• College Highlights
• State & University Budgets
• Plans for 2004-05

Presentation to the EAC & RDC on 10/8/04 by
Robert H. Davis, Dean, College of Engineering and Applied Science
The vision of the College of Engineering and Applied Science is to be widely recognized for excellence and leadership in both research and education, with an emphasis on interdisciplinary research teams and active, discovery and service learning through hands-on experiences.

– Strategic Plan for Excellence 2003-2008
1. Research Excellence
   - Core and emerging areas of distinction
   - Interdisciplinary partnerships
   - Assisting society and individuals

2. Educational Excellence
   - Students of high quality & diversity
   - Innovative curricula and enrichment experiences
   - Life-long learning, service and leadership

3. Resource Excellence
   - Outstanding faculty and staff
   - Modern facilities for education and research
   - Increased funding and partnerships
Research Highlights

- Cybersecurity and Unmanned Vehicle Centers
- Biotechnology and Nanotechnology Initiatives
- Increased Faculty Productivity:

<table>
<thead>
<tr>
<th>Year</th>
<th>FY02</th>
<th>FY03</th>
<th>FY04</th>
</tr>
</thead>
<tbody>
<tr>
<td># Proposals</td>
<td>529</td>
<td>554</td>
<td>577</td>
</tr>
<tr>
<td>$ Grants Received</td>
<td>38.7 M</td>
<td>37.5 M</td>
<td>42.8 M</td>
</tr>
<tr>
<td># PhD Degrees</td>
<td>61</td>
<td>71</td>
<td>74</td>
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<tr>
<td>Dept.</td>
<td>Grant $ Received</td>
<td>Grant $ Spent</td>
<td>Gift $ Spent</td>
</tr>
<tr>
<td>-------</td>
<td>------------------</td>
<td>---------------</td>
<td>--------------</td>
</tr>
<tr>
<td>AES</td>
<td>14.6 M</td>
<td>11.4 M</td>
<td>0.2 M</td>
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<tr>
<td>ChBE</td>
<td>6.4 M</td>
<td>5.5 M</td>
<td>1.8 M</td>
</tr>
<tr>
<td>CEAE</td>
<td>5.7 M</td>
<td>5.2 M</td>
<td>0.4 M</td>
</tr>
<tr>
<td>CS</td>
<td>4.7 M</td>
<td>6.0 M</td>
<td>0.2 M</td>
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<tr>
<td>ECE</td>
<td>4.7 M</td>
<td>3.9 M</td>
<td>0.3 M</td>
</tr>
<tr>
<td>ME</td>
<td>4.0 M</td>
<td>3.8 M</td>
<td>0.2 M</td>
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<tr>
<td>Other</td>
<td>2.7 M</td>
<td>2.3 M</td>
<td>1.9 M</td>
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<tr>
<td>Total</td>
<td>42.8 M</td>
<td>38.1 M</td>
<td>5.0 M</td>
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Education Highlights

➢ Experiential Learning (618 students in FY04)
  ♦ Discovery learning (492 activities)
  ♦ Service learning (265 activities)
  ♦ Professional learning (137 activities)
Outreach and Recruitment Highlights

- **Enhanced Recruitment Efforts**
  - Improved web site and promotional materials
  - Applicant database and follow-up
  - Visits to high schools and science fairs
  - Increased scholarships and financial aid

- **Enhanced Outreach Efforts**
  - Denver and Lafayette science/engineering schools
  - Rural engineering K-12 program
  - Native American engineering program
Diversity Improvements in Entering Freshman Class

- 17.3% women Fall 2004 vs. 14.1% Fall 2003
- 7.0% underrepresented minorities Fall 2004 vs. 5.7% Fall 2003
Freshmen Admissions Analysis

♦ Fall New Freshmen Data
  • 2004 Admitted: 1952 (372 women, 19.1%)
  • 2004 Enrolled: 585 (101 women, 17.3%)
  • 2003 Enrolled: 560 (79 women, 14.1%)

♦ Survey of Those Declining Admission
  • Adequacy and timing of contacts
  • Adequacy of financial aid

♦ Action Items Taken and Planned
  • Director of Outreach and Education
  • Access to admissions database
  • Follow-up letters, calls, aid
  • Outreach, tracking, visits
♦ **Astronaut Scholarship Foundation**: $10 K scholarships to Ashley Moore (AES/APPM) and Erin Reed (AES)

♦ **Besal Scholarship**: $3 K scholarship to ArchE lighting students Kristy Benner, Ryan Kelley, Chris Miller and Tyler Nelson

♦ **Formula SAE team won 23rd place in May 2004** (up from 41st in 2003)
More Student Highlights

Discovery Learning Symposium (4/23/04)

