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Computer Science BA

IU Indianapolis Luddy Info, Computing, & Engr

Career Options | Financial Aid Options

Student's Catalog Year: Fall 2024 and beyond
Total Degree Map Credits: 120

Description: Tech skills are essential for contemporary work. Our bachelor's degrees in computer science equip you with the knowledge and skills to design tomorrow's computer systems and applications.

At IU's Luddy School of Informatics, Computing, and Engineering in Indianapolis, you'll innovate with technology directly to become workforce-ready through:
Projects
Research
Internships

Our hands-on program equips you with the skills you'll need for jobs in:
AI
Cybersecurity
Data Analytics
Software development

C **Critical Courses:** Courses that students should complete by specific points during their degree or certificate program.

M **Milestones:** Conditions or activities that students should complete by specific points during their degree or certificate program.

Completing a critical course or milestone by the associated term is considered crucial to on-time graduation.

Year One
(32 credits)

Fall Term	Minimum Grade	Credits
INFO-I 100 First Year Experience	C-	1
MATH-I 153 College Algebra C	C	3

Critical Course
Course Details: This course fulfills the Analytical Reasoning List A requirement for the general education core.
Required Semester of Completion: Year 1, Fall

Spring Term	Minimum Grade	Credits
CSCI-C 241 Discrete Structures for Computer Science	C-	3

Required Semester of Completion: Year 1, Fall

MATH-I 154 Trigonometry C	C	3

Critical Course
Course Details: This course fulfills the Analytical Reasoning List A requirement for the general education core.
Required Semester of Completion: Year 1, Spring

CSCI-C 200 Introduction to Computers and Programming	C-	4
Required Semester of Completion: Year 1, Fall		
World Language Requirement	C-	4
Course Details: Area II World Language Competency Students must demonstrate world language first-year proficiency in one of three ways: - First-year proficiency via test - Successful completion of world language courses 131 and 132. - Successful completion of one 200-level or higher world language course with a C or above.		
Gen Ed Core: Communication Speaking/Listening	C-	3
Total		**15**

CSCI-C 212 Introduction to Software Systems	C-	4
Required Semester of Completion: Year 1, Spring		
World Language Requirement	C-	4
Course Details: Area II World Language Competency Students must demonstrate world language first-year proficiency in one of three ways: - First-year proficiency via test - Successful completion of world language courses 131 and 132. - Successful completion of one 200-level or higher world language course with a C or above.		
Gen Ed Core: Communication Writing	C-	3
Course Details: ENG-W 131 or ENG-W 140		
Total		**17**

Year Two
(29 credits)

Fall Term	Minimum Grade	Credits
MATH-I 243 Linear Algebra for Data Science	C-	3
Data Structures- Python or Java	C-	3
Course Details: You choose either CSCI-C 310 Data Structures-python OR CSCI-C 343 Data Structures-Java **Required Semester of Completion:** Year 2, Fall **Course Notes:** CSCI-C 310: CSCI-C 310 Data Structures- Python CSCI-C 343: CSCI-C 343 Data Structures- Java		
Gen Ed Core: Social Science	C-	3
Course Details: Choose a course from the IUPUI General Education Social Sciences list. Preferred: Human-Computer Interaction, INFO-I 270 OR INFO-I 275		
Area of Specialization	C-	3

Spring Term	Minimum Grade	Credits
Statistics	C-	3
Course Details: Choose either PBHL-B 302 Biostatistics for Informatics (python) OR PBHL-B 304 Biostatistics for Health Data Science (R) **Required Semester of Completion:** Year 2, Spring **Course Notes:** PBHL-B 302: PBHL-B 302 Biostatistics for Informatics (python) PBHL-B 304: PBHL-B 304 Biostatistics for Health Data Science (R)		
NEWM-N 299 Career Planning	C-	2
Technical Writing	C-	3
Course Details: Choose one class from the list to fulfill the technical writing requirement **Course Notes:** ENG-W 230: ENG-W 230 Writing in the Sciences ENG-W 270: ENG-W 270 Argumentative Writing ENG-W 231: ENG-W 231 Professional Writing Skills		
Area of Specialization	C-	3

Course Details: An area of specialization is required, and you may select any minor, major, or certificate through Indiana University Indianapolis to best customize your degree to your career interests. The number of credits required for each minor, certificate, or specialization varies. If you choose an option that is less than 18 credit hours, you will need to add additional electives to your degree plan to reach 120 credit hours.		
Gen Ed Core: Arts & Humanities	C-	3
Course Details: Preferred: HIST-H195, NEWM-N100, NEWM-N102, NEWM-N201		
	Total	**15**

Course Details: An area of specialization is required, and you may select any minor, major, or certificate through Indiana University Indianapolis to best customize your degree to your career interests. The number of credits required for each minor, certificate, or specialization varies. If you choose an option that is less than 18 credit hours, you will need to add additional electives to your degree plan to reach 120 credit hours.		
Gen Ed Core: Life & Physical Science	C-	3
	Total	**14**

