

Curricular and/or Degree Plan Changes

A = Approval I = Information

Course number: _____ or Degree Plan(s) ____ BS: Computer Science (CS) _____
 State the requested change and reason (a memo may be attached if more space is necessary):

An attached document specifies the requested changes to the degree plan requirements and explains the reasons for these requests.

Circle the number that corresponds to the requested change. (degree plan changes on other side)

COUNCILS*

	Change to Course:	Dept	Deans	College Academic	UUAC	GEC	GRAD	Provost	Faculty	President
1.	Title (description unchanged)	A	A	A	I	I	I	I	--	I
2.	Description (not affecting content)	A	A	A	I	I	I	I	--	I
3.	Content	A	A	A	A	A	A	A	--	A
4.	Number of hours (lecture, lab, contact)	A	A	A	A	A	A	A	--	A
5.	Course number within the hundred	A	A	I	I	I	I	I	--	I
6.	Course number beyond the hundred	A	A	A	A	A	A	A	--	A
7.	Prerequisites	A	A	A	I	I	I	I	--	I
8.	From U to G or G to U	A	A	A	A	A	A	A	--	A
9.	Cross list w/another dept: U or G level	A	A	A	A	A	A	A	--	A
10.	Department of record	A	A	A	A	A	A	A	--	A
11.	Open or close a course	A	A	A	A	A	A	A	--	A
12.	New course - see Gary Tucker for packet (including combining or splitting a course(s))	A	A	A	A	A	A	A	--	A

* In most cases, approval by only one council is necessary.

Note: When an academic unit does not have a council the UGEC and/or UUAC will serve as its academic council, depending on the nature of the issue.

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Changes in Catalog Degree Plan Requirements: Note - <u>All graduate</u> degree program changes must go through the graduate council. See #18		Dept	Deans	College Academic	COUNCIL S*			Provost	Faculty	President	Board of Trustees
					UUAC	GEC	GRAD				
1.	Core – require specific course from core menu	A	A	I		I		I	--	I	--
2.	Core – change selection of specific course in core menus	A	A	I		I		I	--	I	--
3.	Core – substitute course for core requirement	A	A	A		A		A	I	A	--
4.	Core – add a new course to core menu	A	A	A		A		A	A	A	--
5.	Core – change in approved course content	A	A	A		A		A	--	A	--
6.	Major – change course selection in major (hours equal)	A	A	A		I		I	--	I	--
7.	Major – reduce or increase hours required in major (within university minimum and maximum) ♦	A	A	A		I		I	--	I	--
8.	Major/ Area of emphasis (e.g. BAS) – revision of major	A	A	A		A		A	--	A	
9.	Major/ Adopt or change admission requirements	A	A	A		A		A	--	A	--
10.	Major/ Area of emphasis (e.g. BAS) – add new major	A	A	A		A		A	A	A	I/A
11.	Supplement – change course selection in supplement (hours equal or greater) ♥	A	A	A		I		I	--	I	--
12.	Supplement – reduce hours required ♥	A	A	I		I		I	--	I	--
13.	Electives – reduce hours below university minimum ♣	A	A	A		A		A	I	A	--
14.	GPA – revise major requirement	A	A	A		A		A	--	A	--
15.	GPA – revise cumulative requirement	A	A	A		A		A	--	A	--
16.	Minor – revise course selection	A	A	A		I		I	--	I	--
	Minor – add or discontinue with a major	A	A	A		A		A	--	A	--
	Minor – add or discontinue without a major	A	A	A		A		A	A	A	
17.	Add new degree	A	A	A		A		A	A	A	A
18.	Any change to a graduate degree program	A	A	A		A		A	--	A	--

* In most cases approval by only one council is necessary.

♦ A minimum of 30 hours is required for a major. A maximum is specified for each degree (e.g. BA, BS). The maximum in the major must allow for at least 6 hours of electives.

