GPSS

The Graduate and Professional Student Senate

Program Review of

School of Oceanography

Fall 2010

The Graduate and Professional Student Senate (GPSS) conducts program reviews of academic departments to coincide with the Graduate School's Program Review process. GPSS reviews are a vital component of the final Graduate School Program Report. These reports are the primary source of student feedback in the review process.

For each review, the graduate students in the program in question are administered a survey requesting their feedback about their program. The survey results are analyzed into a data report. Two GPSS Senators conduct an in-house interview session with available graduate students. The Senators take their results and the survey data and compile the final report.

For more information about the GPSS Program Review Process or questions regarding this Report please contact gpsspa@u.washington.edu

UW School of Oceanography

GPSS Graduate Program 10 Year Review Committee

2010 Report on findings of GPSS Catalyst Student Survey and Student Meeting

For this report the Senators' findings are split into a section for each Senator

First Senator's Findings

Executive Summary of Findings

This GPSS report is on the Oceanography Department 10-Year-Review. It summarizes the student response outcomes as identified through a department-wide *Catalyst* survey (35 respondents) and a student meeting with the Review panel (15-20 participants). Overall, academic rigor, program space and facilities, and the intellectual quality of faculty and fellow students are highly praised by the students. Students mentioned many interesting topics, such as interdisplinary science, time-to-degree, course requirements, and advising. During the survey, 90% of the students state that the program content supports their personal research and professional goals. All students have been satisfied with their overall academic experience at the University.

Review

1. **Educational status**

    The majority of the students participating in the review process are full time Oceanography Masters/PhD students, and most have been more recently admitted (after 2008). Most students estimated a time-to-degree of 5-6 years, which is typically representative of a PhD.

2. **Academic program**

    Interdisciplinary Science

    Students are interested in continuing relationships with the National Oceanic and Atmospheric Administration and other departments such as the UW Program on Climate Change and Astrobiology departments. Some students mentioned that they would like to see an increase in interdisciplinary courses taught with other departments and/or co-taught by different

disciplines within the school. One student suggested an interesting idea to facilitate more interaction between subfields within oceanography-- by organizing a department-wide seminar, brown-bag lunch, or "speaker series" to bring all specialties-- Biological Oceanography, Chemical Oceanography, Marine Geology & Geophysics, and Physical Oceanography—together in one room.

Time-to-Degree

There are many different perceptions about the average time to degree. Overall, many PhD students are approaching their 6th + year. Some students actually favor the nonexistence of a hard and dry graduation date because they feel it gives them more flexibility and time to pursue other opportunities, such as field work and research cruises—which are great "experiential education" opportunities.

Most student concerns about time-to-degree stem from the Master's Programs. Master's students agree that the sheer volume of work, seminars, and classes can be daunting during the first year and a half, and that the large amount of course requirements may slow research progress. Although the students acknowledged the importance and significance of these courses, they feel that it adds significant time to completion of the Master's degree. It would be helpful to reorganize two-year course schedules to have a better progression of classes and free up time for research towards the end of the degree. In addition, the natural final requirement for a Masters degree is to publish at least one scientific paper based on the student's findings. Although students recognize that although publishing a scientific paper is a beneficial step towards a scientific career-- it requires a significant amount of time, and this should be noted.

PhD General Exam

Since many of the students are on the track to achieving a PhD, it would be helpful to have clear expectations, either in the form of a list or timeline—regarding the requirements to the general written and oral exams. Most students stated their advisors were a tremendous help in preparation, but they also would benefit from knowing exactly what was expected of them.

Curriculum

Most students appreciate the amount of flexibility allowed in the curriculum. Only 11% of survey respondents said the amount of coursework was not appropriate to their degree. Although 60% of students agree that the program structure provides opportunities to take coursework outside the department, 14% disagreed. Many students are interested in taking skills courses, such as scientific writing, ArcGIS, and communication—but are unsure of how these courses may be credited or count towards their degree.

Due to recent budget cuts, some students' progress is slowed when desired courses are offered less often (e.g. every other year). This may force them to take $\geq$ 4 courses in one quarter

or wait an additional 2 years to fulfill some requirements. If these courses are offered every other year, it may be helpful to mention other courses on the current schedule that the students can take which contain similar content.

