

PURDUE UNIVERSITY IN INDIANAPOLIS

# *MULTIDISCIPLINARY TECHNOLOGY*

BACHELOR OF SCIENCE



**Build Your Future Across  
Technology, Design, and Leadership**



Polytechnic Institute



# What is MDT?

## MULTIDISCIPLINARY TECHNOLOGY, B.S.

The Bachelor of Science in Multidisciplinary Technology at Purdue Polytechnic is designed for students who want to expand beyond a single technical field and position themselves for advancement in modern, technology-driven industries.

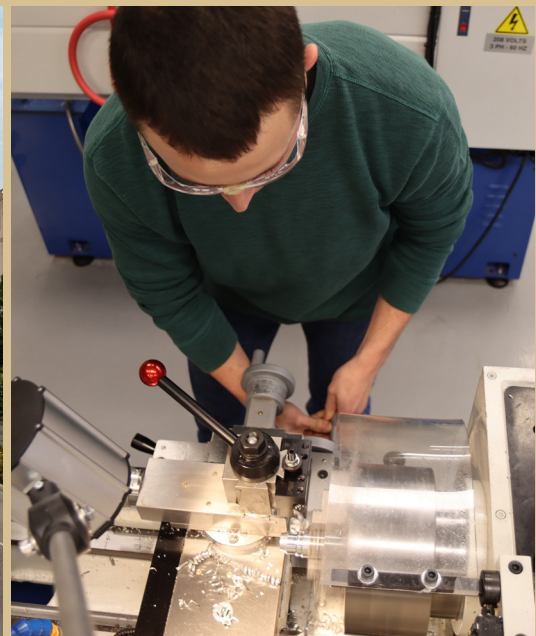
It focuses on the management, operation, development and maintenance of complex technological systems, preparing students for roles that require technical understanding, cross-disciplinary thinking, and leadership.

Unlike traditional technology degrees, MDT lets you choose one of a few specialized pathways that align with your career goals and background. Each pathway is intentionally designed to prepare you for high-demand roles in today's workforce.

## WHY CHOOSE MDT?

Build a Purdue degree around the kind of work you want to do.

- » Choose from specialized pathways
- » Explore technology across multiple disciplines
- » Apply what you learn through projects and technical experiences
- » Develop communication, collaboration, and leadership skills
- » Prepare for careers in growing Indiana industries



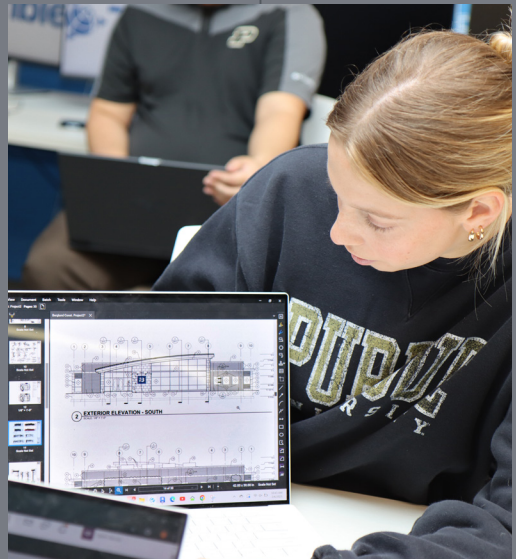
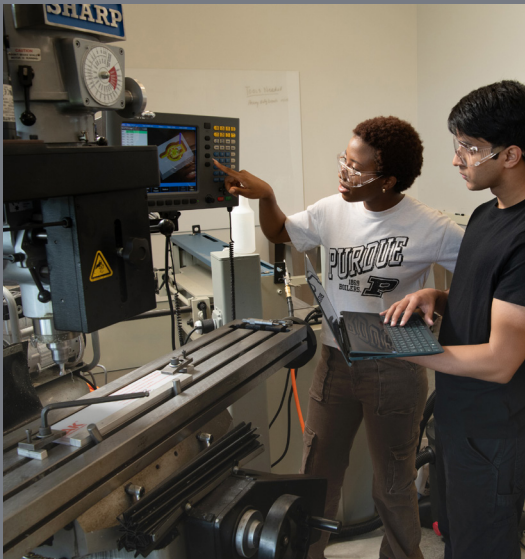
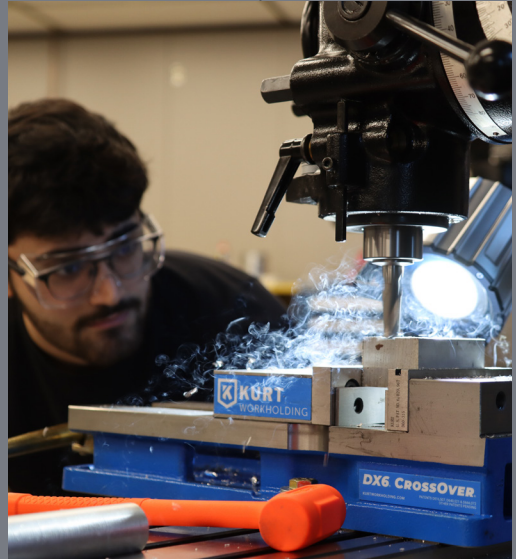
# What You'll Learn

