Preparation for Future Careers in Engineering

How faculty and librarians can help students succeed

Teaching engineering classes and labs online follows the same fundamental principles as in-person instruction. To support active engagement and achieve course goals, faculty and librarians need to be creative and provide students the best tools.

Top 3 challenges of online instruction

- Takes more prep and support time
- Requires better communication
- Needs to minimize student distractions

Solutions to consider

- **Adopt new strategies**
  - ADAPT methods from in-person courses
  - CREATE new approaches and resources
  - BORROW materials from fellow faculty
  - USE third-party sources

Follow best practices

- PROVIDE expectations for learning objectives
- DEVELOP a calendar (classes and exams)
- CONSIDER what students can see
- ASK students about their concerns
- RECORD videos of lectures and experiments

Ensure accountability and build community

- USE low-stakes assignments (low grade impact)
- GIVE credit for participation
- HAVE quick quizzes
- USE discussion boards
- MAKE team-based assignments

THE ROLE OF LIBRARIANS

Librarians can help engineering students succeed by introducing them to Knovel. A powerful engineering decision-support tool helps enhance online instruction, providing readily searchable access to reference materials.

Preparing next-gen engineers

Although in-person classes are returning, online classes will remain an integral part of engineering education. For more insights on how Knovel can support online engineering courses, visit us at www.elsevier.com/knovel/for-teaching

Knovel helps students:

1. Find and learn relevant engineering concepts from trusted sources
2. Complete projects and problem sets with greater confidence
3. Build experience using visual and interactive analytical tools
4. Gain exposure to industry best practices