3.   Teaching

Overall, there is a great amount of praise for the faculty and satisfaction with class content. Although the program can be rigorous at times, the students view this as a great challenge. It is a great accomplishment that the students agree that faculty members are not only excellent researchers—but also good teachers. In addition, many students also enjoy their T.A. assignments. 65% of students said they had increased interest in teaching after this experience. This is a huge achievement, as the students also stated they did not feel "burdened" by the amount of T.A. requirements in regards to precious time for research.

4.   Research

A great strength of the program is that is allows many students to pursue their own, individual research interests. 74-80% of students feel that they have received adequate training before defining their own research topic.   The ongoing faculty research is highly regarded, cutting edge, well funded, and students have great confidence that their advisors are some of the most knowledgeable individuals in the field. The field work opportunities in the department are plentiful, and students see this as a great advantage (7 individuals praised field work and research cruises in the survey). They feel that these opportunities would not be available at most other institutions. In fact, the UW SoO is the only institution with a research vessel with a large portion of funding dedicated to educational activites. This is a great advantage.

Survey results demonstrate that most students seem to have had positive experiences with research, publications, and conferences. Although only 26% of the respondents have published one or more papers as lead authors, it is very impressive that the majority of students have attended a professional conference (89%) or presented a paper or poster (63%).

Responses from the survey indicate that students feel that the amount of work and time towards the Master's degree is variable, depending on the research expectations of their advisor. To help guide this issue, the research expectations of the Master's degree could be made clear. Again, most suggestions were based around the theme of shortening the length of the master's degree, which may usually take 3-4 years to complete. Faculty members could help organize projects that students can accomplish in 1-2 years.

5.   Career counseling and job search

A significant proportion of students (almost half) have goals of staying in the academic workforce. Accordingly, most career counseling from the faculty seems to be oriented towards the academic career path, and few students acknowledged that they have received counseling

regarding job searching (14%), resumes, or C.V.s (6%). However, it is unknown if the students are seeking outside resources (e.g. the UW Career Center) for this specific type of help.

6.   **Advising**

Overall, the students feel that the faculty and staff are very well informed about the degree process. However, a small percentage (9%) of students states their desire for more input into the design of their individual study program. Most survey recipients stated they meet with their advisors 1-3 times a month, and PhD committees have set meeting twice a year. Students also feel comfortable changing advisors if their research interests change over the course of time. For example, many students said they changed advisors between their master's and PhD degrees.

Although 80% students were satisfied with the quality of advising; a small percentage was not (14%). Some of the students found dissatisfaction with the amount of communication with the advisor (17) %, or mentioned that the advisor had very little free time. However, the majority of students stated their relationship between the faculty and graduate students is excellent or very good, only a few students said these relationships were "fair" or "poor."

7.   **Departmental climate**

In the survey, 94% of the students had a great perception about the department's sense of community. Overall, this is notably one of the department's greatest strengths. During the survey, four students credited the great facilities and location. The department does an amazing job integrating the UW Program on Climate Change, atmospheric sciences, astrobiology, ESS, and other related departments; as well as NOAA. In addition, the department's strong emphasis on out-reach (e.g. "out-reach coordinator") is very impressive. Not only is it a great benefit to the community—but students really enjoy the opportunities.

The majority of the students said that they did not feel their peers were overly competitive (n=26), and felt that most people are willing to help each other. Although there is no student council or formal student representative body, there is great feedback about community, interaction, and students support for one another. The collaboration and teamwork atmosphere of the department is laudable.

If there are student concerns, most individuals feel confident that it can be taken on at a group level via internet communications and during the annual departmental "grad student retreats"—which got good reviews.   In fact, students were very satisfied with the receptiveness of the department director's "open door policy" as an outlet for students to voice concerns.

<u>Diversity</u>

The department may continue to strive to work on recruiting and maintaining a diverse student population. Although most students feel that the program is very open to cultural diversity, a small percent of students did not necessarily recognize that the program is committed to attracting, retaining, and supporting underrepresented, diverse students (8-11%); and half the respondents were unsure regarding this issue. The only type of perceived discrimination in the graduate program that was acknowledged was on the basis of gender, and this was very little.