**MDT prepares you to solve problems, work across disciplines, and apply technical knowledge in real-world settings.**

## CORE LEARNING OUTCOMES

Students develop the ability to:

- » Apply technical skills within their chosen pathway
- » Understand how complex systems connect
- » Collaborate and communicate within technical teams
- » Make informed decisions in changing environments
- » Adapt to emerging tools and technologies
- » Apply learning to industry challenges

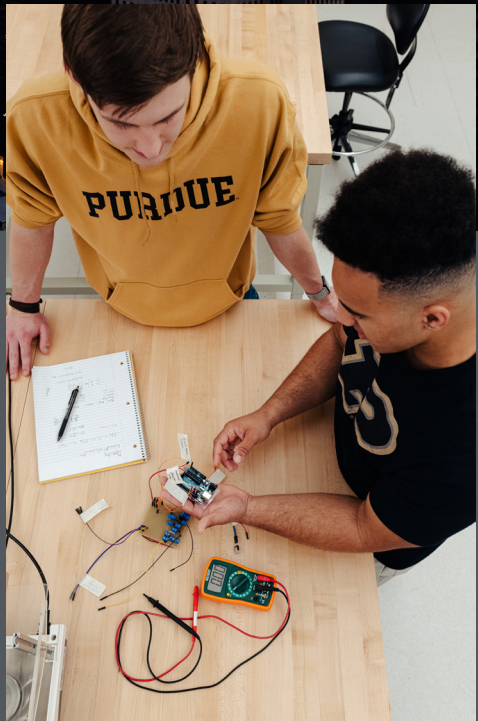


# Build Your Purdue Experience



As an MDT student in Indianapolis, you can:

- » Complete applied, industry-connected projects
- » Learn in classrooms, studios, and laboratories
- » Collaborate across technical disciplines
- » Connect with central Indiana employers
- » Build experience through internships and career opportunities



A student is working on a lathe machine in a manufacturing lab. The machine is a large, industrial-grade lathe with a prominent blue flexible coolant hose. The student's hands are visible, holding a metal workpiece. In the background, other students are standing near workbenches, and a safety sign is visible on the wall. The scene is brightly lit with overhead fluorescent lights.

# Automation, Robotics & Manufacturing Technology

## **PATHWAY 1**

This pathway prepares students for careers in **smart manufacturing, robotics, and industrial automation systems**, integrating multiple technical domains into a single pathway.



## WHAT YOU'LL STUDY

- » Robotics applications and automation systems
- » PLCs and industrial control systems
- » 3D printing and advanced manufacturing
- » CAD/CAM and digital twin technologies
- » Data integration in smart manufacturing environments

This pathway merges applied robotics with advanced manufacturing to reflect real-world industrial systems.

## WHY IT MATTERS

Indiana is a major manufacturing hub, with companies like:

- » Rolls-Royce
- » Allison Transmission
- » Cummins
- » Eli Lilly

There is increasing demand for professionals with Industry 4.0 skills including automation, robotics, controls, and systems integration.

## CAREERS THIS PATHWAY SUPPORTS

- » Automation and Controls Technician
- » Robotics Integration Specialist
- » Advanced Manufacturing Technologist
- » Smart Manufacturing Systems Supervisor

# Immersive Design & Technology

## PATHWAY 2

This pathway blends design, technology, and visualization to prepare students for careers in **digital and built environment experiences**.



## WHAT YOU'LL STUDY

- » 3D modeling and rendering
- » Building information modeling (BIM)
- » Virtual and augmented reality systems
- » Interactive design and visualization workflows
- » Design communication and storytelling

Students develop both **technical visualization skills** and the **creative fluency** needed to support design and construction industries.

## WHY IT MATTERS

This is not a traditional graphic design degree. It focuses on design for the built environment, including architecture, construction, immersive experiences, and digital simulation.

