MIT Department of Biological Engineering
BE Graduate Student Survey 2006

Opened to submission on September 28, 2006. Closed on October 12, 2006.
Total number of responses: 60

Format of numerical response questions:
Non-zero average ± non-zero standard deviation (total number of responses including "n/a")

1. GENERAL INFORMATION

1.1. Please select your **BE graduate program track**.

Track	*#Responses*	*%Responses*
Toxicology	3	5%
Bioengineering	49	82%
Applied Biosciences	8	13%
CSBI	0	0%
M.Eng.	0	0%
N/A	0	0%
Total	60	100%

1.2. Please enter the year in which you started your BE graduate program. (For example, new 2nd-years who joined the program at the beginning of September 2005 would enter '2005'.)

Year	*#Responses*	*%Responses*
1999	1	2%
2000	1	2%
2001	3	5%
2002	10	17%
2003	8	13%
2004	12	20%
2005	14	23%
2006	11	18%
Total	60	100%

1.3. If you wish to obtain a copy of your feedback, please enter your **email address** in the field below. All survey results will be kept confidential. If you wish to submit this survey anonymously, leave the field **blank**.

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2. BEFORE JOINING BE

If you are a student in the graduate entering class of 2004 or earlier (i.e. a 3rd year or later) you can skip this section and resume with Section 3.)

2.1. Rank the **reasons** that made you choose **to join** MIT's Biological Engineering Division.
Please rank in terms of importance, **1 = most important, 9 = least important.**
Please use each number only once.

all responses			
	count	mean	stdev
research opportunities	44	2.00	1.84
potential advisors	40	3.23	1.95
MIT prestige	43	3.42	1.99
course work/overall curriculum	40	3.90	1.71
location/atmosphere of Boston	45	4.72	1.94
financial considerations (stipend, foreseen expenses)	41	5.46	1.83
framework of the qualifying exams	43	6.38	1.71
other	40	6.79	3.24
one-semester TA requirement	14	7.05	2.05

class of 2005 & 2006			
	count	mean	stdev
research opportunities	25	2.00	2.08
MIT prestige	23	3.29	2.05
location/atmosphere of Boston	24	3.64	1.98
potential advisors	23	3.87	1.66
framework of the qualifying exams	25	5.13	1.91
financial considerations (stipend, foreseen expenses)	23	5.43	1.31
course work/overall curriculum	23	6.30	1.77
one-semester TA requirement	23	6.71	3.59
other	7	6.96	2.20

Please specify any "other" reasons that made you decide to choose join BE.

8 total responses

Student atmosphere (4)

- Student enthusiasm and openness (2005)
- intellectual atmosphere of peer students (2003)
- atmosphere of department (students, faculty, collaborative) (2002)
- Overall atmosphere of BE department made me feel like I would fit in well and people seemed happy here. (2005)

Interview weekend (2)

- Interview Weekend was a lot of fun and made me feel honored compared to other interview weekends elsewhere. Steak and lobster at Legal Seafoods... How could I turn this program down? (2006)
- The impression I received about the BE graduate community during interview weekend. (2005)

Others (2)

- Strong emphasis on biology within bioengineering (2006)
- Family and social ties (2005)

2.2. It was easy **to find information** about the BE graduate program.
[Remember: **1 = strong disagreement, 5 = strong agreement**]

All responses: 3.67 ± 1.24 (45)

Class of 2005 & 2006: 3.64 ± 1.15

Where did you find information about the BE graduate program?

36 total responses

Website (24)

- website
- BE department website

- web
- Web
- website
- BE website
- web, but it was difficult to find current information about the research of each professor - the web was horribly out of date.
- The website
- online
- web.mit.edu/be found through MIT's department home page
- Online
- Website
- BE website
- BE website
- BE webpage
- web.mit.edu/be
- Mainly on the BE websites
- Website
- online - but there wasn't as much information way back when...
- BE website
- The MIT website is not the easiest to navigate, but it was doable.
- Internet
- Website, Department supplied information
- I found most information on the internet. Information about curriculum and coursework requirements was confusing and hard to find.

