UTAH VALLEY UVU UNIVERSITY

Department of COMPUTER SCIENCE

Computer Engineering

Legend

Color	Category
	General Education
	Major
	Emphasis Core
	Electives

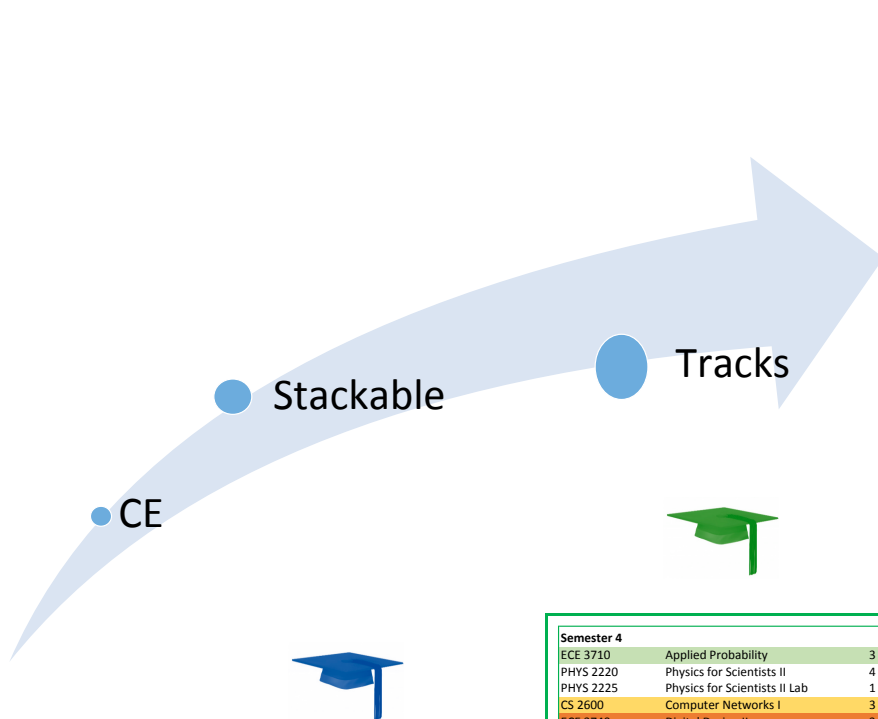## Certificate of Proficiency — Computer Science
Total Credits: 19

Associate of Applied Science — Computer Science — Computer Engineering Emphasis
Total Credits: 64

Bachelor of Science — Computer Engineering
Total Credits: 126

Stackable · Tracks · CE

Bachelor of Science — Computer Engineering

Semester 8

Course	Title	Cr
PHIL 2050	Ethics and Values	3
CS 305G	Global Social/Ethical	3
CS 2450	Software Engineering	3
ECE elective	ECE 4770 or ECE 4780	3
ECE 4800	CE Senior Project	3

Semester 7

Course	Title	Cr
Fine Arts	From approved list	3
CS 4380	AdvComputer Architecture	3
ECE 4750	Digital Signal Processing	3
ECE 4760	VLSI Design	3
ECE 4765	VLSI Design Lab	1

Semester 6

Course	Title	Cr
Biology	From approved list	3
American Inst	From approved list	3
CS 3060	Operating Systems	3
ECE 3760	Electronics Systems	3
ECE 3765	Electronic Systems Lab	1
ECE 4730	Embedded Systems II	3

Semester 5

Course	Title	Cr
CHEM 1210	Principles of Chem I	4
CHEM 1215	Principles of Chem I Lab	1
ENGL 2020	Intermediate Writing	3
COMP301R	Digital Lecture Series	1
ECE 2250	Circuit Theory	3
ECE 2255	Circuit Theory Lab	1
ECE 3730	Embedded Systems I	3

Associate of Applied Science (Semesters 1–4) and Bachelor of Science (Semesters 1–4)