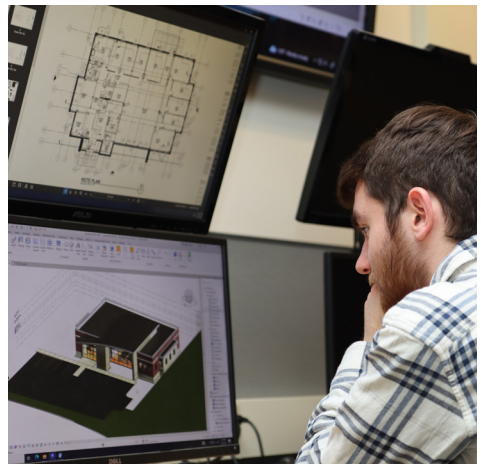
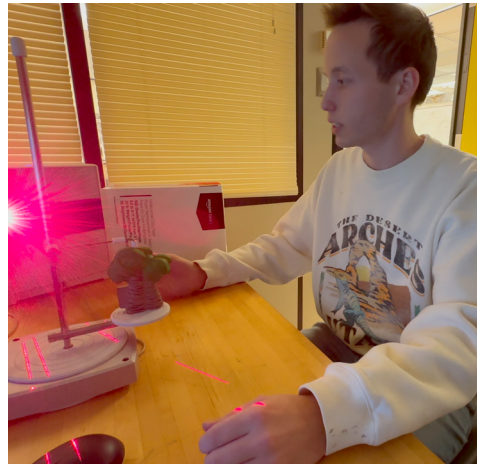
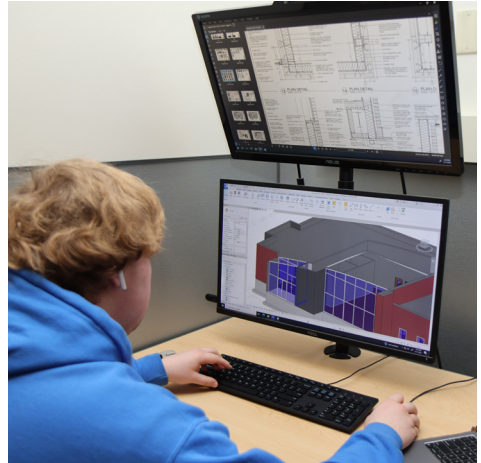
It prepares students for emerging roles in:

- » Architecture and construction visualization
- » XR and immersive media
- » Themed entertainment and spatial design
- » Real estate and digital marketing visualization

With strong alignment to Indiana's AEC and creative sectors, this pathway positions students at the intersection of **design, technology, and industry**.

## CAREER OPPORTUNITIES

- » BIM Coordinator or Manager
- » Visualization Specialist
- » XR / Immersive Experience Designer
- » Architectural Visualization Technologist



# Project Management & Leadership

## PATHWAY 3



## WHAT YOU'LL STUDY

- » Project management frameworks used in technical industries
- » How to manage risk, uncertainty, and change in organizations
- » Leadership and team dynamics
- » Contract administration and project governance
- » Digital collaboration tools for distributed technical teams

The focus is on managing **complex, technology-rich projects**.

## WHY IT MATTERS

Indiana employers value professionals who:

- » Understand how technical systems actually work
- » Lead teams made of people with different technical backgrounds
- » Manage risk and uncertainty in complex projects
- » Think across disciplines

This pathway builds leadership skills directly into hands-on, technical contexts, preparing you for real project conditions such as tight timelines, technical tradeoffs, and uncertainty.

## CAREER PATHS

- » Project Manager
- » Operations Manager
- » Technical Program Coordinator
- » Risk and Compliance Specialist

This pathway builds applied leadership skills within technical contexts, preparing you for real project conditions such as tight timelines, technical tradeoffs, and uncertainty. Coursework can also help you meet the educational prerequisites for professional credentials such as the Project Management Professional (PMP) and Risk Management Professional (PMI-RMP), giving you a competitive edge in project-driven industries.



# What Employers Value

## **MDT students graduate with a competitive mix of**

- » Technical depth
- » Leadership readiness
- » Systems-level understanding
- » Industry relevance

## **Employers benefit because MDT graduates**

- » Understand both technology and people
- » Can adapt across roles and departments
- » Bring applied, not just theoretical, knowledge
- » Are ready for leadership pipelines

## **This is especially relevant for Indiana industries in**

- » Manufacturing and automation
- » Construction and design technologies
- » Healthcare systems
- » Logistics and infrastructure





## Is MDT Right for You?

**This program is a strong fit if you:**

- » Are interested in more than one area of technology
- » Want flexibility in shaping your degree
- » Enjoy solving problems and understanding how systems connect
- » Want to combine technical knowledge with leadership skills
- » Learn best by applying concepts to projects and real situations
- » Are interested in industries that use emerging technologies
- » Want to study at Purdue University in Indianapolis



Polytechnic Institute



[polytechnic.purdue.edu/academics/mdt](https://polytechnic.purdue.edu/academics/mdt)  
[techrecruit@purdue.edu](mailto:techrecruit@purdue.edu) | (765) 494-4935

[f](#) [@](#) [v](#) [X](#) @techpurdue

**Multidisciplinary Technology Advisor**

Lacretia Githiri | [lgithiri@purdue.edu](mailto:lgithiri@purdue.edu)