Preparing Engineering Students for Professional Practice

What you can do to help!

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What Employers Want to See in Engineering Graduates

• Critical Thinking, Analysis and Validation
• Resourcefulness, Initiative & Creativity
• Project Management & Economics
• Technical Communication
• Basic Technical Skills

The Bottom line: Business Wants Technical Leadership
The O.T. Swanson Multidisciplinary Design Laboratory

**Mission:** To provide clinical “real-world” experiences for undergraduate students that build confidence and teach integration of discipline-specific knowledge with practice on challenging multidisciplinary design projects.
Ability to design a system, component, or process to meet desired needs within realistic constraints (3c)

Identify, formulate and solve engineering problems (3e)

Apply math, science and engineering knowledge (3a)

Design and conduct experiments (3b)

Use modern engineering tools (3k)

Understand the impact of engineering in a broad context (3h)

Knowledge of contemporary issues (3j)

Engage in lifelong learning (3i)

Ability to function on multidisciplinary teams (3d)

Ability to communicate effectively (3g)

Understand professional and ethical responsibilities (3f)

ABET 2000 ➔ Opening Pandora’s Box
I hear and I forget.
I see and I remember.
I do and I understand.

Confucius, circa 550 BC

Capstone ➔ A window on the curriculum
UCF Foundations for Creating Multidisciplinary Partnerships

- Societal Needs
- Industry Sponsors
- Entrepreneurs
Opportunities for Business ➔ Engage America’s Partnership University

• Collaborate with UCF students, faculty and staff
• Capitalize on the energy and enthusiasm of UCF senior level MAE students
• Solve a challenging problem of value to you and your organization
  • Evaluate high risk ideas in a low risk environment ➔ Own the IP!
  • Student teams guided by experienced engineering faculty and staff
• Receive project results that include:
  • Requirements Definition and Competitor Benchmarking
  • Technology Studies and Feasibility Analysis
  • Concept Generation and Evaluation of Concept Alternatives
  • Design Modeling, Analysis and Simulation
  • Professionally Built Prototypes for Test and Evaluation

• Get acquainted with some of the best and brightest engineering students for potential recruitment
• Build long lasting relationships with UCF and the MAE department

Support a new style of engineering education that focuses on real world results!