

# ENGINEERING TECHNOLOGY

Specialization: Machine Learning and Design Techniques



## ABOUT THIS PROGRAM

### IS THIS PROGRAM FOR YOU?

If you are interested in understanding how machine learning models can help inform process improvements, then this may be the right program for you.

### A PROGRAM TO FUEL YOUR FUTURE

Explore how systems are designed and ways to improve existing processes leveraging machine learning when you pursue this specialization.

Students will utilize computer design tools to create three dimensional models and explore process improvements. This includes developing, testing and training machine learning models to apply linear regression for making predictions.

### CAREER OPPORTUNITIES

Graduates of DeVry's Engineering Technology associate degree program with a specialization in Machine Learning and Design Techniques may consider, but are not limited to, the following careers:

- Electrical and Electronic Engineering Technologists and Technicians
- Engineering Prototyping and Fabrication Tech Support Specialist
- Electro-Mechanical and Mechatronics Technologists and Technicians
- Engineering CAD Technician
- Engineering Technologist and Technicians, Except Drafters, All Other
- Industrial Engineering Technologists and Technicians
- Manufacturing Engineering Technician

## WHAT YOU'LL LEARN

### ESSENTIALS

- Communicate methods and findings
- Collaborate in a dynamic work environment
- Solve complex problems
- Analyze numerical data
- Apply appropriate technologies

### TECH CORE

- Illustrate the basics of computing and explain the value of data and troubleshooting
- Install and configure operating systems using Command Line Interface (CLI)
- Solve technical problems using an algorithmic approach and basic programming and coding methods.
- Network, secure, and deploy digital devices and sensors into the internet of things ecosystem

### PROGRAM

- Design and analyze circuits ensuring proper construction, voltage and currents
- Understand the essential components of control systems designs and how to apply ladder logic to debug or maintain applications

### SPECIALIZED

- Utilize data and analysis techniques to solve problems and drive decisions
- Leverage computer-aided design (CAD) software to facilitate the generation, modification and optimization of system design
- Explore and apply process improvement methodologies to evaluate and enhance the performance of systems
- Solve technical problems using an algorithmic approach and basic programming and coding methods

## QUICK FACTS

**64**  
CREDIT HOURS  
minimum credit hours required for graduation

**21**  
COURSES

### ACCREDITATION MATTERS

ETAC of ABET accredits postsecondary, degree-granting programs that meet their global standards for technical education. This is a global mark of quality that is respected by employers and professional associations within the Engineering Technology field. The Associate in Engineering Technology degree program is accredited by The Engineering Technology Accreditation Commission of ABET (ETAC of ABET) [www.abet.org](http://www.abet.org).

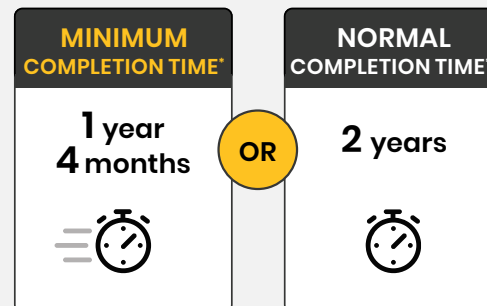


**SKILLS  
FOCUSED**

### CERTIFICATION EXAM ALIGNED CURRICULUM

Experience elements of our technology curriculum focused on real-world industry standards and prepare for certification opportunities to help validate your knowledge and skills, such as:

- CompTIA Linux+
- CompTIA A+
- CompTIA ITF+
- PCEP Certified Entry-Level Python Programmer



### ACCELERATE ON YOUR SCHEDULE

Choose the schedule that best fits your goals and commitments. You can earn your **Associate Degree** in as little as **1 year 4 months**.

Or, follow a normal schedule and complete your program in 2 years.

\* Minimum completion time does not include breaks and assumes 3 semesters of year-round, full-time enrollment in 15-17 credit hours a semester per 12-month period.

\*\* Normal completion time includes breaks and assumes 2 semesters of enrollment in 15-17 credit hours per semester per 12-month period.

