Smith College
Picker Engineering Program

# Engineering Science, B.S.
## Plan of Study

Jan-22

**Name:**_____ **Expected Date of Graduation:** _____
**Student ID:** _____ **Adviser:**_____

### Math & Science Core

| | | Credits | Year/Term Taken | Transfer (# of credits on transcript) | AP/IB/Cam. A-level (# of credits) | Notes |
|---|---|---|---|---|---|---|
| 8 credits from MTH 111, 112, 211, 264 | | | | | | |
| MTH _____ | | (4 cr) | | | | |
| MTH _____ | | (4 cr) | | | | |
| MTH 212 | Calculus III | (4 cr) | | | | |
| MTH/SDS 220 | Probability & Statistics | (5 cr) | | | | |
| CHM 111 or CHM 118 | Chemistry I : General Chemistry **OR** Advanced General Chemistry | (5 cr) | | | | |
| PHY 210 | Mathematical Methods | (4 cr) | | | | |
| PHY 117 or PHY 119 | Introductory Physics I **OR** Advanced Introductory Physics | (5 cr) | | | | |

Lab-based science course, choose one: PHY 118, PHY 119, CHM 118, CHM 222, CHM 224, BIO 130/131, BIO 132/133, AP BIO (PHY 119 can fulfill the introductory physics requirement OR the 5 credit lab based science course requirement but not both, CHM 118 can fulfill the general chemistry requirement OR the 5 credit lab based science course requirement but not both)

| | | | | | |
|---|---|---|---|---|---|
| _____ | (5 cr) | | | | |

**Subtotal Math & Science credits, nominally 36 cr. (ABET min = 30 cr.)**

**Note:** If AP/IB/A-level exam credit is used toward these requirements, credits must appear on the official Smith transcript. If transfer credits are used to fulfill math/science requirements and the credits are fewer than those associated with the Smith course, the student may need to take additional courses to satisfy the 30-credit math/science ABET minimum requirement. Computer science is required for the major, but does not count as a basic science.

### Computer Science

| | | | | | |
|---|---|---|---|---|---|
| One of CSC 110, 111, 120, 205, 210, 220 | (4-5 cr.) | | | | |

### Engineering Core

| | | | Year/Term Taken | Transfer (# of credits on transcript) | Notes |
|---|---|---|---|---|---|
| EGR 100 | Engineering for Everyone | (4 cr.) | | | |
| EGR 110 | Fundamental Engineering Principals | (4 cr.) | | | |
| EGR 220 | Engineering Circuit Theory | (5 cr.) | | | |
| EGR 270 | Engineering Mechanics | (5 cr.) | | | |
| EGR 290 | Engineering Thermodynamics | (4 cr.) | | | |
| EGR 374 | Fluid Mechanics | (5 cr.) | | | |
| EGR 410D | Engineering Design and Professional Practice | (2 cr.) | | | |
| EGR Capstone | Pick one: EGR 421D, 422D, 431D | (6 - 8 cr.) | | | |

**Five (5) Engineering Technical Depth Courses** (At least four must be engineering courses at the 300-level or higher)

| | | | | |
|---|---|---|---|---|
| (1)_____ | (4 cr.) | | | |
| (2)_____ | (4 cr.) | | | |
| (3)_____ | (4 cr.) | | | |
| (4)_____ | (4 cr.) | | | |
| (5)_____ | (4 cr.) | | | |

**Subtotal Engineering credit hours, nominally 55 cr. (ABET min = 45 cr.)**

**Note:** If transfer credits are used to fulfill engineering course requirements and the credits granted are fewer than those associated with the Smith course, the student may need to take additional EGR courses to satisfy the 45-credit ABET minimum requirement for engineering content.

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**Name:**_____ **Expected year of graduation:** _____

**Liberal Arts Breadth (select one):**

___ Fulfilling the Latin Honors distribution requirements (A,F,H,L,S designations)
___ Fulfilling the requirements for another major or minor exclusively within Div I and/or Div II
other major or minor: _____
___ Proposal - ***approved by program*** (please attach) to fulfill the requirements for a minor that is not exclusively within Div I or II
minor: _____
___ Proposal - ***approved by the program*** (please attach) for an alternate approach

**Courses (usually 5 or 6)**

(1)_____ ( cr.)
(2)_____ ( cr.)
(3)_____ ( cr.)
(4)_____ ( cr.)
(5)_____ ( cr.)
(6)_____ ( cr.)

| Latin Honors Designation | Year/ Term | Transfer | Notes |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**Teamwork Documentation:**
Team outcome: An ability to work collaboratively in teams with different skills and perspectives.
I have satisfied this outcome at the advanced level via:

☐ Capstone Experience
☐ Other (Attach one page description)
☐ Technical Depth with strong emphasis on tear List the course(s):

_____
_____
_____
_____
_____

**Writing Intensive (WI) Requirement:**
Smith requires students to satisfy the WI requirement by completing a WI classified course with a grade C- or higher.
I have satisfied this requirement via _____(enter course number).

**Book of Evidence (BoE) Requirement:**
Satisfied by uploading a minimum of 20 engineering faculty-signed artifacts (one for each performance indicator) to the major's e-BoE folder.
I have uploaded ____ (#) signed artifacts to my e-BoE as of ____/____/____ (date).

| | | |
|---|---|---|
| Print Student Name | Student Signature | Date |
| Print Adviser Name | Adviser Signature | Date |
| Print Assistant Director Name | Assistant Director Signature | Date |