Building Impactful, Scalable, and Sustainable International Programs

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Globalizing Engineering Education

The argument (easy)
- Economic competitiveness
- Contextual understanding
- Global citizenship

The challenge (not so easy)
- Impact
- Scalability
- Sustainability

Less than 5% of students participate
Educational Impact

- High level of engagement
- Relevant learning outcomes
- Transferrable skills
- Preparation, support, and follow-up
Scalability

- Curricular fit
- Academic progress
- Perceived relevance
- Affordability for students and the institution
Sustainability

- Broad faculty involvement
- Support and visibility
- Sustained funding
Case Study: WPI Global Perspective Program

- All undergraduates complete two academic projects (9 CH)
  - Interdisciplinary research
  - Senior design

- 50% complete at least one project overseas

- Problem-solving for local organizations

- Faculty-led, experiential
Global Program Participation – Over 8000 Students since 1974

- 70% of graduates complete an off-campus project
- 50% of graduates complete an overseas project
Impact on Educational Outcomes

Comparison of On-Campus & International Project Outcomes

Rating scale:
1 = poor, 5 = excellent

- Overall report quality
- Multidisciplinary teams
- Lifelong learning
- Impact of engineering on society
- Exposure to global issues
- Contemporary issues
- Handling proprietary information
- Social responsibility of engineers

On-campus projects
International Projects
Impact on the Campus

- Faculty development
  - global engagement, contacts
  - involvement across campus

- Student development
  - global preparedness, awareness
  - transformational for many

- Institutional culture
  - “signature program”
  - admissions and marketing
  - alumni and development

- External relations
  - national coverage
  - global partnerships
Costs

- Students pay their own travel and living costs ($5K to $8K) - financial aid available

- Faculty advisors are the greatest resource implication

- Some sponsors pay project fees to subsidize program costs

- Overall cost/credit to the university comparable to an on-campus course (about $1200 per 3 CH per student)
Summary of Key Factors

- Central to curriculum, fits academic calendar
- Broad faculty participation, administrative support
- Supports learning both in the major and in general education
- Project learning enhanced by immersion in an unfamiliar setting
- Helps students understand their careers and lives in a global context