### 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)
  - 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.**
  - 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](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)

### 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] SP, FA (3)
- CSCI 40200 Computer Architecture [P:34000] SP, FA (3)
- CSCI 40300 Operating Systems [P:36200 & 40200] SP, FA (3)
- CSCI 48400 Theory of Computation [P:36200] 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

### 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.

- __________________________ (3)
- __________________________ (3)
- __________________________ (3)
- __________________________ (3)
- __________________________ (3)
- __________________________ (3)
- __________________________ (3)
- __________________________ (3)
- __________________________ (3)
- __________________________ (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-N 230 Intro to Game Design & Development
NEWM-N 255 Intro to Digital Sound
NEWM-N 285 Interactive Design
NEWM-N 320 – Intermediate Media Application Development
NEWM-N 330 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.

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