BE students, faculty (8)

- Website, talking to students
- Online / Doug
- Graduate students currently in the program.
- friends, internet.
- Website, Talking to individuals from my undergrad who had been affliated with it
- Website, interviews
- Website, Students
- Talking to faculty and students in the program

Other department students/faculty (4)

- There was a little bit of information on the web. I also asked some friends in the biology department.
- my advisor
- web.mit.edu/be, from my undergraduate research advisor as well as another professor in my department.
- Undergraduate Advisor

2.3. Having a graduate student advisor was helpful.

All responses: 3.18 ± 1.27 (45)
Class of 2005 & 2006: 3.18 ± 1.18 (25)

My interaction with my graduate student advisor was:

all responses

Answer	*#Responses*	*%Responses*
too much	1	2%
too little	12	27%
just right	32	71%
Total	45	100%

class of 2005 & 2006		
Answer	*#Responses*	*%Responses*
too much	0	0%
too little	3	13%
just right	21	88%
Total	24	100%

2.4a. If you attended the **recruitment weekend**, please answer this section (2.4a). *If you did not attend the recruitment weekend, please proceed to section 2.4b if you were able to arrange an on-campus visit at a later time, or section 2.4c if you had a telephone interview.*

The recruitment weekend was informative and helpful.
All responses: 4.41 ± 1.24 (31)
Class of 2005 & 2006: 4.29 ± 1.44 (15)

The question and answer session was informative and helpful.
All responses: 3.93 ± 1.15 (31)
Class of 2005 & 2006: 3.71 ± 1.14 (15)

The informal activities (campus tour, dinner, post-dinner party) with current students were valuable.
All responses: 4.34 ± 1.08 (31)
Class of 2005 & 2006: 4.43 ± 1.16 (15)

What about the weekend would you change?
10 total responses

food, events (4)

- The Boston Tour was tiresome, do something else instead, like give different alternatives to go do in Bosotn: Museum of Science or Fine Arts, or do Duck tour instead (2004)
- make dinner on saturday night official event of the weekend, and encourage students to go out with current students that night afterwards.(2004)
- Less formal of a dinner location; go to a bar afterwards (2006)
- No box lunches. May be silly, but I think that things like this show you how much someone wants you. You don't want to know what Harvard did... However, others believe this is the MIT 'honesty'. Good too. Anyways, food for thought (no pun intended). (2004)

nothing (3)

- It was very well done. (2006)
- I really liked it, and don't see anything that really needed to be changed. (2006)
- Nothing, it was great. (2006)

scheduling (2)

- it was too packed with events (2003)
- It conflicted with UCSD weekend. And it snowed while I was here! (2006)

Other (1)

- don't know (2005)

2.4b. If you did not attend the recruitment weekend but did arrange a separate campus visit, please answer this section.

My visit to campus affected my decision to attend MIT.
All responses: 3.89 ± 1.36 (11)
Class of 2005 & 2006: 4.00 ± 1.73 (5)

My campus visit was a reasonable substitute for the recruitment weekend.
All responses: 3.22 ± 0.83 (11)
Class of 2005 & 2006: 3.40 ± 0.89 (5)

2.4c. If you did not attend the recruitment weekend but did arrange a separate telephone interview, please answer this section.
Having a telephone interview was a reasonable substitute for on-campus interviews.
All responses: 3.29 ± 1.38 (8)
Class of 2005 & 2006: 3.33 ± 2.08 (4)

What about the recruitment process would you change?
1 total response
International students
Everyone should be called for recruitment weekend; international students have a high probability of joining MIT therefore it may be a good investment to subsidise part of their travel expenses to MIT. Some other universities do follow this. (2005)

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3. CURRICULUM & QUALS IN BE

3.1. The BE Division has too many/too few/just enough graduate students.

Answer	*#Responses*	*%Responses*
too many	3	5%
too few	2	3%
just enough	54	92%
total	59	100%

The BE Division has too many/too few/just enough faculty members.

Answer	*#Responses*	*%Responses*
too many	1	2%
too few	22	37%
just enough	36	61%
total	59	100%

3.2. The **average time it takes to graduate** with a PhD in BE is approximately 5.5 years. This is too long/too short/just right.

Answer	*#Responses*	*%Responses*
too long	30	52%
too short	0	0%
just right	28	48%
total	58	100%

3.3. I feel that the four core courses are relevant to my research and/or future career goals.
3.60 ± 1.08 (59)

3.4. I find the **elective requirements** useful for my curriculum in BE.
3.38 ± 1.19 (58)

I am offered a good selection of bioengineering electives.
2.87 ±1.08 (56)

I do NOT have trouble taking electives because of schedule conflicts.
3.82 ± 1.16 (57)

3.5. I had a positive interaction with the professor(s) during my **TA experience**.
4.45 ± 0.77 (51)

I find that the time commitment during my TA experience was reasonable.
3.57 ± 1.35 (51)

I find that my TA experience was educationally valuable.
4.29 ± 1.09 (51)

3.5b. Do you feel the disparity in the workload of different TA's is unfair?

