

COMPUTER SCIENCE (AS)

Department: Computer Science and Engineering (<https://snow-curr.courseleaf.com/divisions-departments/division-natural-science-mathematics/computer-science-engineering/>)

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Advising Information (<https://snow.edu/offices/advisement/>)

Program Description

Computer Science is the study of computation, algorithms, and how information is processed. It helps us understand how software and hardware function, evolve, and interact with the world. A strong foundation in computer science is essential for careers in software development, cybersecurity, artificial intelligence, and many other fields. If you're passionate about exploring complex systems and creating innovative solutions that can shape the future, this is the field for you.

Program Outcomes

Students who complete an associate degree in Computer Science should expect the following outcomes from the program:

- Students can solve problems by applying principles of engineering and mathematics.
- Students can acquire and apply new knowledge as needed, using appropriate learning strategies.
- Students have a feasible plan for completing a four-year degree in engineering or computer science.

Requirements

Make the Most of Your Time at Snow

The requirements below will earn you an associate degree, but Snow offers other prerequisites that you will need for your bachelor's degree. Students are encouraged to more fully prepare for transfer by completing the suggested plan of study (p. 1).

AS Requirements

To earn an AS in Computer Science at Snow College, students must complete 60 credits, including the general education requirements (<https://snow-curr.courseleaf.com/general-education/>) and the following major requirements.

Code	Title	Hours
CS 1400	Programming Fundamentals	3
CS 1405	Programming Fundamentals Lab	1

One of the following pairs

CS 1410	Object-Oriented Programming
CS 1415	Object-Oriented Program Lab
MATH 1210	Calculus I

Another Available Degree

While the AS is recommended, students can earn an AA in Computer Science by completing the foreign language requirement (<https://snow-curr.courseleaf.com/program-details/aa-requirements/>) as part of their 60 credits.

Suggested Plan of Study

Course	Title	Hours
Freshman		
Fall		
CS 1400 & CS 1405	Programming Fundamentals and Programming Fundamentals Lab	4
MATH 1210	Calculus I	5
English 1 GE Class (https://snow-curr.courseleaf.com/general-education/english1/)		3
Fine Arts GE Class (https://snow-curr.courseleaf.com/general-education/fine-arts/)		3
Hours		15
Spring		
CS 1410 & CS 1415	Object-Oriented Programming and Object-Oriented Program Lab	4
MATH 1220	Calculus II	4
English 2 GE Class (https://snow-curr.courseleaf.com/general-education/english2/)		3
Social Science GE Class (https://snow-curr.courseleaf.com/general-education/social-science/)		3
Hours		14
Sophomore		
Fall		
CS 2420	Data Structures and Algorithms	3
CS 1810	Introduction to Web Development	3
MATH 3310	Discrete Mathematics	3
PHYS 2210 & PHYS 2215	Physics for Scientists and Engineers I and Physics for Scientists and Engineers I Lab	5
American Institutions GE Class (https://snow-curr.courseleaf.com/general-education/american-institutions/)		3
Hours		17
Spring		
CS 2810	Computer Organization and Architecture	3
MATH 3040	Statistics for Scientists and Engineers	3
Humanities GE Class (https://snow-curr.courseleaf.com/general-education/humanities/)		3
Life Science GE Class (https://snow-curr.courseleaf.com/general-education/life-science/)		3
PHYS 2220 & PHYS 2215	Physics for Scientists and Engineers II and Physics for Scientists and Engineers I Lab	5
Hours		17
Total Hours		63