BA, Applied Computer Science – Purdue Degree at IUPUI
120 Credit Hours
Requirements for Fall 2014 Admits to Current

Name: _____ Date: _____

GENERAL EDUCATION CORE **64 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)* (3)

____COMM-R 110 Speech (3)

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

Analytical Reasoning

____MATH15300 College Algebra (3)

____MATH15400 Trigonometry (3)

____STAT30100 Elementary Statistics (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)

____ _____(w/ lab) (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

World Language Requirement

____World Language First Year Proficiency:

Via:

A. _____131(4), _____132(4)

B. 200 level or above world language course with C or above

Computer Science Major Courses **56 Credits**

Minimum Grade=C-, Minimum 2.0 Average

Core Courses

____CSCI 23000 Computing I [C: MATH 15300] SP, SU1, FA (4)

____CSCI 24000 Computing II [P: 23000 and MATH 15300] SP, SU2, FA (4)

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

____CSCI 36200 Data Structures [P: 24000 & 34000] SP, FA (3)

____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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Applied Computer Science Core

____CSCI N-211 Introduction to Databases

or CIT 21400 Introduction to Data Management (3)

____CSCI N-241 Fundamentals of Web Development

or CIT21200 Web Site Designs (3)

____CSCI N-361 Fund. Software Project Management

or INFO-I402 Project Management (3)

Applied Computer Science Electives

Applied Computer Science majors take 9 major elective courses. No more than 2 courses can be chosen from the list of electives outside of computer science (CSCI). Students must complete one two-course sequence in applied CSCI using Applied CSCI Core and Electives.

____ _____ (3)

____ _____ (3)

____ _____ (3)

____ _____ (3)

Traditional Computer Science Courses (300-400 level)

____ _____ (3)

____ _____ (3)

____ _____ (3)

____ _____ (3)

____ _____ (3)

Human-Computer Interaction

____INFO-I300 (3)

General, Open Electives

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

____ _____ (12-20)

Total_____

1. Must earn minimum 120 hours
2. Must take minimum 32 hours of 300/400 level courses at IUPUI
3. Only 6 credits of Studio, Clinical, Athletic, or Performing Arts can be applied to the 120 hours
6. One grade of D/D+ is allowed in Math and one grade of D/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.

Applied CSCI Electives – 4 required, up to 2 can be from supporting elective list

Applied Computer Science Electives*

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

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Supporting Electives*
(MAY CHOOSE NO MORE THAN 2)

NEWM-N 220 – Intro to Media Application Development
NEWM-N230 Intro to Game Design & Development
NEWM-N241 Stop Motion Animation

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
NEWM-N431 Game On
NEWM-N450 Usability Practices for New Media Interfaces
CIT 202 Network Fundamentals
CIT 312 Advanced Web Design
CIT 313 Commercial Web Site Development
CIT 329 Java Server Programming
CIT 347 Advanced ASP.NET Programming
CIT 356 Network Operating System Administration
CIT-402 Design & Implementation of Local Area Networks
CIT-406 Advanced Network Security
CIT 412 XML-Based Web Applications
CIT-420 Digital Forensics
CIT 436 Advanced E-Commerce Development
CIT-440 Computer Network Design
HER-L 210 Visual Design for the Web
HER-A 261 Intro to Computer Imagery
INFO-I202 Social Informatics
INFO-I270 Intro to HCI Principles & Practices
INFO-I275 Intro to HCI Theory
INFO-I310 Multimedia Arts: History, Criticism & Technology
INFO-I320 Distributed Systems & Collaborative Comp
INFO-I480 Experience Design & Evaluation of Ubiquitous Computing
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-165 Calculus I
MATH-166 Calculus II
MATH-261 Multivariate Calculus
MATH-266 Differential Equations
MATH 353 Linear Algebra II with Appl.

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

Traditional CSCI Electives – can be CSCI 300 or 400-level

CSCI-300 Systems Programming (Spring)
CSCI-355 Intro to Programming Languages (Fall)
CSCI-363 Software Design (Fall, Spring)
CSCI-402 Architecture of Computers (Fall, Spring)
CSCI-403 Operating Systems (Fall, Spring)
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 Computer 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)

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