

Enhancing Engineering Education through Work-Integrated Learning Programs and Participation in the ASEE Cooperative Education Division (CED)

Debra Pearson

Division of Professional Practice
Georgia Institute of Technology

Abstract

Work-integrated learning models such as cooperative education, internships, and work abroad programs enhance engineering education by giving students ample opportunity to practice their discipline in real-world settings. Such programs allow students not only to significantly improve their engineering skills, but also to acquire soft skills and—in the case of work abroad students—to practice solving engineering problems in another culture. From improving retention in engineering to having programs that attract top student talent, work-integrated opportunities positively impact everyone involved in the partnership.

Work-integrated programs include, but are not limited to:

- Traditional cooperative education programs requiring three or more work semesters, which alternate with school semesters (Issues to consider: Are work terms required or optional? Will students pay tuition during work terms? Will top administrators support the effort? How will co-op assignments be evaluated?)
- Internships (Issues to consider: Will an internship be required for completion of curriculum? Will the university provide the infrastructure needed to develop and inform students of opportunities? Will the internship be individual or will an entire multi-disciplinary team be hired to solve a problem in industry? What accountability measures are in place to insure a high quality assignment?)
- Work abroad programs (Issues to consider: Will the university provide direct assistance in terms of developing opportunities, obtaining work visas, and preparing students to work in another culture? Or will an external organization be used to provide such services? Will the work abroad program be part of a larger university goal to equip students with global competencies?)

This session will present several possible models for work-integrated learning and discuss how participation in ASEE-CED can provide valuable resources for professionals and employers interested in upgrading the preparation of engineers through experiential learning.

DEBRA PEARSON

Debra Pearson, Assistant Director in the Division of Professional Practice at the Georgia Institute of Technology, works with cooperative education students and their employers in the aerospace and mechanical engineering fields. She is a member of the ASEE CED and International Divisions and serves on the CED Communications, Public Relations, and Employers Relations Committee.