

Department of Biochemistry Response to the 2009 Graduate Program Review and GPSS Report

Chronology of the Graduate Program Review

The Biochemistry Graduate Program Review took place on October 23 and 24, 2008. The department received the Graduate Program Review Report and the Graduate and Professional Student Senate (GPSS) Report on January 5, 2009. The Faculty of the Department of Biochemistry (including all teaching, joint, WOT, and research appointees) met on January 20 to discuss the reports. The faculty volunteered for six subcommittees to draft responses to the major issues raised by the reports: Governance, Graduate Education, Minority Recruitment, Undergraduate Education, Research and WOT Faculty, and the organization and purpose of the BIOC 530 graduate course. The faculty met again on February 25 to discuss the subcommittee responses, and only a few minor changes were made in the drafts.

Summary of the Graduate Program Review Report

The Department was pleased that the Graduate Program Review Report thought our science, faculty, recent hires, renovated laboratory space, facilities (including the new cryoelectron microscope facility), and external funding were strong and healthy, as were our undergraduate, graduate, and postdoctoral programs.

The main weaknesses noted by the Graduate Program Review Report were (1) the formal absence of many of the usual departmental committees with resulting negative effects on faculty morale and communication between faculty and Chair; (2) insufficient investment of university resources in our expanding undergraduate major and service courses; (3) absence of coordinated university- or school-wide minority recruiting efforts to improve and augment departmental efforts, thus putting two departmental T32 training grants at risk; (4) "lack of recognition" of teaching efforts by Research and WOT Faculty; (5) too few incoming biochemistry graduate students, and too little support for students in laboratories that have lost funding; (6) need to redesign the BIOC 530 graduate course, and redefine the core curriculum in the discipline of biochemistry; (7) "weakness in the distribution of teaching responsibilities" and failure to "develop a plan that addresses both immediate and long term needs"; (8) "weakness in efforts to recruit new faculty" including an admonition that "women and minority faculty candidates need to be recruited more actively"; (9) "weakness in support for directors of graduate training grants"; (10) "weakness in evaluating and tracking junior faculty"; and finally (11) "weakness in Departmental spirit: While a strong commitment to excellence is obvious at every level of the Department, there was concern about the overall vision and direction of the Department" which the Report thought best remedied by a "strategic planning retreat run by a professional facilitator.

Department Response to the Graduate Program Review Report

We have grouped the cited weaknesses into several categories for clarity:

Governance (1, 10). Faculty committees have been reinvigorated as described below in response to the review. Historically, the Department of Biochemistry had vigorous faculty committees, but these had declined over the past decade. Active committees are critical for sharing the workload and strengthening faculty investment in department missions and

strategies for achieving these goals. Committee appointments are made by the Chair; two committees (Graduate Admissions and the Schultz Fellowship) graduate student representatives, and the president of the graduate students (elected annually) is invited to all faculty meetings except those concerned with promotions. Current departmental committees are listed below; several of these committees already existed, several existed functionally but had not been formally established; and some are new in response to the report.

Graduate Education Committee This committee is chaired by the Graduate Program Advisor and continues to oversee all aspects of the graduate program, including (1) admissions, (2) program diversity, (3) first year student advising, (4) student progress, and (5) graduate curriculum. The committee works together with a staff Graduate Program Assistant. The Graduate Program Advisor is responsible for student advising, and consults with the committee on policy questions. The Graduate Education Committee has two subcommittees. The *Graduate Admissions Committee*, composed of two faculty and two current graduate students, continues to evaluate incoming applications, invites students for Graduate Student Visiting Day, and then reevaluates the invitees in light of faculty input from interviews on Visiting Day. The *Diversity Subcommittee* is composed of faculty members with a strong commitment to broadening our graduate student body. Although the main focus of this subcommittee is to increase the diversity of our graduate class, it is also our liaison with University and School of Medicine programs that aim to increase representation of underrepresented minorities among UW undergraduates, graduate students, and medical students.

Undergraduate Education Committee This committee is made up of representatives from the Biochemistry 405-406, 440-441-442, and 426 courses. The major responsibilities of this committee are 1) course policies, 2) curriculum, and 3) the undergraduate major as a whole. The committee also addresses issues that impact all undergraduate courses such as class size, and the use of graduate and undergraduate teaching assistants. This committee interfaces with our two Undergraduate Biochemistry Advisors who are housed in Chemistry but paid by our department.

