Assessment of Advising in the PhD Program in Biochemistry 2020

Below if first a description of our advising and mentoring activities and then whatever details I can provide about our assessment of the activities.

Advising of doctoral students in Biochemistry

New science doctoral students (in Biology, Biochemistry, Chemistry and Physics programs) are welcomed to the Graduate Center at a day-long Orientation Event held just before classes begin each August. This event has a morning session held by the Program Office and an afternoon group of sessions jointly held by offices and administration of the Graduate Center and the four bench science programs.

The first Orientation Day session is presented by the EO of Biochemistry and introduces the operation of the Graduate Center, the mechanisms for financial aid, instructions for correctly registering for first year courses, a description of the first year curriculum, bio-sketches of course instructors and the key milestones in the progress to degree (First and Second Level Exams), the mechanism of laboratory rotations, the specialized track offered in collaboration with the Chemistry PhD Program and City College (Molecular Biophysics), preview of teaching assistantships starting in year 2. The new cohort can ask questions about their upcoming experience in an informal setting. Several faculty members also address the cohort to explain their philosophy about lab rotations and how to choose the right thesis research advisor. The session is the first organized group advising provided by the Biochemistry Program and an introduction to science at CUNY. We have not done any direct assessment of these activities but it would be easy to deploy a brief survey of the days’ activities, which is planned for the August 2020 cohort.

In the first afternoon session on the Orientation Day, new students are addressed by administrators, librarians, financial aid office, International Student Affairs office, etc. Students then attend a session during which the research focus of the doctoral faculty at each senior college campus is presented. This is their first formal exposure to some of the research activities they will encounter in the first year during laboratory research rotations and to the “lifestyles” of the various boroughs and college campuses. Immediately after this session, the new students attend a large poster session at which each of the four bench science programs highlights ongoing campus-based lab research. The posters provide for interactions between students and faculty one-on-one and opens discussions not only about research topics but the operation of the campus department where lab research occurs. Students leave the Orientation Event with a broad view of research at CUNY, lab facilities, and the operation of the Graduate Center. We have not done any direct assessment of these activities either but plan to include a survey of the experience from the new cohort of students.

Other advising:

- Students are provided with a newly updated Biochemistry Program Handbook and are encouraged to review it. It contains details about curriculum and program milestones, etc. and includes links to all important information on GC webpages.
- Additional advising occurs in a Seminar course that is part of the first semester core curriculum taught by the EO. Program faculty are invited throughout the semester to address the new students in a preview of their laboratory research and the students are also obliged to visit each
of the senior college campuses to meet faculty and other program participants. The lectures by visiting faculty, along with the campus visits give the new students insights into the operation of the consortium of faculty operating here and provides a variety of casual opportunities for advisement from many perspectives.

- Advising by the APO, Denise Charles, is part of the day-to-day operations of the Program Office and students come by casually or by appointment often, especially during their first year to solve problems that require expert advisement. She relies upon her knowledge of the operation of the program and all curricular obligations. This duty is often duplicated by the EO also one-on-one with students.

- Students are advised concerning the criteria for selection of thesis advisor and other professional development issues during the first year in the program. They are required to begin developing their myIDP (Individual Development Plan).

- Students are required to complete training in Responsible Research Conduct and also the Ethical Conduct of Research involving Human Subjects.

- Students are asked to meet periodically with their peer mentor for casual advising sponsored by the Program Office.

- Some additional advising occurs at the level of the particular campus department in which students begin thesis research (year 2 and beyond). This is left to the discretion of the colleges and has not been assessed by the program office. Safety training is usually mandatory for new instructors of undergraduate courses according to campus health and hygiene plans.

Assessment of the above: we have not done any formal assessment of the efforts described above but the EO and APO are developing surveys that will be deployed at the end of each term for students and faculty responses. We will ask for feedback on the value of the various activities and documents employed for advisement and how these might be improved.

Assessment of Mentoring Activities

Mentoring in the context of this report refers to the duties of the thesis advisor in charge of the research laboratory, and the thesis committee.

We recently devised and deployed a Mentor/Mentee Agreement with a collection of activities we promoted to all current research faculty and the advisees doing research in their labs. It contains practical tools we hope improve the progress of research and professional development within the lab environment. This was generally well received according to feedback from faculty and students but was not formally assessed. In the fall semester, we plan to deploy a survey of faculty and students for feedback concerning the usefulness of the Agreement and compliance with its recommendations.

We have arranged a Faculty Mentorship Workshop to be given on May 6, 2020 at The Graduate Center by the Manager of the American Chemical Society Graduate and Post-doctoral Scholars Office. He will also visit a seminar class to lecture first year students about professional development and introduce the ChemIDP, an Individual Development Plan designed especially for scientists to plan their career trajectory based on carefully evaluated self-assessment of skills and desires. The outcomes of the workshop will be assessed in a survey of student and faculty opinion. We also plan to use the results from a survey designed to assess mentoring such as the one published by the National Academies of
Sciences, Engineering and Medicine, in the near future and will make changes to our policies based on survey results.