Chemistry Department Diversity and Inclusion Action Committee
Graduate Student Climate Survey Results
January 2017
Compiled by Ruthy Kohorn Rosenberg

Twenty students responded to the survey and all twenty answered every multiple-choice question. Most students responded to the short answer questions, and the number of students who answered is noted within each of those questions.

Below please find graphic representation of each multiple-choice question, numbers 1 – 9.
Where appropriate I have provided a synopsis of any comments.

1. How well do you understand the mission and purpose of the Diversity and Inclusion Action Committee (DIAC)?

![Bar chart showing student understanding of the DIAC mission and purpose]

This seemed to be all over the map – but more than half say they don’t understand the purpose at all or well. There were only two comments, one of which said that they knew because they were on the committee; the other said they hadn’t heard what the committee had achieved so far.
2. To what extent do you feel that the department is supportive of you?

![Graph showing the extent of support felt by students]

This appears to show that the department is more or less supportive, however, there were five comments that can be summarized as saying that some members of the department are more supportive than others; providing a mixed review of whether the department as a whole is supportive – it is very dependent on what an individual student experiences, and that can vary.

3. To what extent do you believe that you have a say in departmental decisions that affect graduate students?

![Graph showing the extent of say felt by students]

It seems that most feel they don’t have any, or much of a say. There were three comments: expressing that graduate students do not have much say but with a hope that the DIAC would provide more opportunity.
4. To what extent do you feel that your advisor respects your work-life balance?

On the whole, this seems to be something more than half are happy with. However, there was one comment: that the advisor does not care about this graduate student’s personal life, which is appreciated, but also doesn’t feel that the advisor cares about the graduate student’s work either.

5. How well do you feel like you understand the process of assigning students to research groups?

It seems that most students understand the process, however, there were two comments that reflected opinions about the process (which is not the question that was asked – perhaps that should be asked, whether the process works.)

- Students should have more say in the decision
• It makes no sense to me how it works now – should meet with just 3 professors

6. If additional resources could be provided to help first-year students make the transition to graduate school, how useful would the following resources be to you:

How Useful Would Peer TUTORING Be To You?

1 = Not At All Useful; 5 = Very Useful

How Useful Would Peer MENTORING Be To You?

1 = Not At All Useful; 5 = Very Useful
As you can see there was enthusiasm for all of these. There were 4 comments all reflecting great enthusiasm for all three of these suggested resources. In addition, there was support to be a peer mentor and/or tutor, and all comments underlined the need for additional research advice since this is the hardest issue graduate students can face – what research to do, what group to join.

7. To what extent do you feel that TA workloads are clearly defined, reasonable, equitable?:

![Graph showing the level of usefulness of research advice from faculty.]

![Graph showing the level of agreement with TA workloads being clearly defined.]

1 = Not At All Useful; 5 - Very Useful

1 = Not At All; 5 = Very Much
The responses show a clear need for work in this area and that it is dependent on who they are TA’ing for. There were two comments that highlighted the need for clear, written expectations for all TAs, equity across different types of courses, and a desire for graduate students who have been TA’s to be involved in the creation of written expectations so that the expectations are accurate.
8. Does the department provide adequate career preparation?

Overall the perception is that this is an area that needs work. There were four comments: that recent efforts with an alumni database is appreciated, but that more work needs to be done. Sheridan and others outside the department are pointed to as helpful, and a suggestion that it would be useful to have panels with people from academia and industry with Q&A opportunities.

9. To what extent do you feel that you received adequate guidance in selecting your courses?

There were five comments that reflect the response chart – there are some helpful things going on, for example: talking to the DGS, talking to a professor, doing what was
expected. But, the overarching theme was that it could be improved and sometimes it’s currently confusing, for example: - there’s no uniformity among professors about advice so it can be confusing; it would be helpful if the advice was tailored to an individual student’s research and/or previous training.

10. Do you feel that you are a part of the department’s community? Which department programs or activities (e.g., Journal Club, Colloquia, the Graduate Student Council, etc.) are most effective at fostering community? Which are least effective? *(This question was short answer only.)*

There were 18 responses:
There seems to be a perception that the department is working at this and that for many things are improving.

