



BIOSYSTEMS ENGINEERING

BIOPROCESSING AND FOOD PROCESSING OPTION

Course Plan
2025-2026
122 Hours

Year 1

16 Credit Hours

BAE 1011

Intro to Biosystems
1 Hour
Note 1

UNIV 1111

First Yr. Seminar
1 Hour

MATH 2144

Calculus I
4 Hours
Note 2

CHEM 1414

Gen Chemistry
4 Hours

ENGL 1113

Engl Comp I
3 Hours
Note 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
Note 1

PHYS 2014

Univ. Physics I
4 Hours

MATH 2153

Calculus II
3 Hours

ENGR 1322 or ENGR 1332

Engr Design
2 Hours

ENGL 1213

Engl Comp II
3 Hours
Note 3

MATH 2144

MATH 2144

ENGL 1113

BAE 3033

ENSC 2213

ENSC 2113

MATH 2163

MATH 2233

IEM 3503

ENSC 3233

ENSC 2613

Year 2

17 Credit Hours

BAE 2013

Comp Methods
3 Hours
Note 1

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

Concurrent
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

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

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

- 1) BAE 1011, BAE 1022 and BAE 2013 can often be substituted for students transferring into the department internally or externally from another institution. Please contact the department for more information.
- 2) 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.
- 3) See Academic Regulation 3.5 (<http://catalog.okstate.edu/university-academic-regulations/> #english-composition).
- 4) HIST 1103 can be replaced with HIST 1483 (H) or HIST 1493 (DH).
- 5) Any upper division engineering, BAE, AST and/or science elective is to be selected from an approved list and approved by an advisor.
- 6) Additional general education credit hours are required to meet the total 40-hour minimum of general education credit. Students must take 3 hours of credit in courses designated "G," 3 hours of credit in courses designated "S," 3 hours of credit in courses designated "D," and 6 hours of credit in courses designated "H." Additionally, students must take a course designated "Q," "N," "S," "D," "G," or "F." There will be courses that can be paired, for example (DH) courses, that can be used to meet multiple general education designation hour requirements.
- 7) 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)
- 8) BAE 4001 and BAE 4012 are to be taken concurrently.



BIOSYSTEMS ENGINEERING

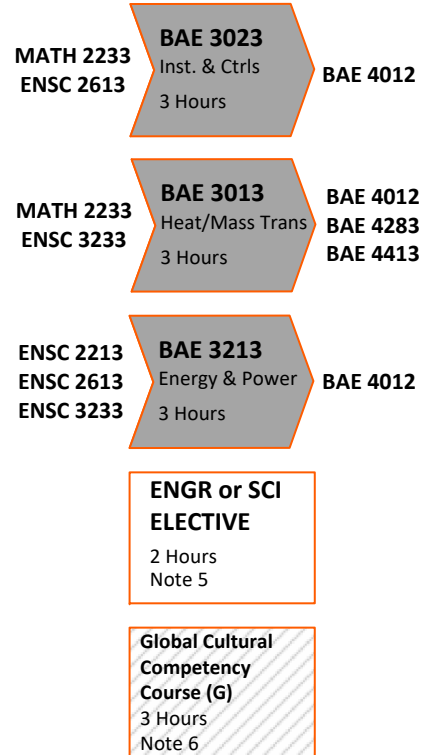
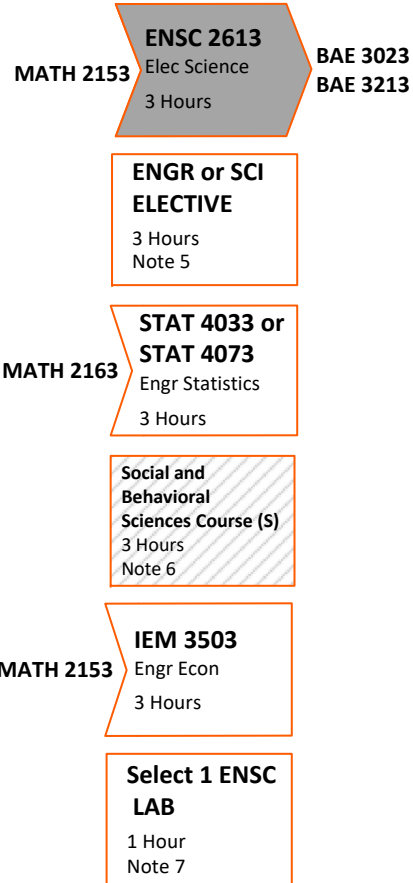
BIOPROCESSING AND FOOD PROCESSING OPTION

Course Plan
2025-2026
122 Hours

Year 3

16 Credit Hours

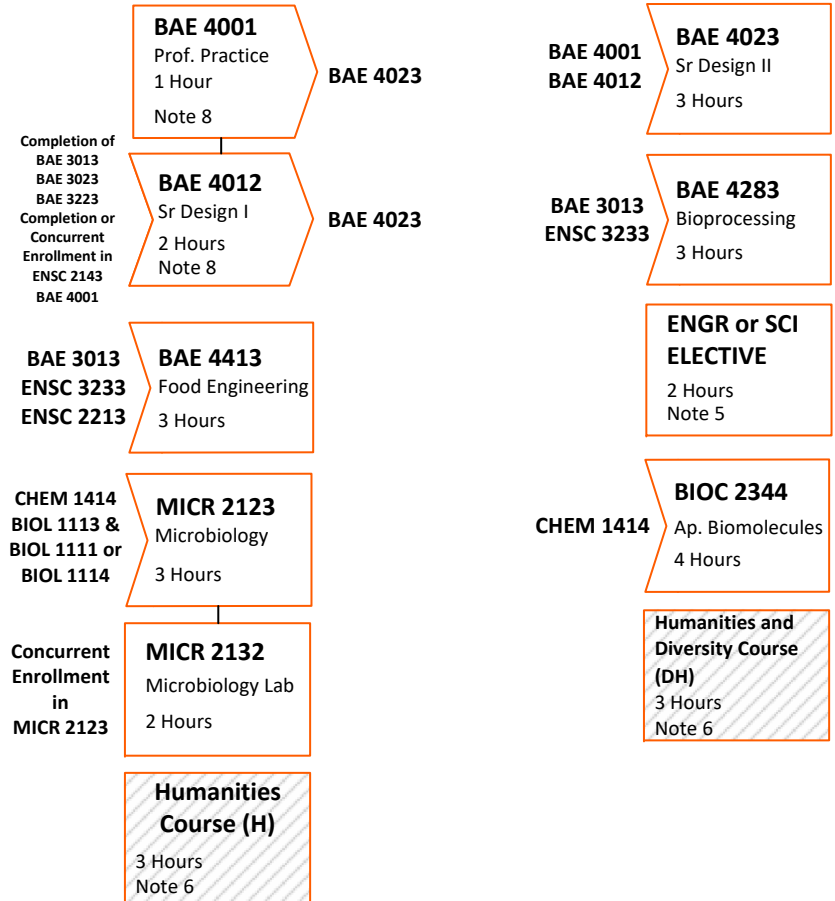
14 Credit Hours



Year 4

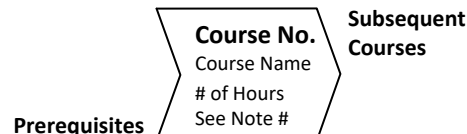
14 Credit Hours

15 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 2031.