8.   **Finances**

In more ways than one, the department is highly commended for its ability to fund most (if not all) graduate students. In fact, 94% of students responding to the survey said they had at one time, received funding through a faculty member's grant, and more than half the students had received their own funding to do research. None of the students have had to personally fund their education, as most students are funded through T.A. and R.A. positions or fellowships. However, a few difficulties arose when communicating the funding rules and regulations for international students. Many international students took orientation, but found it useless for resources on graduate student finance issues.

<u>Second Senator's Findings</u>

Educational Status and Academic Program:

The program itself appears to be fairly rigorous, with students generally feeling that they are receiving an education on par with other high-quality Oceanography programs. The coursework does present a problem to many students, both in the amount of credits required and the availability of required classes. The general consensus was that classes occupied the majority of the first 1.5-2 years of the program, limiting the time that they could devote to research and slowing their progress towards their Master's degree. While there was also a general consensus that the required classes were necessary and useful, several students suggested spreading the courses between the M.S. and Ph.D. requirements. Many students also mentioned that some required classes were not offered regularly and several had not been offered in years. There is a certain degree of flexibility in the requirements, though this was implied to be informal and not in the program requirements or guidelines, and committees have generally been understanding of this difficulty, so this has not prevented anyone from successfully completing their degree. However, it is quite frustrating for the students. Offering the courses more often could prove difficult, as some years have only one student in a given department. Instead, clarification of

course requirements and explicit recommendations for alternate classes (either within the program or in other departments) would help the students significantly. In general, it appears that the course requirements are useful and should not be decreased, however, the students would benefit from some minor restructuring of the academic requirements of the program. The program requirements would also benefit from a rewrite, as students expressed confusion over not just the course requirements but also the general exam requirements, M.S. requirements, and expectations for both.

Time-to-degree was another issue that came up several times during the meeting with students, and this issue was very much tied in with the coursework requirements. In general, students were positive about how long it took to obtain both M.S. and Ph.D. degrees. They believed that since the program was not too strict about how long students could stay in the program, it freed them up to do more and more interesting research that they might not be able to do if the program did not allow them to take as much time as they do. While the coursework did eat up a good deal of time, they appreciated having a strong knowledge base to work from. It was also mentioned that since the program did not make a secret of the average time-to-degree, there was probably a certain amount of self-selection, with students who did not want to spend that long in grad school opting to attend Oceanography programs in other institutions. Again, splitting course requirements between the two degrees instead of completely front-loading coursework would help somewhat by reducing the time required to obtain an M.S. for those students who are taking a terminal Master's.

Teaching Experience:

Students were generally satisfied with the teaching experience in the program. In particular, several students expressed that the teaching requirements were not onerous and there was ample opportunity to do more teaching if desired. There is an option to create a curriculum independently and teach it; one student currently in the program has taken advantage of this. All students felt that the non-financial support for teaching was adequate or better, though a few students were less than thrilled with the quality of the teacher training.

Research Experience:

Research appears to be one of the major draws and great strengths of the program. Students were extremely positive about both the quality of research and their ability to participate in research. Several students mentioned that due to the funding support from the program and the time flexibility, they were able to pursue their own research interests, even on projects that might be

considered high-risk/high-reward. Again, while the average time-to-degree for the program may be considered high, this flexibility is in general a plus, allowing students to pursue interesting experiments and do considerable amounts of fieldwork.

Career Counseling and Job Search:

This stood out as one of the few weak points of the program. Like many science programs, there seems to be an assumption that graduates will go into academia, just like everybody who is teaching and mentoring in the program. There is no formal seminar or discussion session on job searching in the field, how to apply, interviews and CVs, etc., and few students have apparently received much information on these topics; this may simply indicate that these topics are not brought up by or with mentors until near the end of a student's tenure. However, it may be useful for students if mentors or other members of the program brought this up earlier/more often in their graduate career. There are also seminars on these topics that occur regularly on campus, so if students are not already be notified of these, they should be.

