

DUAL DEGREE AGREEMENT

STUDENT

STUDENT I.D.

EXPECTED GRADUATION DATE

COMPUTER SCIENCE

188

PRIMARY DEGREE

TOTAL CREDITS

COMPUTER ENGINEERING

SECONDARY DEGREE

APPROVAL GRANTED:

STUDENT

DATE

PRIMARY DEGREE DEPARTMENT HEAD

DATE

SECONDARY DEGREE DEPARTMENT HEAD

DATE

Computer Science & Computer Engineering Dual Degree Program					
Area	Course	Title	Term	Grade	Credits
MATHEMATICS					
	CS-211	Discrete Mathematics			4
	MATH-101	Calculus I			4
	MATH-102	Calculus II			4
	MATH-203	Multivariate Calculus			4
	MATH-204	Differential Equations			4
	MATH-408	Probability and Statistics			4
Total (MATH)					24
BASIC SCIENCE					
	CHEM-135/136	Principles of Chemistry			4
	PHYS-114/115	Newtonian Mechanics			4
	PHYS-224/225	Electricity and Magnetism			4
		Science Elective ¹			4
Total (SCIENCE)					16
LIBERAL STUDIES					
	COMM-101	Written and Oral Communication I			4
	SSCI-201	Introduction to Social Science			4
	HUMN-201	Introduction to Humanities			4
	ECON-201	Economic Principles			4
	COMM-301	Written and Oral Communication II			4
	LS-489	Senior Seminar			4
		Advanced Humanities Elective			4
		Advanced Social Science Elective			4
		LS Elective			4
		LS Elective			4
Total (LIBERAL STUDIES)					40
COMPUTER SCIENCE CORE					
	CS-101	Computing and Algorithms I			4
	CS-102	Computing and Algorithms II			4
	CS-202	Systems Programming Concepts			4
	CS-203	Computing and Algorithms III			4
	CS-312	Theory of Computation			4
	CS-431	Compiler Design and Construction I			4
	CS-451	Operating Systems I			4
	CS-461	Database Systems			4
	CS-471	Software Engineering			4
	CE-480	Computer Networks ²			4
Total (CS CORE)					40

Area	Course	Title	Term	Grade	Credits
ENGINEERING CORE					
	IME-100	Interdisciplinary Desgin & Mfg			4
	MECH-210	Mechanics I			4
Total (ENGINEERING)					8
COMPUTER ENGINEERING CORE					
	EE-210	Circuits I			4
	CE-210	Digital Systems I ³			4
	CE-310	Digital Systems II ⁴			4
	CE-320	Microcomputers I ³			4
	EE 320	Electronics I			4
	EE-322	Signals and Systems			4
	CE-420	Microcomputers II ⁴			4
	CE-422	Computer Architecture and Organization ³			4
	CE-426	Real-Time Embedded Computers ⁴			4
	CE-490	Senior CE Design			4
Total (CE CORE)					40
EE/CE TECHNICAL ELECTIVES					
	EE	Electrical Engineering Elective ⁵			4
	CE	Computer Engineering Elective ⁶			4
Total (EE/CE Electives)					8
FREE ELECTIVES					
					4
					4
Total (Free Electives)					8
Thesis					4
Total CS/CE Dual Degree (188 Credits Minimum)					188

¹May be any course with a CHEM, PHYS, or BIOL prefix except CHEM-171.

²Counts toward the 8 credits of CE technical electives required for the CE degree.

³CS core requirement.

⁴Counts toward the 12 credits of CS technical electives required for the CS degree.

⁵Any four-credit course (or combination of three-credit lecture course and one-credit corequisite laboratory course) with an EE identifier except EE-212, EE-213, and EE-428.

⁶Selected from among all courses with a CE prefix subject to the following requirements: 1. the chosen elective may not be explicitly listed as required courses in the CE program; 2. each chosen elective must be a four-credit course at the level 300 or higher. EE-428, VLSI Design may be used as a CE elective.

**Computer Science – Computer Engineering
Dual Degree
Representative Program**

Term	Course 1	Course 2	Course 3	Course 4	Course 5
Fr I	Interdisciplinary Design & Man. (IME-101)	Calculus I (Math-101)	Principles of Chemistry (CHEM-135/136)	Written & Oral Comm. I (COMM-101)	
Fr II	Computing & Algorithms I (CS-101)	Calculus II (MATH-102)	Newtonian Mechanics (PHYS-114/115)	Intro. to Humanities (HUMN-201)	
So I	Computing & Algorithms II (CS-102)	Multivariate Calculus (MATH-203)	Electricity & Magnetism (PHYS-224/225)	Discrete Mathematics (CS-211)	
So II	Computing & Algorithms III (CS-203)	Differential Equations (MATH-204)	Digital Systems (CE-210)	Circuits I (EE-210/211)	
Jr I	Theory of Computation (CS-312)	Micro-Computers I (CE-320)	Signals & Systems (EE-332)	Electronics I (EE-310)	Intro. to Soc. Sci. (SSCI-201)
Jr II	Systems Prog. Concepts (CS-202)	Compiler Design & Const. I (CS-431)	Digital Systems II (CE-310/311)	Mechanics I (MECH-210)	Economic Principles (ECON-201)
Sr I	Database Systems (CS-461)	Operating Systems I (CS-451)	Micro-Computers II (CE-420)	Written & Oral Comm. II (COMM-301)	Advanced Soc. Sci. Elec.
Sr II	Software Engineering (CS-471)	Probability & Stats. (MATH-408)	Computer Architecture (CE-422)	Advanced Hum. Elec.	Senior Seminar (LS-489)
Sr III	Free Elective	Computer Networks (CE-480)	Real-Time Embedded Sys. (CE-426)	Science Elective	LS Elective
Sr IV	Free Elective	Senior CE Design Proj. (CE-490)	CE Technical Elective	EE Technical Elective	LS Elective