New Degree Proposals

A discussion of interim findings of the blue ribbon committee on New Degree Programs, summer 2012
Brief background

• Projected CEAS growth by 2020: @30% undergraduate (= @ 1000 additional students)
• Broadening participation
• Changing research landscape
• National emphasis on STEM education
• leverage college and campus strengths
• Student demand
Several structures for new programs considered

• New departmental or interdisciplinary degrees, along the environmental engineering model. (Industrial Engineering, Biomedical engineering)

• A new general engineering degree with a range of tracks (STEM education, pre-med, global engineering)

• Combined formal learning/informal learning Residential Academic Programs

• Flexible majors, allowing students to follow multiple tracks as part of their major degree program.
Top 5 degree ideas, based on committee ranking

(Not in ranked order here—you will think this through)

• **Industrial Engineering.** Interdisciplinary major in combination with business courses, entrepreneurship or a business minor.

• **Biomedical Engineering.** Either as a new department or as an interdisciplinary program.

• **Multi-track General Engineering degree (E4S)** STEM education licensure, Global Engineering, pre-med, Technology Arts and Media.

• **Interdisciplinary Design** as an interdisciplinary program partially leveraging existing faculty, Game Design, Technology Arts and Media.

• **Information Science** as an interdisciplinary program primarily leveraging existing faculty.
Further ideas, as ranked by committee

(In order, as ranked by the blue ribbon committee.)

- **Technology Arts and Media degree** as stand-alone degree combining existing minor, CS and ECEE, led by ATLAS within CEAS.

- **Global Engineering** as an interdisciplinary degree (not part of Engineering for Society general engineering degree). Combines residential language immersion/culture/politics/economics focus and EWB participation or undergraduate EDC curricula.

- **Flexible Majors** allowing students to follow multiple tracks as part of their major degree program, or combine elements of multiple majors.
**Our task today (20 minutes)**

- With a partner, consider the recommended programs. Indicate pros and cons where you see them. Rank them.

- Are there programs that need to be returned to a top 5 list? Other programs in development in your departments that we should know about?

<table>
<thead>
<tr>
<th>Degree program</th>
<th>rank</th>
<th>advantages</th>
<th>disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial Engineering. Interdisciplinary major in combination with business courses, entrepreneurship or a business minor.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biomedical Engineering. Either as a new department or as an interdisciplinary program.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multi-track General Engineering degree (EAS) STEM education licensure, Global Engineering, pre-med.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interdisciplinary Design as an interdisciplinary program partially leveraging existing faculty, Game Design, Technology Arts and Media, or industrial engineering design</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information Science as an interdisciplinary program primarily leveraging existing faculty.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Other proposed programs we should restore to the top? Other programs you recommend for consideration?
Reference: potential new programs

- Industrial Engineering
- Biomedical Engineering
- Multi-track General Engineering degree (E4S)
- Interdisciplinary Design
- Information Science
- Technology Arts and Media
- Global Engineering
- Flexible Majors
- + ?