Advising:

Most students were satisfied or very satisfied with their advisors and the mentoring they receive in the program. While several students were dissatisfied with the quality of advising and the frequency of interactions with their advisor, they did not attend the student meeting or contact us outside the meeting, so I cannot comment on what improvements need to be made for these students. One student mentioned that there is informal peer mentoring of faculty in how to be a good advisor, which was extremely helpful. However, another student pointed out that this peer mentoring does not seem to occur as much or at all for off-campus faculty. If this peer mentoring could be encouraged and extended, either formally or informally, it could be of great benefit to students, particularly those whose advisors have not had a graduate student before. When there is either research interest divergence or personal incompatibility between advisor and student, students stated that the process of changing an advisor is relatively painless and does not carry a stigma. This contributes to the excellent research experience, as students feel free to follow their interests and passions instead of being confined to safe projects that fit strictly within the research of their current advisor. Students also stated that they appreciated the twice-yearly committee meetings, as it helped them stay on track and keep progressing. They liked that the entire faculty met twice yearly and reviewed all students, but were unhappy that feedback from these meetings was only sometimes communicated to the students. Essentially, it's a good thing and could be much more useful to the students with better communication.

Departmental Climate:

Many students stated that the program was very open and supportive. Faculty have an open-door policy and students feel free to talk to all faculty, not just members of their committee. In some cases, this has fostered collaborations across departments within Oceanography. There is also openness to interdisciplinary and inter-institution collaborations, though these are not particularly common; those students that commented felt that this was a product of the physical isolation of most members of the program, not an intellectual or cultural isolation. Students expressed some concern about the fragmentation of knowledge in the program, given there is not a Oceanography-wide seminar. Opinions were mixed about the inclusion of a "General Oceanography" course; while students would appreciate a basic grounding in other departments, there are issues with adding to the courseload and essentially boring everybody for one of the segments of the class. Despite this, people expressed that the student cohesion is still good, in large part due to the student retreat. While this does not necessarily lead to many inter-departmental collaborations, it provides a social support to students.

In terms of diversity and fairness, students are generally positive. Most students feel that the program is open to diverse individuals, they were less sure about the commitment of the program to recruiting and supporting diverse and underrepresented students. This uncertainty may be due to the fact that the majority of students attending the review meeting were Caucasian, with a few Asian students also attending. If this reflects the program makeup, most students would not encounter recruitment and support activities targeted at diverse or underrepresented groups. Also, as the life sciences seem to be no longer considered a "man's field" and the gender balance of students in the program appears to be fairly even, women in the program may not consider themselves or be considered as underrepresented. A few students reported witnessing gender-based discrimination; these students either talked to the target of discrimination or talked to friends/family about the incident. None of the students talked to the perpetrator or the faculty and staff within the program. This may merit more examination by the program to make sure that students feel safe bringing this sort of concern to faculty or other appropriate people.

Finances:

In addition to feeling academically and socially supported by the program, students also felt financially supported. Very few students anticipated acquiring substantial debt in the process of completing their degree, with only two students anticipating $10,000 or more in costs not covered by assistantships, fellowships, or grants. Several students stated that the program was active in helping them locate and obtain funding. No students at the meeting expressed concerns about lack of funding preventing them for completing their degree, and while it was stated that

7th and 8th year students often needed to get funding through teaching assistantships, this did not seem to be a major hardship or source of delay in completing the degree.

General Assessment:

Overall, students are very happy with the program, citing excellent and supportive faculty, strong academics, good community and support, and excellent research opportunities. Given the blank check question (if you could change one thing), students brought up

-Amount of coursework and frontloading of coursework to the first 2 years

-Excessive expectations for M.S. research project ("like another Ph.D. project")

-Scheduling courses

-Clearer guidelines so that students and faculty have a better grasp on what's going on outside the student's research

-There's a sense of a core on-campus with off-campus fringe; actively extend peer mentoring of faculty to off-campus and clarify guidelines/program requirements so that off-campus people are better informed

Oceanography- Data Summary

A 43 item survey was administered to graduate students in the School of Oceanography from October 25th-November 1st, 2010. 35 students completed the survey resulting in a 45% response rate.