The majority thought that Journal Club was great:
“Journal club has been really awesome and I have definitely enjoyed going (nearly) every week and talking to students I don't normally get to see as much.” “The program that I like most is the journal club. It provides a place and time for graduate students to meet and talk about their own research. It is also good for first-year students to learn more about the research in the department.” “Journal Club is a good event We can have more events like this!”

The majority also liked the Colloquia although there were mixed opinions about whether they foster community.
“… colloquia seems the least effective, because in the colloquia, we all listen to the speakers, without much communication with each other.” “The annual poster session and the colloquium are very effective to get students with different research backgrounds to interact with each other.”

There was less enthusiasm for the GSC, although there were a few people who liked their events the most (3):
“I think colloquia and GSC events are more attractive, cause I prefer separating work and play, which is more effective.” “I think the event hosted by graduate student council are the most effective activities.”

However there were these comments about the GSC:
“I don't quite feel my connection to Graduate Student Council.” And the most common opinion about the GSC; “graduate student council is least effective for me.”

There was also this concern: I feel like the same people are not coming to all the events, and its not embracing the department as a whole.”

11. Have you ever experienced an incident of bias on the basis of your gender, sexuality, race, etc., within the Chemistry Department? If so, how extensive is this
bias and to what frequency do you feel that it occurs? If so, please explain with examples. *(This question was short answer only.)*

There were 19 responses to this question.

12 people answered No to the question, with no comment
7 people answered Yes to the question, with comments.

Of the 7 who answered Yes:
4 who felt bias incidents are based on gender (bias against women.)
3 who felt bias incidents are based on ethnicity and sometimes gender as well

All who answered yes felt that bias is frequent and ongoing.

This seems to be an area in which to focus more attention. I don’t know what the gender makeup is of the department, but I assume from the answers here that many females are experiencing bias. In addition, there are issues raised regarding tensions around the ethnic makeup of the department.

Synthesis of comments around gender.
I have left out some of the detail to protect confidentiality.

- I get talked to differently, and have observed other women being spoken to very badly.
- I have developed a thick skin, but it’s not a good climate for entering students
- Often it’s hard to convince my male advisor/peers/committee of the validity of what I’m saying because of my gender.
- I’m not heard - for example, I will say x and a few minutes later someone asks me if I did x. This happens regularly.
- Men won’t make eye contact
- Emotional reactions are criticized – ok to curse but not to cry
- I am made to feel less valuable because of my gender
- Language used in response to my ideas is demeaning and humiliating, and questions and undermines my abilities – different language is used in response to men. (Note: We could ask if people want to let me know if it’s all right to use some of the detail – it’s very illustrative.)

Synthesis of comments around ethnicity

- A large proportion of the student body is Asian – this can make communication hard which means it can be hard to learn from them and work with them
- A lot of people around me use Chinese as a main source of communication
- Sometimes I feel a ‘chilly’ reaction from the staff and faculty because I’m Asian – perhaps because of a language barrier, perhaps not.

**12. What additional areas of learning would be useful to you? If the department could offer smaller courses - what other subjects would be most beneficial? (This question was short answer only.)**
There were 19 responses. Where there were duplicate responses, I combined them, but several students gave multiple suggestions. Students seem very engaged and have lots of suggestions – perhaps there could be a way of involving them in some of the discussions going forward about implementing some of their suggestions.

