BS, Computer Science – Biocomputing Option – Purdue Degree at IUPUI
120 Credit Hours
Requirements for Fall 2015 to Current

Name:_____ Date: _____

GENERAL EDUCATION CORE **76 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 (junior standing required)**

____COMM-R 110 Speech (3)

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

Analytical Reasoning

____MATH16500 Calculus I (4)

____MATH16600 Calculus II (4)

____MATH17100Multidimensional Math (3)

____STAT35000, 41600 or 51100 Statistics (3)

Intellectual Breadth and Adaptiveness

Arts, Humanities & Social Sciences—must choose 1-2 from Arts and Humanities list and 1-2 from Social Science list

____ PSY-B 110 Intro to Psychology (SS) (3)

____ SOC-R 100 Intro to Sociology (SS) (3)

____ _____ (AH) (3)

Cultural Understanding

____ _____ (3)

For the list of approved General Education Core courses in Cultural Understanding, Arts & Humanities, please see: http://uc.iupui.edu/UndergraduateEducation/GeneralEducationCurriculum/GeneralEducationCore.aspx

Life and Physical Sciences

____ BIOL-K101 Concepts of Biology I (5)

____ BIOL-K103 Concepts of Biology II (5)

____ CHEM-C105 Principles of Chemistry I (3)

____ CHEM-C125 Experimental Chemistry I (2)

____ CHEM-C106 Principles of Chemistry II (3)

____ CHEM-C126 Experimental Chemistry II (2)

____ CHEM-C341 Organic Chemistry I (3)

____ CHEM-C343 Organic Chemistry I Lab (2)

____ CHEM-C342 Organic Chemistry II (3)

____ CHEM-C344 Organic Chemistry II Lab (2)

____ PHYS-P201 General Physics I (5)

____ PHYS-P202 General Physics II (5)

____ BIOL-K 384 or CHEM-C 384 Biochemistry (3)

Computer Science Major Courses **44 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 [P: 24000 and 34000] Data Structures (3)
SP, FA

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

____CSCI 40300 Operating Systems [P: 36200 & 40200] (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

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Computer Science Electives

Computer Science-Biocomputing majors take 6 major elective courses, up to three of which may be approved CSCI N-series or 300-level courses. At least 3 electives must be CSCI 400-level (or 500-level with approval.)

____ _____ (3)

____ _____ (3)

____ _____ (3)

____ _____ (3)

____ _____ (3)

____ _____ (3)

Total_____

Total of 120 credits required for degree completion.

Degree Requirements

1. Must earn minimum 120 hours
2. Must take minimum 32 hours of 300/400 level courses at IUPUI
3. One grade of D+ or D is allowed in Math and one grade of D+ or D is allowed in Life and Physical Sciences.

Computer Science Electives

May Take Up to 3 Courses From List:

CSCI-N Series & 300 Level Electives*

CSCI-300 Systems Programming
CSCI-355 Intro to Programming Languages
CSCI-363 Software Design
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)

Must Take at Least 3 Courses from the CSCI 400-level List:

CSCI 400-Level Options

CSCI 414 Numerical Methods (Fall)
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-484 Theory of Computation (Fall, Spring)
CSCI-487 Artificial Intelligence (Spring)
CSCI-489 Data Science (Spring)
CSCI-490 Variable Topics (Fall, Spring)
CSCI 500-level electives per approval

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