Medical Education The chair of our two quarter biochemistry course for first year medical students (Human Biology 514 and 524) belongs to the SOM First Year Course Committee, liaises with the other five WWAMI first year biochemistry sites (Spokane, Wyoming, Alaska, Montana, and Idaho), and works closely with the Chair of the department to insure that we provide educational leadership for the other sites as well as fulfilling our local obligations.

Appointments and Promotions Committee This committee of full professors includes at least one woman, and represents the breadth of the department from structural to molecular biology; the Chair is an ex officio member who is available for consultation, but does not participate in day-to-day decisions. This committee provides a formal mechanism for the senior faculty to evaluate junior faculty annually, and to help our junior faculty build the strongest possible case for promotion. The A&P Committee reports to the senior faculty as a whole, and the resulting evaluation and recommendations form the basis for an annual letter from the Chair to each junior faculty member. Although our junior faculty have never been hesitant to ask for advice regarding promotion, nor have the senior faculty been hesitant to give advice, we are grateful to the Graduate Program Review Report for reminding the Chair that annual evaluations are not simply required, but are very reassuring for the junior faculty because the formal process enables the faculty to speak with a single voice that is binding within the context of the Faculty Code. The committee makes recommendations to the senior faculty of the department regarding promotion, and assists the candidate in assembling the promotion packet.

Teaching Evaluation Committee This committee of senior faculty visits individual classes and advises the Chair regarding teaching performance. The committee evaluation of junior faculty teaching is part of the promotion packet assembled by the candidate with assistance from the Appointments and Promotions Committee. The teaching evaluation committee may also make recommendations to the Chair about teaching assignments and, to the extent possible, planning for the future.

Seminar Committee This committee continues to be responsible for gathering suggestions from the faculty for our departmental seminar program, choosing and inviting speakers, and scheduling and organizing the visits.

Annual Retreat Committee This committee continues to be responsible for organizing the annual departmental retreat.

Schultz Fellowship Committee This committee, composed of three faculty, a graduate student, and a postdoctoral fellow, continues to evaluate applications from graduate students and postdoctoral fellows for Schultz Awards to defray the costs of attending conferences (see depts.washington.edu/biowww/gradprogram/schultz.html).

Other departmental committees will be formed from time to time as needed. The faculty agree that formation of a departmental executive committee depends on management style and should be at the discretion of the Chair.

Equity (4). The comment regarding "lack of recognition" of teaching efforts by Research and WOT Faculty appears to reflect a miscommunication with the Graduate Program Review Committee. The primary concern of the Research Faculty was that the department fails to take full advantage of their enthusiasm for teaching. The Research Faculty recognize, however, that resolution of this issue goes beyond any graduate program or departmental review, because Teaching Faculty (with state FTEs) are expected to teach whereas Research Faculty (supported by external research awards) cannot teach more than a *de minimis* amount unless compensated for those efforts by the department. The Research Faculty also agree that the department is in compliance with Volume 2 of the UW Faculty Handbook Section 24-35 describing the role, privileges, and obligations of Research Faculty.

The reference above to WOT faculty by the Graduate Program Review Committee appears to reflect a confusion between WOT and Research Faculty: The two WOT faculty who teach (and are in fact in charge) of large courses (Susan Brockerhoff, BIOC 405 and Dominic Chung, BIOC 426) are compensated for their efforts and widely respected by the faculty for taking on major responsibilities that benefit the undergraduate major and the department as a whole.

Distribution of teaching responsibilities (7). We have not been able to confirm problems with the distribution of teaching responsibilities as cited in the Review Report. A long term plan for teaching is problematic because retirements are difficult to anticipate; however, we hire as aggressively as we can, we stress teaching ability as well research potential when hiring, and we are clear from the moment of interview that teaching at the undergraduate, graduate, and medical levels is a large component of our departmental identity and all faculty are expected to contribute equally to our efforts.

Recruitment of women and minority faculty (8). We have been attempting to recruit women and minority faculty very actively. Among the individuals who declined our offer of an Assistant Professorship in since 2001 were 6 women, 1 African-American male, and 1 Japanese male.

