



# BIOSYSTEMS ENGINEERING PRE-MED OPTION

Course Plan  
2024-2025  
125 Hours

## Year 1

17 Credit Hours

**BAE 1011**  
Intro to Biosystems  
1 Hour

**UNIV 1111**  
First Yr. Seminar  
1 Hour

**MATH 2144**  
Calculus I  
4 Hours  
Note 1

**BIOL 1113 & BIOL 1111 or BIOL 1114**  
4 Hours

**CHEM 1314**  
Chemistry I  
4 Hours

**ENGL 1113**  
Engl Comp 1  
3 Hours  
Note 2, 3

**MATH 2153**  
**PHYS 2014**  
**BAE 3033**  
**ENSC 2113**  
**ENSC 2213**

**BAE 3033**  
**MICR 2123**  
**BIOL 1604**

**CHEM 1314**

**ENGL 1213**

17 Credit Hours

**BAE 1022**  
Exper Methods  
2 Hours

**MATH 2144** **PHYS 2014**  
Gen Physics I  
4 Hours

**MATH 2144** **MATH 2153**  
Calculus II  
3 Hours

**CHEM 1314** **CHEM 1515**  
Chemistry II  
5 Hours

**ENGL 1113** **ENGL 1213**  
Engl Comp II  
3 Hours  
Note 5

**ENSC 2113**  
**ENSC 2213**  
**BAE 3033**

**MATH 2163**  
**MATH 2233**  
**IEM 3503**  
**ENSC 2613**  
**ENSC 3233**

**ENSC 2213**  
**CHEM 3053**  
**MICR 2123**  
**MICR 3033**

## Year 2

15 Credit Hours

**BAE 2013**  
Comp Methods  
3 Hours

**PHYS 2014** **PHYS 2114**  
Gen Physics II  
4 Hours  
Note 6  
\*Course not required.

**MATH 2153** **MATH 2163**  
Calculus III  
3 Hours

**MATH 2144** **PHYS 2014** **CHEM 1515** **ENSC 2213**  
Thermodynamics  
3 Hours

**MATH 2144** **PHYS 2014** **ENSC 2113**  
Statics  
3 Hours

**HIST 1103**  
American Hist  
3 Hours  
Note 7

**STAT 4033 or STAT 4073**

**BAE 3213**

**ENSC 2143**  
**ENSC 3233**

17 Credit Hours

**MATH 2144** **BIOL 1113 & BIOL 1111 or BIOL 1114** **PHYS 2014** **BAE 3033**  
Biomaterials  
3 Hours

**CHEM 1515** **CHEM 3053**  
Organic Chem  
3 Hours

**MATH 2153** **MATH 2233**  
Diff Equations  
3 Hours

**MATH 2153** **ENSC 2113** **ENSC 3233**  
Fluid Mech  
3 Hours

**ENSC 2113** **ENSC 2143**  
Strength of Mat'l  
3 Hours

**ENGR 1332 or ENGR 1322**  
Engr Design  
2 Hours

**CHEM 3153**  
**BIOC 3653**

**BAE 3013**  
**BAE 3023**

**BAE 3013**  
**BAE 3213**

**BAE 4012**

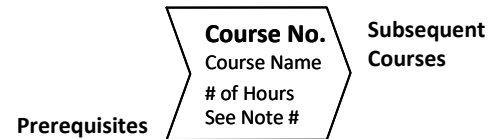
Prerequisites:  
C or better in one of the following:  
MATH 1613  
MATH 1715  
MATH 1813

**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



**NOTES:** (F)-offered in Fall, (SP)-offered in Spring

- 1) The prerequisite for MATH 2144 is to score a minimum of 75 on the Math Placement Test or by earning a minimum grade of "C" in MATH 1813 or MATH 1715 or MATH 1613.
- 2) See Academic Regulation 3.5 (<http://catalog.okstate.edu/university-academic-regulations/> #english-composition).
- 3) ENGL 1113 can be replaced with ENGL 1313 (F) (Critical Analysis and Writing I).
- 4) ENGL 1213 can be replaced with ENGL 1413 or ENGL 3323.
- 5) The PHYS 2114 course or PHYS 1214 (for Pre-Vet Option) course is no longer required to graduate with a Biosystems Engineering Degree in the Pre-Medical Option, but it is strongly encouraged to take this course if considering applying to medical/veterinary school. Please consult your Pre-Health advisor.
- 6) HIST 1103 can be replaced with HIST 1483 (H) or HIST 1493 (DH).
- 7) At least 6 hours designated "H," 3 hours designated "S," and 3 hours designated "A," "H," "N" or "S" for a total of 12 hours. Additionally, at least one "D" course and at least one "I" course must be completed.
- 8) BAE 4001 and BAE 4012 are to be taken concurrently.



