



BIOSYSTEMS ENGINEERING PRE-MED OPTION

Course Plan
2022-2023
125 Hours

Year 1

Year 2

16 Credit Hours

17 Credit Hours

16 Credit Hours

17 Credit Hours

Preparatory
One of These
MATH 1613
MATH 1715
MATH 1813

BAE 1012 Intro Biosystems 2 Hours	BAE 1022
MATH 2144 Calculus 1 4 Hours Note 1	MATH 2153 PHYS 2014 BAE 2013 ENSC 2113 ENSC 2213
BIOL 1113/1111 4 Hours	BAE 2013 BAE 3033 MICR 2123
HIST 1103 American Hist 3 Hours Note 2	
ENGL 1113 Engl Comp 1 3 Hours Note 3, 4	ENGL 1213

BAE 1012	BAE 1022 Exper Methods 2 Hours	
MATH 2144	MATH 2153 Calculus II 3 Hours	MATH 2163 IEM 3503
MATH 2144	PHYS 2014 Gen. Physics I 4 Hours	BAE 3033 PHYS 2114 ENSC 2213 ENSC 2113
Chem 1314	CHEM 1515 Chemistry II 5 Hours	ENSC 2213 CHEM 3053 MICR 2123
ENGL 1113	ENGL 1213 Engl Comp II 3 Hours Note 5	

BIOL 1113/1111 MATH 2144	BAE 2013 Modeling 3 Hours	
MATH 2153	MATH 2163 Calculus III 3 Hours	STAT 4033 or 4073
PHYS 2014	PHYS 2114 Gen. Physics II 4 Hours	ENSC 2613
MATH 2144 PHYS 2014 CHEM 1414	ENSC 2213 Thermodynamics 3 Hours Note 8	BAE 3213
MATH 2144 PHYS 2014	ENSC 2113 Statics 3 Hours	ENSC 2143 ENSC 3233

MATH 2144 BIOL 1113/1111 PHYS 2014	BAE 3033 Biomaterials 3 Hours	
MATH 2153	MATH 2233 Diff Equations 3 Hours	
	ENGR 1332 Engr Design 3 Hours	
MATH 2153 ENSC 2113	ENSC 3233 Fluid Mech 3 Hours	BAE 3013 BAE 3213
MATH 2153 PHYS 2114	ENSC 2613 Elec. Science 3 Hours	BAE 3023 BAE 3213
	POLS 1113 American Gov't 3 Hours	

Other Requirements:

- A minimum 2.0 Technical GPA. The Technical GPA is calculated from all BAE prefixes or substitutions to BAE courses.
- Students are required to complete the Fundamentals of Engineering (FE) exam prior to graduation.
- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Patterned = General Education Course
Shaded = Course requires a grade of C or above

Prerequisites	Course No. Course Name # of Hours See Note #	Subsequent Courses
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NOTES:

- 1) MATH 2144 needs to be preceded with a minimum score of 75 on the Math Placement Test or with MATH 1513 and MATH 1813, respectively.
- 2) HIST 1103 can be replaced with HIST 1483 (H) or HIST 1493 (DH)
- 3) See Academic Regulation 3.5 (<http://catalog.okstate.edu/university-academic-regulations/#english-composition>)
- 4) ENGL 1113 can be replaced with ENGL 1313 Critical Analysis and Writing I.
- 5) ENGL 1213 can be replaced with ENGL 1413 or ENGL 3323.
- 6) At least 6 hours designated "H", 3 hours designated "S", and 3 hours designated "H", "S", "A" or "N" (A total of 12 hours). Of these, 3 hours need to meet the International Dimension "I" and 3 hours need to meet the Diversity Component "D".
- 7) BAE 4001 and BAE 4012 are to be taken concurrently.
- 8) CHEM 1515 is an acceptable substitution for CHEM 1414.



BIOSYSTEMS ENGINEERING PRE-MED OPTION

Course Plan
2022-2023
125 Hours

Year 3

Year 4

16 Credit Hours

15 Credit Hours

14 Credit Hours

14 Credit Hours

"H", "I", "D"
Course

3 Hours
Note 6

BAE 3023
Inst. & Ctrl's
3 Hours

BAE 4012

MATH 2233
ENSC 2613

ENSC 2143
Strength of Mat'l
3 Hours

BAE 4012

BAE 3013
Heat/Mass Trans
3 Hours

BAE 4012

MATH 2233
ENSC 3233

**STAT 4033 or
STAT 4073**
Engr Statistics
3 Hours

BAE 4314

BAE 3213
Energy & Power
3 Hours

BAE 4012

ENSC 2213
ENSC 2613
ENSC 3233

BIOL 1604
Animal Biology
4 Hours

BIOL 1113/
1111

CHEM 3053
Organic Chem
3 Hours

CHEM 3153
BIOC 3653

CHEM 1515

IEM 3503
Engr Econ
3 Hours

MATH 2153

"S", "I", "D"
Course

3 Hours
Note 6

*Completion
or
Concurrent
Enrollment*

BIOL 1113/
1111
CHEM 1414

BAE 4001
Prof. Practice
1 Hour

BAE 4023

BAE 4012
Engr. Design I
2 Hours

BAE 4023

MICR 2123
Microbiology
3 Hours
Note 8

CHEM 3153
Organic Chem II
3 Hours

CHEM 3112

CHEM 3053

**BAE 4000
Course**

2 Hours

"H", "I", "D"
Course

3 Hours
Note 6

**BAE 4000
Course**

3 Hours

BAE 4023
Engr. Design II
3 Hours

BAE 4001
BAE 4012

BIOC 3653
Survey of Bio
Chemistry
3 Hours

CHEM 3053

Completion
or
Concurrent
Enrollment
CHEM 3153

CHEM 3112
Org'nc Chem Lab
2 Hours

"A", "H", "N"
or **"S"**

3 Hours
Note 6

Master's Programs:

Criteria for admission to the Graduate College to pursue the Master of Science include:

1. Receive a B.S. degree from an accredited institution
 2. Academic performance in undergraduate work at a level that indicates a high probability of success in a graduate program requiring a 3.0/4.0 minimum grade point average
- Or further information, contact the School or the Office of the Dean of Engineering.

A flexible study plan is designed to meet each student's individual goals.

Patterned = General Education Course

Shaded = Course requires a grade of C or above

Course No.
Course Name
of Hours
See Note #

Subsequent Courses

Prerequisites

Additional State/OSU Requirements:

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2027.