Educational Status
Among the students that responded, four students self-identified as master's students, 20 identified as master's/Ph.D students, three identified as doctoral students and seven identified as doctoral candidates. The majority of students (n=18) specified that they were in oceanography, but a few identified their sub-discipline.

Table 1. Student's sub-disciplines

Biological Oceanography	3
Chemical Oceanography	2
Marine Geology & Geophysics	4
Astrobiology	1
Physical Oceanography	7

Students who responded were more recently admitted after 2008.

Table 2. Years of admission

2004-2005	5
2006-2007	4
2008-2010	26

All of the students were going to school full-time and only one student did not respond to the question. Overall, students estimated that it would take five to six years to complete the program.

Table 3. Student's estimate of how long it would take them to obtain degree

1-2 years	1
3-4 years	3
5-6 years	27
7+ years	4

Academic Program

Table 4. Evaluation of quality of program, faculty and faculty-student relationships

	Excellent	Very good	Good	Fair	Poor
Academic rigor in the program	15	17	3	-	-
Integration of current developments in field	14	19	2	-	-
Program space and facilities	20	10	4	1	-
Overall program quality	16	15	4	-	-
Intellectual quality of the faculty	22	12	1	-	-
Intellectual quality of fellow graduate students	22	12	3	-	-
Relationship between faculty and graduate students	8	19	6	1	1

Table 5. Student's evaluation of graduate program

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	No opinion
Program activities foster a sense of intellectual community	14	13	6	1	-	1
Program content supports my research or professional goals	11	20	3	1	-	-
Program structure	8	17	7	1	1	1

encourages collaboration and/or teamwork					
The amount of coursework required seems appropriate to the degree	6	19	6	4	-	-
Program structure provides opportunities to take coursework outside my own department	8	13	7	3	1	1
Program structure provides opportunities to engage in interdisciplinary work	12	15	6	1	-	1

Teaching experience

20 of the 35 students have had a teaching appointment while in graduate school. The majority of these students have assisted other faculty on their courses for an average of one quarter. Only one of these students had taught their own class.

18 of the students reported that their program did provide teacher training, 1 student said it didn't and one student was not sure. Two students had additional comments:
1. Keep the COFS TA training! Don't let it get lost in CoE. COFS TA training is great.
2. Received a waiver from the training program because I have a masters' in education and taught high school for a few years

Table 6. Student's ratings of the quality of the teacher training

	Excellent	Very good	Good	Fair	Poor
Quality of teacher training	3	3	9	1	1

Table 7. Student's rating of non-financial support for teaching

Not enough	Just enough	Enough	More than enough	No opinion
-	1	12	5	2

Table 8. Extent to which teaching experience affected their interest in teaching

Increased my interest	13
Made no difference	6
Decreased my interest	1

Research experience

Table 9. Student's experiences with research, publications and conferences

	Yes	No	No response
Received adequate training before beginning own research or scholarly work	28	7	-

Received adequate faculty guidance in formulating a research topic	26	9	-
Conducted research in collaboration with one or more faculty members	33	2	-
Received funding through a faculty member's grant	33	2	-
Received funding to do own research	19	16	-
Assisted in writing a grant proposal	11	24	-
Published one or more papers as sole author	-	35	-
Published one or more papers as lead author	9	26	-
Published one or more papers as a co-author	12	23	-
Have attended a professional conference	31	4	-
Have presented paper or poster at a professional conference	22	13	-

Career counseling and job search
14 students reported that they weren't sure whether they wanted to work in academia when they entered their graduate program. Seven of the students said they did not want to go into academia when they started their program and 14 said that it was their initial goal.

