



BIOSYSTEMS ENGINEERING

BIOPROCESSING & FOOD PROCESSING OPTION

Course Plan
2024-2025
122 Hours

Year 1

16 Credit Hours

BAE 1011
Intro to Biosystems
1 Hour

UNIV 1111
First Yr. Seminar
1 Hour

MATH 2144
Calculus I
4 Hours
Note 1

CHEM 1414
Gen Chemistry
4 Hours

ENGL 1113
Engl Comp I
3 Hours
Note 2, 3

HIST 1103
American Hist
3 Hours
Note 4

MATH 2153
PHYS 2014
BAE 3033
ENSC 2113
ENSC 2213

ENSC 2213

ENGL 1213

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

14 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

ENGR 1332 or
ENGR 1322
Engr Design
2 Hours

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

BAE 3033
ENSC 2213
ENSC 2113
ENSC 2613

MATH 2163
MATH 2233
IEM 3503
ENSC 2613

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

Course No.
Course Name
of Hours
See Note #

Subsequent Courses

Prerequisites

Year 2

17 Credit Hours

BAE 2013
Comp Methods
3 Hours

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

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

MATH 2144 **PHYS 2014** **CHEM 1414** **ENSC 2213**
Thermodynamics
3 Hours

Current Enrollment in **ENSC 2213** **ENSC 3431**
Thermo & Heat Transfer
1 Hour

BIOL 1113 & BIOL 1111 or BIOL 1114
4 Hours

ENSC 2143
ENSC 3233

STAT 4033 or STAT 4073

BAE 3213
BAE 4413

BAE 3033
MICR 2123

16 Credit Hours

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

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

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

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

Concurrent Enrollment in **ENSC 3233** **ENSC 3231**
Fluids and Hydraulics
1 Hour

POLS 1113
American Gov't
3 Hours

BAE 4012

BAE 3013
BAE 3023

BAE 3013
BAE 3213
BAE 4283
BAE 4413

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) HIST 1103 can be replaced with HIST 1483 (H) or HIST 1493 (DH)
- 5) ENGL 1213 can be replaced with ENGL 1413 or ENGL 3323.
- 6) Any engineering and/or science elective to be selected from an approved list and approved by advisor.
- 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.
- 9) Select one of the following labs: ENSC 2141 (F,SP), ENSC 2411 (F,SP), ENSC 2611 (F,SP), ENSC 3311 (F,SP), ENGR 2421 (F,SP)