♥ Supplement - A set of *required* courses in a degree program that are outside the university core, the degree core, and the required courses in the major field. Supplement courses are not elective in nature, and ordinarily do not include "menu" options (that is, a series of courses from which the student selects one or more).

♣ The university minimum for elective hours is 6.

Revised 10/25/2005

Curricular and/or Degree Plan Changes Approval Sheet

Department Chair/s	
<u>Brian Carr</u>	<u>2/20/15</u>
signature	approval date
_____	_____
signature	approval date

Dean/s	
<u>[Signature]</u>	<u>3/2/15</u>
signature	approval date
_____	_____
signature	approval date

College Academic Council/s	
<u>David Pappi</u>	<u>3-2-15</u>
chair's signature	approval date
_____	_____
chair's signature	approval date

Undergraduate Academic Council	
_____	_____
chair's signature	approval date

General Education Council	
_____	_____
chair's signature	approval date

Graduate Council	
_____	_____
chair's signature	approval date

Provost	
_____	_____
signature	approval date

Faculty	
_____	_____
chair of faculty senate	approval date

President	
_____	_____
signature	approval date

Board of Trustees	
_____	_____
chair of Board of Trustees	approval date

Attachment to Degree Plan Changes – BS: Computer Science (CS)

We are requesting several changes to the concentrations listed in the BS: Computer Science degree plan. These changes are refinements on the existing concentrations, as we review them and attempt to better tailor the concentrations to serve our students. We will here address all of the requested changes. The updated degree plan is presented in entirety on the next pages.

There are no requested changes to the *Major Requirements* section.

Under *Major Selection or Concentration*:

- The selection "Advanced CS, IT, ITC, DET, Math; IS 405" will increase to 12 hours
- The total number of hours in major selection will be changed to 33

In the *Computing Theory* concentration:

- CS 355 will be removed as a required course
- CS 467 will be inserted as a required course
- The selection "Select 3 hours from..." will increase to "Select 6 hours from..." and:
 - CS 355 and CS 381 will be inserted
 - CS 467 and CS 474 will be removed

In the *Game Development* concentration:

- CS 474 will be removed as a required course
- CS 381 will be inserted as a required course
- In the first selection "Select 6 hours from...":
 - CS 474 will be inserted
 - CS 381 will be removed
- The second selection "Select 6 hours from..." will increase to "Select 9 hours from..."

In the *Software Engineering* concentration:

- CS 320 and IT 225 will be removed as required courses
- CS 330, IT 325, IT 472 will be inserted as required courses
- In the selection "Select 6 hours from...":
 - CS 320, CS 376, IS 405, ITC will be inserted
 - CS 330 and IT 325 will be removed

Under *Electives*:

- The number of hours in "Open Electives" will be changed to 6

Under *Other Graduation Requirements*:

- CS 111 will be removed from the list specifying minimum grades. This class is no longer part of the degree plan.
- Any course used as a prerequisite for another course requires a minimum grade of "C" or better.

We believe that these degree plan changes will maintain a strong alignment with the broad field and improve the academic quality of our graduates of computer science, providing them a strong educational foundation.

Attachment to Degree Plan Changes – BS: Computer Science (CS)

The SITC faculty jointly approved that any course requires a minimum grade of "C" or better to be used as a prerequisite for a computer science course. We initially desired to add this requirement as a general statement under *Other Graduation Requirements* in the degree plan; however, the same effect can be achieved by specifying this requirement in the prerequisite listing for each CS course.

The catalog listings for these CS courses already show a requirement of grade "C" or better for their prerequisites (in parentheses).

- 116 (CS 115)
- 130 (CS 120)
- 220 (CS 130)
- 301 (CS 230)
- 311 (CS 130)
- 332 (CS 130, MATH 227)
- 355 (CS 220)
- 370 (CS 220, MATH 227)
- 374 (CS 230)

The catalog listings for these CS courses should be updated to require a grade of "C" or better for their prerequisites (in parentheses).

