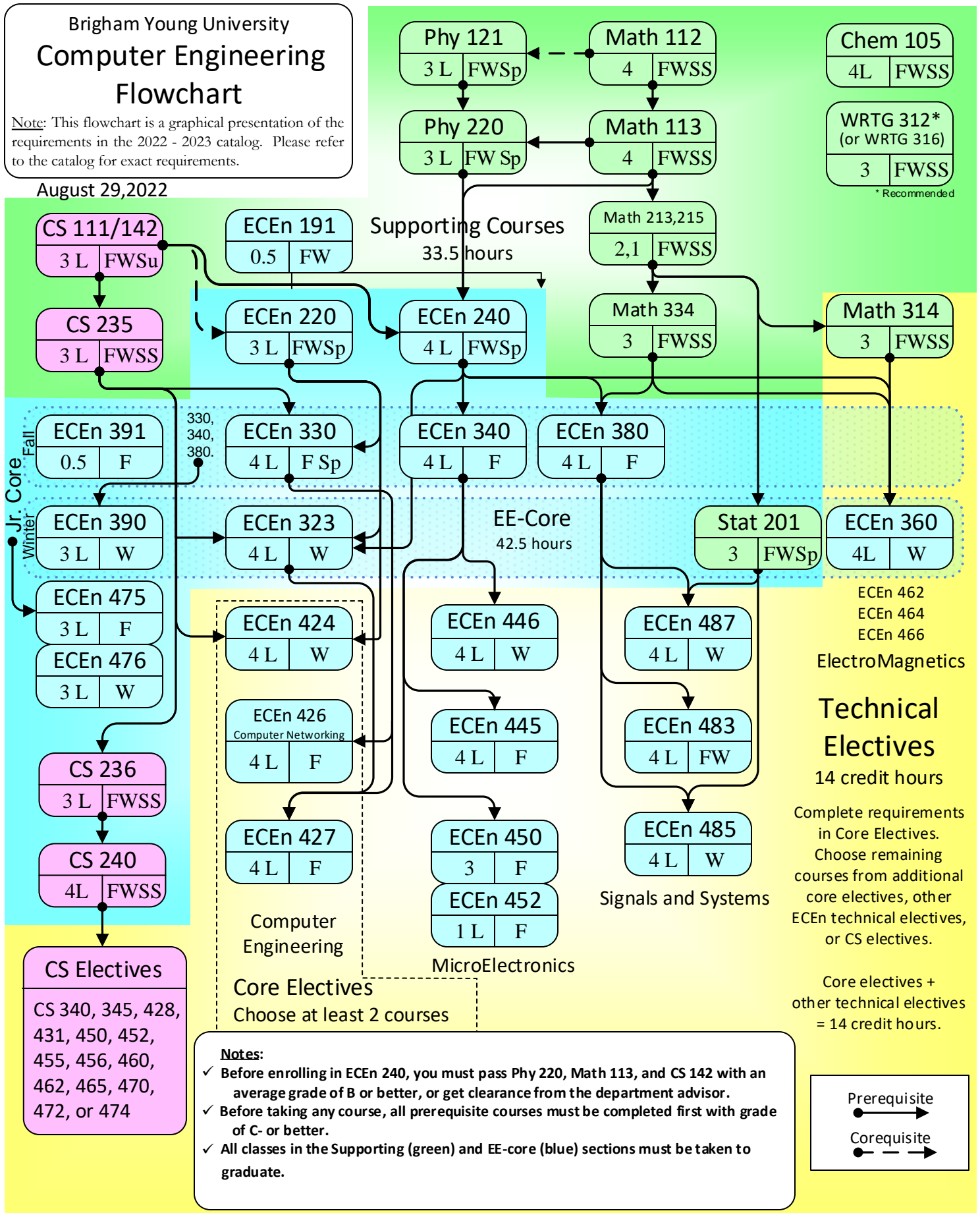


Brigham Young University Computer Engineering Flowchart

Note: This flowchart is a graphical presentation of the requirements in the 2022 - 2023 catalog. Please refer to the catalog for exact requirements.

