REQUIREMENTS FOR THE BACHELOR OF SCIENCE/MASTER OF SCIENCE
GALLOGLY COLLEGE OF ENGINEERING
THE UNIVERSITY OF OKLAHOMA

Academic Year
For Students Entering the Oklahoma State System for Higher Education **Summer 2021 through Spring 2022**

General Requirements	
Minimum Total Credit Hours	**147**
Minimum Retention/Graduation Grade Point Averages:	
Overall - Combined and OU	**3.25**
Major - Combined and OU	**3.25**

Program
Biomedical Engineering
A108/F109 Q062
Bachelor of Science/Master of Science

OU encourages students to complete at least 30 hours of applicable coursework each year to have the opportunity to graduate in 5 years.

Accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

Year		FIRST SEMESTER	Hours		SECOND SEMESTER	Hours
FRESHMAN	ENGL 1113	Principles of English Composition (Core I)	3	ENGL 1213 or EXPO 1213	Principles of English Composition (Core I) or Expository Writing	3
	CHEM 1315	General Chemistry (Core II-Lab) [1,4]	5	CHEM 1415	General Chemistry (Continued) (Core II-Lab) [1,4]	5
	MATH 1914	Differential and Integral Calculus I (Core I) [2,4]	4	MATH 2924	Differential and Integral Calculus II [2,4]	4
	ENGR 1411	Freshman Engineering Experience [3]	1	PHYS 2514	General Physics for Engineering and Science Majors (Core II) [4]	4
		Approved Elective: First-Year Experience (Core V) [5]	3			
		CREDIT HOURS	**16**		**CREDIT HOURS**	**16**
SOPHOMORE	MATH 2934	Differential and Integral Calculus III [2]	4	MATH 3113	Introduction to Ordinary Differential Equations	3
	PHYS 2524	General Physics for Engineering and Science Majors	4	C S 1213	Programming for Non-Majors with Python	3
	BIOL 1124	Intro Biol: Molecule/Cell/Phys (Core II-Lab)	4	HIST 1483 or HIST 1493	United States to 1865 (Core IV) or United States, 1865 to the Present	3
	ENGR 2002	Professional Development	2	ECE 2723	Electrical Circuits I	3
	BME 2333	Biomedical Engineering Fundamentals	3	BME 2433	Signals and Systems for Biomedical Engineering	3
				ISE 3293	Applied Engineering Statistics	3
		CREDIT HOURS	**17**		**CREDIT HOURS**	**18**
JUNIOR	BME 3143	Biomechanics	3	BME 3123	Biotransport	3
	BME 3533	Biomedical Instrumentation	3	BME 3233	Biomaterials	3
	BME 3531	Bioinstrumentation Lab	1	BME 4813	Quantitative Physiology	3
	BME 3722	Numerical Methods in Biomedical Engineering	2		BME Lab 2	1
		BME Lab 1	1		BME Elective	3
		BME Elective	3	P SC 1113	American Federal Government	3
		Upper-Division Biology Elective (per BME faculty)	3		Approved Elective: Social Science (Core III) [5]	3
		CREDIT HOURS	**16**		**CREDIT HOURS**	**19**
SENIOR	BME 4713	Biomedical Engineering Design I	3	BME 4823	Biomedical Engineering Design II	3
		Graduate-level Biomedical Engineering Elective (per a list maintained by the department)	3		Graduate-level Biomedical Engineering Elective (per a list maintained by the department)	3
		Graduate-level Biomedical Engineering Elective (per a list maintained by the department)	3		Graduate-level Additional Science, Math, Eng. Elective (per advisor)	3
		Approved Elective: Artistic Forms (Core IV) [5]	3		Approved Elective: World Culture (Core IV) [5]	3
					Approved Elective: Western Culture (Core IV) [5]	3
		CREDIT HOURS	**12**		**CREDIT HOURS**	**15**
FIFTH YEAR		Graduate-level Life Science Elective (per a list maintained by the department)	3		Graduate-level Life Science Elective (per a list maintained by the department)	3
		Graduate-level Biomedical Engineering Elective (per a list maintained by the department)	3		Graduate-level Elective in Engineering, Science, or Math	3
	BME 5980	Research for Master's Thesis	2	BME 5980	Research for Master's Thesis	4
		CREDIT HOURS	**8**		**CREDIT HOURS**	**10**

[1] CHEM 1315 and CHEM 1415 can be substituted with CHEM 1335 (Fall only) and CHEM 1435 (Spring only), respectively.

[2] MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.

[3] Engineering transfer students may take ENGR 3511 in place of ENGR 1411.

[4] The prerequisite courses for BME 2333 require a minimum grade of B.

[5] To be chosen from the University-Wide General Education Approved Course List. Three of these 12 hours must be upper-division (3000-4000). One of these courses should be an English course 2000-level or above.

BME AREA CORE LABS

Code	Title	Credit Hours
BME 3111	Bioimaging Lab	1
BME 3121	Biotransport Lab	1
BME 3131	Bioelectricity Lab	1
BME 3141	Biomechanics Lab	1
BME 3151	Molecular, Cellular and Tissue Engineering Lab	1
BME 3161	Biomedical Micro-/Nano-Technology Lab	1

BME ELECTIVE COURSES

Choose from the following or other courses per advisor approval:

Code	Title	Credit Hours
BME 5213	Biomechanics I	3
BME 5233	Biomaterials	3
BME 5243	Biochemical Engineering	3
BME 5293	Transport in Biological Systems	3
BME 5373	Tissue Engineering	3
ECE 5843	Medical Imaging Systems	3
BME 5970	Special Topics/Seminar	1-3
ECE 4863/5863	Bioinstrumentation	3

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