EAC update on student retention

Student Retention Task Force Report to EAC

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CEAS Blue Ribbon Committee Participants:

Faculty: BOLD Center, ITL, Civil Engineering, Chemical Engineering, Computer Science

Staff: assessment, first-year experience

Consultation with:

• Researchers at peer institutions
• Director, ATLAS
• Directors of Residential Academic Programs (RAPs), RAP Advisory Board
• Leaders of EAC Retention Taskforce
1. Require all departments to participate in the first-year projects course (or suitable alternatives) that engage students, staffed with top instructors.

- **Action 1**: recommendation that first-year projects course be part of the “flexible first year curriculum” approved in update to college rules 9/12.

- **Action 2**: This seems an expensive step for the college; recommendation that a college task force examine the cost and impacts of introductory projects courses alongside alternatives such as new Residential Academic Programs, scholarships, and student experiences in their major.

- **Action 3**: Couple first-year projects classes with the formation of new Residential Academic Programs, such as in the Sustainable by Design RAP, for stronger living and learning impact.

80% of our freshmen took an intro projects course during AY 11/12
2. Enhance rewards and recognition for teaching and advising excellence
   - **Rewards**: recognition of college-wide awards at banquet for distinguished alumni and students
   - **Rewards**: proposal to increase dollar amount and share best practices among departments
   - **Recognition**: changes made to faculty evaluation process to develop annual faculty goals and align these goals with the annual performance review.
3. Develop performance improvement plans for faculty who receive low teaching evaluations.

- Implemented for the current performance cycle; plans received
- Blue ribbon recommendation: Provide specific professional development opportunities, including just-in-time pedagogy sessions and mentoring.
4. Require students seeking intra-university transfers to other CU-Boulder schools and colleges to first consult with an engineering advisor.
   • This recommendation will go before Admin Council; it requires a change in campus-wide policy. The Blue Ribbon Committee supports it.

Blue Ribbon Committee recommendation: Examine ways to improve advising and support for students who are balanced between multiple majors, students who fall through the cracks in open option, and students in transition in order to slow the tide of “leavers”.
   • Interviews are complete and a candidate has been selected to fill a new, college-wide advising position for students in transition between departments and schools.
5. Explore how to increase the numbers of engineering students in “living and learning” dormitories, and to better engage students who are not in engineering dorms.

Blue ribbon committee related recommendation: pilot at least one new interdisciplinary Residential Academic Program, with resident faculty along the Andrews Hall model, in anticipation of redesign of the Engineering Quad.

- Start with Global Engineering – proposal submitted to campus
- (2) Engineering for Society, (3) ATLAS Technology, Arts and Media (4) other interdisciplinary programs
6. Determine a means to evaluate departmental performance in student retention, including plans to improve retention of students in good standing.

Blue ribbon committee concrete recommendations:

- **Action 1:** Define good retention practices on both faculty and departmental levels.
- **Action 2:** Examine whether we can, based on these criteria, reward faculty who engage in acknowledged retention practices.
- **Action 3:** Examine whether we can evaluate and provide a scorecard to departments that achieve outstanding retention efforts. Design a reward structure consonant with college retention goals.
7. Identify “at-risk” populations and develop targeted retention plans for these populations.

The EAC identified the following student populations as at-risk:

- poor course performance
- not resident in an engineering dormitory their first year
- do not take intro projects and other recommended first-year courses
- out-of-state
- deficiencies in preparation

actions:

- Enhance current programs: tutoring, workgroups, new math-placement exam (ALEKS), residential programs and living and learning communities, BOLD, GoldShirt.
- Increased intervention efforts through new students in transition advisor, under supervision of Assistant Dean Mary Steiner
Blue Ribbon Committee recommendation: undertake a serious assessment effort in the college, under the direction of a year-long or multi-year Task Force, to understand the impacts on 4-6 year graduation rates of:

- residence in academic learning communities
- participation in student societies or professional organizations
- early participation in a projects class
- participation in other first-year experience activities and classes.
Blue Ribbon Committee recommendation: participate more actively as a college in the NSF-funded ENGAGE strategies

- **Everyday Examples in Engineering (E3s):** Involve faculty who teach 1st- and 2nd-year courses in efforts to use and develop examples that are familiar and engaging to students to illustrate theoretical concepts.

- **Spatial Visualization Skills:** Assess students' spatial visualization skills and implement proven teaching and learning strategies to improve students' spatial skills.

- **Faculty-Student Interaction:** Involve engineering faculty who teach 1st- and 2nd-year courses in efforts that build faculty knowledge and skill to better engage and interact with undergraduate engineering students inside and outside of the classroom.
Blue Ribbon Committee recommendation: start an Alumni Industry Mentoring Program, attached to departments, to begin orienting students toward career engagement. Examine the highly-functional model in the Leeds School of Business for best practices.
Comments/Questions?

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