August 29, 2022



Chem 105
4L | FWSS

WRTG 312*
(or WRTG 316)
3 | FWSS

* Recommended

CS 111/142
3 L | FWSu

CS 235
3 L | FWSS

ECEn 191
0.5 | FW

ECEn 220
3 L | FWSp

ECEn 240
4 L | FWSp

Math 213,215
2,1 | FWSS

Math 334
3 | FWSS

Math 314
3 | FWSS

ECEn 391
0.5 | F

ECEn 390
3 L | W

ECEn 475
3 L | F

ECEn 476
3 L | W

ECEn 330
4 L | F Sp

ECEn 323
4 L | W

ECEn 340
4 L | F

ECEn 446
4 L | W

ECEn 445
4 L | F

ECEn 380
4 L | F

ECEn 487
4 L | W

ECEn 483
4 L | FW

Stat 201
3 | FWSp

ECEn 360
4L | W

CS 236
3 L | FWSS

CS 240
4L | FWSS

ECEn 424
4 L | W

ECEn 426
Computer Networking
4 L | F

ECEn 427
4 L | F

ECEn 450
3 | F

ECEn 452
1 L | F

ECEn 485
4 L | W

ECEn 462
ECEn 464
ECEn 466

ElectroMagnetics

Technical Electives
14 credit hours

Complete requirements in Core Electives. Choose remaining courses from additional core electives, other ECEn technical electives, or CS electives.

Core electives + other technical electives = 14 credit hours.

CS Electives
CS 340, 345, 428, 431, 450, 452, 455, 456, 460, 462, 465, 470, 472, or 474

Computer Engineering

MicroElectronics

Computer Engineering Program Requirements

Requirement 1: Complete 23 courses.

C S 111 - Introduction to Computer Science 3.0
C S 235 - Data Structures and Algorithms 3.0
C S 236 - Discrete Structures 3.0
C S 240 - Advanced Programming Concepts 4.0
EC EN 191 - New Student Seminar 0.5
EC EN 220 - Fundamentals of Digital Systems 3.0
EC EN 240 - Circuit Analysis and Laboratory 4.0
EC EN 323 - Computer Organization 4.0
EC EN 330 - Introduction to Embedded System Programming 4.0
EC EN 340 - Electronic Circuit Design 1 4.0
EC EN 380 - Signals and Systems 4.0
EC EN 390 - Junior Team Design Project 3.0
EC EN 391 - Junior Seminar 0.5
EC EN 475 - Capstone Design 1 3.0
EC EN 476 - Capstone Design 2 3.0
MATH 112 - Calculus 1 4.0
MATH 113 - Calculus 2 4.0
MATH 213 - Elementary Linear Algebra 2.0
MATH 215 - Computational Linear Algebra 1.0
MATH 334 - Ordinary Differential Equations 3.0
PHSCS 121 - Introduction to Newtonian Mechanics 3.0
PHSCS 220 - Introduction to Electricity and Magnetism 3.0
STAT 201 - Statistics for Engineers and Scientists 3.0

Requirement 2: Complete 2 options.

Option 2.1: Complete 1 course.

CHEM 105 - General College Chemistry 1 with Lab (Integrated) 4.0

CHEM 111 - Principles of Chemistry 1 4.0

Option 2.2: Complete 1 course. Note: ENGL 312 recommended.

WRTG 312 - Persuasive Writing 3.0

WRTG 316 - Technical Communication 3.0

Requirement 3: Complete at least 8.0 hours from the following.

EC EN 424 - Computer Systems 4.0
EC EN 493R - Computer Networking 4.0
EC EN 427 - Embedded Systems 4.0

Requirement 4: Complete at least 6.0 hours from the following.

C S 340 - Software Design and Testing 3.0
C S 345 - Operating Systems Design 3.0
C S 428 - Software Engineering 3.0
C S 431 - Algorithmic Languages and Compilers 3.0
C S 452 - Database Modeling Concepts 3.0
C S 455 - Computer Graphics 3.0
C S 456 - Introduction to User Interface Software 3.0
C S 460 - Computer Communications and Networking 3.0
C S 462 - Large-Scale Distributed System Design 3.0
C S 465 - Computer Security 3.0
C S 470 - Introduction to Artificial Intelligence 3.0
C S 472 - Introduction to Machine Learning 3.0
C S 474 - Introduction to Deep Learning 3.0
EC EN 360 - Electromagnetic Fields and Waves 4.0
EC EN 424 - Computer Systems 4.0
EC EN 426 - Computer Networking 4.0
EC EN 427 - Embedded Systems 4.0
EC EN 445 - Introduction to Mixed-Signal VLSI 4.0
EC EN 446 - Power Electronics 4.0
EC EN 450 - Introduction to Semiconductor Devices 3.0
EC EN 452 - Experiments in Integrated Circuit Development 1.0
EC EN 462 - Electromagnetic Radiation and Propagation 2.0
EC EN 464 - Wireless Communication Circuits 2.0
EC EN 466 - Introduction to Optical Engineering 2.0
EC EN 483 - Design of Control Systems 4.0
EC EN 485 - Introduction to Digital Communication Theory 4.0
EC EN 487 - Introduction to Discrete-Time Signal Processing 4.0
MATH 314 - Calculus of Several Variables 3.0