Answer	*#Responses*	*%Responses*
yes	28	56%
no	22	44%
total	50	100%

If so, what could be done to improve this disparity?
24 total responses

nothing, current system is fine (4)

- I think there is disparity between different classes, but there's not much really that can be done.
- We all had a chance to rank the courses we were interested in TA'ing. I think that was a fair opportunity to give input on our interests and an opportunity for us to think about workload when we submitted our rankings. Everyone gets something different out of the TA'ing opportunity so quantifying that experience by complaints about workload doesn't seem like the best assessment of the overall experience, especially when many of us are interested in pursuing academic careers.
- We should make life fair for all! How? I don't know.
- ??? Make everyone TA 420, hmm, no wait, that wouldn't work. Deal with it, that's just the way it is. Throw a party in honor of TA's of tough classes.

workforce proportional to class workload (16)

- more TA's per course and graders definitely help
- More TA's for high workload courses (e.g., 20.430, 20.420)
- Have postdocs help with TAing duties for the larger courses
- more graders
- Make sure to provide graders in courses where there is a lot of time requirement in recitation and office hours
- More TA's for those classes requirin a higher workload.
- listen to suggestions for number of TAs.
- make a better assessment of TA work load per course, then assign # of TA's accordingly
- More TA's for heavier courses; increase in stipend for the duration of the TA work.
- There should be a standard number of hours that a TA should work. If a class needs more than this they should have additional TAs or graders.
- More paid graders for courses that are a lot of work.
- Need at least 3 TAs for the BE420 workload
- If you TA an easy class, TA two classes then. Or, if you TA a hard class, get more graders and support.
- Adjust the number of TA's for a class depeding on the workload
- The main solution is to have more people in charge of the course. This includes adding more TAs for the very demanding classes, or having more graders. I TAed 420 with another classmate, and it was

very intensive (at least 20 hours/week). The main workload was grading homeworks... I recognize that not everybody can grade for this class, but it would help to have more TAs.
- more TAs or graders for those classes

greater freedom in choosing if/when/what to TA (4)

- I don't think it's unfair, but I think grad students should be able to specify whether or not they want teaching experience before being assigned a class to TA. That way students who want to get teaching experience can be assigned to classes where they teach recitations (probably the undergrad courses).
- Try to do best to match potential TA's with their choices and also announce results soon so that changes can be made if necessary.
- better info. regarding the amount of work per course and hence better distribution of TA's
- MORE FLEXIBILITY NEEDED IN SELECTING COURSEWORK. MORE CONSISTENCY IN WHICH COURSES ARE APPROVED BETWEEN STUDENTS!

3.6. I feel that I was well prepared for the oral qualifying exam.
4.21 ± 0.93 (50)

The **written qualifying exam** is a fair and worthwhile test.
3.85 ± 1.07 (53)

3.7. I attend nearly all of the **BE research seminars**.
3.17 ± 1.30 (58)

I attend because the seminars are generally interesting/relevant.
3.54 ± 1.10 (58)

I attend because it is a subject requirement.
2.09 ± 1.27 (57)

I go to socialize with friends from other buildings.
2.91 ± 1.26 (55)

3.8. Do you want a BE statistics course added as an elective (yes/no)?

Answer	*#Responses*	*%Responses*
yes	51	88%
no	7	12%
total	58	100%

Would you like this course to be Full Semester/IAP/Online)?

Answer	*#Responses*	*%Responses*
full semester	24	47%
IAP	17	33%
online	10	20%
total	51	100%

Do you want a lab techniques course offered as an elective (yes/no)?

Answer	*#Responses*	*%Responses*
yes	35	63%
no	21	38%
total	56	100%

Would you like this course to be Full Semester/IAP?

Answer	*#Responses*	*%Responses*
full semester	16	39%
IAP	25	61%
total	41	100%

What topics would you most like to be covered (ex/Basic Biology, Analytical Biochemistry, Imaging, etc)?

