

HIGH SCHOOL DUAL CREDIT

GATEWAY TO DIGITAL TECHNOLOGY

The Gateway to Digital Technology Certificate Program offers high school students in dual credit courses a chance to explore career-focused classes while earning college credits. This certificate provides a jumpstart for students with a career interest in digital technology, including disciplines like computer science, information systems, networking, artificial intelligence, cybersecurity, web development, health informatics, and data analytics. **View the certificate course plan and potential degree paths below!**

CERTIFICATE COURSEWORK PLAN

If you are considering a career in digital technology, the courses in the certificate plan below will help you explore that path. *Completing these courses not only qualifies for an undergraduate certificate but contributes to degree progress within the featured business programs at South Dakota's public universities. Courses that comprise the certificate may count toward general education requirements, major requirements, or electives, depending on your chosen major and university.

PROGRAMMING

Take one of the following:

CSC 115	Test-Driven Software Development
CSC 150/L	Computer Science I
CSC 155/L	Introduction to Computer Science
CSC 170/L	Programming for Engineers and Scientists
INFO 101	Introduction to Informatics

DIGITAL TECHNOLOGY

Take one of the following:

CENG 142/L	Intro to Digital Systems w/Lab
CSC 101	Digital Humanities
CSC 134	Introduction to Cyber
CSC 147	Survey of Artificial Intelligence
CSC 163	Hardware, Virtualization, and Data Communication

MATH

Take the following **or higher**:

MATH 114	College Algebra
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SOCIAL SCIENCE OR ARTS & HUMANITIES

Take one of the following:

INFO/PHIL102	Data Ethics
PHIL 200	Introduction to Logic
PHIL 220	Introduction to Ethics
SOC 285	Society and Technology

INDIVIDUAL STUDENT OUTCOMES

- Apply programming concepts like sequence, selection, repetition, functions, and arrays to develop algorithms and solve problems.
- Understand the functions and impacts of digital technologies such as artificial intelligence, cybersecurity, and data analytics.
- Discuss ethical issues related to technology, including privacy and security.
- Demonstrate proficiency in mathematical principles essential for advanced study in digital technologies.



POTENTIAL DEGREE PATHS

BLACK HILLS STATE UNIVERSITY

Business Analytics

DAKOTA STATE UNIVERSITY

Cyber Operations
Cyber Defense
Artificial Intelligence
Computer Science
Network & Security Administration
Computer Game Design
Computer Information Systems
Digital Arts & Design
Digital Content Creation

NORTHERN STATE UNIVERSITY

Management Information Systems
Digital Entrepreneurship

SOUTH DAKOTA MINES

Computer Engineering
Computer Science
Data Science & Engineering

SOUTH DAKOTA STATE UNIVERSITY

Computer Science
Data Science

UNIVERSITY OF SOUTH DAKOTA

Computer Science

*Students who do not complete the certificate coursework in high school can still earn the credential while attending a participating South Dakota public university.