**BIOENGINEERING AT RICE**

Biomedical Engineering Society  
Rice University  
August 31, 2010

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**Meeting Outline**

- Introduction to Bioengineering  
- The Biomedical Engineering Society (BMES)  
  - National  
  - At Rice  
- Events for the Year  
- MythBusters!  
  - Curriculum  
  - BIOE + Pre-meds = ???  
  - After Graduation

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**Bioengineering is...**

*The application of engineering principles to address challenges in the fields of biology and medicine*

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**What do Bioengineers do?**

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**Biomedical Engineering Society (BMES)**

To serve as the lead society and professional home for biomedical engineering and bioengineering

- BMES Vision

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**BMES - Rice University Chapter**

- Board Members  
  - President: Benjamin Lu ('11)  
  - Vice-President: Eric Kim ('11)  
  - Secretary: Georgia Lagoudas ('12)  
  - Treasurer: Rahul Rekhi ('13)  
  - Publicity Coordinator: Amanda Shih ('11)
- Website: [http://www.ruf.rice.edu/~bmes/](http://www.ruf.rice.edu/~bmes/)
- Facebook Group: Rice BMES
Agenda
- Seminars
  - Faculty Spotlights
  - IBB Lecture Series
- Workshops
  - Summer Internship Seminar
  - Career Panel
  - Graduate School Insider
- Industry Tours
- Social Events
  - Engineering Basketball Tournament
  - Mentoring Program

MYTHBUSTERS
What it takes to be a Rice BIOE...

The Curriculum
- Yes, BioE has a rigorous curriculum
  - Broad field (biology + chemistry + math + materials science + electrical eng +...)
  - Time-consuming classes:
    - Group projects
    - Problem sets
- But you gain a lot!
  - Engineering degree
  - Problem-solving skills

Can I study abroad?
- Yes, but you need to plan ahead
  - Spending sophomore spring abroad is most viable option
  - Get in touch with Ratna Sarkar (more info at international.engr.rice.edu)
- Alternatively, consider summer international internships
  - NanoJapan
  - Beyond Traditional Borders
  - DAAD

Can I graduate early?
- Yes, but once again, you need to plan ahead!
- General advice
  - Use as much AP Credit (Calculus, Bio, Chem, Physics C) as possible
  - Take BIOE 252 this semester
    - Not doing so makes graduating in 3 years impossible (3.5 years is still fine)
    - Meet with advising to make sure you’re on track
    - Don’t stack notoriously/exceptionally difficult classes
**Can I double major?**
- Absolutely!

**Advice**
- Meet with advisers frequently to stay on track for both majors
- Use AP credit
- Avoid combining weed-out/difficult classes of both majors

**Consider engineering minors:**
- Computational and Applied Mathematics
- Energy and Water Sustainability
- Financial Computation and Modeling
- Global Health Technologies
- 6 classes each

**Should I take my AP’s?**
- Must be handled case-by-case
  - Depends on individual, educational background, etc.
- Use shopping period to decide
- If possible ask someone from your high school (or with a similar background) also at Rice

**Can I be a BIOE and go to med school?**
- Yes
  - But it will be challenging (and hopefully rewarding)
  - But.. med schools will NOT overlook a poor GPA regardless of how “tough” the curriculum
  - As a pre-med, being BIOE can both open and close many doors
  - Don’t think: will being BIOE give me an advantage for getting into med school?
    - Think: Am I truly interested in BIOE and do I have the tools to be successful?

**BIOE vs. BIOC**
- Engineering vs. natural sciences
  - Why? vs. How can I apply?
- Consider:
  - Do you like to think critically?
  - Does using a set of “tools” to problem solve rather than memorizing appeal to you?
  - Do you like math, electronics, computational modeling?

**Are all BIOEs premed?**
- General break down of Rice BIOE graduates:
  - 1/3 Medical School
  - 1/3 Graduate School
  - 1/3 Industry
**Will I have a job?**

- **Going straight into industry…**
  - BIOE is not the *conventional* degree
  - Companies: pharmaceutical, biotech, etc. (Merck)
- **Accreditation** – does not matter
- **How to find a job:**
  - Attend BMES meetings!
  - Talk with professors
  - Connections with Senior Design

**Questions?**