31 total responses

Imaging/microscopy (11)

- imaging
- Imaging
- Imaging Analytical Biochemistry
- Molecular Bio Imaging
- Imaging
- Imaging!
- Bioimaging
- Cell cultures, microscopy and imaging,
- Instrumentation similar to 309. Also a separate course with hands on microscopy.
- More Imaging, more mechanics. Although we are BIOLOGICAL engineering, i feel we often stray from hardcore engineering. This is MIT's strength, and it is okay to overindulge in this.
- Imaging, analytical techniques

Molecular biology/biochemistry (7)

- Molecular Biology Techniques, Biochemical Techniques
- Molecular Biology, Cell staining and imaging, analytical biochem
- Biology (cell culture, Western blots and such) CAD, data analysis
- Analytical Biochemistry
- Analytical Biochemistry, Mass spectrometry, electronic instrumentation (lab view included), Imaging, Cell culture, molecular biology, sterile technique, data analysis, imaging
- Biochemistry, Imaging
- etc (not molecular biology)_

Basic bio lab techniques (9)

- Basic Biology
- Basic biology and analytical biochemistry, since not many bioengineers possess biology skills.
- Basic Biology & Analytical Biochem
- Basic Biology/molecular biology
- Teach people good molecular biology technique and sterile technique. Teach basic experimental method - i.e. how to decide on what controls to run, how many replicates should you perform for a given type of experiment. A lot of people are really clueless.
- Basic Biology would be ideal. Most instrumentation techniques are usually press a button type of thing. However, not everybody knows how to engineer biology (make mutations, libraries, directed evolution, purify proteins, etc).
- The technical details of how and why common assays work. Specifically, molecular biology, imaging, quantitation of image files.
- Basic Cell biological, proteomics, and genomics techniques
- Biology (including animal models, tissue culture, basic bench technique and lab notebook upkeep and orginizational skills)

Multiple subjects/other (4)

- Could offer multiple tracks...
- stats course needed. Others took at Harvard. Lab techniques can be learned in lab.
- don't know
- New(er) assays for high-throughput analysis, molecular/cell biology (ie viability, cell cycle)

3.9. In your eyes, what is **lacking** in the **graduate curriculum**?

24 total responses

Probability/statistics, math, computational bio (6)

- applied probability and statistics
- CSBi type courses should get into the BE track.
- i just feel that I personally am weak in areas of knowledge such as genetics and statistics.
- Hardcore math/stats class. Much better and more electives.
- Math
- Courses grounded in electrical engineering and computer science.

Lab techniques (4)

- Rotations
- lab rotation
- classes for experimental biology design
- Slightly more formal "rotations" for first year students; BE class that focuses on math for students who feel behind, such as biologists who've only taken Calc 1 & 2

Biophysics/biomechanics, biomaterials, tissue engineering (3)

- Biomaterials and bioengineering in areas outside medicine (for example, industry, energy, environment)
- Cellular, Physiological, Organ level processes.
- Biophysics

Microbio, genomics, metabolic engineering, synthetic bio (4)

- Genetic Engineering, Metabolic Engineering, Synthetic Biology Electives focused on these topics, and general connections and implications in the core classes.
- Evolution
- I think statistics need to be included somewhere.
- Mathematics and Statistics courses

Other (7)

- Format for setting up smaller seminar-type specialized classes in certain research areas with high faculty:student ratio or conducted by senior postdoc.
- Learning to teach, project management.
- 440 and 450 would have been much better if they were taught using current literature as the main vehicle. I feel many of hte same concepts could have been covered while exposing us to what is actually going on in the recent literature the way 400 did. I thought 400 was very good.
- more diverse faculty research interests.
- Ethics
- don't know
- better BE electives. i have a hard time picking something to satisfy my BE electives requirement b/c the classes are either survey-based and/or not something relevant to my research.

In your eyes, what is **over-emphasized** in the **graduate curriculum**?

