Chemical Engineering Department Update

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Professor and Chair
Chemical Engineering Department
Faculty Size

- Chemical Engineering Faculty size - 23
  - 22 Tenure-track Faculty
    - 6 Assistant Professors
    - 4 Associate Professors
    - 12 Full Professors
  - 1 Research Faculty (Hagelin-Weaver; 25% FTE)
Recent Faculty Awards

- Mark Orazem, Elected President-Elect of the International Society of Electrochemistry
- Jason Weaver, Two published journal papers rated as in the Top 25 hottest articles in Surface Science
- Tim Anderson, Named UF Distinguished Professor
US News & WR Rankings

- Increase in graduate rank from 21st to 20th in April 2008

- Increase in undergraduate rank from 21st to 20th in August 2008

- Highest rankings in our department’s history
US News & WR Department Rankings
How are they determined?

▪ Undergraduate Ranking
  ▪ Every Engineering Dean and Associate Dean rates US ChE Undergraduate Programs on a 1 to 5 scale

▪ Graduate Ranking
  ▪ Every Chemical Engineering Department Chair rates US ChE Graduate Programs on a 1 to 5 scale

▪ Important Notes:
  ▪ No quantitative measures used for department rankings - peer perception only
  ▪ Only academics are involved in department rankings
  ▪ In college rankings, quantitative metrics are used as well as perception ratings by industry and academia
Undergraduate Program Enrollment

- ~25% increase in chemical engineering undergraduate enrollment

- New ChE students
  - 108 Fall 2005
  - 113 Fall 2006
  - 109 Fall 2007
  - 132 Fall 2008
Undergraduate Program

Changes to Program

- **Increased emphasis on safety**
  - Safety course increasing to two credits starting Spring 2010
  - Jim Bosworth and Professors Svoronos, Chauhan and Orazem have taken AIChE’s two-day Safety Training Course offered by SACHE

- **Biomolecular Minor** – college approved, slated to begin in Fall 2009
  - Designed for engineering and science students who desire additional knowledge in the area of biomolecular engineering
  - Should aid in undergraduate recruiting
  - 15/16 credits
    - Biology for Engineers   3 credits
    - Material and Energy Balances   4 credits
    - Introduction to Biomolecular Engineering   3 credits
    - Elective courses in biomolecular engineering   5-6 credits
Graduate Program

- Domestic PhD applications up 50% from last year
- 75% acceptance rate of domestic students
Graduate Program
Enrollment/Degrees

- 25 PhDs graduated last year (should put us in top 3 of ChE PhD producers in the US in 2007-2008)
- Fall 2008 graduate enrollment
  - 85 PhD students
New Student Surveys

- In conjunction with Advisory Board members, we have developed new and improved surveys for undergraduate and graduate students

- Conducted every spring semester (starting Spring 2008) – results discussed at Spring AB meetings
Research Productivity

- **Teaching Load Adjustment**
  - Increase in teaching load for faculty not active in research
  - Faculty release time policy – one semester off of teaching for six weeks academic year support
  - Teaching release for faculty with significant service load (ABET coordinator, Director of Graduate Recruiting, and Director of the Undergraduate Unit Operations Laboratory)

- **Space Reallocation** based on number of research students and funding – five year history
Industry/Alumni Connections

Alumni Reunion scheduled for third week in July 2008

ChemE Day

- Career and networking event for Chemical Engineering students only
- Held in 2007 and 2008 – highly successful event
- Proceeds go to the Unit Operations Laboratory
  - ChemE Day will be scheduled during Engineers Week 2009
Chemical Engineering Building Addition

- Physical infrastructure improvement is our most important need/challenge
- Active solicitation
  - $3.2 million dollars secured to date
Chemical Engineering Building Addition

- Complements surrounding engineering facilities both functionally and aesthetically
  - Perpendicular to current building and parallel to the New Engineering Building (NEB)
  - Buildings will join at the external stairway
  - Will share a common courtyard with NEB
  - Access to building entrance (atrium) from Center Drive
- Very close to medical school, new biomedical engineering building, nanotechnology building
Chemical Engineering Addition
Chemical Engineering Building Addition - Components

- Seminar Room
- Teaching Laboratory
- Conference Room
- IPPD Design Space
- Computer Server Room
- Undergraduate Student Lounge/Study Area
- Undergraduate Services Office
- Graduate Student Lounge with Computer Room
- Bio/Environmental Storage
- Shared Facilities Room (AFM, SEM, etc.)
- Research Laboratories
Chemical Engineering Building Expansion will:

- Enhance the overall educational experience for our students
  - Learning opportunities - high-tech teaching labs
  - Research opportunities - cutting-edge facilities
  - Sense of community and collaboration
Department Strategic Planning

Five Goals
- Improve quantity and quality of PhD students
- Improve graduate program
- Increase department visibility
- Optimize administration of infrastructure and resources
- Enhance opportunities for research collaboration and funding

- Ongoing committee follow-up work to flush out/prioritize objectives/tactics and set metrics

- Tactics focus primarily on operational effectiveness

- Will be completed by December 2008
Summary

- Next year, key areas to focus on:
  - Finalize and implementation of strategic plan
  - Increase nominations of faculty for awards
  - Increased unrestricted support - Advisory Board is helping with this using their personal contacts