

Master of Science in Engineering

Degree Codes: ES MSE ENGR

Concentration: Biomedical Engineering

Contact: Prof. Steven A. Jones

Overall requirements for the specific options are as follows:

Requirements for all degree types

Course Category	Number	Course Name		SCH	
Core Courses	ENGR 510	Introduction to Engineering and Science Research Methods	2	5	
	<i>Engineering Mathematics: select <u>one</u> of the following two courses</i>				
	MATH 520	Advanced Mathematical Methods for Engineering and Physics	3		
	ENGR 592	Engineering Computational Methods	3		
Concentration Courses*	BIEN 500	Systems Physiology for Biomedical Engineers	4	12	
	BIEN 501	Physiological Modeling I	4		
	BIEN 510	Bioinstrumentation	4		
				Total 17	

Thesis Option (in addition to the courses above)

Course Category	Number	Course Name		SCH
Core Courses	ENGR 511	Engineering and Science Research Proposal Development	1	1
Electives**	Two courses (6 semester hours) approved by the student's advisory committee			6
Thesis	BIEN 551	Research & Thesis (6 SCH are required with at least 3 SCH taken in the quarter the thesis is reviewed and approved)		6
				Total 30

Practicum Option (in addition to the courses above)

Course Category	Number	Course Name		SCH
Core Courses	BIEN 511	Biomedical Engineering Seminar	1	1
Electives**	Five courses (15 semester hours) approved by the student's advisory committee			15
Practicum	BIEN 555	Practicum		3
				Total 36

Coursework Only Option (in addition to the courses above)

Course Category	Number	Course Name		SCH
Core Courses	BIEN 511	Biomedical Engineering Seminar	1	1
Electives**	Four courses (12 semester hours) approved by the student's advisory committee			12
MATH/STAT	One MATH and one [STAT course or INEN 514]			6
				Total 36

*The concentration courses for the concentration in Biomedical Engineering.

**The maximum number of variable credit Directed Study courses that can be applied towards the degree is 6 SCH.

Plan of Study Important Information: When entering information in the plan of study, it is important to note that only core courses and all core courses need to be put in section 1.1, while all others are put in section 1.2 (i.e. special topics, seminar, and research courses).

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