Our sole offer last year (2008) was to a woman. The African-American accepted a \$3M offer from Caltech that we could not match; the Japanese male accepted a \$2M offer from the Rockefeller which we could not match; 2 of the women were married to MD/PhD pathologists for whom we could not find an independent faculty position here at UW or at the Hutch. One of the women went to Stanford, 1 to UCSF, and 1 to UCSD, all premier departments in our field. In addition, we typically receive >400 applications for a single advertised junior faculty position, and we cannot realistically invite more than 10 candidates to interview and present seminars. We have always had women on the search committee (except in the last two years when issues of personal health, laboratory relocation to SLU, and long overdue sabbaticals intervened) and we have always struggled to invite as many women and minorities as possible; however, we can only recruit women or minorities when they are equal to the best, or nearly so. To do otherwise would be to recruit women or minorities as second class citizens, a worse offense in the long run than not hiring them at all. Happily, our sole offer this year (2010) was to a woman, Dana Miller, who accepted our offer and will be starting this July 1.

Training Grant Support (9). The administrative load required to maintain and renew two strong training grants centered in the Department of Biochemistry is a growing burden to the faculty who direct these grants. The PIs of the two T32s in our department (the Molecular Biophysics TG, Rachel Kleivit; Cellular and Molecular Biology TG, David Kimelman) have assured the Chair that they do not feel that department has failed to provide sufficient support; rather, they were asking UW and SOM for schoolwide centralized databases that would help in the preparation of future T32 applications. We understand that the Graduate School is looking into providing the informatics infrastructure to fulfill this need. These T32s have benefitted not just our own students but many others across the entire campus for many years: the CMB TG is in its 34th year and the MB TG in its 21st. We are proud of our faculty PIs, and proud that our department has provided the directors for both of these large T32s, as well as the administrative support for the MB TG.

URM (underrepresented minority) recruiting (3). The PIs of the Cellular and Molecular Biology (CMB) and Molecular Biophysics (MB) Training Grants (CMB TG, David Kimelman; MB TG, Rachel Kleivit), together with the MCB Graduate Program and John Slattery, Vice Dean for Research and Graduate Education, are working to coordinate graduate and minority recruiting across the SOM. This effort involves three components: (1) Each of the basic science departments has committed to financially support the participation of one faculty member at least every 2 years to attend one of the national conferences that provide a forum for URM undergraduate students looking for graduate schools (for example, SACNAS and ABRCMS). The participation will be coordinated across various departments, so as to cover all main conferences; the participating faculty member will recruit on behalf of all the basic science departments and programs. The department will also fund URM graduate students to attend these conferences, because these students are the best advocates for our programs. (2) The Biochemistry Department will host one seminar speaker (as part of our regular seminar program) every 2 to 3 years from a university with a large URM population in order to familiarize undergraduate advisors to UW graduate programs. Other departments will also do the same as part of the new, more coordinated approach to URM recruitment. (3) The Department of Biochemistry will nominate one faculty member to participate in a pan-departmental committee that will coordinate URM recruitment and retention efforts with Graduate School and other UW Programs, as well as other issues such as hosting URM undergraduate students. Our department will gladly take an especially active role in the coordinated activities, but there is broad agreement within and outside the department that only a UW- or SOM-wide effort has the clout and scope to achieve our institutional minority recruiting goals.

Seattle is geographically distant from many URM populations and culturally less familiar to these groups than other areas of the country. Summer undergraduate research programs are therefore extremely valuable for bringing URM undergraduates here from around the country to experience Seattle and the UW. These summer research programs provide students with a taste of life here and increase our chances that they would consider living in Seattle. The Department of Biochemistry will increase efforts to ensure that our faculty open their laboratories to these students, but funding and coordination must be improved across UW and SOM. We join with the committee in strongly encouraging the Dean to address these issues.

Biochemistry Graduate Admissions (5). Although the Graduate Program Review Report suggests that the department has the resources to double the number of incoming biochemistry graduate students, we simply do not. Our faculty take students from several interdisciplinary programs (MCB, BMSD, Neurobiology and Behavior) as well as the biochemistry program, but the number of available laboratory slots is limited by grant funding. A larger incoming class would increase competition for available laboratories, disappointing some students and negatively affecting future recruiting efforts.

