

COMPUTER SCIENCE

Faculty

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The computer science curricula are designed to give the student a broad applications language background. This can be used to prepare students pursuing four-year degrees with the necessary course work required for the first two years. Alternatively, the student can fulfill the core requirements of a two-year applied science degree in computer science, with emphasis in a specific area of interest.

Associate of Science Degree Computer Science

The Associate of Science in Computer Science is designed to accommodate students interested in the first two years of a four-year degree program in computer science or management information systems (MIS). Students should consult the four-year college curriculum of the college or university to which they plan to transfer to see which electives best fit their needs.

(Recommended Curriculum)

General Education (Minimum 32 credits)	Credits
General education coursework can be completed from within or outside of the major field of study.	
1. Exploration and Participation	
Included in the major requirements below	15
2. Communication	
ENGL 1010 English I: Composition	3
ENGL 1020 English II: Composition	3
3. Relationship with the World	
Human behavior	3
U.S. and Wyoming constitutions	3
Cultural environment	3
4. General Education Electives	
Must be chosen from areas 1, 2, or 3 above;	
no more than 15 credits in any one area.	
5. Physical Education	1

Major Requirements

COSC	1030	Computer Science I	4
COSC	2030	Computer Science II	4
COSC	2150	Computer Organization	3
COSC	2300	Discrete Structures	or
COSC	2403	Linux with X-Windows	or
COSC	2404	Java and Java Script Programming	or
COSC	2405	MFC Windows Programming in C++	or
COSC	2406	Java Programming	4
COSC	2409	Programming: Topic	2-3
ES	1000	Intro to Engineering Orientation	1
MATH	2200	Calculus I	5
		Laboratory science	8
		*Major field electives	5-7
		Additional electives	11-13

*Major Field Electives

Select from these courses:

COSC	1010	Introduction to Computer Science	4
COSC	2210	Business Data Processing I	3
COSC	2220	Business Data Processing II	3
COSC	2300	Discrete Structures	3
COSC	2403	Linux with X-Windows	2
COSC	2404	Java and JavaScript Programming	2
COSC	2405	MFC Windows Programming in C++	2
COSC	2406	Java Programming	4
COSC	2409	Programming: Topic	2-4
COSC	2495	Computer Workshop	1
MATH	2205	Calculus II	5
MATH	2210	Calculus III	5
MATH	2250	Elementary Linear Algebra	3

In order to obtain a degree in computer science students must achieve a 2.0 GPA in those courses taken in computer science.

A minimum of 64 approved semester credits are required for graduation. For specific graduation requirements see "Academic Policies" and "Degree Requirements."

ONLY COURSES NUMBERED 1000 OR ABOVE CAN BE USED TOWARD
THE ASSOCIATE OF SCIENCE DEGREE.

Associate of Applied Science Degree Computer Science

The associate of applied science degree is intended for students whose primary goal is to gain vocational skills rather than transfer into a four-year program. It contains some courses of a practical nature which provide useful knowledge and skills but which will probably not transfer as requirements into four-year programs in computer science or computer information systems.

(Recommended Curriculum)

General Education (Minimum 17 credits)	Credits
General education coursework can be completed from within or outside of the major field of study.	
1. Exploration and Participation (One course minimum)	
Science	
Mathematics (see below)	
2. Communication (One course minimum)	
ENGL 1010, 1020 recommended	
3. Relationship with the World (One course minimum)	
Human behavior	
U.S. and Wyoming constitutions	1-3
Cultural environment	
4. General Education Electives	
Must be chosen from areas 1, 2, or 3 above.	
5. Physical Education	1

Major Requirements (minimum 50 credits)

COSC	1010	Intro to Computer Science I.....	4
COSC	1030	Computer Science I.....	4
COSC	2030	Computer Science II.....	4
COSC	2150	Computer Organization.....	3
ES	1000	Intro to Engineering Orientation.....	1
	**	Approved courses in the field of study.....	11
	*	Approved mathematics courses.....	6-10
	*	Approved electives.....	15-18

Plus choose one of the following:

COSC	2300	Discrete Structures.....	3
COSC	2403	Linux with X-Windows.....	2
COSC	2404	Java and JavaScript Programming.....	2
COSC	2405	MFC Windows Programming in C++.....	2
COSC	2406	Programming in Java.....	4

* Courses must be approved by the department head of computer science

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**Associate of Applied Science Degree
Cisco Networking**

The recommended curriculum emphasizes the development of skills necessary to obtain a position using the latest systems and software and will cover how to install, configure, and operate advanced networks in even the largest companies. Learn about LANs, WANs, and networking protocols including IP, IPX, AppleTalk, Frame Relay, VLANs, RIP, Ethernet and key Internet technologies. Key classes help prepare a student to take the Cisco Certified Network Associate (CCNA) Exam.

This is a nontransfer degree.

(Recommended Curriculum)

General Education (Minimum 17 credits) Credits

General education coursework can be completed from within or outside of the major field of study.

1. Exploration and Participation
 - BADM 1005 Business Math I.....or
 - MATH 1000 Problem Solving..... 3
2. Communication
 - BADM 1020 Business Communications..... 3
 - BOTK 1540 Business English..... 3
3. Relationship with the World (One course minimum)
 - Human behavior
 - U.S. and Wyoming constitutions..... 1-3
 - Cultural environment
4. General Education Electives
 - Must be chosen from areas 1, 2, or 3 above.
5. Physical Education.....1

Major Requirements

ACCT	1905	Practical Accounting I.....	or
ACCT	2010	Principles of Accounting I.....	4
BADM	2010	Business Law I.....	3
COSC	2240	Systems Analysis and Design.....	3
CSCO	2000	Cisco: Internetworking I.....	3
CSCO	2010	Cisco: Advanced Internetworking I.....	3
CSCO	2020	Cisco: Advanced Internetworking II.....	4
IMGT	2400	Intro to Information Management.....	3
MGT	2100	Principles of Management.....	3
MKT	2100	Principles of Marketing.....	3
MSFT	1520	Windows Server Networking.....	3
MSFT	1562	Windows Network Infrastructure.....	3

**Select a minimum of 18 credits from the following list.
Consult your advisor for any other technology-based course
substitutions.:**

COSC	1010	Intro to Computer Science.....	3
CSCO	2030	Network Design.....	4
CSCO	2035	CCNA Certification Exam Review.....	1
CSCO	2050	CCNPI: Advanced Router Configuration.....	5
CSCO	2060	CCNP2: Building Remote Access Networks.....	5
CSCO	2110	Introduction to Network Security.....	4
MSFT	1530	Managing Microsoft Windows Environment.....	3
MSFT	1568	Windows XP Professional.....	3

All classes in the major must be passed with a "C" or better.

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