

Biological Sciences Department

Status of the Graduate Program

a report to the Faculty

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The Graduate Program is critical to the faculty's efforts as educators and scientists, and it is hoped that the information in this brief report is of assistance. Your comments on this report (especially with respect to how it can be improved) are welcome, and should be directed to Dave Moriarty. Previous reports were issued in Fall 1996, Fall 1997, and Fall 98.

Enrollment

As of September 20, 1999, the program has 82 classified graduate students (list appended). This is an increase of 10 over last year. These numbers fluctuate continually as students enter and leave the program. It is important to realize that not all of these students enroll in classes (supervisory or traditional) every quarter. Some students take formal leaves of absence, and many graduate students are adept at "stopping out" for a quarter without losing their enrollment.

Enrollment in the graduate program, as measured by the number of students taking classes in Fall Quarter, is strong (Fig. 1). Enrollment in Fall 1998 was 55 students, the second highest ever (Fall 1996 had 58 students). Fall 1999 data were not available at the time this report was prepared.

Admissions

The table below shows Admissions activity over the past four academic years. Data for 1995-96 are approximate because the database to track activity was not implemented until midway through the period.

	1995-96	1996-97	1997-98	1998-99
Admitted Classified	~14	11	16	35
Admitted Conditional	~6	6	5	1
Denied	~4	9	12	-
Incomplete/No Action	~26	25	15	15
Total	~50	51	48	51

1998-99 was the first full year of admissions under the "new" procedures (i.e. sponsored admissions) adopted by the faculty in May of 1998. *Please note that more than twice as many students were admitted in 1998-99 as in any of the three preceding years.*

Faculty Sponsors

Eighteen faculty have sponsored students into the graduate program (as of September 20, 1999). The distribution of the number of students sponsored per faculty member is shown on an attached bar graph. Six faculty have sponsored one student, seven faculty have sponsored two students, one faculty has sponsored three students, three faculty have sponsored five students, and one faculty member has sponsored 15 students. These data include all students sponsored since the admission procedures were changed (May 1998), and therefore total number of

students sponsored exceeds the 36 admitted in the 1998-99 academic year.

Information Requests

Requests for information are received by mail (electronic and traditional) and the telephone. 76 informational packets were requested and sent during the past year. In 1997-98 there were 82 requests, in 1996-97 there were 133; in 1995-96 there were 94. Although the substantial variation in this area is unexplained, some drop in total requests might be expected as more people access the information over the world wide web rather than direct contact.

By the summer of 1997, it became apparent that the Graduate Coordinator was receiving "form" email messages sent by students from the Peoples Republic of China to many universities in the United States requesting application materials. As many as 5 to 10 requests per week were being received. Because the application packet is large and fairly expensive to mail (especially outside of the USA), the graduate coordinator stopped sending a packet in response to these requests. Instead, a response containing all application information is sent via email. This does not provide the prospective applicant with the Admissions booklet, but they are invited to request a booklet by traditional mail from the Cal Poly Admissions Office (they are told that email requests will not be honored). Applicants are also given the URL of a web site maintained by the Chancellor's Office which allows them to apply online, if they have access to the world wide web (which many Chinese students do not). *If you object to this procedure, please discuss with Dave Moriarty. If necessary, the matter could be discussed at a Department Meeting.*

World Wide Web Site (<http://www.csupomona.edu/~biology/gradprog.htm>)

The Graduate Program home page is effective as a recruitment medium and for the dissemination of information in an efficient manner. A graduate policies page has been implemented, so that policies and procedures adopted by the faculty can be permanently accessible.

Faculty Membership on Thesis Committees

Appended is a list (*not available in web version*) of thesis committee membership for each faculty member. Students for whom the faculty member is the major professor are indicated. *Please inform the graduate coordinator of changes that should be made to this information.*

Students Who Have Not Filed a Program of Courses (GS-101)

Appended is list (*not available in web version*) of students who have been classified graduate students for at least one year, but have not yet filed their GS-101 (program of courses). The major professor for each student is also listed. Faculty are urged to have their students file the program as soon as reasonably possible.

Graduate Faculty Information

Included with this report is a listing (*not available in web version*) of graduate faculty and research interests and/or other pertinent information. This information is included in the informational packets sent to prospective applicants (remember, 76 were sent out last year alone), as well as on the Graduate Program world wide web page (see above). *Please inform the Graduate Coordinator of any changes to your information.* Informational packets are printed "on demand", so your changes become effective as soon as they are received. The web page will

also be updated as information is received. If you have a personal web page that is not currently linked from the graduate page, please send your URL to the graduate coordinator.

Major Professors as a Limiting Resource

As of September 20, 1999, there were about 15 faculty members who were acting as the major professor (i.e. chair of the thesis committee) for at least one graduate student. Let's assume this is an underestimate of the number of faculty who are willing to train grad students, and the actual number is about 20. With 82 grad students, please note that *each faculty member has to average about 4 students in order to meet the demand for major professors.*

This demand is just beginning to hit the faculty. From above, we see that 35 classified students were admitted in the 1998-99 academic year. In this academic year (1999-00), 14 students have been admitted to date. Therefore, 39 students (almost half of the 82) are in their first five quarters of grad school. Many of these students are just reaching the point where they must identify a project and a major professor.

Although sponsoring an applicant to the program does not constitute an agreement to serve as major professor, faculty are urged to consider the impact of sponsoring students they do not intend work with in terms of major professor. This produces pressure for other faculty to take on the training of these students. If graduate students cannot secure a major professor, they have no possibility of finishing their degree. It is unlikely that undergraduates fully understand the implications of this, so the faculty need to take responsibility for not placing students into a situation where there is no reasonable possibility of working in their chosen field.