With regard to emergency support for students whose labs experience a lapse in research funds, the department has always provided such support. We are mindful, however, that emergency support is not cheap. Assuming \$40K stipend plus tuition, and \$20K research expenses, the annual cost to the department of supporting a graduate student may exceed \$60K. This is why our faculty work consult with the Graduate Program Advisor, the Administrator, and the Chair before taking on a new graduate student if there is any doubt regarding future funding of the laboratory and support for the student.

Defining the "discipline of biochemistry" (6). An argument can be made for a comprehensive "core" set of courses for incoming graduate students as our department had in the distant past. The Graduate Education Committee did not recommend returning to that system for the following reasons: (1) The University Conjoint courses evolved to substitute for the cell and molecular biology aspects of Biochemistry and there is no point in duplicating that effort. (2) We see it as inappropriate to establish a core set of courses for the small number of students admitted each year who will be joining Biochemistry groups with areas of interest ranging from developmental to structural biology. (3) We decided many years ago that one of the best ways to learn the basic facts of biochemistry is by teaching. Serving as TAs in our undergraduate Biochemistry 440-441-442 series provides that experience. The argument that anyone receiving a Biochemistry degree should be able to teach the entire subject is unrealistic because the subject is nearly boundless and this seldom (or never) happens in practice. (4) Our first year graduate students are eager to be involved in research and do not want to take more survey courses. Too much coursework detracts from the main purpose of a research-oriented graduate experience such as ours and may compromise recruiting efforts.

Although not specifically mentioned in the report, the Biochemistry 540 series ("critical readings") is especially valuable for our students because it teaches them to think deeply and critically about classic and contemporary papers, as well as providing an opportunity for the students to write and speak. This series could be improved. The following recommendations are being implemented: (1) Keep the number of faculty in each quarter to a minimum (3 at most) and have them participate during the *entire* quarter to provide continuity. (2) Have a speaking and writing component each quarter with selected students presenting papers and writing critiques or summaries each week. (3) Provide students detailed feedback on the quality of their presentations and written assignments, in addition to their scientific ideas.

Graduate Program revamped. We have revamped our Graduate Program, partly in response to the report and partly to bring our formal description of the program into line with current practice (see <http://depts.washington.edu/biowww/gradprogram/index.html>). We agree that our students should have additional opportunities to make oral presentations, and students who have passed their qualifying exams will now present their research to the faculty at least once a year following the Friday Faculty Lunch Talks. We will also continue to encourage students, instead of faculty, to present the research group's work at the annual departmental retreat.

Scheduling student general exams and yearly reviews has always been a problem. We have changed the format of general exam and now require meetings to be scheduled by the student with consequences if strict deadlines are not met. Specifically:

1. Students will choose their committees by the end of their 4th quarter at UW. They should schedule a meeting with their committee by the end of the 5th quarter. In the first meeting, students would present their thesis proposal and solicit suggestions from their committee. Students would also present their alternate proposal topic (not a full proposal) in the form ("I propose that..."). Each committee member would suggest an area of biochemistry related to the topic for the student to study in depth. Then by the end of the 7th quarter, the student would have their general exam. The exam would have 3 sections: (1) open presentation of thesis proposal to anyone who wanted to attend (20 min) followed by questions from audience (5 min); (2) closed question and answer period related to thesis proposal with committee (30 min); (3) presentation of alternate proposal to committee (10 min) followed by questions related to the proposal and selected topics assigned in the previous meeting.

2. A chart listing all the students in each class is now posted in the Graduate Program Assistant's office with a check list showing key events and dates of completion. Thus, a quick glance will allow the Graduate Program Advisor and Graduate Program Assistant to assess the progress of all students and take action if necessary; however, the primary responsibility for meeting all deadlines remains with the student, not the Graduate Program Advisor or Assistant.

3. Progress of all students will be discussed at a faculty meeting annually.

4. We do not agree with the need for *two* graduate student advisors; one has always been adequate, accessible, and engaged, whereas two would create problems of coordination, communication, and equity.

Undergraduate program (2). We support the recommendation of the Graduate Program Review Committee that the university provide additional resources to support our expanding undergraduate teaching obligations. University resources have been static for more than a decade, while our undergraduate teaching responsibilities have steadily increased as biochemistry becomes a key language for all of biomedical sciences from chemistry to genomics to modern molecular medicine, as well as for allied disciplines from pharmacy to fisheries to forestry. More specific issues raised by the Review Committee are addressed below.

