IUB General Education Common Ground

 Foundations
 • English Composition (EC) 3
 • Mathematical Modeling (MM) 3

 Breadth of Inquiry
 • Arts & Humanities (A&H) 6
 • Social & Historical (S&H) 6
 • Natural & Mathematical Sciences (N&M) 5-6

 World Languages (WL) & Cultures (WC) 6

 Additional School Requirements

 English Composition with a C or higher
 • ENG-W 131, W170, or CMLT-C 110

 Intensive Writing
 • One College-approved Intensive Writing course

 Natural Science
 • Twelve credit hours chosen from PSY-P 155, PSY-P 211, COGS-Q 370 and/or any course from: AST, BIOL, CHEM, EAS, and PHYS (most are also N&M)

 World Languages and Cultures (3-14 credits) choose one of the following options:
 1. Language Study: Two world language courses (same language) at the second year level, or equivalent proficiency (WL)
 2. World Cultures: Two approved World Cultures courses (WC)
 3. International Experience: An approved study abroad program for at least 6 credit hours outside of the US (WL/WC)

 English Composition and Intensive Writing (6 credits, C or higher needed)
 • ENG-W 131, ENG-W 170, or CMLT-C 110
 • _________ Intensive Writing

 Math Modeling (3 credits)
 Satisfied by CS major Math requirement
 (see reverse: MATH-M 211, C- or higher, MM)

 Arts & Humanities and Social & Historical (12 credits)
 Select at least two courses for at least 6 credits from each area
 Arts & Humanities (A&H)
 •
 •

 Social & Historical (S&H)
 •
 •

 Natural Sciences (12 credits)
 Twelve credit hours chosen from PSY-P 155, PSY-P 211, COGS-Q 370, and/or any natural and mathematical science course from: AST, BIOL, CHEM, EAS, and PHYS (most are also N&M)
 •
 •

 World Languages and Cultures (3-14 credits) choose one of the following options:
 1. Language Study: Two world language courses (same language) at the second year level, or equivalent proficiency (WL)
 2. World Cultures: Two approved World Cultures courses (WC)
 3. International Experience: An approved study abroad program for at least 6 credit hours outside of the US (WL/WC)
 •
 •

 ✓ You must receive a grade of C- or better in all major and minor requirements, and your GPA must be at least 2.0, both in your major and overall.
 ✓ A grade of C or higher is required in English Composition for admission to the School of Informatics and Computing.
 ✓ These requirements are for informational purposes only and subject to revision. Refer to the SICE Undergraduate Bulletin for detailed information on these requirements and official graduation requirements.

 Departmental Honors
 • Overall GPA 3.3 or greater
 • Computer Science major GPA 3.3 or greater
 • Completion of at least 11 hours of CSCI Honors courses (can include CSCI-Y 499).
 • At least 29 of the 45 hours required for the major completed at the 300 level or above
Computer Science Major

Students must complete a minimum of 45 credit hours of computer science coursework, including the core, an area of specialization, and CS electives. At least 26 of the 45 hours must be at the 300 level or above. Minimum grade of C- in all CS/Math courses.

MAJOR REQUIREMENTS

Computer Science Core (16 credits)
- CSCI C/H211 or CSCI C/H200 (Intro to Computer Science or Intro to Computers and Programming)
- CSCI C/H212 (P: C211) (Introduction to Software Systems)
- CSCI C/H241 (P: C211, R: M211) (Discrete Structures for Computer Science)
- CSCI C/H343 (P: C212, P: C241) (Data Structures)
- CSCI Y395 (Career Development for CS Majors)

Specialization - Must complete ONE
- Artificial Intelligence
- Data Science
- Foundations
- Game Development
- Programming Languages
- Security
- Software Engineering
- Systems

CS Electives (to reach 45 CSCI hour)
- CSCI A290 (at most 6 hours)
- CSCI C, P, H, or B 200 level or above
- CSCI Y390, Y391, Y399, Y499 (at most 6 hours)
- CSCI H498 Honors Seminar (at most 1 hour)
- MATH M471, MATH M472
- INFO I101 (if taken before or with CSCI-C 212)
- INFO I494, INFO I495