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## Year 3

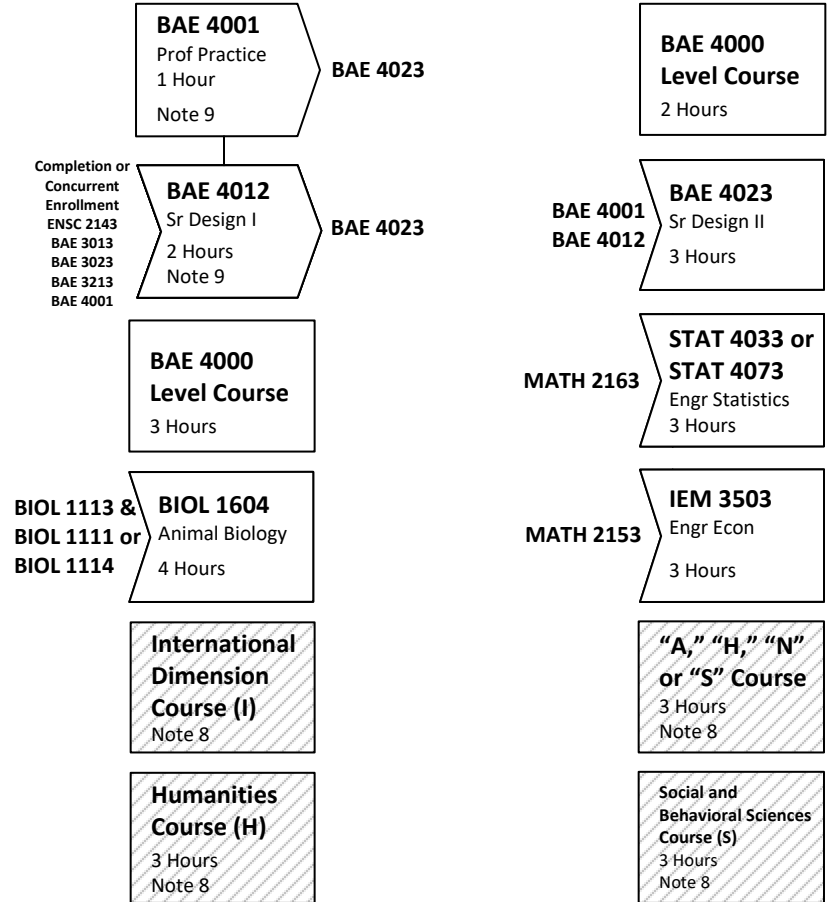
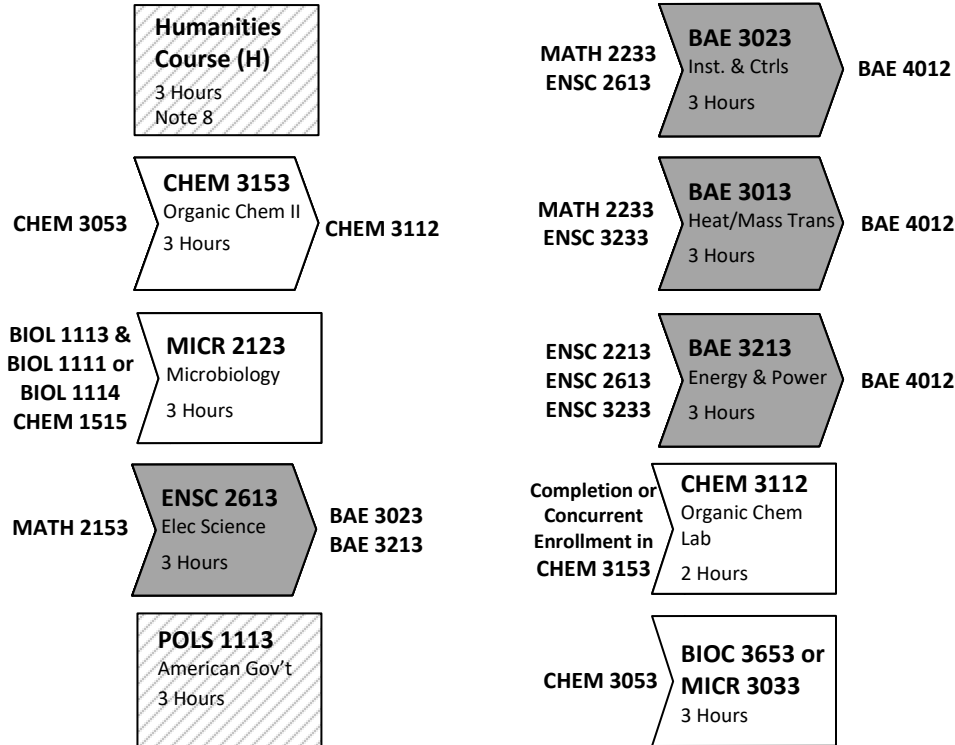
## Year 4

15 Credit Hours

14 Credit Hours

13 Credit Hours

17 Credit Hours



Patterned = General Education Course

Shaded = Course requires a grade of C or above

**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 2030.