1. Programming.
2. Paper writing, poster drawing, and presentation skills
3. Professional development, jobs outside academia, more networking opportunities, career advice
4. More advanced computer science courses about calculating, analyzing data and basic modeling skills.
5. Basic analytical programs for data analysis; matlab, origin, etc.
6. Formal class on computational methods used in chemistry would be extremely helpful.
7. General guidance for research conducting from the faculty members or invited speakers?
8. Computational chemistry Kinetics
9. Membrane science and technology; 0,1 and 2D materials;
10. How nano chemistry affects real world: from lab to life;
11. Learning more in depth some of the instruments that could be used in chemistry research, for example:
   a. Teaching graduate students to use equipment such TEM, SEM, XRD, NMR.
   b. Class on spectroscopy would be extremely helpful.. It would be really helpful to have a class on this topic rather than trying to piece together knowledge about spectroscopy while working in lab.
12. Crystallography Colloids and Surface Chemistry
13. Academic related computing courses like compiling complicated program codes, scientific simulating related course.
14. Some courses based on the research area could be very helpful. We had general classes before we joined a group, but specific courses could be very useful for research.
15. More analytical classes would be useful.
16. We should have courses that can have graduate students in different departments. For example, chemistry, physics and engineering graduate students should take some courses together so that we can have better understanding of research in other physical science.
17. Course on structural elucidation of organic molecules by NMR. Some years NMR theory course offered but does not go into how to determine the structure of your molecule;
18. Synthesis Part 1 type course in which you learn about all the different types of reactions, named reactions, etc. and then in Synthesis Part 2 you would focus on applying what you learned in the previous semester and actually get to make molecules. Currently, these two courses are combined, separating them would be more helpful to students.
13. If there were aspects of the Graduate Program that you could change, what would those aspects be? Why? *(This question was short answer only.)*

There were 18 responses. Where there were duplicate responses, I combined them, but several students gave multiple suggestions. Once again, students seem very engaged and have lots of suggestions – perhaps there could be a way of involving them in some of the discussions going forward about implementing some of their suggestions.

1. Community:
   a. One aspect I can think of is to strengthen the contact with the department alumni. It is not only because their experience could be valuable for us job seekers but also such contact can enhance the sense of the Brown chemistry community.
   b. More interconnectedness with those younger and older than my own cohort.
   c. More departmental activities for second and third-year students. I feel there is less and less interaction between my classmates and I when we entered the second year since there is no such thing like courses to get us all involved.
   d. More diversity in the international makeup of the student body. It feels like reverse discrimination. I wouldn't have come to Brown if I had known about this.
   e. I think the chemistry department could hold more joint group meetings between different groups of graduate students - it would help graduate students collaborate.

2. More guidance on department milestones as they are happening.

3. Thoughts about TA work load and expectations:
   a. I would not have students TA their first year. It would greatly help students do better in their courses. It is almost impossible to take three courses and TA and manage to do well in the courses. I think TAing and taking courses simultaneously sets students up to fail rather than succeed. Many other programs have students either TA their first year or take classes their first year.
   b. Greater respect for TA's time – please don't give last minute work, our main work is our research and it is hard when there's a lot of last minute and unpredictable TA work assigned.
   c. Reduce TA workloads.

4. The GPA requirement, just because it's so difficult and it prevents students from choosing challenging courses because they want to preserve their GPA.

5. Advising:
   a. Graduate student should have an individual meeting with every professor in the Chemistry Department, to have a better understanding of the whole department. Because lots of new grads have limited research experiences
and no solid goals and interests, talking to all professors will help them not only know the structure of the Dept. but also build various interests.
b. Not allow students to choose advisors outside Chemistry Dept. Right now Brown has a policy that allows choosing an advisor outside the department, but if a student does this, some people in the department consider this behavior "inappropriate" and the student doesn’t know he/she is breaking an unwritten rule. If this policy is not approved of within the department, then I suggest the department not allow it.

6. Higher quality lab equipment in better condition.
7. Some thoughts about PhD requirements
   a. Literature review should be rethought – it is time-consuming and not a learning experience since we get little feedback from committee members.
   b. I think the literature review is a good change from the cumulative exams, but I feel like no one really read the papers and the assignment was mainly focused on the presentation.
   c. Cut down the milestone we should achieve to get a PhD degree. Now we have too much to do during the first 3 years which gives us only little time to do research.

8. Change the way we choose groups
9. Economy. It is a very interesting and promising area.
10. Please tell us that our pay is going to be cut after the first year. This was a surprise and doesn’t seem to be written down anywhere.