

Start a career
working in IT.

Accredited | Affordable | Two-Week Terms

A.A.S. in Software Development

It is a fact that technology is universal – from the alarm that jolts you out of your sleep in the morning to electric cars to rockets that propel people into outer space. All these systems require software, which Time Magazine described in 1984 as the “wizard in the machine.” Software can aid scientists, organizations, and individuals in preserving the environment and battling climate change. Renewable energy systems such as wind turbines and solar farms rely on technology to run them. Artificial Intelligence systems and machine learning systems are aiding in the fight against climate change with satellite imagery and data, smart cities, smart homes, and smart transportation to name a few. Database systems store colossal amounts of information on the environment which can then be used to mitigate the impact of climate change.

Cost: \$250 per credit

How you will learn:

Job Outcomes & Growth*

Software developer

📈 +15%

Software Tester

📈 +15%

Systems Analyst

📈 +7%

*Projected 10-year growth
Source: O*Net

We at TIEP have taken the best features of in-person learning and online learning to create an innovative and accelerated educational experience designed to meet the demands of a modern learner. Our new facility on the Unity College campus in New Gloucester, Maine is equipped with HyFlex classrooms designed with cutting edge technology to enhance teaching and learning. Our courses meet synchronously, in-person, but allow for flexibility to remote-in on those occasions when life happens, and you are unable to get to campus. Flexibility doesn't end there; the video recording and curating technology means you can revisit a particular subject discussed by simply re-watching that section of the class on your own time and refining your notes. After viewing the recording, questions are bound to come up; for this, our Instructors and Learner Success Coordinators are available for help through both in-person and virtual support hours.



Technical Institute for
Environmental Professions

A.A.S. IN SOFTWARE DEVELOPMENT UNOFFICIAL CHECKSHEET

Student Name / Total Transfer Credits / Checksheet Date

Graduates of the A.A.S. in Software Development will be able to:

- + **Apply** a problem-solving process to solve hardware and software problems.
- + **Demonstrate** an understanding of program logic by creating flowcharts and structure charts.
- + **Demonstrate** an understand and an application of the Open Systems Interconnection (OSI) Model, layers, and functions as well as operating systems and sub-systems.
- + **Design and code** syntactically and logically correct operational programs using an assigned programming language.
- + **Manage** code and code versions using a software repository.
- + **Implement** solutions in a programming language using object-oriented design principles.
- + **Write** static and interactive code in a scripting language.
- + **Discuss** the ethical and societal issues related to information technology.
- + **Demonstrate** an understanding of the basic data science concepts, data manipulations techniques, and data integrity concerns.
- + **Demonstrate** an understanding of personal computer software.
- + **Demonstrate** an understanding of the software development process and software process management.

Graduation Requirements

A minimum of 60 earned credit hours, a minimum of 15 credits earned at the Technical Institute, and an overall cumulative GPA of 2.0 or above.

General Education Core

- COM 100 Orientation
- COM 101 Digital Fluency and Information Literacy
- COM 102 21st Century Communication Skills
- COM 105 Research Applications
- COM 201 Write Right!
- COM 205 Focus on Sustainability
- MAT 101 Foundational Algebra
- ENS 101 Our Blue Planet
- ENS 201 World Cultures
- GIS 101 Introduction to Geographical Information Systems for Environmental Professionals

Program Core

- DAT 205 Introduction to Data Science
- DAT 213 Data and Information Security
- ITS 101 Fundamentals of Networking
- ITS 105 Computer Hardware
- ITS 107 Ethics in Computing
- ITS 203 Operating Systems
- ITS 205 Systems Analysis and Design
- ITS 290 ITS Professional Capstone I
- ITS 295 ITS Professional Capstone II
- MAT 201 Don't Step in the Bulls#!t! Workplace Statistics
- PGR 101 Fundamentals of Coding
- PGR 109 Programming I
- PGR 111 Database Programming
- PGR 209 Programming II
- PGR 213 Object Oriented Programming
- PGR 215 Data Structures I
- PGR 217 Data Structures II

Electives

6 credits of unrestricted electives