

Software Engineering

► Contact Information

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► Delivery Methods

Face-to-Face: Fargo
 Online: All Classes
 Combination

Software engineers have extensive knowledge of programming languages, software development, and computer operating systems as they apply engineering principles to software creation. They create or adapt applications for businesses and organizations by analyzing the end user's needs.

Formal education and real-world experience form a good basis for the development of a capable software engineer. This curriculum will enlarge student's skill sets and knowledge basis which will assist in the designing, building, installing, and maintaining of applications or programs.

For students wishing to pursue a bachelor's degree at a four-year college or university, please see the Computer Science or Management Information Systems Liberal Arts transfer curriculum plans listed in the Liberal Arts section of this catalog.

Facilities

NDSCS has hardware and networking labs. Each of these labs has current equipment and software.

All Information and Communications Technology students are required to purchase laptop computers. These laptops give students adequate computer access to complete projects and assignments given in class.

Instruction

The instructors for this program have formal educational training, industry training and certifications, and work experience in Information Technology. Laboratory time is scheduled into each student's program to enable them to receive individual attention and hands-on computer experience.

NOTE: This program requires the purchase of a notebook computer. The cost will be approximately \$1,500 with several purchase or lease options available. For further information, call the Information Technology Department at 701-671-3333.

Course Code	Course Title	Credits
CIS 180	HTML and CSS	3
CIS 183	Social Media	3
CIS 188	Application Design	3
CIS 191	First Year Seminar	1
CIS 197	Internship	2-3
CIS 279	Security Awareness and Policy	1
CSCI 102	Fundamentals of CyberLaw	3
CSCI 133	Database Concepts	3
CSCI 134	Database Design and Management	3
CSCI 135	Web Programming	3
CSCI 160	Computer Science I	4
CSCI 161	Computer Science II	4
CSCI 162	Web Application Programming	3
CSCI 230	Web Database I (ASP/PHP)	3
CSCI 231	Web Database II	3
CSCI 263	Computer Science III	3
ENGL 110	English Composition I	3
ENGL/COMM	Elective	3
FYE 101	Science of Success	1
MATH 103	College Algebra	3
MATH 104	Finite Math	3
PHIL 210	Ethics	3
	Social and Behavioral Science, Political Science, Humanities and History Elective(s)	3
	Wellness Elective(s)	2
Total Required Credits for Associate		66-67

Admission Requirements*

The applicants must be high school graduates or equivalent. Helpful courses to prepare for this curriculum are keyboarding, Internet classes, and any publication type class.

Required minimum placement scores:

<u>ACT</u>	<u>ACCUPLACER</u>	<u>ACCUPLACER</u>
Composite – 17	Reading Comp – 85	<u>NEXT GENERATION</u>
	WritePlacer – 5	Reading – 256
	Elementary Algebra – 25	Writing – 250
	Arithmetic – 51	QAS – 225

Or transfer equivalencies will apply as appropriate

**Program Admission Requirements are subject to revision. Please check the department or program website under Program Admission Requirements for current information.*

Award

Upon successful completion of the required courses for the degree, students will be awarded an Associate in Applied Science degree in Information and Communications Technology with an emphasis in Software Engineering.

Applicants not meeting the above requirements are encouraged to visit with the academic counselor at 701-671-2263 or the Information and Communications department chair at 701-671-2496 for strategies to meet the admission requirements.

Revised: May 2021