DARTMOUTH ENGINEERING

Name of student: _____

Class of: _____

Date: _____ **Advisor:** _____

Undergraduate Major Planning

Year / Term	SUMMER	FALL	WINTER	SPRING
First-Year				
Sophomore				
Junior				
Senior				

☐ **Engs major** ☐ **Engs modified with** _____ ☐ **Biomedical ENG** ☐ **Eng physics**

PREREQUISITES (see ORC for times)
- MATH 3 (F, W), 8 (F, W, S), 11 (F) or 13 (F, W, S)
- PHYS 13 (F, W:) **MATH 3 and MATH 8 (at least concurrently)*
- PHYS 14 (W, S) **PHYS 13 and MATH 8*
- CHEM 5 (F, W) or CHEM 11 (F, S)
- ENGS 20 (F, W S) or COSC 1 **and** COSC 10 (F, W, S) **MATH 3 and prior or concurrent enrollment in MATH 8*

COMMON CORE COURSES (3 courses)
- ENGS 21 Intro to Engineering (X, F, W, S) **MATH 3*
- ENGS 22 Systems (X, F, W, S) **MATH 13, PHYS 14, and ENGS 20*
- ENGS 23 Distributed Systems & Fields (F, W, S) **ENGS 22*

DISTRIBUTIVE CORE COURSES (choose 2)
- ENGS 24 Science of Materials (X, W, S) **PHYS 14, and CHEM 5*
- ENGS 25 Intro to Thermodynamics (X, W, S) **MATH 13, PHYS 13, and ENGS 20 (or COSC 1 & 10)*
- ENGS 26 Control Theory (F, S) **ENGS 22*
- ENGS 27 Discrete & Probabilistic Systems (X, F) **MATH 8, and ENGS 20 (or COSC 1 & 10); PHYS 13 or CHEM 5 recommended*
- ENGS 28 Embedded Systems (W, S) **ENGS 20 or COSC 10, and PHYS 14 (may be taken concurrently)*

GATEWAY COURSES (choose 2 from a different discipline)

➢ ELECTRICAL:
- ENGS 31 Digital Electronics (X, S) **ENGS 20 (or COSC 1 & 10)*
- ENGS 32 Electronics: Intro to Linear and Digital Circuits (F, S) **ENGS 22 (or equivalent background in basic circuit theory)*

➢ MECHANICAL:
- ENGS 33 Solid Mechanics (X, F, W) **MATH 13, and PHYS 13*
- ENGS 34 Fluid Dynamics (S) **ENGS 23 or equivalent*

➢ CHEMICAL/BIOCHEMICAL:
- ENGS 30 Biological Physics (W) **CHEM 5, PHYS 13, and PHYS 14*
- ENGS 35 Biotechnology & Biochemical Eng. (F) **MATH 3, CHEM 5, and BIOL 12 or 13*
- ENGS 36 Chemical Eng. (F) **ENGS 22, ENGS 25 and CHEM 5*

➢ ENVIRONMENTAL:
- ENGS 37 Intro to Environmental Eng. (F) **MATH 3, and CHEM 5*

ELECTIVES (2 courses)
- ENGS: any course numbered 20 and above (excluding ENGS 87)
- One course in Engineering Science, mathematics, or science

CULMINATING EXPERIENCE (choose 1 option)
- Thesis: ENGS 86 Independent Project or 88 Honors Thesis
- Design Project: ENGS 89 (must be taken as part of the two-course design sequence ENGS 89/90)
- Advanced course: One advanced engineering sciences course with a significant design or research project. See website for approved courses.

**Indicates pre-requisite (check ORC for exceptions). For modified, Biomedical, and engineering physics majors, consult the Thayer School course guide or ORC. Only pre-requisites may be taken under the NRO option unless prohibited.*