

Transforming Manufacturing Education

Autodesk® and ASME collaborate on cutting-edge Industry 4.0 Modular Learning Content, empowering time to talent acceleration with real-world examples as requested by faculty.



▶ TIME TO TALENT CHALLENGE

Rapid technological transformations



Emphasized focus on theory in engr. education

≡ Widening gap of “time to talent”

▼ CHALLENGES FOR EDUCATORS



TIME

Difficult to stay abreast of constant shifts and development.



DIFFICULT ADJUSTMENT

Faculty struggle with adapting to new concepts.



GAPS IN CURRICULA

Lack of hands-on exp. on sustainability, advanced mfg. & interdisciplinary skills.



LIMITED RESOURCES

Equipment and funding are scarce.

▼ TOP SKILLS ACROSS 3 ROLES

MECHANICAL ENGINEER

Design for Manufacturing

Generative Design

AI/ML

MANUFACTURING ENGINEER

Robotics

Integrated CAD/CAM

Simulation

CNC MACHINIST

CNC Machining

Additive Mfg.

▼ EDUCATORS' DESIRED RESOURCES

Real-world projects
Step-by-step guides and practice exercises
Knowledge bank and challenge exercises
Instructor guides
Videos
Assessments

▶ THE SOLUTION

Autodesk & ASME have solved this challenge by providing customized, rich, modular Industry 4.0/advanced manufacturing learning content for both students and faculty.

- ▶ Self-Assessment
- ▶ Faculty Instructor Guides
- ▶ Practical, Bite-Sized Projects
- ▶ Instruction
- ▶ Summative Assessments

KEY TAKEAWAYS

- ▶ Leverage university industry boards & keep current on workforce developments.
- ▶ ABET's criteria provides ample scope for personalized learning.
- ▶ Incorporating real-world projects in classroom to inspire students about engineering.
- ▶ 79% percent of design and manufacturing respondents will increase investment in AI and emerging technology over the next three years.* Accelerating Industry 4.0 education is critical to success.

* Autodesk 2024 State of Design & Make: Spotlight on AI report

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