

SCHOOL OF SCIENCE & COMPUTER ENGINEERING

Computer Engineering

Bachelor of Science at UHCL

(2008-2009 2+2 Transfer Plan to University of Houston-Clear Lake)



UNIVERSITY-REQUIRED TRANSFER COURSES

FOOTNOTE	CORE CURRICULUM REQUIREMENTS*	HRS	CODE	FOOTNOTE	ADDITIONAL FOUNDATION REQUIREMENTS	HRS
a	ENGL 1301 Composition I	3	10	c, #	MATH 2414 Calculus II	4 hrs
a, #	ENGL 2311 Technical Writing or ENGL 1302 Composition II	3	10	c, #	MATH 2318 Linear Algebra **	3 hrs
b	Speech Communication**	3	11	c, #	MATH 2415 Calculus III	4 hrs
c, #	MATH 2413 Calculus I	4	20	c, #	MATH 2320 Ordinary Differential Equations**	3 hrs
d, #	PHYS 2425 University Physics I**	4	30	#	CHEM 1411 General Chemistry I	4 hrs
d, #	PHYS 2426 University Physics II**	4	30			18
e	Humanities**	3	40			
f	Visual & Performing Arts **	3	50			
g	HIST 1301 US History I**	3	60			
g	HIST 1302 US History II** or HIST 2301, 2302 or 2303 Texas History	3	60			
g	GOVT 2301 US and TX Constitutions	3	70			
g	GOVT 2302 US and TX Institutions	3	70			
h	Social & Behavioral Science **	3	80			
c, #	C or C++ Programming Language**	3	90			
		45*			Total transfer credit hours	63

EXPLANATION OF FOOTNOTES

- * UHCL's requirements are consistent with the 42-hour Texas core curriculum. If a student completes components of the core at one Texas institution, those courses will substitute for UHCL's same core components. If a student is core complete at any Texas Institution the student is also core complete at UHCL, however, foundation (#) courses are still required. The Core Code is used by Texas schools to identify which area of the 42-hour core curriculum a course fulfills.
- ** These courses may be fulfilled by approved upper-level equivalents at UHCL.
- # These courses are included in the Program Foundation Core and must be completed with a grade of "C-" or better.
- a Admission to UHCL requires **prior** completion of six hours of English Composition/Writing classes with grade of "C-" or better. *ENGL 1301 Composition I* (3 hrs) is an admission requirement for all UHCL applicants. *ENGL 2311 Technical Writing* (3 hrs), a program foundation course, will satisfy the second (3 hr) English entrance requirement for UHCL Science and Computer Engineering majors if taken at the transfer institution **prior** to admission. If an applicant takes *ENGL 1302 Composition II* instead of Technical Writing, UHCL entrance requirements are satisfied, but *Technical Writing* must also be completed before graduation.
- b Suggested courses for Speech/Communication include any SPCH course. At some transfer institutions, foreign languages may also fulfill state core Speech requirements.
- c Transfer institutions may require one or more prerequisites for these required program foundation courses, depending on the individual student's high school preparation and test scores. Students are advised to take all prerequisites required for them by their particular transfer institution. Non-remedial prerequisite courses will be transferred as lower-level electives, as needed.
- d *MATH 2413 Calculus I* must be completed before taking *PHYS 2425 University Physics*. Students completing PHYS courses at HCC or at other transfer institutions where labs are separate courses must also complete the labs (at HCC the labs are PHYS 2125 and 2126).
- e Suggested courses for Humanities include any ENGL literature, HUMA, PHIL, RELI, or sophomore-level foreign language course – also any SPCH or HIST taken in addition to core requirements.
- f Suggested courses for Visual & Performing Arts include: any ARTS, DANC, DRAM, MUSI, or MUAP course. Three semester credit hours required.
- g Six hours of U.S. History required; three hours may be in Texas History. Six hours of U.S. Government are required and three of the six hours must, by state law, include Texas Constitutional Government.
- h Suggested courses for Social & Behavioral Science include: any ANTH, ECON, GEOG, PSYC, or SOCI course - also any GOVT, HIST, or POLS course taken in addition to core requirements.

SCHOOL OF SCIENCE & COMPUTER ENGINEERING

Bachelor of Science in Computer Engineering

The Computer Systems Engineering plan is accredited by the Computing Accreditation Commission on ABET, Inc.

