B.S. in Computer Science Requirements for Students Starting
Fall 2010 thru Current

Student _____ ID _____ ☐ Full-time / ☐ Part-time

Mathematics

Course	Hrs.	Semester
MATH 151	5	
MATH 152	5	
MATH 251	4	
MATH 332 or 333	3	
MATH 474 or 475	3	
MATH Elective	3	
Total hours (*23 hours minimum*)		

MATH Elective chosen from MATH252, 350, 410, 435, 453, 454, 476, 481

Science

Course	Hrs.	Semester
PHYS 123	4	
PHYS 221	4	
Science Elective	3	
Science Elective	3	
Total hours (*14 hours minimum*)		

Humanities and Social or Behavioral Sciences

Course	Hrs.	Semester
HUM 100-level (**C**)	3	
3xx (**H**)(**C**)	3	
3xx (**H**)(**C**)	3	
(**S**)(**C**)	3	
3xx (**S**)(**C**)	3	
3xx (**S**)(**C**)	3	
(**H**)or(**S**)(**C**)	3	
Total hours (*21 hours minimum*)		

See the General Education Requirements

Writing/Speaking Elective

Course	Hrs.	Semester
COM421/COM424/ COM425/COM428/ COM435 (**C**)	3	
Total hours (*3 hours minimum*)		

Communications General Education Requirement - Minimum 42 hours of (**C**) courses, at least 15 in major courses and at least 15 in non-major courses. A (**C**) designates courses used for Comm. Gen. Ed. Req.

Computer Science

Course	Hrs.	Semester
CS 100 (**C**)	2	
CS 115*	2	
CS 116*	2	
CS 330**	3	
CS 331	3	
CS 350 (**C**)	3	
CS 351	3	
CS 425 (**C**)	3	
CS 430 (**C**)	3	
CS 440	3	
CS 450	3	
CS 485 (**C**)	3	
CS 487 (**C**)	3	
CS	3	
CS	3	
CS	3	
CS	3	
Total hours (*48 hours minimum*)		

* CS 201 is a one-semester, accelerated course equivalent to the two-semester CS 115/CS116 course sequence.
** MATH 230 is allowed as a substitute for CS 330.

Interprofessional Projects

Course	Hrs.	Semester
IPROxxx (**C**)	3	
IPROxxx (**C**)	3	
Total hours (*6 hours minimum*)		

Free Electives

Course	Hrs.	Semester
	3	
	3	
	3	
	3	
Total hours (*12 hours minimum*)		

Minor field _____

A minor is *optional*. If a minor is selected, it must include a minimum of 15 hours. Place an **M** next to the courses used toward the minor.

Total hours (*127 hours minimum*) _____ Hours at the 300-level or above (*60 hrs. min.*) _____

Advisor _____ Date _____

The Computing Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET) accredits this program.

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Notes on the B.S. in Computer Science for Students Starting **Fall 2010 thru Current**

General note: Courses marked in the IIT Bulletin as not applying to graduation for degrees in "engineering and the physical sciences" may not be used toward the B.S. in Computer Science - this includes their use as free electives.

Computer science electives (5): Any computer science course at the 300-level or higher (including Graduate CS courses) may be used as a computer science elective, except CS 401, CS 402, CS 403 and CS 406. ECE 218(Digital Systems), ECE 441(Microcomputers), and ECE449(Object Oriented Programming and Computer Simulation) may also be used as computer science electives. No courses from any other programs can be used as computer science electives (for example, ICOM, ITM or CSP courses cannot be used as CS electives).

Mathematics elective (1): Must be chosen from MATH252, MATH410, MATH453, MATH454, MATH476, MATH482.

Science electives (2, no lab required): Chosen from the natural sciences (Biology, Chemistry, and Physics), or MS201-Materials Science, or Psychology (limited to courses marked with an N in the IIT Bulletin). At least one course must be in a field other than Physics.