21 total responses

Biomechanics, tissue (8)

- mechanics
- BE.310 should be made an elective, it is not generally relevant for many of the students. Students in the BE track should be able to trade out 310 for a more CSBi like class for instance.
- fields, forces, flows, biomechanics
- Biomechanics
- Biomechanics
- Mechanical engineering in 410.
- Tissue stuff.
- Cell mechanics, Toxicology stuff

Cell signaling (5)

- Cell signaling
- Signaling networks
- modeling and computational-based research

- Molecular Characteristics etc.
- Protein signalling, networks

Computational bio 2)

- I think Matlab was overemphasized in 420 especially when it came to the ABS students. I think many of the concepts could have been covered appropriately without the total immersion in Matlab, which I forsee NEVER using again in my career. I do not think it was useful to have the same expectations of BE and ABS students in that class.
- Systems and Computational Biology

Other (6)

- Not much. Applications to the medical field.
- defining what is BE?
- too much classwork
- Courses. LEt people take whatever they want after the core classes. Trust us to take what we feel is relevant. If you want to make sure that we have a rigorous education, then impose an additional class or two. But the idea of a restricted elective seems contrary.
- derivations of mathematical equations
- don't know

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4. RESEARCH OPPORTUNITIES IN BE

4.1. I had enough interaction with the faculty candidates last year.

3.74 ± 1.11 (47)

If not, please comment on what more you would like to be offered.

3 total responses

- Something like a symposium/poster session (organized by lab or topic) like the sessions at the BE Retreat in the fall to help first years select a lab and research topic.
- my own fault here
- How about faculty/student mentoring. This would improve interaction with faculty other then your advisor.

Having new faculty with non-engineering backgrounds is important to me.

2.98 ± 1.33 (55)

Having new faculty with industry experience is important to me.

3.28 ± 1.32 (54)

What research area would you like to see covered in BE that is presently lacking?

20 total responses

Neuroscience (8)

- Neuroscience. Synthetic Biology.
- neuroscience
- neuro
- neuroscience
- Neurobiology
- neuroscience and molecular cardiovascular research
- neuro
- Better neuro

Microbial engineering (6)

- Biomaterials and bioengineering in areas of energy & environment
- Microbial engineering; systems biology characterized by molecular biology
- Protein Engineering, Biophysics
- metabolic engineering of prokaryotes

- Epigenomics
- metabolic engineering

Other

- biotechnology; research on a scale bigger than the cell.
- I do not think that BE should overdiversify more than they already have. I think efforts should be made to build on the core strengths we have already committed ourselves to. Building our core strengths will allow for more synergy and collaboration across labs.
- large scale computational modeling,
- More immunology faculty members.
- Pretty good coverage.
- don't know

4.2. On the interview day, I was made aware of the research opportunities in BE.
4.02 ± 0.94 (47)

4.3. One semester was enough time to **choose an advisor.**
3.40 ± 1.28 (50)

I had freedom to choose an advisor.
3.94 ± 1.19 (52)

The faculty research presentations helped me choose an advisor.
3.42 ± 1.15 (48)

A formal **lab rotation system** would have helped me choose an advisor.
3.02 ± 1.45 (52)

I would like this rotation system to be available / compulsory.

Answer	*#Responses*	*%Responses*
not in favor of rotation system	9	17%
in favor of optional rotation system	34	64%
in favor of compulsory rotation system	10	19%
total	53	100%

I had the flexibility to pursue research opportunities with dual advisors.
3.62 ± 129 (52)

Please add additional comments on the advisor selection process.
7 total responses

- The time frame for advisor selection should be extended to a year and a rotation system should be put in place for thise who want to do that
- Many students felt misled about choosing a faculty advisor. They felt that they would have total freedom to select whoever. It is not like that. It worked out fine in my case, but many people in the department were dissatisfied during this time.
- I believe an optional rotation system that is more formalized will significantly help some students and faculty in making good matches
- Not all faculty are open to selecting students each year: this should be made explicit at the beginning of the year so that students don't waste their time in fruitless pursuits.
- rotations would be good... I think there might be a smart way to ingrate a rotation with BE.400 -- you could do a little project in a perspective lab as your 400 project.
- Students should be able to choose advisors outside the department.
- Rotations are fine if optional as well as giving students more time to decide in the first year, but don't let any new initiatives hurt people who know what they want to do and want to hit the ground running.

4.4. **My advisor** provides me with adequate scientific guidance.
3.85 ± 1.43 (53)

I feel unreasonable pressure from my advisor.
2.19 ± 1.58 (53)

My advisor's expectations for my research objectives are clearly communicated.
3.67 ± 1.31 (52)

My advisor actively solicits feedback from me.
3.88 ± 1.45 (52)

My advisor's management skills are: Inadequate/Good but could be improved/Excellent.

Answer	*#Responses*	*%Responses*
inadequate	8	16%
good but could be improved	26	53%
excellent	15	31%
total	49	100%

My advisor's mentoring skills are: Inadequate/Good but could be improved/Excellent.

