Goals

- National prominence in research
- Multidisciplinary
- Excellent education
- Improve graduate education
- Increase visibility
- Foster diversity
Goal 1

- College Leads UD to National Research Prominence
  - Cultivate and enhance the growth of research funding
  - Continue growth of College faculty
    - Retain and hire outstanding College faculty
  - Increase inter-college research activities
  - Encourage the development of innovative research centers

- Next
  - Fund Raising
  - Linkages and synergy
Goal 1

• EPSCoR– Experimental Program to Simulate Competitive Research

EPSCoR increases the R&D competitiveness of an eligible state by developing and using the S&T resources in its major research universities (institutions that grant significant numbers of the state's Ph.D. degrees in science and engineering disciplines). EPSCoR achieves this by:

Stimulating sustainable S&T infrastructure improvements at the state and institutional levels to increase the ability of EPSCoR researchers to compete for Federal and private sector R&D funding

Accelerating the movement of EPSCoR researchers and institutions into the mainstream of Federal and private sector R&D support (😊)
Current EPSCoR States
(less than 0.7% of total NSF funding)

Eligible
- North Dakota
- West Virginia
- Idaho
- Vermont
- South Dakota
- Arkansas
- Wyoming
- Puerto Rico
- Nevada
- Mississippi
- Maine
- Montana
- Alabama
- Kentucky
- Nebraska
- Oklahoma
- Kansas
- Delaware
- New Hampshire
- Louisiana
- New Mexico
- South Carolina
- Hawaii
- Alaska
- Tennessee
- Iowa

Members
- North Dakota
- West Virginia
- Idaho
- Vermont
- South Dakota
- Arkansas
- Wyoming
- Puerto Rico
- Nevada
- Mississippi
- Maine
- Montana
- Alabama
- Kentucky
- Nebraska
- Oklahoma
- Kansas
- Louisiana
- New Mexico
- South Carolina
- Hawaii
- Alaska
Goal 2

- Advance Multidisciplinary Research and Education
  - Evaluate and invest in targeted research areas
  - Assemble and fund faculty teams to pursue multidisciplinary block grants
  - Fill senior faculty positions to cross department and college boundaries
  - Build on the University’s reputation and programs for undergraduate research

- Next
  - MUST be successful in block funding application (MRSEC, …)
Cross disciplinary working groups
- Control
- Biomedical
- Fuel Cells
- “Nano” sciences
- Computation
- Particle technology

Cross disciplinary lectures
- New faculty
- Distinguished visitors
- Outreach courses
Multidisciplinary

- 1 or 2 large block grants
- DBI integration
- New college initiatives - Nanotechnology
- Seminars – need more suggestions!
- Undergraduate research
Goal 3

- Promote Excellent Undergraduate Education
  - Revise engineering curricula - ABET EC 2000
  - Increase the quality of incoming students
  - More undergraduate research experiences
  - Mentor students for future career paths
  - Utilize state-of-the-art information technology

- Next
  - REU Programs
  - Quality
  - Recruitment
Implementation Steps and Responsibilities - Undergraduate

- EC2000 Faculty buy-in (Wilkins)
- Increase quality Recruit (chairs/faculty) Scholarship $ (Kaler/Seigel)
- Increase numbers Recruit (chairs/faculty) Summer Internships
- Research experiences REU
- Mentor Faculty
- IT UNIDEL/ development target
Implementation Steps and Responsibilities - Undergraduate

- More REU experiences – Mat Sci, ME, ECE
- Common first year?
- “Super Fellowship” Mentoring (or why do we get Rhodes?)
"Bio Engineering" at Delaware

ChemE  MechE  ECE  CEE  MSE

Minor  Concentration  Bioinfo?  ??  ??

College Recruiting Bulletin
"Bioengineering"
Goal 4

- Increase Number and Quality of Graduate Students
  - Attract highly qualified graduate students
  - Improve recruiting efforts
  - Establish new degree programs
  - Recruitment
Goal 5

- Improve Visibility
  - Promote academic careers among students
  - Promote faculty professional development and visibility
  - Build on the success of the Outreach Program
  - Establish focused PR activities within the College
  - Web pages

- Next
  - More . . .
Goal 6

- Foster Diversity
  - Increase the number of female and minority faculty members in the College
  - Increase the number of female and minority graduate students in the College
  - Maintain the size and strength of the RISE Program for recruitment and retention of undergraduate students from underrepresented groups (campus effort?)

- Next
  - AMP/NSF/ Sloan
  - Pam Cook and WIE program
College of Engineering
Strategic Planning

External Metrics

- **Graduate Evaluations**
  - Reputation (deans and industry recruiters) 40%
  - GRE and acceptance rate 10%
  - Faculty resources (PhD/faculty, PhD#,MS/PhD) 25%
  - Research activity (total and per capita) 25%

- **Undergraduate and Department Ranks**
  - Reputation
  - Reputation
What does it take to ‘move’?
(2001 Rankings)

<table>
<thead>
<tr>
<th></th>
<th>35 Florida</th>
<th>47 Delaware</th>
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<tbody>
<tr>
<td>Academic reputation</td>
<td>3.5</td>
<td>3.1 (15%)</td>
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<tr>
<td>Recruiter reputation</td>
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<td>3.1</td>
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<tr>
<td>GRE quantitative score</td>
<td>745</td>
<td>750 (4.5%)</td>
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<tr>
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<tr>
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<tr>
<td>% NAE Faculty</td>
<td>1.4%</td>
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<tr>
<td>College research (millions)</td>
<td>$61.0</td>
<td>$20.2 (15%)</td>
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<tr>
<td>Per capita (thousands)</td>
<td>$316.2</td>
<td>$212.8 (10%)</td>
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<tr>
<td>PhD’s granted</td>
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<td>40</td>
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<tr>
<td>Number of faculty</td>
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US News 2001
### 2002 Rankings

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<th>Metric</th>
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<td>Number of faculty</td>
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*US News 2002*
### 2003 Rankings (???)

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