The number of students requiring undergraduate Biochemistry has increased dramatically in the last few years while resources have remained constant. The Biochemistry department teaches Biochemistry to approximately 900 undergraduate students annually (for a total of about 2700 undergraduate quarters). This teaching involves 3 courses: a 3 quarter series for Biochemistry majors (BIOC 440-441-442) with a quarterly enrollment of about 275 students), a 2 quarter series for non-majors (BIOC 405-406 with a quarterly enrollment of about 640 students), and a laboratory course taught autumn and spring (BIOC 426 with a quarterly enrollment of 55). The

number of students in BIOC 405-406 has nearly doubled since 2002, but key resources such as the number of TAs and administrative support have remained constant or even decreased. As described below, fewer graduate students are available from the umbrella programs to serve as TAs. In addition, increasing enrollment has severely burdened the half-time administrative assistant who supports faculty by reserving rooms, dealing with enrollment and grades, and mounting course materials on the department website.

The quality of large lecture courses depends on active small group learning led by teaching assistants. Large classes pose many challenges and impediments to learning: students feel anonymous, have limited access to the instructor, are reluctant to ask questions or to seek additional help, and often feel disengaged or undermotivated. Small group discussions are the single best way to increase learning and satisfaction. The BIOC 405-406 series would benefit enormously if the department had more TAs leading review sessions to augment the new Tutoring Services (see below) as well as online study questions and quizzes accessed through the UW Catalyst system.

Graduate umbrella programs no longer supply our TA needs. Although students in our departmental graduate program are required to fulfil their teaching requirement in Biochemistry, we have historically recruited additional TAs from the two interdisciplinary umbrella programs, Molecular and Cellular Biology (MCB) and Biomolecular Structure and Design (BMSD). In 2008, however, this pool dropped precipitously because of new TA requirements in the MCB Program which allowed MCB students to receive teaching credit for community outreach activities in place of TA activities that directly serve UW students. Our department could not imagine giving up small group discussion sections, so we decided to recruit undergraduate TAs from the large pool of outstanding students who had taken and excelled in the BIOC440 series the previous year. This experiment is still in progress, but we are finding that our best senior undergraduates are highly motivated TAs, thoroughly familiar with the material, able (with proper supervision) to run outstanding review sessions, and happy to be paid. In addition, the undergraduate TAs are honored to serve as TAs alongside the faculty who taught them, and the faculty are equally pleased to work together with their former students. Although undergraduate TAs are cost effective compared to graduate TAs, we believe the university should provide funds to hire the undergraduates who TA our undergraduate Biochemistry courses.

Real and perceived problems of cheating in large lecture courses. Examinations pose serious problems for courses as large as the BIOC 405-406 series where 500 to 650 students take 4 multiple-choice exams per quarter in a single room. With limited staff (typically, 2 professors and 1 TA), the mechanics of test administration are just barely manageable, especially for midterms where the room must generally be cleared in time for the next class to begin. Understaffing can compromise both the actual and perceived integrity of the examinations. Student complaints suggest that cheating is perceived to be widespread, a profoundly dispiriting situation for students who do not cheat but are convinced that cheating distorts the grading curve. While these perceptions may be exaggerated, they must nevertheless be addressed. First, we must verify the identities of the students taking the exam; second, we must visually monitor the students to prevent copying or use of crib sheets or electronic devices (PDAs, cell phones, etc.); and third, we would ideally provide "insulating" seats between students. Starting in 2008, the Department paid senior graduate students to serve as *ad hoc* exam proctors in BIOC 406. Although this addressed some of the concerns above, it is essential that funds for proctors are available in the future for both BIOC 405 and 406. Without such support, student perceptions that educational assessment is unfair will become increasingly corrosive.

Equipment for the biochemistry laboratory course is outdated beyond repair. The BIOC 426 laboratory course is required for the Biochemistry degree, and for many of these students it is their sole opportunity for a hands-on biochemical laboratory experience. Although there has been constant demand for expanding this class, enrollment has been limited to 112 students per year because of limited teaching laboratories, equipment, and TAs. We hope to alleviate the TA shortage by recruiting our best undergraduates to serve as TAs for this class as well; however, antiquated and often irreparable equipment puts a serious strain on our departmental resources and has made it increasingly difficult to maintain the current class size. If we cannot provide our undergraduates with timely access to required courses in the major, we not only disrupt the continuity of their education but, in the worst cases, delay graduation.

