

Name _____ Date _____

ID No. _____ Admit Term: _____

Anticipated Grad Date: _____

Fall 2014 Computer Science B.S.

120 credit hours

GENERAL EDUCATION CORE 61 credits

First Year Seminar

_____ CSCI12000 Windows on Comp. Science* (1)

*CSCI12000 is required for freshmen and transfer students with fewer than 30 earned hours

Foundational Intellectual Skills

Core Communication

_____ ENG-W 131 or W140 Elementary Comp I** (3)

_____ TCM32000 Written Communication in Science & Industry (requires junior status)** (3)

**C or above is required in ENG-W131/140 and TCM32000

_____ COMM-R 110 Speech (3)

Analytical Reasoning

_____ MATH16500 Calculus I (4)

_____ MATH16600 Calculus II (4)

_____ MATH17100 Multidimensional Math (3)

_____ STAT35000, 41600 or 51100 Statistics (3)

_____ MATH35100 or 51100 Linear Algebra (3)

Intellectual Breadth and Adaptiveness

Life and Physical Sciences – see department list

NOTE: Not all courses on the university list are approved for this program.

_____ (3)

_____ (3)

_____ (3)

_____ PHYS15200 Mechanics (4)

Arts, Humanities & Social Sciences—must choose 1-2

from Arts and Humanities list and 1-2 from Social Science list

_____ (AH) (3)

_____ (SS) (3)

_____ (AH or SS) (3)

Cultural Understanding

_____ (3)

For the list of approved General Education Core courses in Cultural Understanding, Arts & Humanities, and Social Sciences, please see:

<http://uc.iupui.edu/UndergraduateEducation/GeneralEducationCurriculum/GeneralEducationCore.aspx>

General Electives (Required # of general elective credit hours varies based on how many credit hours needed to reach 120 credits)

_____ (3)

_____ (3)

_____ (3)

COMPUTER SCIENCE MAJOR COURSES 59 credits

Minimum Grade=C-, Minimum 2.0 Average

Core Courses

_____ CSCI 23000 Computing I [C: MATH 15300] (4)

SP, SU1, FA

_____ CSCI 24000 Computing II [P:23000 & MATH 15300] (4)

SP, SU2, FA

_____ CSCI 34000 Discrete Computational Structures [P: MATH 15300; C: 24000] SP, FA (3)

_____ CSCI 36200 Data Structures [P:24000 & 34000] (3)

SP, FA

_____ CSCI 40200 Computer Architecture [P:34000] SP, FA (3)

_____ CSCI 40300 Operating Systems [P:36200 & 40200] (3)

SP, FA

_____ CSCI 48400 Theory of Computation [P:36200] (3)

SP, FA

_____ Capstone Experience (Senior Year): (3)

Students may take the capstone research project course (CSCI 49500) or may complete capstone internship (CSCI 49600) per approval

Computer Science and Supporting Course Electives

Computer Science majors take 11 major elective courses. A minimum of 6 CSCI electives at the 400 level or higher is required.

No more than 3 courses can be from the select list of N-series courses. No more than 2 courses can be chosen from the list of supporting electives outside of computer science.

_____ CSCI4 _____ (3)

_____ CSCI4 _____ (3)

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_____ CSCI4 _____ (3)

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_____ _____ (3)

Total _____

1. Must earn minimum 120 hours
2. Must take minimum 32 hours of 300/400 level courses at IUPUI
3. May need 9 hours of general electives to reach 120; must be college-level courses 100 level or higher. See bulletin for list of excluded classes.
4. Only 6 credits of Studio, Clinical, Athletic, or Performing Arts can be applied to the 120 hours
5. One grade of D+ or D is allowed in Math and one grade of D+ or D is allowed in Life and Physical Sciences.

Life and Physical Science electives

Please refer to the CS Science List for approved life and physical science electives. NOTE: Not all courses on the university list are approved for this program.

Students pursuing the BS in CS should also avoid PHYS-P201, P202, PHYS21800 and 21900.

The following courses do not appear on the General Education Core but will count as Baccalaureate Competencies Life and Physical Science electives:

ECE20100 Linear Circuit Analysis
 ECE20200 Linear Circuit Analysis II
 ECE27000 Intro to Digital Logical Design

Computer Science and Supporting Course Electives

May Take Up to 3 Courses

From N-Series List:

CSCI-N Series

CSCI-N300 Mobile Computing Fundamentals
CSCI-N311 Advanced Database Programming, Oracle
CSCI-N317 Comp. for Scientific Applications
CSCI-N341 Client Side Web Programming
CSCI-N342 Server Side Web Development
CSCI-N361 Software Project Management
CSCI-N410 Mobile Computing Application Development
CSCI-N431 E-Commerce with ASP.NET
CSCI-N499 Topics in Applied Computing (topic varies)

May Take Up to 2 Courses

From List:

Supporting Electives*

NEWM-N 220 – Intro to Media Application Development
NEWM-N230 Intro to Game Design & Development
NEWM-N255 Intro to Digital Sound
NEWM-N 285 Interactive Design
NEWM-N 320 – Intermediate Media Application Development
NEWM-N330 Game Design, Development, and Production
NEWM-N 335 Character Modeling and Animation

CIT-402 Design & Implementation of Local Area Networks

CIT-406 Advanced Network Security

CIT-420 Digital Forensics

CIT-440 Computer Network Design

HER-L 210 Visual Design for the Web

HER-A 261 Intro to Computer Imagery

INFO-I300 Human Computer Interaction

INFO-I310 Multimedia Arts: History, Criticism & Technology

INFO-I320 Distributed Systems & Collaborative Comp

BUS-S302 Management Information Systems

BUS-L203 Commercial Law I

BUS-L303 Commercial Law II

ECE-204 Intro Electrical & Electron Circuits

ECE-270 Intro to Digital System Design

ECE-362 Microprocessor Systems & Interfacing

ECE-471 Embedded Systems

STAT-514 Design of Experiments

MATH-261 Multivariate Calculus

MATH-266 Differential Equations

*Please note that the courses above may require pre-requisites. Be sure to plan accordingly.

Computer Science Electives

CSCI 300-Level Options

CSCI-300 Systems Programming (Spring)
CSCI-355 Intro to Programming Languages (Fall)
CSCI-363 Software Design (Fall, Spring)

CSCI 400-Level Options

CSCI-432 Security in Computers (Spring)
CSCI-433 Introduction to Internet of Things (Fall)
CSCI-435 Multimedia Info Systems (Spring)
CSCI-436 Princ. Of Computer Networking (Fall)
CSCI-437 Intro to Comp Graphics (Fall)
CSCI-438 Adv. Game Development (Spring)
CSCI-443 Database Systems (Fall and Spring)
CSCI-448 Biometrics (Spring)
CSCI-450 Software Engineering (fall)
CSCI-481 Data Mining (Spring)
CSCI-487 Artificial Intelligence (Spring)
CSCI-489 Data Science (Spring)
CSCI-490 Variable Topics (Fall, Spring)

Admission requirements to the computer science major in the School of Science – complete CSCI 23000 with grade of C+ or better and overall GPA of 2.0 or higher