# **Computer Science**

#### Department Information

· Department Web Site:

www.ndsu.edu/cs/ (http://www.ndsu.edu/cs/)

· Credential Offered:

B.S.; B.A.; Minor

· Sample Program Guide:

catalog.ndsu.edu/programs-study/undergraduate/computer-science/ (http://catalog.ndsu.edu/programs-study/undergraduate/computer-science/)

# **Major Requirements**

# **Major: Computer Science**

Degree Type: B.A.

Minimum Degree Credits to Graduate: 120

## **University Degree Requirements**

- 1. Satisfactory completion of all requirements of the curriculum in which one is enrolled.
- 2. Earn a minimum total of 120 credits in approved coursework. Some academic programs exceed this minimum.
- 3. Satisfactory completion of the general education requirements as specified by the university.
- 4. A minimum institutional GPA of 2.00 based on work taken at NDSU.
- 5. At least 30 credits must be NDSU resident credits. Resident credits include credits registered and paid for at NDSU.
- 6. At least 36 credits presented for graduation must be in courses numbered 300 or higher.
- 7. Students presenting transfer credit must meet the NDSU residence credits and the minimum upper level credit. Of the 30 credits earned in residence, a minimum of 15 semester credits must be in courses numbered 300 or above, and 15 semester credits must be in the student's curricula for their declared major.

For complete information, please refer to the Degree and Graduation Requirements (http://catalog.ndsu.edu/past-bulletin-archive/2024-25/academic-policies/undergraduate-policies/degree-and-graduation/) section of this Bulletin.

# **University General Education Requirements**

A list of university approved general education courses and administrative policies are available here (http://catalog.ndsu.edu/past-bulletin-archive/2024-25/academic-policies/undergraduate-policies/general-education/#genedcoursestext).

Code	Title	Credits
Category C: Communication		12
ENGL 110	College Composition I	
ENGL 120	College Composition II	
COMM 110	Fundamentals of Public Speaking	
Upper Division Writing <sup>†</sup>		
Category R: Quantitative Reasoning <sup>†</sup>		3
Category S: Science and Technology <sup>†</sup>		10
Category A: Humanities and Fine Arts <sup>†</sup>		6
Category B: Social and Behavioral Sciences <sup>†</sup>		6
Category W: Wellness †		2
Category D: Cultural Diversity *†		
<b>Category G: Global Perspectives</b>	*†	
Total Credits		39

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Courses for category D & G are satisfied by completing D & G designated courses in another general education category.

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General education courses may be used to satisfy requirements for both general education and the major, minor, and program emphases, where applicable. Students should carefully review major requirements to determine if specific courses can also satisfy these general education categories.

## **Major Requirements**

A Grade of 'C' or better is required for all CSCI prefix courses.

Code	Title	Credits	
B.A. Computer Science Core Requirements			
CSCI 114	Computer Applications (May satisfy general education category S)	3	
or TL 116	Business Software Applications		
CSCI 159	Computer Science Problem Solving	3	
CSCI 160	Computer Science I	4 or 6	
or CSCI 227 & CSCI 228	Computing Fundamentals in Python I and Computing Fundamentals in Python II		
CSCI 161	Computer Science II	4	
CSCI 213	Modern Software Development	3	
CSCI 222	Discrete Mathematics	3	
CSCI 312	Survey of Programming Languages	3	
CSCI 313	Software Development with Frameworks	3	
CSCI 366	Database Systems	3	
CSCI 371	Web Scripting Languages	3	
CSCI 445	Software Projects Capstone <sup>1</sup>	3	
CSCI 488	Human-Computer Interaction	3	
CSCI 489	Social Implications of Computers <sup>1</sup>	3	
Related Major Requirements			
COMM 260	Introduction to Web Design	3	
COMM 261	Introduction to Web Development (or any 300/400 level CSCI elective)	3	
MATH 146	Applied Calculus I (May satisfy general education category R)	4	
or MATH 165	Calculus I		
STAT 330	Introductory Statistics	3	
STAT 331	Regression Analysis	2	
Other Courses:			
Select these seven credits from the	following areas:	7	
Science	Cannot be courses with the CSCI prefix		
Engineering	Cannot be ENGR 311 or ENGR 312		
Math	MATH prefix course with a number higher than MATH 147, but not MATH 165		
Statistics	STAT prefix course (except for STAT 330 or STAT 331)		
BA Degree Requirements			
Proficiency at the second year level in a modern foreign language.			
Total Credits		63-65	

CSCI 445 Software Projects Capstone & CSCI 489 Social Implications of Computers form the department capstone. CSCI 445 is typically taken during the last spring semester and CSCI 489 is typically taken during the last fall semester prior to degree completion.