INFORMATION TECHNOLOGY (AS)

We live in a computerized and networked society. Supporting these computers and networks offers a wide job market with a variety of locations and environments. Technology is driving businesses and governments today, especially health care, financial services, public utilities, sales, and mining and manufacturing. Individuals own personal computers, tablets, smartphones and home networks, and a wide variety of other computerized devices. Computer specialists will require technical skills to work with computers, networks and devices; and communications skills to work with employers, co-workers and end-users.

The IT student at SBC will develop a firm foundation in Information Technology to prepare for employment and/or for seeking a baccalaureate degree. This program will prepare students to enter into the world of work with the most commonly accepted IT certifications; CompTIA's A+ for IT technicians, Cisco CCNA, and Cisco CCT. The courses offered at SBC are standardized with the North Dakota University System's common course numbering system, preparing students to transfer to a four-year institution of higher learning for more advanced degrees.

1. The student will demonstrate the applications of computer information systems and fundamental computer concepts.
2. The student will:
   a. configure and enhance the hardware and software of a computer to optimize computer performance.
   b. install internal and external options and devices.
   c. utilize tools, hardware components, and hardware/software interfacing to troubleshoot computer problems.
3. The student will:
   a. plan and implement a technical solution for networking in small business environment.
   b. create IP addressing plans for a small network and implement a network equipment upgrade.
4. The student will investigate issues and/or solve problems using current topics in computing as well as application of industry trends.
5. The student will understand the following as related to Python:
   a. how to construct user interfaces for simple programs, and design functional systems.
   b. analyze and construct effective and efficient algorithms and appropriate control structure effectively use software development tools including editors, compilers, and libraries.
6. The student can apply knowledge and skills to wide range of information technology careers.

Code	Title	Hours
General Education Requirements		
ENGL 110	Composition I	3
ENGL 120	Composition II	3
COMM 110	Fundamentals of Public Speaking	3
MATH 102	Intermediate Algebra	4
PSYC 100	First Year Learning Experience	3
SOC 120	Transitions-Graduation & Beyond	2
NAS 101	Ochethi Sakowin Language for Beginners	3
or NAS 103	Introduction to Ochethi Sakowin Language, Culture & History	
CSCI 101	Introduction to Computers	3
Humanities or Social & Behavioral Science		
Select one course from: Arts, English, History, Humanities, Music, Native American Studies, Philosophy, Anthropology, Criminal Justice, Economics, Geography, Human Services, Political Science, Psychology, and Sociology		3
Health/Physical Education		
Select two one-hour courses or any one two-hour course		2
Laboratory Science		
Select one four-hour laboratory science course		4
Core Requirements		
CIS 128	Microcomputer Hardware I	3
CIS 129	Microcomputer Hardware II	3
CIS 141	Introduction to Cybersecurity	3
CIS 164	Networking Fundamentals I	4
CIS 165	Networking Fundamentals II	4
CIS 185	Introduction to Programming with Python	3
CIS 212	Operating Systems Client	3
CIS 215	Implementing a Server Environment	3
CIS 297	Computer Information Science Internship	3
CSCI 133	Database Concepts I (SQL)	3
Information Technology Electives		
Select one of the following:		3-4
CIS 167	Enterprise Networking, Security, & Automation	
CIS 181	Creating Web Pages	
ENS 211	Introduction to GIS/GPS	
CSCI 299		
Computer Science Elective		
Total Hours		**68-69**