Do We Offer Enough Graduate Courses?

The number of courses offered at the 500-level is often an area of concern. Graduate students will sometimes complain that too few courses are offered. First, let us examine exactly how many courses at the 500-level were scheduled recently. In Spring 1998, ten 500-level courses were in the schedule. In Fall 1998, five were scheduled, and two were scheduled for Winter 1999.

Second, let us consider a simple model of demand at the 500-level. The MS degree requires 45 units. Of these, 13 are required: seminar (680), thesis proposal (693), research (694), and thesis (696). Therefore, 32 units of course work must appear in the program. Students are allowed to use up to 21 units at the 400-level (and most seem to come very close to 21), so the demand for 500-level courses can be estimated as $32 - 21 = 11$ units.

Examination of the catalog reveals that our 500-level courses average 3.8 units ($n = 22, s = 0.7$). Therefore, to obtain 11 units, students need three graduate courses. Assuming that the average student takes 3 years to finish the degree (which seems reasonable), the average student would need one grad course per year. If we have 75 students wanting one course per year, that's a demand of 25 students per quarter. Assuming an average enrollment in grad courses of 10 students, that's 2.5 courses (we'll call it three) courses per quarter.

Therefore, it would seem that our offerings are reasonable. If students take longer than three years, then the demand is less than three courses per quarter. Some students also use directed study (691) and independent study (692) in their programs to meet the 11 units, so that also reduces demand. While students (and probably faculty) would like to see a large offering of grad courses each quarter, it is unlikely that there is sufficient demand. However, as the program continues to grow, increased demand will occur.

As graduate coordinator, I don't recall ever dealing with a student who had completed their research, analyzed their data, written their thesis, defended their thesis, and was being prevented from graduating due to a lack of courses. The research and thesis seems to be the limiting factor, not course availability. This situation is so common in academia that there is an acronym for it: ABD = All But Dissertation.

A related suggestion is that the department develop a two-year (or longer) plan of graduate course offerings. Given the small number of courses per quarter, and the uncertainties associated with faculty work, a few random events could easily destroy the entire plan. The faculty are the best judges of when their courses should be offered, and perhaps they should make this decision.

Acknowledgment

I thank the faculty for their strong support of the Graduate Program. The faculty are not credited for the WTU they generate through graduate supervisory courses, for serving as major professors, or for serving on thesis committees. I know you do this work because you recognize the value of a strong graduate program to our students (both graduate and undergraduate) and our faculty. Thank you for your sacrifices. You are a credit to the profession, and I am proud to be your colleague.

sDavid J. Moriarty

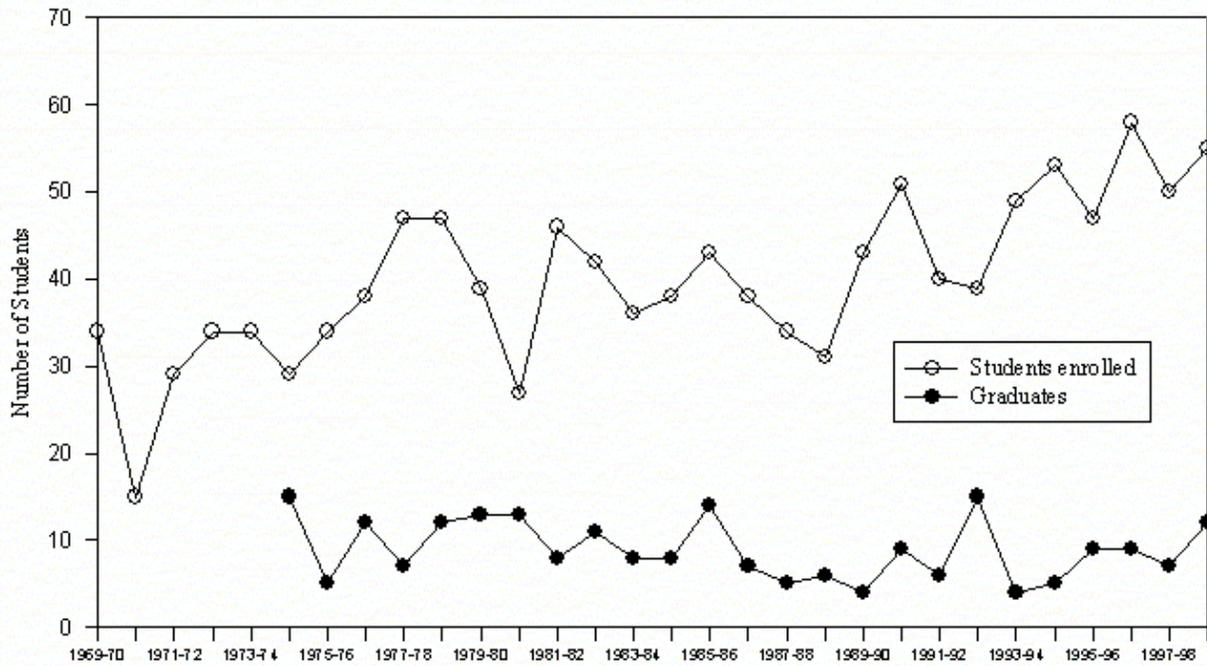


Fig. 1 Students enrolled in Fall Quarter from 1969-70 through 1998-99 (open circles), and students graduated from 1974-75 through 1998-99 (filled circles).

Fig. 2.

