TRINITY COLLEGE DEGREE REQUIREMENTS FOR B.A. IN ENGINEERING SCIENCE - 2019/2020

Updated April 2019

CORE REQUIREMENTS

Basic Math and Science (6 courses, 7-7.5 credits)

Sem	Course	
	MATH 131	Calculus I (1.25 credits)
	MATH 132	Calculus II (1.25 credits)
	PHYS 141L	Mechanics
	PHYS 231L	Elec., Mag., & Waves

and two electives from Mathematics, Physics, Chemistry, Biology, Neuroscience, or Computer Science (approved in advance by dept. chair)

Sem	Course

Engineering (4 courses, 3.75 credits)

Sem	Course	
	ENGR 200	Meas., Instr., & Analysis
	ENGR 212L	Linear Circuit Theory **OR**
	ENGR 221L	Digital Circuits & Systems
	ENGR 225	Mechanics I
	ENGR 232	Engineering Materials

Additional Degree Requirements

1. Demonstration of computer programming proficiency by course or exam.•
2. Completion of at least eight course credits in the arts, humanities, or social sciences. To ensure depth of study, at least two courses must be taken in the same subject area.
3. No more than one engineering course with a grade lower than C-.

Senior Capstone Design Project (1 course, 1 credit - that integrates engineering with subjects from chosen cognate area)

Sem	Course	
	ENGR 483	Capstone Design I

B.A. ELECTIVES

Engineering Electives (3 courses, 3-3.75 credits)

Three electives from the following, at least two of which must be above 100 level and at least one of which must be at the 300 level or above:

Sem	Course	
	ENGR 110•	Engr. Computation & Analysis **OR**
	ENGR 120	Introduction to Engineering Design
	ENGR 212L	Linear Circuit Theory
	ENGR 221L	Digital Circuits & Systems
	ENGR 226	Mechanics II
	ENGR 301L•	Signal Processing & Applications
	ENGR 303L	Analog & Digital Communication
	ENGR 305L	Microelectronic Circuits
	ENGR 311	Electrophysiology
	ENGR 312	Automatic Control Systems
	ENGR 316	Neural Engineering
	ENGR 323L•	Microprocessor Systems
	ENGR 325L	Mechanics of Materials
	ENGR 337	Thermodynamics
	ENGR 346L	Computational Neuroscience

Sem	Course	
	ENGR 353	Biomechanics
	ENGR 362L	Fluid Mechanics
	ENGR 372L	Heat Transfer
	ENGR 401	Spec Topic: Eng Prod Dev
	ENGR 431L	Experimental Design & Methods
	ENGR 484	Capstone Design II

(additional courses approved in advance by dept. chair)

Program totals: *18 courses, 18.75-21 credits*

COGNATE DEPT./PROGRAM ELECTIVES

Cognate Department/Program: (4 courses, 4-5 credits)

Four courses from chosen cognate department or program (chosen in consultation with the faculty advisor*)

Sem	Course	

* These courses must achieve depth of study in the cognate area.

NOTE: Courses with laboratories (denoted by suffix 'L') count as 1.25 course credits; courses without labs count as 1.0 course credit, except where noted. Program totals do not include course/credit counts from "Additional Degree Requirements".

• - Satisfies computer programming proficiency requirement as well as CPSC 115 or CPSC 215.