2008-2009 Catalog

GENERAL DEGREE REQUIREMENTS

- 132 credit hours is the minimum required for the BS degree in Computer Engineering. A maximum of three hours of lower-level "activities" credits may apply toward graduation. If approved, up to 18 hours of lower-level correspondence, extension or CLEP credit may apply as lower level credit toward graduation in accordance with catalog rules
- At least 30 hours of the degree plan, including at least 12 hours in the major, must be completed in residence at UHCL.
- A cumulative GPA of at least 2.000 must be maintained for course work completed at UHCL, with grades of "C" or better in at least 30 hours of UHCL classes.
- Students must remain continuously enrolled (complete at least one course in a 12 month period) or meet the requirements of a later catalog.
- Students must complete the degree within seven years or meet requirements of a later catalog.

COMPUTER ENGINEERING ADMISSION REQUIREMENTS

All applicants to this program must have a cumulative GPA of 2.500 or better in lower-level or transfer courses. Students with a GPA of less than 2.500 should provide a written statement or additional materials to the admission committee to assist the committee in determining the student's potential for success in upper-level courses.

BASIC REQUIREMENTS

For the degree being pursued, program requirements listed on the transfer plan section of this document and indicated by the #sign should be completed with grades of "C-" or better before beginning the upper level program and finalizing a Candidate Plan of Study. All program core requirements must be completed with a grade of "C-" or better.

BACHELOR OF SCIENCE IN COMPUTER ENGINEERING – UHCL PLAN REQUIREMENTS (69 HOURS)

All plan core courses require a grade of "C-" or better. Lower level credit given for any of the following courses may require students to take additional approved technical electives to satisfy program requirements.

CSCI 3331	Computer Org and Programming	3 hrs	MATH 3334	Prob/Stat for Sci/Eng	3 hrs
CSCI 3333	Data Structures	3 hrs	MATH 3331	Discrete Math	3 hrs
CENG 3132/3112	Digital Circuits/Lab	4 hrs	SENG 4130	Intro to Systems Engineering	3 hrs
CENG 3133/3113	Linear Circuits/Lab	4 hrs	SWEN 4432	Software Engineering	3 hrs
CENG 3134/3114	Advanced Linear Circuits/Lab	4 hrs	CENG 4625	Senior Projects I	2 hrs
CENG 3331/3311	Intro to Telecom and Networks/Lab	4 hrs	CENG 4626	Senior Projects II	2 hrs
CENG 3531/3511	Computer Architecture/Lab	4 hrs	Elective	Technical Elective *	3 hrs
CENG 3624	Intro to Engineering	2 hrs	Elective	Technical Elective *	3 hrs
CENG 4133/4113	Microprocessor Interfacing/Lab	4 hrs	Elective	Technical Elective *	3 hrs
CENG 4331	Design and Analysis of Linear Systems	3 hrs	Elective	Technical Elective *	3 hrs
CENG 4534	Digital System Design	3 hrs	Elective -or -	WRIT 3135 (if not taken as 2311)	3 hrs

* Required **Technical Electives** that be chosen from CENG/CSCI/SWEN courses, with faculty advisor **prior** approval. The student also has the **option** of selecting electives from the Support Areas in Telecommunications or Software Engineering listed below:

OPTIONAL SUPPORT AREAS TECHNICAL ELECTIVE CHOICES

Students interested in Telecommunications and Networks should select the following courses as their required technical electives:

CENG 4031	Telecom Systems Operation	3 hrs	CENG 4231	Telecom Switching Systems	3 hrs
CENG 4131	Telecom Networking Devices	3 hrs	CSCI 4132	Network Protocols	3 hrs

Students interested in Software Engineering should select the following courses as their required technical electives:

CSCI 3532	Advanced Data Structures & Algorithms	3 hrs	SWEN 4433	Software Engineering Tools	3 hrs
CSCI 4534	Operating Systems	3 hrs	SWEN 4435	Personal Software Process	3 hrs

Students interested in Signals and Controls should select the following courses as their required technical electives

CENG3135/3115	Intro to DSP and Lab	3 hrs	CENG 4632	Digital Control Design	3 hrs
CENG 4135	DSP Applications	3 hrs	CSCI 3231	Numerical Methods	3 hrs



University
of Houston
Clear Lake

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