management
- BME 571 Biomechanics Engineering
- BME 572 Biomaterials Engineering
- BME 581 Biomedical Informatics
- BME 582 Computational Molecular Biology
- BME 594 Special Topics in Biomedical Engineering
- BME 596 Independent Study in Biomedical Engineering
- CHE 611 Biomedical Engineering and Biotechnology
- ELE 544 Advanced Signal Processing
- ELE 648 Pattern Classification