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2024-2025
122 Hours

Year 3

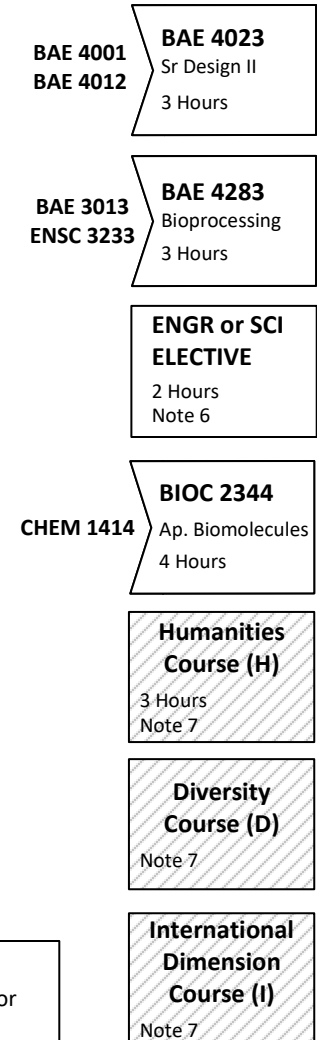
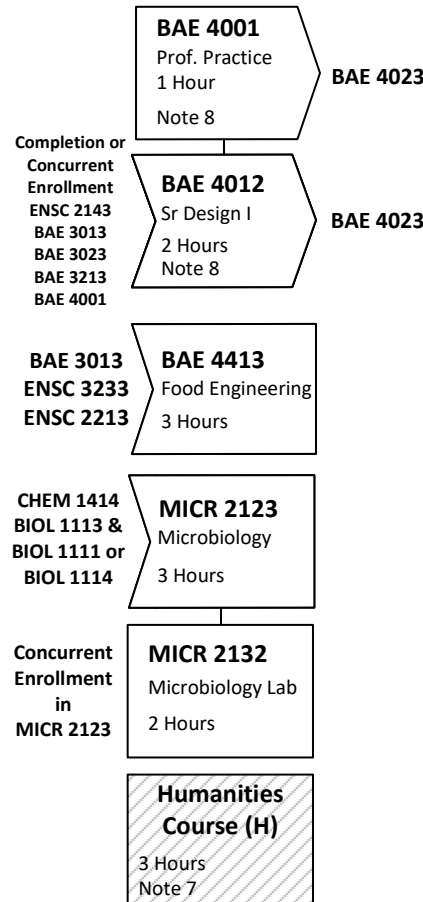
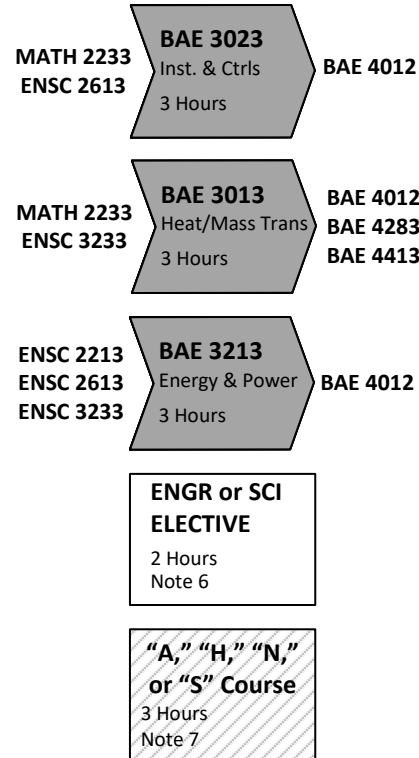
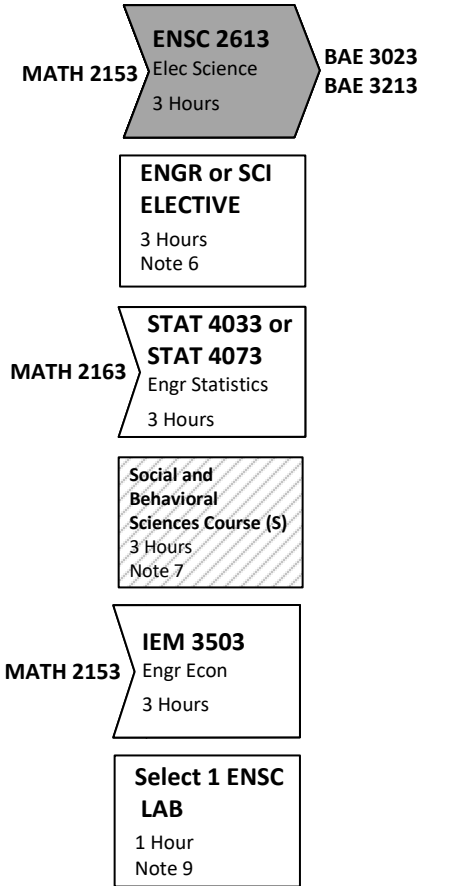
Year 4

16 Credit Hours

14 Credit Hours

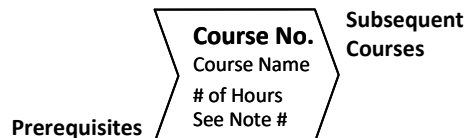
14 Credit Hours

15 Credit Hours



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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.