- 230 (CS 130)
- 315 (IT 220, CS 116 or CS 120)
- 316 (CS 315)
- 320 (CS 130, IT 220)
- 330 (CS 116 or CS 120)
- 352 (CS 230)
- 356 (CS 220)
- 365 (CS 220, CS 332)
- 376 (CS 374)
- 381 (CS 220)
- 420 (IT 221)
- 467 (CS 332)
- 474 (CS 230)

BS: Computer Science Degree Plan (CS)

MAJOR REQUIREMENTS

Computer Science

CS 120 Programming I 3
CS 130 Programming II: Data Structures 3
CS 220 Computer Organization and Single-User Systems 3
CS 230 Object-Oriented Programming 3
CS 332 Design and Analysis of Algorithms 3
CS 374 Software Engineering 3
IT 220 Introduction to Databases and DBMS 3
IT 221 Fundamentals of Networking and Data Communications 3
ITC 110 Introduction to Information, Technology, and Computing 3
ITC 460 Managing Technical Projects (capstone and writing-intensive course) 3
TOTAL 30

MAJOR SELECTION OR CONCENTRATION

Computer Science Selection

Advanced CS electives 12
Advanced CS, IT, ITC, DET, Math; IS 405 12
CS, IT, DET, IS, ITC, MATH or specified set from support area: Business/Entrepreneurship,
Math, Biology, Chemistry, Engineering, Physics 9
Total 33

Selections may be used toward one of the following concentrations:

Computing Theory

CS 341 Numerical Methods 3
CS 352 Programming Languages 3
CS 356 Operating Systems 3
CS 365 Theory of Computation 3
CS 467 Introduction to Artificial Intelligence 3
CS 495 Senior Seminar (may substitute for ITC 460 above) (3)¹
Select 6 hours from: CS 320, 355, 381, 420, or ITC 6
MATH 186 Calculus II 3
MATH 187 Calculus Computer Laboratory 1
Select 6 hours from: MATH 286, 325, 334, 361, 432 6
Select 8 hours from: CHEM 131, 132, 133, 134; PHYS 110, 111, 112, 113 (8)^{1*}
TOTAL 33

Game Development

DET 210 Intro to Digital Entertainment 3
DET 310 Digital Entertainment Technology II 3
DET 350 Game Development 3
DET 410 Digital Entertainment Technology III 3
CS 330 Human-Computer Interaction 3
CS 381 Computer Graphics 3
Select 6 hours from: CS 315, 316, 467, 474 6
Select 9 hours from: CS, DET, IT, ITC, MATH, IS 405 9
TOTAL 33

Software Engineering

CS 315 Mobile Computing I 3
CS 330 Human-Computer Interaction 3
CS 355 Compiler Construction 3
CS 474 Object-Oriented Design 3
IT 325 Web Application Development 3
IT 472 Advanced Security 3
Select 6 hours from: CS 316, 320, 352, 376; IS 405 6
Select 9-hour block from the following choices: 9

- MGMT 305, 430, 432 (Entrepreneurship) or Business
- DET 210, 310, 350
- Any 3 from CS 300 +; IS 405; IT 330, 410, 420; ITC□

TOTAL 33

* Up to 6 hours may count toward general education requirements

¹ Hours (in parentheses) may also fulfill university requirements and are not included in total major hours

SUPPLEMENT FOR MAJOR

Mathematics

MATH 185 Calculus I (3)¹

MATH 227 Discrete Mathematics (3)¹

MATH 377 Statistical Methods I 3

TOTAL 3

ELECTIVES

Open Electives 6

TOTAL MAJOR HOURS 72

OTHER GRADUATION REQUIREMENTS

Minimum grade in CS 120, 130, 220, 230; IT 220, 221; □MATH 227 C

Minimum GPA in major and concentration courses 2.00

Minimum GPA for graduation 2.00

Minimum advanced hours 33

Minimum total hours 128