1st Place – Nick Willett (Micro/Nano)
2nd Place – Jake Nelson (Space Exp. Inst.)
3rd Place – Alexandra Kordick (Drinking Water)
– Florence Manega (Space Grant)

ITLL Design Expo

People’s Choice Award:
Location-based Reminder System by Kavita Agrawal, Phillip Dressen, James Gillespie, Ben Hoyt and Simone Nocolo (CS Senior Project)
12 new hires, including 5 women and 3 persons of color:

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
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<tbody>
<tr>
<td>Eric Frew (AES)</td>
<td>Leysia Palen (CS)</td>
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<td>Jeff Thayer (AES)</td>
<td>Todd Murphey (ECE)</td>
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<td>Melissa Mahoney (ChBE)</td>
<td>Manish Vachharajani (ECE)</td>
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<td>David DiLaura (CEAE)</td>
<td>Barbara Lawton (EMP)</td>
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<td>Siva Sivaselvan (CEAE)</td>
<td>Diane Sieber (Herbst)</td>
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<td>Roseanna Neupauer (CEAE)</td>
<td>Jerry Qi (ME)</td>
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</table>
Faculty Achievement Highlights

- NSF CAREER: John Crimaldi, Kurt Maute, Will Medlin and Regan Zane
- NAE Membership: George Born and Kaspar Willam
- NAE Gordon Prize: Frank Barnes
- NSF Waterman Award: Kristi Anseth
- AIChE Colburn Award: Kristi Anseth
- ASME Pi Tau Sigma Gold Medal: Ken Gall
$1.5 M allocated for 18 renovation projects

7000 sq. ft. in Exabyte building

Nanotechnology Laboratory and Characterization Facility

High Performance Computing Facility

Feasibility Studies for Building Additions
Financial Resource Highlights

- **State Support to CU-Boulder**
  
  $85 M FY03 \rightarrow $58 M FY04 \rightarrow $56 M FY05

- **Resident Undergraduate Engineering Tuition**
  
  $3350 FY03 \rightarrow $3852 (+15%) FY04 \rightarrow $4582 (+19%) FY05

- **Qualify for Colorado and Differential Tuition**

- **Continuing General Funds for the College**
  
  $23.2 M FY03\(^1\) \rightarrow $24.5 M (+6%) FY04\(^2\) \rightarrow $25.9 M (+6%) FY05
  
  \(^1\)after $1.5 M cut   \(^2\) includes $0.5 M tuition restoration

  Goal: $30 M by FY08

- **Gift Support Received (not including in-kind)**

<table>
<thead>
<tr>
<th>FY97-FY03 Campaign Goal</th>
<th>FY97-FY03 Amount Rec’d</th>
<th>FY04-FY08 Strategic Goal</th>
<th>FY04 Amount Rec’d</th>
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<tbody>
<tr>
<td>$41.3 M</td>
<td>$55.7 M</td>
<td>$60 M</td>
<td>$4.0 M*</td>
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</table>

\*Plus $1.6 M in new pledges
State Budget FY1990: $2.5B

- K-12: 42%
- General Government: 2%
- Higher Education: 20%
- Human Services/Health Care: 23%
- Other: 3%
- Corrections: 10%

State Budget FY2004: $5.7B

- K-12: 43%
- General Government: 1%
- Higher Education: 11%
- Human Services/Health Care: 30%
- Other: 3%
- Corrections: 12%
CU’s FY1990 Total Budget: $634M

- Tuition & Fees: 23.7%
- State Approp: 25.1%
- Clinical: 1.0%
- Gifts, Grants, Contracts: 27.9%
- Other: 1.6%
- Investment: 1.8%
- Sales & Services: 4.3%
- Auxiliary: 9.6%
- ICR: 5.0%


CU’s FY2004 Total Budget: $1.62B

- Tuition & Fees: 25.4%
- State Approp: 9.6%
- Clinical: 7.0%
- Gifts, Grants, Contracts: 35.5%
- ICR: 6.4%
- Auxiliary: 7.4%
- Other: 2.7%
- Sales & Services: 5.6%
- Investment: 0.3%
- Sales & Services: 4.3%
- Investment: 1.8%
- Other: 1.6%
- Clinical: 1.0%
- Gifts, Grants, Contracts: 27.9%
Research Plans

- Increased Grants and PhD Students
- All Faculty Involved
- Faculty Incentives
- New Centers and Initiatives
- Faculty Research Council
Educational Plans

- Discovery, Service and Professional Learning
- Honors and Fellows Programs
- K-12 Outreach
- Academic Advising
- Accreditation Preparation
- Grad and Undergrad Education Councils
Resource Plans

- Facilities Planning: Near-Term and Long-Term
- Faculty Excellence Program
- Tuition, Fees and State Funding
- Private Fundraising
  - Faculty Support
  - Student Support
  - Capital Projects