As suggested by the Review Committee, additional undergraduate TAs (as described above) are being used to implement tutoring tables, this year in the SOM Rotunda with possible expansion next year to Mary Gates and/or Bagley Hall. We also strongly encourage formation of student study groups. The cost of tutoring is modest, but the potential educational value is huge.

While a broader array of elective biochemistry courses for undergraduates is desirable, it is beyond the department's current capacity to introduce new courses to augment an extensive array of high quality courses provided by allied departments. Our Undergraduate Biochemistry Advisors are extremely well informed and accessible, and we are quite sure that our majors are already familiar with the full range of courses available to them; however, we will provide appropriate links to these courses on the forthcoming version 3.0 of our department website. In particular, we will highlight our graduate course BIOC 530 (an introduction to techniques in structural biology) for advanced undergraduates who have completed the degree requirements.

We agree completely with the observation that "Classroom scheduling for large lectures and small group sessions (undergraduate and graduate level) has become increasingly complex, time consuming, inconsistent and unreliable over the past three years." This is a problem that the UW administration must solve; there is nothing an individual department can do except press its case and protest when assignments are educationally damaging. Admittedly, many departments have experienced dramatic increases in undergraduate class size and, as a result, the demand for large classrooms has become fierce. In fall 2007, the only time available to accommodate BIOC 405 was at 7:30 am. This extremely early class time was doubly punitive: Class attendance was poor, and there were many technical problems with classroom audiovisual equipment because Classroom Services was not available to deal with equipment failures before class started. In fact, a Classroom Services representative was sometimes not even present when class began!

The future of undergraduate biochemistry courses. If enrollment in undergraduate Biochemistry courses remains constant, our proposed solutions will suffice, but if enrollment continues to increase as biochemistry becomes the common language in all the life sciences, we will be in trouble. In this case we may only be able to maintain the high quality of our undergraduate education by raising the minimum admissions requirements for the major (as we did once before) or by capping enrollment (which we have never done in the past).

Finally, the 13 Biochemistry faculty who currently teach undergraduates include some of our most senior faculty: 10 are full Professors and 6 are approaching retirement. Hiring new junior faculty is of paramount importance for maintaining the size and quality of our undergraduate teaching commitments. If retirements outpace new hires, our undergraduate major and the allied majors that depend on our service courses will be jeopardy.

Departmental climate (11). The comments regarding "weakness in departmental spirit" and "concern about the overall vision and direction of the Department" made by the committee are of considerable concern. We are hopeful that, in response to the report, we are now on track to a better climate. First, there seems to be general agreement among the faculty that we are successfully addressing the concerns of the Report. Second, all major and most minor suggestions made by the six faculty subcommittees formed at our January 20, 2009 faculty meeting have now been implemented. Third, the department is enormously pleased and relieved that the candidate who rose straight to the top of our junior faculty rank list was a woman who appealed equally to our structural, molecular, cellular, and developmental biologists; and we are all absolutely delighted that Dana Miller will be joining our faculty as of this July 1. A failure to hire for several years running is bound to cause doubts; success allows us to move on. The faculty seem comfortable once again with our policy that open (as opposed to targeted) junior faculty searches are the best way for an established department to agree upon new directions without pitting faculty against each other: Candidates who might have provoked difficult theoretical discussions (is this candidate really a structural biologist or a cell biologist?) can turn out to have broad appeal because both the candidate and the work are appealingly broad. In other words, the best future members of the department naturally bridge intellectual and technical gaps within the department and SOM, thereby shortcircuiting theoretical arguments about the true (and elusive!) nature of the "discipline of biochemistry." In the future, our junior faculty search committees will continue to look through >400 applicants for the handful who appear to have such broad and bridging appeal, but there will never be any substitute for bringing them to Seattle and watching to see whether the faculty warm to them or wait impatiently for the end of the visit.

GPSS Report

Summary of the GPSS Report

We take the GPSS Report to heart and are pleased with the observation that "Overall, the students seemed quite happy with their program" and "although they had some complaints about their initial years in the program, it seems it was just a matter of adjusting that got them comfortable within their environment" (GPSS Report). We are also pleased that "Students have excellent access to the Chair, who is approachable and responsive to their needs" (Graduate Program Review Report). Other specific observations and suggestions have been taken into account in the response to the Review Committee Report.