UTAH VALLEY UNIVERSITY

BS COMPUTER ENGINEERING

2022-2023 Academic Year

Program Admission:
- Complete foundation courses* with minimum grade of ***C***
- Overall GPA ≥ 2.5
- Submit application to Department.

Graduation:
- Complete 124 hrs total with 40 hrs upper division CE.
- Overall GPA ≥ 2.5
- C or better in ECE core and elective courses.
- Residency ≥ 30 hrs at UVU (≥12 CE). At least 10 hrs in last 45 hrs earned.
- Transfer credits < 80 hrs total and 20 hrs in ECE.
- Complete one Global/Intercultural course.
- Take FE Exam

PRE-REQS., CO-REQS.
CATALOG#### Course Title — *Credit hr* — *F,S*

Shading Key:
Blue = Math core
Yellow = Science Core
Grey = General Education

Year 1

Fall (*15 hrs*)

MATH 1060 or higher → **ECE 1000*** Introduction to Electrical & Computer Engineering — *3 hr* — *F,S*

MATH 1010 or higher → **CS 1400*** Fundamentals of Programming — *3 hr* — *F,S,Su*

MATH 1050, 1060 or 1065 → **MATH 1210*** Calculus I — *4 hr* — *F,S,Su*

MATH 1210 or PHYS 1100 → **PHYS 2210*** Physics I — *4 hrs* — *F,S,Su* ↔ **PHYS 2215*** Physics I Lab — *1 hr* — *F,S,Su*

Spring (*16 hrs*)

MATH 1050 or 1055 → **ECE 2700*** Digital Design I — *3 hr* — *F,S* ↔ **ECE 2705*** Digital Design I Lab — *1 hr* — *F,S*

MATH 1210 or MATH 121H → **MATH 1220*** Calculus II — *4 hr* — *F,S,Su*

PHYS 2210, MATH 1220 → **PHYS 2220*** Physics II — *4 hr* — *F,S,Su* ↔ **PHYS 2225*** Physics II Lab — *1 hr* — *F,S,Su*

Test or ENGH 1000 → **ENGL 1010** Introduction to Writing — *3 hr* — *F,S,Su*

Year 2

Fall (*16 hrs*)

MATH 1210, PHYS 2220, ECE 1000 → **ECE 2250*** Circuit Theory — *3 hr* — *F,S* ↔ **ECE 2255*** Circuit Theory Lab — *1 hr* — *F,S*

MATH 1220, ECE 1000 → **ECE 2750** Engineering Analysis — *3 hr* — *F,S*

CS 1400, MATH above 1050 → **CS 1410** Object-Oriented Programming — *3 hr* — *F,S, Su*

GE American Institutions Elective — *3 hr*

Test or ENGL 1010 → **ENGL 2010** Intermediate Writing — *3 hr* — *F,S,Su*

Spring (*15 hrs*)

ECE 2700 → **ECE 3740** Digital Design II — *3 hr* — *F,S*

PHYS 2220, ECE 2250 → **ECE 3760** Electronic Systems — *3 hr* — *F,S* ↔ **ECE 3765** Electronic Systems Lab — *1 hr* — *F,S*

CS 1410 → **CS 2420*** Intro. to Algorithms and Data Structures — *3 hr* — *F, S, Su*

MATH 1050 → **CHEM 1210*** Principles of Chemistry I — *4 hr* — *F,S,Su* ↔ **CHEM 1215*** Principles of Chemistry I Lab — *1 hr* — *F, S, Su*

Year 3

Fall (*15 hrs*)

MATH 1210 → **ECE 3710** Applied Probability & Statistics for Engineers & Scientists — *3 hr* — *F,S,Su*

ECE 2700, ECE 2250 → **ECE 3730** Embedded Systems I — *3 hr* — *F, S*

ECE 2750 → **ECE 3770** Signals & Systems — *3 hr* — *F, S*

MATH 1050, CS 1410 → **CS 2300** Discrete Structures I — *3 hr* — *F,S,Su*

CS 1410 → **CS 2370** C++ Programming — *3 hr* — *F,S*

Spring (*16 hrs*)

ECE 3710, ECE 3770 → **ECE 3780** Communication Systems & Circuits — *3 hr* — *S* ↔ **ECE 3785** Communication Systems & Circuits Lab — *1 hr* — *S*

ECE 3730, ECE 3740 → **ECE 4730** Embedded Systems II — *3 hr* — *S*

ECE 3710, ECE 3770 → **ECE 4750** Digital Signal Processing — *3 hr* — *F, S* ↔ **ECE 4755** Digital Signal Processing Lab — *1 hr* — *F, S*

GE Healh Elective — *2 hr*

COMM 1020 Public Speaking — *3 hr* — *F,S,Su*

Year 4

Fall (*16 hrs*)

ECE 4730 → **ECE 4900** EE &CE Capstone I — *3 hr* — *F*

ECE 3740 → **ECE 4700** Computer Architecture — *3 hr* — *F , S*

ECE 3760 → **ECE 4760** VLSI Design — *3 hr* — *F* ↔ **ECE 4765** VLSI Design Lab — *1 hr* — *F*

GE Biology Elective — *3 hr*

GE Fine Arts Elective — *3 hr*

Spring (*15 hrs*)

ECE 4900 → **ECE 4950** EE &CE Capstone II — *3 hr* — *S*

See Catalog → **CE Elective** — *3 hr* — *S*

PHYS 2220, ECE 2250 → **CS 3060** Operating Systems Theory — *3 hr* — *F, S*

COMM 2110 Interpersonal Communication — *3 hr* — *F,S,Su*

PHIL 205G Ethics and Values — *3 hr* — *F,S,Su*