Engineering Technology – Machine Learning and Design Techniques

ESSENTIALS

26  
CREDIT HOURS

COMMUNICATION SKILLS

- ENGL112 Composition
- SPCH275 Public Speaking

HUMANITIES

- ETHC232 Ethical and Legal Issues in the Professions

SOCIAL SCIENCES

- SOCS185 Culture and Society

MATHEMATICS AND NATURAL SCIENCES

- MATH114 Algebra for College Students
- TECH204 Everyday Physics

PERSONAL AND PROFESSIONAL DEVELOPMENT

- CARD205 Career Development
- COLL148 Critical Thinking and Problem-Solving

TECH CORE

12  
CREDIT HOURS

TECH CORE

- CEIS101 Introduction to Technology and Information Systems
- CEIS106 Introduction to Operating Systems
- CEIS110 Introduction to Programming
- CEIS114 Introduction to Digital Devices

SPECIALIZED

10  
CREDIT HOURS

MACHINE LEARNING AND DESIGN TECHNIQUES

- TECH221 Data-Driven Decision-Making

Two of:

- ECT313 Generative Design
- TECH231 Introduction to Artificial Intelligence Applications
- TECH310 Process Improvement

PROGRAM

16  
CREDIT HOURS

PROGRAM FOCUS

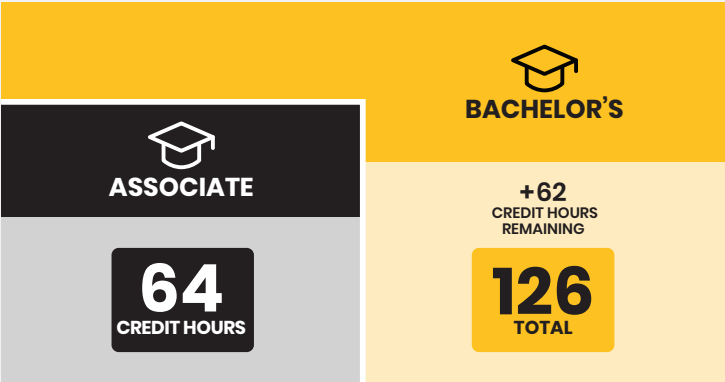
- ECT226 Electronic Device and System Foundations
- ECT286 Automation and Controls
- Three of<sup>1</sup>:
  - ECT308 Introduction to Computer Aided Design
  - ECT313 Generative Design
  - ECT315 Industrial IoT
  - ECT320 Manufacturing Processes and Systems
  - ECT325 Electromechanical Systems
  - NETW191 Fundamentals of Information Technology and Networking
  - NETW212 Introduction to Cloud Computing
  - SEC285 Fundamentals of Information System Security
  - TECH301 Design of Experiments

<sup>1</sup>Students choosing to complete ECT313 within the Machine Learning and Design Techniques Option must take ECT308.

CAREER PREPARATION

- CEIS298 Introduction to Technical Project Management

Earn a credential at every step.



HOW DO CREDENTIALS STACK?

This Associate in Engineering Technology with a specialization in Machine Learning and Design Techniques can serve as a steppingstone to our Engineering Technology bachelor's degree. If you choose to continue on with your education, all credits apply to this credential. Build your confidence – and your resume – when you start your journey at DeVry.\*

\*The figures displayed represent the minimum credit hours required for graduation. Additional coursework may be necessary to complete program requirements. At the time of application to the next credential level, an evaluation of qualifying credits will occur and the most beneficial outcome will be applied. Future programmatic changes could impact the application of credits to a future program. Refer to the academic catalog for details.

visit [DeVry.edu](https://devry.edu) | Call 888.Devry.04

In New York, DeVry University operates as DeVry College of New York. DeVry University is accredited by The Higher Learning Commission (HLC), [www.hlcommission.org](http://www.hlcommission.org). The University's Keller Graduate School of Management is included in this accreditation. DeVry is certified to operate by the State Council of Higher Education for Virginia. Arlington Campus: 1400 Crystal Dr., Ste. 120, Arlington, VA 22202. DeVry University is authorized for operation as a postsecondary educational institution by the Tennessee Higher Education Commission, [www.tn.gov/thec](http://www.tn.gov/thec). Lisle Campus: 4225 Naperville Rd., Ste. 400, Lisle, IL 60532. Unresolved complaints may be reported to the Illinois Board of Higher Education through the online complaint system <https://complaints.ibhe.org/> or by mail to 1 N. Old State Capitol Plaza, Ste. 333, Springfield, IL 62701-1377. Program availability varies by location. In site-based programs, students will be required to take a substantial amount of coursework online to complete their program. ©2025 DeVry Educational Development Corp. All rights reserved. Version 3/2025