Mathematics (10-12 credits)
- MATH M211 Calculus I (or equivalent proficiency)
- Two additional mathematical science courses from the following:
  - MATH-M 212 (recommended), MATH-M 213, MATH-M 300 and 400 level courses, MATH-T 336, MATH-T 403, ECON-E 370, PHIL-P 251 (P: P250), P 350 (P: P250), P 352 (P: P250), STAT S320 or STAT S350

Artificial Intelligence: 15-16 credits
- Two of: CSCI B351, CSCI B365, CSCI B455
- Two of (if not used above): CSCI B351, CSCI B355, (4)CSCI B363, CSCI B365, CSCI B455, CSCI B456, CSCI B457, STAT S320 (P:M212) or STAT S350
- One of: CSCI B401, CSCI B403 (P:M212), CSCI P415

Data Science: 15-16 credits
- All: CSCI B461 and CSCI B403 (P:M212)
- One of: CSCI B365, CSCI B455
- One of (if not used above): CSCI B351, CSCI B365, CSCI B455, (4)CSCI C311, (4)CSCI P434, CSCI P462
- One of: CSCI B401, CSCI P415, STAT S320 (P: M212) or STAT S350

Foundations (math courses must be in addition to the upper-level math requirement for the major): 15-16 credits
- All: CSCI B401 and CSCI B403 (P:M212)
- One of: CSCI P415, CSCI B461 (P: C343)
- Two of (4)CSCI C311, CSCI B455, CSCI B504 or MATH M453 (P:M212), MATH M301 or MATH M303, MATH M365 (P:M212), MATH M471 (P: multiple)

Game Development (MSCH courses do not count as CSCI major hours): 9 MSCH credits, 21-22 CSCI major credits
- All: MSCH C210, MSCH G300, MSCH G310 (do not count as CSCI major credits)
- All: CSCI C292, CSCI B453, CSCI C460, CSCI C470
- One of: CSCI C290 (topic: Games and Puzzles) or CSCI B351
- One of: (4)CSCI B481, CSCI C323, CSCI P465, or (4)CSCI P438
- One of: CSCI B401, CSCI B403, or CSCI B461

Programming Languages: 17-19 credits
- All: (4)CSCI C311 and (4)CSCI P423
- Two of: (4)CSCI C335 (P: C291), (4)CSCI P436, (4)CSCI B441, CSCI B461 (P: C343), CSCI B490 (approved topic), CSCI P424
- One of: CSCI B401, CSCI B403 (P:M212), CSCI P415

Security (math courses WILL satisfy major requirement): 14 MATH credits, 22.5 CSCI major credits
- All: (4)MATH M211, (4)MATH M212, MATH M301, and MATH M365 (do not count as CSCI major credits)
- All: CSCI C231, (1.5)CSCI C291, (4)CSCI C335, CSCI B430, CSCI B433, (4)CSCI P436, and (4)CSCI P438

Software Engineering: 19-22 credits
- All: CSCI B461 (P: C343) and CSCI P465
- One of: (4)CSCI C322 or CSCI P466 (recommended)
- One of: CSCI C323 or (4)CSCI C335 (P: CSCI C291)
- One of: CSCI B403, (4)CSCI P423 (P: CSCI C311), CSCI P415, or (4)CSCI P436 (P: CSCI C335)
- One additional CSCI-P course not used above

Systems: 15.5-16.5 credits
- All: (1.5)CSCI C291 and (4)CSCI C335
- One of: (4)CSCI P436, (4)CSCI P438, (4)CSCI P442, or CSCI P545
- One of: (4)CSCI P434, (4)CSCI P436, (4)CSCI P438, (4)CSCI B441, (4)CSCI P442, CSCI B443, CSCI B490 (approved topic), or CSCI P545
- One of: CSCI B401, CSCI B403 (P:M212), CSCI P415