Table 10. Career counseling from faculty

Did you receive advice on the following topics from your advisor or other faculty members?	Yes	No
Employment opportunities inside academia	20	15
Employment opportunities outside academia	12	23
How to search for a job	5	30
How to prepare a resume or curriculum vitae	2	33
How to prepare for an interview	-	35

Advising

Table 11. Accessibility of information

	Usually	Sometimes	Never	No opinion
Is information on degree requirements available?	30	4	1	-
Is information on degree requirements clear?	17	16	2	-
Are faculty and staff well-informed about degree requirements?	15	20	-	-
Have you had input into the design of your individual program of study?	15	14	3	3

Table 12. Student's satisfaction with quality of advising

Very satisfied	13
Satisfied	15
Dissatisfied	5

Very dissatisfied	-
No opinion	2

Table 13. Interactions with advisor on the following items:

	4 + times a month (at least one a week)	1-3 times a month	Less than once a month	No response
Your ongoing research results	15	18	2	-
Writing your thesis	6	8	17	4

Table 14. Satisfaction with amount of communication with advisor

Very satisfied	Satisfied	Dissatisfied	Very dissatisfied	No opinion
15	13	6	-	1

Nine of the students did not identify as doctoral students and 26 did. The following 26 students answered questions specific to being doctoral students.

Table 15. Type of advising received

Have you received advice on the following?	Yes	No	No opinion	Not applicable
Developing thesis/dissertation proposal	15	5	-	6
Selecting thesis/dissertation advisor	10	7	2	7
Doing your research	21	3	1	1
Plagiarism and other violations of the standards of academic integrity	13	5	5	3
Your thesis/dissertation draft	7	3	2	14
Preparing for your final defense	3	2	4	17

Departmental climate
One question on the survey was whether or not students felt that their peers were overly competitive. Eight students did not answer this question. Only one student seemed to believe that it was, and said "The lack of collaboration suggests this." However, the majority of the students said that they did not feel their peers were overly competitive (n=26).

Some students provided the following comments:
1. I do not find this to be the case.
2. I think students in my program are hardworking and serious about their work, but not overly competitive. Most people are willing to help each other and collaborate.
3. No in general. This is one of the strengths of the oceanography program at UW compared to what I perceived at Scripps and from WHOI students.
4. No, definitely not competitive. Since everyone in my department has funding from their advisor's grants we don't need to compete with each other for funding. I feel like I get a lot of support and friendship from the other grad students in my department.
5. No, definitely not. I think the environment is very collaborative rather than competitive.
6. No, I do not feel that the students in my program are overly competitive. On the contrary, I feel that the students in my program are very supportive of each other.

7. No, it is a pretty cooperative atmosphere.
8. No, we are not overly competitive and I believe that this collaborative environment is something that should continue to be fostered. I think collaboration over competition is an aspect of our department which entices prospective students
9. No. There is a general feeling of camaraderie.
10. Not particularly; there tends to be a good deal of collaboration as we work to complete our first-year classes.
11. Students are generally not competitive with each other. However, I feel they are competitive candidates for future jobs. I'm not sure what this question was asking.

Table 16. Student's perception about sense of community in the department

Excellent	Very good	Good	Fair	Poor	No opinion
9	20	4	1	1	-

Table 17. Issues of diversity

	Yes	No	Unsure	No opinion
Program open to cultural diversity	24	2	7	2
Program committed to attracting and retaining underrepresented students	7	4	14	10
Program provides support for needs of diverse students	9	3	14	9

Table 17. Witnessed of discrimination in the graduate program

	Frequently	Occasionally	Never	Unsure
Gender	-	7	26	2
Race or ethnicity	-	1	32	2
Country of origin	-	-	31	4
Religion	-	-	33	2
Sexual orientation	-	-	32	3
Disability	-	-	32	3

Table 18. Experienced discrimination in the graduate program

	Frequently	Occasionally	Never	Unsure	No response
Gender	-	4	30	1	-
Race or ethnicity	-	-	34	1	-
Country of origin	-	-	34	1	-
Religion	-	-	34	1	-
Sexual orientation	-	-	32	2	1
Disability	-	-	33	2	-

Table19. Student's response to discrimination

Spoke with perpetrator(s) of discrimination	-
Spoke with target(s) of discrimination	1
Discussed incident with friends or family	3
Spoke to other graduate students	-
Spoke to faculty or staff in my department	-
Contacted the UCIRO	-
Spoke to someone in the Graduate school	-
Not applicable	-

Finances

Table 20. Student's funding

	More than 9 quarters	7-9 quarters	4-6 quarters	1-3 quarters	None	No answer
Teaching assistantship	-	-	-	22	7	6
Research assistantship	11	3	8	9	3	1
Non-service fellowship	2	1	2	5	17	8
Traineeship or grant	-	1	-	4	21	9
Need-based financial aid/loans	1	-	1	1	24	8
Personal funding	-	-	-	-	25	10
Other	1	-	-	2	22	10

17 students have had research and/or teaching opportunities outside of their program and the remaining 18 students haven't.