Year Three
(30 credits)

Fall Term	**Minimum Grade**	**Credits**
CSCI-C 335 Computer Structures or CSCI-B 443 Intro to Computer Architecture	C-	3
Course Details: Choose either CSCI-C 335 Computer Structures or CSCI-B 443 Intro to Computer Architecture **Required Semester of Completion:** Year 3, Fall **Course Notes:** CSCI-C 335: CSCI-C 335 Computer Structures CSCI-B 443: CSCI-B 443 Intro to Computer Architecture		
Core B: CSCI-B, -C, or -P at 300-level or higher	C-	3
Course Details: Choose a total of 9 credits of CSCI-B, CSCI-C, or CSCI-P courses at the 300 level or above		
Area of Specialization	C-	3
Course Details: An area of specialization is required, and you may select any minor, major, or certificate through Indiana University Indianapolis to best customize your degree to your career interests. The number of credits required for each minor, certificate, or specialization varies. If you choose an option that is less than 18 credit hours, you will need to add additional electives to your degree plan to reach 120 credit hours.		
Gen Ed Core: Life & Physical Science	C-	3

Elective	C-	3
	Total	**15**

Spring Term	Minimum Grade	Credits
CSCI-C 435 Operating Systems	C-	3
Required Semester of Completion: Year 3, Spring		
Core B: CSCI-B, -C, or -P at 300-level or higher	C-	3
Course Details: Choose a total of 9 credits of CSCI-B, CSCI-C, or CSCI-P courses at the 300 level or above		
Area of Specialization	C-	3
Course Details: An area of specialization is required, and you may select any minor, major, or certificate through Indiana University Indianapolis to best customize your degree to your career interests. The number of credits required for each minor, certificate, or specialization varies. If you choose an option that is less than 18 credit hours, you will need to add additional electives to your degree plan to reach 120 credit hours.		
Gen Ed Core: Arts and Humanities OR Social Science	C-	3
Course Details: Choose either an Arts and Humanities OR Social Science to fulfill the general education requirement		
Elective	C-	3
	Total	**15**

Year Four
(29 credits)

Fall Term	Minimum Grade	Credits
CSCI-B 401 Fund. of Computer Theory OR CSCI-C 455 Analysis of Algorithms	C-	3
Course Details: Choose either CSCI-B 401 Fundamentals of Computer Theory or CSCI-C 455 Analysis of Algorithms **Course Notes:** CSCI-B 401: CSCI-B 401 Fundamentals of Computer Theory CSCI-C 455: CSCI-C 455 Analysis of Algorithms		
Core B: CSCI-B, -C, or -P at 300-level or higher	C-	3

Spring Term	Minimum Grade	Credits
INFO-I 453 Computer and Information Ethics	C-	3
Capstone	C-	3

Course Details: Choose a total of 9 credits of CSCI-B, CSCI-C, or CSCI-P courses at the 300 level or above

Area of Specialization	C-	3

Course Details: An area of specialization is required, and you may select any minor, major, or certificate through Indiana University Indianapolis to best customize your degree to your career interests. The number of credits required for each minor, certificate, or specialization varies. If you choose an option that is less than 18 credit hours, you will need to add additional electives to your degree plan to reach 120 credit hours.

Elective	C-	3
Elective	C-	3
Total		**15**

Course Details: Choose on the following to satisfy the capstone requirement: INFO-I 491 Internship, INFO-I 492 Thesis, or INFO-I 494 Capstone Project

Course Notes:

INFO-I 391: INFO-I 391 Internship in Informatics
INFO-I 491: INFO-I 491 Capstone Internship
CSCI-Y 398: CSCI-Y 398 Internship in Professional Practice
CSCI-Y 399: CSCI-Y 399 Project in Professional Practice
CSCI-C 460: CSCI-C 460 Senior Project I
CSCI-P 465: CSCI-P 465 Software Engineering for Information Systems I

Area of Specialization	C-	3

Course Details: An area of specialization is required, and you may select any minor, major, or certificate through Indiana University Indianapolis to best customize your degree to your career interests. The number of credits required for each minor, certificate, or specialization varies. If you choose an option that is less than 18 credit hours, you will need to add additional electives to your degree plan to reach 120 credit hours.

Elective	C-	3
Elective	C-	2
Total		**14**

Degree Map Link: https://sisjee.iu.edu/sisigps-prd/web/igps/dm/public/maps/view?mapId=5a68ddc7-0087-4507-8f61-20c080303ae6 Copy

Achieving minimum grades for individual courses may not result in meeting cumulative GPA requirements for admission to programs or for graduation. Verify requirements with your academic advisor or your Academic Advisement Report (AAR).

Completing 30 credit hours each calendar year is required for full state financial aid eligibility. Be sure to complete your FAFSA before March 10 each year. If you follow your map and find a course unavailable, you may be eligible to take that course for free in a future semester.

More information about the free course guarantee.