EXECUTIVE ADVISORY BOARD – MEETING AGENDA

Friday, April 6, 2012
Clark Conference Room (ECAD 150)
Dean’s Office, Engineering Center

8:00 am Welcome

8:15 am Executive Advisory Board Mission

8:30 am State-of-the-Department, Keith Molenaar
  • Academic program update
  • Research program update

9:00 am Student and Faculty Presentations
  • Innovations in Research
  • Innovations in Teaching
  • Service and Outreach

10:30 am Strategic Planning Task Group Report, Jim Case and Keith Molenaar
  • Presentation of Strategic Road Map
  • Discussion of Strategic Imperatives
  • Next steps

11:30 am Lunch at C4C Tree House Room
  • Small Group Meetings with CEAE Student Leaders

1:00 pm High School Outreach Task Group Report, Jon Jones and Angela Bielefeldt
  • 2012 Admissions Update
  • Task Group Accomplishments
  • Next Steps

1:45 pm Resource Development Task Group Report, David Gupta and Nick Lobejko
  • CU Capital Campaign
  • CEAE Giving
  • Resource Development Goals

2:30 pm Alumni Recognition Task Group Report, Ben Nelson and Araceli Warren
  • Alumni Outreach
  • Alumni Award Models

3:15 pm Wrap-up Discussion and Next Steps

4:00 pm Adjourn
CEAE Strategic Roadmap – April 2, 2012

**Vision**
The CEAE department aspires to lead in extraordinary education and research for the sustainable development, management and safety of civil and architectural infrastructure systems – serving society in harmony with our natural resources.

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<tr>
<th>People</th>
<th>Program</th>
<th>Places</th>
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<tr>
<td><strong>Enablers and Prerequisites</strong></td>
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<td><strong>Strategic Goals/Imperatives</strong></td>
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<td>Engage in high school recruitment efforts.</td>
<td>Build on successes of Engineers without Boarders and Mortenson Center to increase student quantity and quality.</td>
<td>Enroll 50 AREN and 50 CVEN undergrad students per year with above average quality metrics in the college and among our peers.</td>
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<td>Engage in Engineering Honors programs.</td>
<td>Implement a formal and self-sustaining undergraduate internship program.</td>
<td>Promote and develop programs in the spirit of &quot;engineering for a global society.&quot;</td>
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<td>Enrich student academic experience through internships, interaction with practicing engineers, service learning and study abroad programs.</td>
<td>Establish a standing research committee to systematically pursue large collaborative proposals.</td>
<td>Establish 3 new research centers in areas that impact local, state, national and global needs.</td>
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<td>Increase fellowship, research and teaching assistantship resources.</td>
<td>Craft partnerships with state agencies, NGOs and industry to broaden our funding base.</td>
<td>Enable every student to participate in at least one major enrichment experience (internship, discovery learning, service learning and/or study abroad).</td>
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<td>Retain current faculty and secure additional tenure track faculty and instructor lines.</td>
<td>Build on funding success with federal research agencies.</td>
<td>Increase student scholarships and fellowships by 30%.</td>
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<td>Increase staff budget.</td>
<td>Create formal relationships with universities and a CEAE administrative structure to support an international degree designator.</td>
<td>Increase faculty by 4 tenure track and 2 instructors.</td>
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<td>Procure funding to fulfill CEAE building plans.</td>
<td>Endow 5 additional faculty fellowships, professorships or chairs.</td>
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<td>Identify faculty member to champion second Residential Academic Program (RAP).</td>
<td>Increase staff by 30%.</td>
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Changing the Conversation: 
Messages for Improving Public Understanding of Engineering

The Problem — Available data¹ and considerable anecdotal information suggest that American adults and children have a limited understanding of what engineering is and what engineers do. Misconceptions and lack of awareness about the field have a number of detrimental effects, including contributing to low enrollments in engineering school by females, African Americans and Hispanics. The engineering community spends hundreds of millions of dollars a year on outreach to the public², but there is little evidence these investments are paying dividends. To date, outreach by the engineering community has been largely ad hoc, local in scale, and not informed by market research.

The Project — With funding from the National Science Foundation, the National Academy of Engineering (NAE) developed and tested messages to promote a more positive image of engineering. The overarching goal is to encourage coordinated, consistent and effective communication by the engineering community about the role, importance and career potential of engineering to a variety of audiences, including school children, their parents, teachers and counselors; policy makers at the local, state and federal level; and the public at large.

Results — Qualitative and quantitative research conducted by the NAE revealed a number of interesting things about how the public views engineering, including:

- More than any other characteristic, adults and teens alike believe engineers have to be good at math and science.
- There is no readily identifiable “public face” of engineering.
- Teens, particularly girls, tend to associate “helping people” and “making a difference” with fields like medicine or teaching — not engineering.

The project tested the appeal of five different messages describing engineering (see box below). The most appealing message among both adults and teens, and across racial and ethnic groups, was “Engineers Make a World of Difference.” The message, “Engineers Connect Science to the Real World,” was the least appealing message among all groups.


¹ American Perspectives on Engineers and Engineering (http://www.aaes.org/harris_2004_files/frame.htm); Firefighters, Doctors and Nurses Top List as Most Prestigious Occupations (http://www.harrisinteractive.com/harris_poll/index.asp?PID=685)
**Do’s**

Engineering is challenging — and so are the health sciences and many other fields – so what? It’s about working hard, not being brilliant

You should be competent in math and science – and you need to know how to read and write

Engineers help solve problems

Engineers make a world of difference

Engineers design and create for the benefit of society

Consider Engineering if you like to help people

Engineering is about collaboration and teamwork

Engineering… because dreams need doing!

Engineers help shape the future

Engineering is essential to our health, happiness and safety

Engineering is about discovery, designing, using your imagination, innovation and contributing to society

Engineers turn ideas into reality

Engineering is relevant, creative, dynamic, gratifying and innovative

Engineer your future at CU Boulder!

**Don’ts**

Engineering is rigorous and hard

You must LOVE math and science to pursue engineering

You need to be really smart to be an engineer

Engineers are nerds

Engineers sit in front of computers all day

Engineers are desk jockeys

Dilbert is a good example of an engineer

Engineering is all about competition

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**CU College of Engineering & Applied Science**

- the top ranked engineering college in the Mountain time-zone
- the only top 50 ranked engineering college in Colorado

**How will the world CU?**

Are you looking for good engineering resources for prospective students?