Humanities and Social or Behavioral Sciences (7): 21 credit hours, subject to minimum requirements in each area as specified below:
Humanities: a minimum of nine credit hours. Courses that satisfy this requirement are marked with an (H) in the UG bulletin or in the WebForStudents Course Descriptions (Art & Architecture History, Literature, History, Humanities, Philosophy, Communications). The courses must be distributed as follows:
(a) Humanities 100-level course.
(b) At least two courses marked with an (H) at the 300 level or above. Some students may use foreign language courses at the 200 level to fulfill 300-level requirements. Students wishing to use foreign language courses must confirm their eligibility with the academic associate dean.

Social or Behavioral Sciences: a minimum of nine credit hours. Courses that satisfy this requirement are marked with an (S) in the UG bulletin or in the WebForStudents Course Descriptions (Anthropology, Economics, Political Science, Psychology, Sociology). The courses must be distributed as follows:
(a) At least two courses on the 300 level or above.
(b) Courses from at least two different fields.
(c) At least six credits in a single field.

Minor (Optional): A minor may be chosen from the specialized minors listed in the IIT Bulletin or may be formed from 15 hours of course work in one department. The latter option requires written approval from both the student's faculty advisor and the minor department.

ROTC: ROTC programs are considered to be minors and satisfy the requirements for minors listed above.

Graduate and short courses: Undergraduates may enroll in a 500-level graduate course with permission from the student's faculty advisor. Undergraduates cannot enroll in short courses.

Communications General Education Requirement: Minimum 42 hours of (C) courses as marked in UG bulletin or in the WebForStudents Course Descriptions, at least 15 hours in major courses and at least 15 hours in non-major courses. Almost all Humanities and Social or Behavioral Science electives will count towards the communications requirement.

B.S. in Computer Science Sample Curriculum by Semester for Students Starting
Fall 2010 thru Current

First semester	
CS 100	2
CS 115	2
MATH 151	5
HUM 100-level elective	3
Social Science elective	3
	15

Second semester	
CS 116	2
MATH 152	5
PHYS 123	4
Social Science elec.	3
Humanities elective	3
	17

Third semester	
CS 330	3
CS 331	3
MATH 251	4
PHYS 221	4
Social Science elective	3
	17

Fourth semester	
CS 350	3
CS 430	3
MATH 332 or 333	3
Science elective	3
Humanities elective	3
	15

Fifth semester	
CS 351	3
CS 425	3
CS 440	3
MATH 474 or 475	3
Writing/Speaking Elective	3
	15

Sixth semester	
CS 450	3
CS elective	3
Math elective	3
IPRO I	3
Free elective	3
	15

Seventh semester	
CS 487	3
CS elective	3
Science elective	3
IPRO II	3
Hum or Soc Sci elective	3
Free elective	3
	18

Eighth semester	
CS 485	3
CS elective	3
CS elective	3
Free elective	3
Free elective	3
	15

Total credit hours	**127**

CS 100 Introduction to the Profession I
CS 115 Object-Oriented Programming I
CS 116 Object-Oriented Programming II
CS 201 Accelerated Introduction to Computer Science
CS 330 Discrete Structures
CS 331 Data Structures and Algorithms
CS 350 Computer Organization and Assembly Language Programming
CS 351 Systems Programming
CS 411 Computer Graphics
CS 422 Data Mining
CS 425 Database Organization
CS 429 Information Retrieval
CS 430 Introduction to Algorithms
CS 440 Programming Languages and Translators
CS 442 Mobile Device Application Development
CS 443 Compiler Construction
CS 445 Object-Oriented Design and Programming
CS 447 Distributed Objects
CS 450 Operating Systems
CS 451 Parallel Computing
CS 455 Data Communications
CS 456 Wireless Networks
CS 458 Information Security
CS 470 Computer Architecture
CS 480 Artificial Intelligence: Planning and Control
CS 481 Artificial Intelligence: Language Understanding
CS 482 Knowledge Management
CS 485 Computers and Society
CS 487 Software Engineering