Table 21. Are the criteria for financial support eligibility clear?

Usually	25
Sometimes	8
Never	-
No answer	2

Table 22. Does the program provide sufficient funding?

Yes	31
No	-
Unsure	3
No opinion	1

Table 23. Do you feel you had sufficient access to teaching and/or research opportunities?

Yes	30
No	-
Unsure	4
No opinion	1

Table 24. Anticipated accumulated debt from graduate school

$0	28
$1-$9,999	4
$10,000-$19,999	1
$20,000-$29,999	-
$30,000-$39,999	-
$40,000-$49,999	-
$50,000-$59,999	1
$60,000-$69,999	-
$80,000 or more	-
No response	1

General assessment

Table 25. Quality of their overall academic experience at this university

Excellent	13
Very good	15
Good	7
Fair	-
Poor	-
Other	-

Table 26. Obstacles to student's academic progress

	Not an obstacle	A minor obstacle	A major obstacle	Not applicable
Work/financial commitments	29	2	2	2
Family obligations	18	13	1	3
Availability of faculty	19	13	2	1
Program structure and requirements	17	15	2	1
Dissertation topic/research	19	12	3	1
Course scheduling	16	16	1	2
Immigration laws or regulations	23	2	-	10

The majority of students said it was "very likely" that they would be able to complete their degree objective. Only five students said it was "somewhat likely" and one student didn't respond.

Table 27. Satisfaction with program and university

How likely are you to pursue graduate studies…	Definitely	Probably	Maybe	Probably not	Definitely not	No opinion
At this university	19	10	4	1	1	-
In your graduate program	19	9	4	2	1	-
In your field	15	14	3	2	1	-
In another field	2	4	17	9	1	2

Table 28. Recommendation of program and university

	Definitely	Probably	Maybe	Probably not	Definitely not	No opinion
Would you recommend this University to prospective students in your field?	26	6	3	-	-	-
Would you recommend this University to prospective students in any field?	9	15	8	1	-	2

Students responded to several open-ended questions. In the first question students were asked what they saw as the most positive characteristics of their program.

1. Excellent faculty (in terms of classes and advising). Rigorous program. Students are compatible and friendly. Many opportunities to explore fields of interest both within and outside your research.
2. Good communication within the department, between both students and faculty. Faculty members are excellent researchers, and often good teachers. Students are really motivated.
3. Good community, supportive faculty, plenty of opportunities for professional and academic development, access to other excellent departments and faculty members on campus,
4. Interacting with students and faculty
5. The research being done by the faculty is top notch which allows graduate students to do exciting and important research.
6. Supportive faculty.
7. Great facilities and access to so many talented people. I think that probably the single most valuable thing for me at UW is the Program on Climate change. It does an amazing job integrating atmospheric science, ESS, Oceanography and other related departments. My experience would be quite different without it.
8. The sense of community and supportive atmosphere
9. Excellent facilities and high quality of other graduate students

