Transforming the UF General Education Program: Grand Challenges Courses

Bernard Mair
Professor of Mathematics
Associate Provost for Undergraduate Affairs
Status Reports on GEP

• Near extinction at many research universities
• Needs to be intellectually integrated to demonstrate connections between disciplines
• Often more influenced by internal university politics than educational philosophies

• Cafeteria approach - unwieldy list of courses
• Recommends development of a discrete number of thematic, interdisciplinary bundles or sequences of courses around substantive and timely topics
UF Task Force (2010) [3]
• Fragmented; no systematic relationship to purpose
• Driven by college major programs
• Diluted by transfer and examination credit
• Service course syndrome

Employers ( - 2013) [4]
• More than a Major
• Knowledge of Human Cultures, Physical and Natural World
• Critical thinking and analytic reasoning
• Complex problem solving
• Written and oral communication; Teamwork
• Information Literacy
• Quantitative Reasoning
• Innovation and Creativity
• Ethical decision-making
Transformation: Stage I

HUM 2305: What is the Good Life

Required GE Humanities Course as of 2012

- Interdisciplinary introduction to the Humanities disciplines
- Foster intellectual community through the study of an enduring question
- Encourage students to grapple with a fundamental question addressed by the humanities
- Join together in a deep and sustained program of reading in order to encounter influential thinkers past and present

➢ Grand Challenges Course
Transformation: Stage II

Statewide Core Project

Launched in 2012 – Effective 2015

5 of the 12 GE courses must be chosen from set of 25 core courses

• Foster intellectual community through the study of common courses
• Provides cohesive GEP statewide
• Assures uniform coverage of fundamental knowledge required for liberal education and preparation for careers
Transformation: Stage III

Grand Challenges Program

- Clearly identifiable focus
- Intellectual community through the study of important, enduring questions
- Relevant, timely, interesting, lively, interdisciplinary, transformational
- Creating vs. consuming knowledge
- Links with research mission and faculty → UG, Graduate, Career
- Liberal Education, Career, Lifelong Learning
- Conversation starter – which grand challenges did you do?
Grand Challenges: Examples

• 21st Century Grand Challenges
  http://www.whitehouse.gov/blog/2012/04/09/21st-century-grand-challenges

• Grand Challenges for Development
  http://www.usaid.gov/grandchallenges

• Grand Challenges for Engineering
  www.engineeringchallenges.org/

• Grand Challenges in Global Health
  http://www.grandchallenges.org/Pages/Default.aspx
Future Directions

The Grand Challenges
General Education Program at UF:
A program with a future

Princeton University’s research program:
“The Grand Challenges Program is an ambitious and broadly inclusive initiative at Princeton that addresses global environmental problems with scientific, technological, and public policy dimensions. This multidisciplinary Program offers faculty, students, and researchers opportunities to tackle some of the world’s most pressing environmental issues in the areas of climate and energy, sustainable development, and global health.”

- From http://www.princeton.edu/grandchallenges/
References