Semester 4

Course	Title	Cr		Course	Title	Cr
ECE 3710	Applied Probability	3		ECE 3710	Applied Probability	3
PHYS 2220	Physics for Scientists II	4		PHYS 2220	Physics for Scientists II	4
PHYS 2225	Physics for Scientists II Lab	1		PHYS 2225	Physics for Scientists II Lab	1
CS 2600	Computer Networks I	3		CS 2600	Computer Networks I	3
ECE 3740	Digital Design II	3		ECE 3740	Digital Design II	3
ECE 3770	Signals and Systems	3		ECE 3770	Signals and Systems	3

Semester 3

Course	Title	Cr		Course	Title	Cr		Course	Title	Cr
CS 2420	Intro to Algorithms	3		ECE 3750	Engineering Analysis	3		ECE 3750	Engineering Analysis	3
				COMM 2110	Interpersonal Communication	3		COMM 2110	Interpersonal Communication	3
				CS 2420	Intro to Algorithms	3		CS 2420	Intro to Algorithms	3
				CS 2300	Discrete Math I	3		CS 2300	Discrete Math I	3
				ECE 2700	Digital Design I	3		ECE 2700	Digital Design I	3
				ECE 2705	Digital Design I Lab	1		ECE 2705	Digital Design I Lab	1

Semester 2

Course	Title	Cr		Course	Title	Cr		Course	Title	Cr
Math 1060	Trigonometry	3		MATH 1220	Calculus II	5		MATH 1220	Calculus II	5
CS 1410	Object-Oriented Programming	3		PHYS 2210	Physics for Scientists I	4		PHYS 2210	Physics for Scientists I	4
				PHYS 2215	Physics for Scientists I Lab	1		PHYS 2215	Physics for Scientists I Lab	1
				CS 1410	Object-Oriented Programming	3		CS 1410	Object-Oriented Programming	3
				CS 2810	Computer Organization	3		CS 2810	Computer Organization	3

Semester 1

Course	Title	Cr		Course	Title	Cr		Course	Title	Cr
Math 1050	College Algebra	4		MATH 1210	Calculus I	5		MATH 1210	Calculus I	5
ENGL 1010	Intro Writing	3		ENGL 1010	Intro Writing	3		ENGL 1010	Intro Writing	3
CS 1030	Foundations of Programming	3		COMM 1020	Public Speaking	3		COMM 1020	Public Speaking	3
CS 1400	Fundamentals Programming	3		CS 1400	Fundamentals Programming	3		CS 1400	Fundamentals Programming	3
				ECE 1020	Computer Architecture	1		ECE 1020	Computer Architecture	1
				HLTH/PE	HLTH 1100 or PES 1097	2		HLTH/PE	HLTH 1100 or PES 1097	2

Graduation Requirements (Certificate):
1. Overall GPA 2.0 or above.
2. Minimum grade of C+ in CS 1400, CS 1410, CS2420. Minimum C in ENGL 1010.
3. Residency: minimum 10 credit hours through course attendance at UVU.
4. Students are responsible for completing all prerequisite courses.

*If long-range goal is BS in CE, take math classes early. Calculus I is the course that begins the 4-year graduation plan. Green= recommended electives for stackable into BS in Computer Engineering.

Graduation Requirements (AAS):
1. Overall GPA 2.0 or above.
2. Minimum grade of C+ in CS 1400, CS 1410, CS2420, CS 2300. Minimum C in ENGL 1010 and MATH 1210. Minimum C- in other CS courses, plus Physics, 3rd Science, COMM 1020, and COMM 2110.
3. Residency hours: minimum of 20 credit hours through attendance at UVU.
4. Students are responsible for completing all prerequisite courses.

*If long-range goal is BS in CE, take classes as outlined to stay on track for a 4-year graduation plan. Green= recommended electives for stackable into BS in Computer Engineering.

Graduation Requirements (BS):
1. At least 40 credits of upper-division courses.
2. Overall GPA 2.0 or above.
3. Minimum 2.5 GPA in all discipline core, ECE electives, math, science, Comm 1020, and Comm 2110, courses with no grade lower than C-.
4. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
5. Students are responsible for completing all prerequisite courses.

NOTES: Take recommended courses in sequence. Follow the recommended electives (green) in the lower-division stackable tracks to ensure timely completion of advanced degrees. Not following this plan could lead to taking extra classes that do not count toward an advanced degree or could create prerequisite dependency problems, which could delay final graduation.