Answer	*#Responses*	*%Responses*
inadequate	6	13%
good but could be improved	20	42%
excellent	22	46%
total	48	100%

My advisor's communication skills are: Inadequate/Good but could be improved/Excellent.

Answer	*#Responses*	*%Responses*
inadequate	3	6%
good but could be improved	16	33%
excellent	30	61%
total	49	100%

I am comfortable and willing to give my advisor feedback on his/her mentoring and lab management style.
3.08 ± 1.66 (52)

I would be comfortable giving my advisor mentoring/management feedback through an intermediary such as a senior faculty member.
3.23 ± 1.78 (52)

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5. UNDERGRADUATE BE MAJOR

5.1. How many required terms of TA service are reasonable for a graduate student in a full department (0/1/2/3/more than 3)?

Answer	*#Responses*	*%Responses*
0	0	0%
1	26	47%
2	29	53%
3	0	0%
more than 3	0	0%
total	55	100%

I think that TA service should not be required but instead should be voluntary.
2.33 ± 1.34 (53)

How much of a stipend for TA service beyond the required one semester would be enough incentive for me to TA as many times as necessary?
35 total responses

Per semester/course/TA assignment (26)

- $2000/course
- 3000
- $1000 / semester (?)
- 10% more than RA stipend
- extra $5,000 per semester
- $5K a semester
- $3,000
- $5,000 more that regular stipend.
- ~$5000 / semester
- 400 per month.
- $4000/semester (added pay to base), and $15,000 support to faculty advisor for student time. It really woudl take away from research. It would be better to pay enough to make the student/faculty happy. If 2 semesters were required, you shoudl reduce the coursework requirements.
- 3000
- $4,000
- 55,020.50 pesos
- a bit higher than the standard stipend per month.
- 8K/semester
- 3000
- 3000
- Make 1 or 2 semesters. Then you can volunteer to TA in the department and get stipend plus 20%.
- $5,000
- $3500 assuming ten hours/week of work (hours actually worked, NOT ten hours officially but many more unofficially).
- thousands of dollars
- 4000 dollars extra.
- a few grand
- At least $300/month.
- $3,000

Depends on workload/course (6)

- Hourly pay commensurate with stipend-level compensation
- Sliding scale based on time. About $15-$20/hr with a max time of 20 hours/week (like 20.420) in the range of $1200-$500 / month
- $2000/semester for a low burden class and $4000 for a higher burden. I would also want the freedom to choose the class I TA based on my interest.
- Depends on expectations/ # of hours. Estimate $12-15 an hour.
- $15/hour tuition/stipend support for the semester
- 40 dollars per hour

Other (3)

- Its not a question of money- its a question of time and whether my advisor would have a problem with another very significant time commitment in my life.
- ??? I don't understand. I have no idea of what a normal answer would be. What do other departments do?
- can't pay me enough...

I would be willing to serve as an associate advisor for my professor's undergraduate advisees without financial incentive.
3.06 ± 1.35 (55)

5.2. I am concerned about what might happen to the **availability of my advisor** and committee members if they take on extra undergraduate advisees and teaching requirements.
3.31 ± 1.21 (54)

5.3. I would be interested in hearing about the development and content of new BE undergraduate courses and how they fit into the overall curriculum.
3.94 ± 1.16

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6. SOCIAL INTERACTIONS IN BE

6.1. On a **social** level, I enjoy interacting with
- Lab mates: 3.96 ± 0.99 (53)
- BE community: 4.00 ± 1.11 (55)
- Other groups at MIT: 3.42 ± 1.01 (55)
- Other groups outside of MIT: 3.65 ± 1.27 (54)

6.2. The physically non-centralized nature of the BE division hinders social interaction.
3.42 ± 1.09 (54)

6.3. I like attending BE events. 4.09 ± 1.06 (53)
I enjoyed BE 526 after the BE seminar (weekly): 3.65 ± 1.13 (51)
I enjoyed the BE TGIFs (monthly): 4.02 ± 1.14 (50)
I enjoyed the BE Halloween Lunch (October): 3.46 ± 1.14 (48)
I enjoyed the BE Holiday Party (December): 3.95 ± 1.09 (49)
I enjoyed the BE/ChemE BBQ (August): 3.85 ± 1.33 (49)
I enjoyed the social activities during the BE Retreat (March): 4.35 ± 0.97 (51)
I think we should join efforts more often with other MIT departments for social events.
3.33 ± 1.34 (50)

