

Empowering engineering students for *career readiness*

In today's rapidly evolving engineering landscape, graduates must possess theoretical knowledge and practical skills to navigate complex, interdisciplinary challenges. Knovel, Elsevier's comprehensive engineering information platform, bridges the gap between academic learning and industry application, equipping students with the tools necessary for career success.



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Advancing human progress together

The challenge: bridging academia and industry

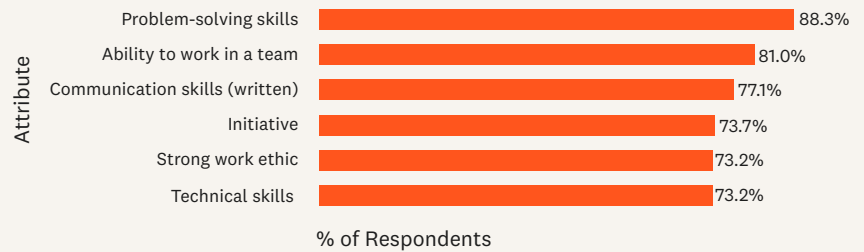
According to the 2025 NACE Job Outlook report, employers place higher values on graduates who can apply knowledge practically, solve complex problems, and adapt to interdisciplinary environments over those with technical skills.

Their career-readiness report highlighted that new graduates are heavily lacking in critical thinking and problem-solving competency.

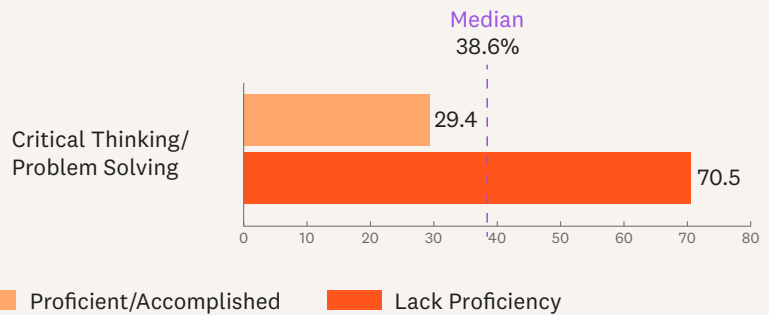
This disconnect often leads to unmet industry needs and longer than desired time (5 to 8 years) for new graduates to develop into valued independent collaborator in an organization ([Boston University Professional Development Framework](#)).

[Career-readiness initiatives are missing the mark](#) – Article in Insider Ed, by Matthew T. Hora, which highlights the key challenges for Engineering students.

Attributes employers seek on a candidate's resume



Participating students compared to entry-level professional job candidates by competency (ACE 2019)



Knovel: integrating practical tools into learning

Knovel addresses this challenge by providing:

Real-world application: Knovel connects theory to practice with access to industry best practices, case studies, and materials references—supporting engineers throughout their lifelong learning journey.

Enhanced problem-solving skills: Students develop critical thinking and decision-making skills by learning how to efficiently identify, evaluate, and apply trusted engineering information.

Industry readiness: Trusted by over 180 corporate engineering teams and 40+ government institutions globally, Knovel is a go-to resource for material selection, process optimization, failure analysis, and innovation design.

Confidence building: Students gain confidence using a professional-grade tool that mirrors workplace expectations—learning to rely on accurate data and evidence-based research in their engineering approach.

Extensive resources: Knovel provides access to more than 13,000 expert-curated references across multiple engineering disciplines, ensuring comprehensive coverage of technical domains.

Interactive tools: Features like a unit converter, equation solver, and interactive graphs support engineers in real-time design, troubleshooting, and optimization workflows.

“Knovel is a great tool for jumping back into a topic you haven’t visited for a while, whether that’s from a previous project or a forgotten university module. I have used it to help with understanding existing designs, selecting equipment during optioneering, and optimising systems to close out actions resulting from Hazard and Operability (HAZOP) studies.”

Article by **Luke Williams (The Chemical Engineer)**,
Process engineer at Cavendish Nuclear

From classroom to career: Knovel gets your students job-ready

How Knovel supports career skills:



Critical thinking

Tackle engineering challenges using reliable technical reference



Problem solving

Apply knowledge to case studies and design challenges with access to validated data



Decision making

Learn how professionals use data to make safe and efficient engineering decisions

Your competitive advantage:

- Access engineering handbooks and technical references that are not available freely online
- Train on tools similar to what you'll use in industry
- Reinforce learning with real-life case studies and project simulations

Find more about career readiness through Knovel at:

[Engineering education resources | Elsevier](#)

External article sources:

1. [The Chemical Engineer](#)
2. [Insider Ed Article](#)
3. [Boston University Professional Development Framework](#)
4. [NACE Career Readiness Report](#)
5. [NACE Job Outlook 2025 Report](#)

“Unlike web search engines, Knovel always finds information from reliable technical resources...you don't have to pore through...questionable options.”

Patricia Kirkwood

Associate Librarian at the University of Arkansas, USA

“When I know a little about a subject to be dangerous, within a day [in Knovel], I can go from knowing little to knowing reasonable amount to connect with colleagues.”

Energy Senior Engineer

Houston TX, USA