6.4. I enjoy participating in BE IM sports. 4.23 ± 1.35 (48)
I prefer to participate in non-BE sports teams. 2.05 ± 1.23 (48)

6.5. What BE social events would you like to see more often organized?
14 total responses
- What about BE outdoor activities, away from MIT (like river rafting?)
- We are discussing Trivia events, poker nights, wine tasting, etc.
- drinking events -- get people to socialize on a deeper level

- A more formal event. Like a formal diner with someone giving a special talk on the future of BE or something of that sort.
- They are all great
- department-sponsoring of BE.526 beer consumption. mixers with other departments. mixers with similar departments in nearby schools.
- beer olympics. TGs at bars - like the flat top johny's thing...
- Events that the faculty actually show up at.
- Dances
- Hiking & Camping :) Curling!
- Apple-picking
- bowling!!!!! and hiking!!!!
- dunk tank for professors? nah, I don't know.
- things that bring the different classes together. things that aren't cheesy. things that are casual, laid-back, and just a bunch of people having fun.

6.6. I am aware that a BE student directory now exists on the BE Board website (yes/no).

Answer	*#Responses*	*%Responses*
yes	48	89%
no	6	11%
total	54	100%

I have edited my directory page (yes/no).

Answer	*#Responses*	*%Responses*
yes	27	50%
no	27	50%
total	54	100%

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7. DIVERSITY IN BE

7.1. What diversity issues concern you as a graduate student in BE that you think should be included in the BE Diversity group agenda? (rank)

	count	mean	stdev
Cultural Background/ Country of origin	47	2.32	1.11
Academic/Research Background	46	2.52	1.30
Race/ethnicity	45	2.58	1.01
Gender	45	2.64	1.07

Other (comment)

- I don't think we have any diversity issues. We seem pretty diverse.

7.2. The graduate student/postdoc population in BE is diverse. Cultural/Race/Ethnicity (yes/no)

Answer	*#Responses*	*%Responses*
yes	42	81%
no	10	19%
total	52	100%

Gender (yes/no)

Answer	*#Responses*	*%Responses*
yes	51	96%
no	2	4%
total	53	100%

Academic Backgroud (yes/no)

Answer	*#Responses*	*%Responses*
yes	45	87%
no	7	13%
total	52	100%

The faculty in BE is diverse. Cultural/Race/Ethnicity (yes/no)

Answer	*#Responses*	*%Responses*
yes	18	35%
no	34	65%
total	52	100%

Gender (yes/no)

Answer	*#Responses*	*%Responses*
yes	31	58%
no	22	42%
total	53	100%

Academic Backgroud (yes/no)

Answer	*#Responses*	*%Responses*
yes	45	90%
no	5	10%
total	50	100%

I do NOT see diversity as being an issue in BE.

Answer	*#Responses*	*%Responses*
yes	10	67%
no	5	33%
total	15	100%

BE organizes enough diversity related events (yes/no).

Answer	*#Responses*	*%Responses*
yes	46	94%
no	3	6%
total	49	100%

There should be more structured diversity related discussions and interactions (yes/no).

Answer	*#Responses*	*%Responses*
yes	13	29%
no	32	71%
total	45	100%

The current diversity events (cultural luncheons, interlab luncheons, seminars) are effective in fostering awareness of diversity in other peoples' backgrounds.
3.70 ± 1.21 (48)

If you want to suggest new activities or have any recommendations as to how to improve the Diversity initiatives in BE please comment.
4 total responses

- Diversity awareness is manifested by actual diversity. To achieve this goal, this issue should be addressed at the level of admissions, recruiting, and hiring. Diversity activities, while admirable, cannot overcome limitations in the actual diversity of the department.
- Have mini celebrations of the main festivals of different countries with a presentation on the background of the festival and one or two dishes made for the festival.
- We should have combined activities with other cultural groups on campus. Paint a "diversity mural" in the BE student lounge e.g. each person in BE may remember something unique to their state or country of origin, and we can just paint all those objects in the basement lounge. It brings out the artistic and organizational talents in some of us, and may create a venue for us all to have input and fun. Also, it might make the basement less depressing for the first years!
- the current events are GREAT. they aren't cheesy, and they get the job done. i learn something new every time, and it's always a lot of fun. usually "diversity" events are boring, and they make you listen to talks about why diversity is important ... i feel like the diversity lunches/presentations bypasses all of that talking and actually does something that without people knowing/realizing (because they're having so much fun) highlights diversity.

I would be interested in going on a BE Diversity recruiting trip or recruiting under-represented groups near my home. (yes/no)

Answer	*#Responses*	*%Responses*
yes	20	50%
no	20	50%
total	40	100%

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8. BE STUDENT BOARD

8.1. I saw the one-page BE newsletter that came out last year.
3.49 ± 1.73 (52)

I would like to see future newsletters.
3.94 ± 1.28 (50)

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9. LIFE AFTER BE

9.1. I have attended 1/2/3/more than 3 Academic Career Talks.

Answer	*#Responses*	*%Responses*
1	17	40%
2	8	19%
3	5	12%
more than 3	13	30%
total	43	100%

I think these talks have been informative.
3.76 ± 1.09 (45)

I would like a talk on:
13 total responses
Non-technical/alternative careers (6)
- Intellectual property and Government jobs
- Technology policy
- Consulting careers in Bioengineering after a PhD
- Science policy
- non-research career paths (consulting, law, government/policy, peace corps, teaching, etc. etc.)
- More alternative academic options- like the Laura Garwin talk, she was awesome!

Other (7)
- Biological Engineering: Differences in what the title means in Academia and Industry. I'm not sure that there is a well-defined correlation yet in our young, and evolving field. Continuing prespectives from past BE students with both areas of expertise would be interesting and valuable.
- being a postdoc and how to approach postdoc for faculty positions.
- biomaterials and/or tissue engineering in industry
- non traditional funding opportunities - any way to get money outside of the grant process, industry collabroations, licensing, etc?
- Ciriculum planning, evaluating and teaching critical thinking skills, lab management, conflict resolution
- How to give talks.
- It's nice that there have been the women in academia talks, but there weren't enough talks for everybody. It seems like BE only supports women and mnorities to be faculty becuase it's already apparently so easy for white males to get these positions. Not so true - be careful of reverse discrimination.

9.2. I would benefit from having access to an alumni directory.
4.08 ± 1.31 (50)

I would be willing to have my contact information be made available once I graduate.
4.37 ± 1.20 (49)

9.3. What could the BE Division and/or the BE Board do to aid in career decisions?
12 total responses
Job fair/recruitment (4)
- Post job searching strategies and timelines. Encourage all advisors to foster career opportunities for their students well before expected graduation date.
- make available more information on potential employers
- Get me a job.
- Have a BE job fair. This is now more useful than before, since it will be really good for the undergraduates. Also maybe have faculty searches from other places posted on the website or sent to the students.

Networking w/industry, alumni (3)
- compile information on alumni and their career trajectories. organize alumni events.
- Continue to bring in alumni, invite in representatives from biotechs around the area
- Possibly encourage Co-op experience and foster more relationships with industry and other instituations to facilitate new contacts.

Other (5)
- Arrange one talk/seesion on career related issues at the retreat where one can follow up with various faculty and get feedback regarding this important decision.
- Greater faculty presence at the department events to informally discuss options.

- I think the career talks should be recorded and made available to students on webcam or from the BE office. Sometimes, I have had schedule conflicts with the talks and wished that I could have seen them later. Also, it would create a library for future students in the program.
- Keep the Industrial seminar series strong and add more academic career talks for everybody.
- I don't think there's much the BE Board can do per se; everybody's busy enough to not have to worry about other people's career aspirations. I think the BE Division in general should promote/advertise career events around campus, maybe even start some seminars of our own detailing the job search (academic/industry/non-research) that alums have gone through in different fields.

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10. GENERAL

10.1. Please submit any comments (general or specifically applying to this survey) to the BE Student Board in the field below:

7 total responses

- BE Rocks! We are the BEst department at this instituation, shoot, in the whole world.
- BE is great!
- I would like to propose to upgrade the computer in room 26-043. MatLab runs very slowly on these pentium III computers. I would appreciate it very much if we can get some pentium 4 computers if funding allows.
- advisor rankings should be on a 1-5 scale; inadequate/good enough/excellent does not provide enough range.
- BE 2006 is better than all the rest! We should discriminate against ugly people!
- Keep up the great work guys.
- cool beans! i love you guys