10. Teamwork of students, interdisciplinary approach, teaching opportunities, field work opportunities, and quality faculty
11. Flexibility and student community
12. I think the student's support of one another is one of the strengths. The availability of funding and research opportunities is good. The breadth of knowledge of the faculty is a major asset.
13. Small, excellent reputation, good research opportunities, and good faculty
14. Our department cares about the well-being of its grad students and there is a great community among the grad students.
15. The oceanography department is a supportive community. Professors seem to care about the intellectual growth of all students. There also seems to be support when students run into difficulties. The research conducted in this department is cutting edge and is conducted by some of the top scientists in the field. This gives students excellent research opportunities and the potential to learn from truly great minds. These opportunities would not be available at most other institutions. Most students are given a large degree of freedom to develop their research projects. This is challenging, but makes students develop intellectually as a scientist in a way that wouldn't happen otherwise.
16. Opportunities to participate in field research.
17. The required coursework provides a very good base for well-rounded knowledge in the field. Availability of faculty for guidance/feedback. Funding opportunities. Opportunities to participate in research cruises/fieldwork.
18. The faculty members are approachable and helpful without holding our hands.
19. It seems well structured, and there's a sense of community.
20. Our department is a large positive community. Our program guarantees funding for its graduate students. That takes away the stress of having to figure out how to pay for school and allows us to focus on our work.
21. The flexibility that is provided by the faculty and program. This often allows for personal attention and understanding of the ups and downs of grad school.
22. A strong interdisciplinary program which requires students to take courses in the other Oceanography disciplines (Chemical, Biological, and Marine Geology/Geophysics). Great community atmosphere within the Department.
23. Small, relatively teaching-oriented for a graduate research program, collaborative atmosphere among students, faculty members open to talking with students, excellent research.
24. Facilities, faculties and excellent research projects
25. Subject, classmates, and opportunities for fieldwork. Faculty members are quite accessible as well.
26. Funding, faculty, active research
27. Smart people
28. Good classes. Partnership with NOAA.

In the second question, students described what they found to be the most challenging aspects of their graduate program?

1. Time to degree is a major issue that both students and faculty seem to struggle with. Increasing amounts of attention have been given to this at the faculty level since it seems to be the major critique of the UW oceanography program. However, no major changes have been implemented. The major suggestion is to shorten the length of the master's degree (which usually is completed usually well into the third year). To do this, advisors need to seriously consider what projects students can do in 1-2 years. This probably means having a dataset ready to analyze when the student arrives or rethinking the goals of getting a masters. Many students feel that the master's is the first of two PhDs. The other suggestion would be to cut the course load since it saps a significant amount of a student's time and resources during the first 1.5 years at least. I'm sure most of these ideas have already been talked about amongst the faculty, but some degree of commitment to them needs to be expressed and implemented.
2. Expectations for students are very high. Sheer volume of work, seminars, classes and such is daunting, and makes it difficult to stay on top of things.
3. Interacting with faculty that travel often
4. There are quite a lot of course requirements. I felt my progress was slowed by the number of courses I had to take.
5. Funding is difficult for international students.
6. Based on my experiences at other Universities for my undergraduate and master's programs, I feel like there is far more bureaucracy at UW.
7. Graduating in a reasonable amount of time, many students take >7 years
8. Managing my relationship with my faculty adviser
9. Amount of course work required. Length of degree expected
10. Interests beyond scope of advisor's experience
11. The challenging aspects of this program are more personal. I think I have the wrong adviser for my personal approach to research. His/Her lack of commitment to my education as a scientist and disinterest in our project has been a major obstacle to my progress. I also think that there is a lack of coherency to the coursework portion of the degree.
12. Staying focused on one thing at a time when there is so much going on.
13. There is a lot of pressure for us to reduce the time it takes to graduate from our program. I think this is a little unfair because we are being compared to other oceanography departments at other schools that don't require a master's on the way to a PhD.
14. Completing a degree seems to take endurance. The Master's requirement takes most students 3 years to complete, and then they spend their 4th year finishing up their master's work and publishing it into a paper. Realistically, most students don't truly start their PhD work until their 5th year. I found the Master's requirement to be very helpful, but the research expectations for this requirement are much too large. It should be viewed as a learning experience on the way to the PhD, not a mini-PhD as it currently is. I know that faculty members have discussed this problem many times. The cause it not from students taking their time, or not working hard enough. The problem is caused by the scale of the Master's research project.
15. Getting my advisor to give useful advice
16. Since there is no clear distinction between coursework required for a Master's degree vs. a PhD, obtaining a Master's degree tends to take longer than in other programs.
17. Coming up with a dissertation topic from scratch.

18. I think the scheduling of graduate level course work could have been done better, especially since courses are being offered less frequently due to budget cuts. Four courses in my option were offered during one quarter, and two of them were not offered again for another two years. That forced me to decide between taking four classes and not putting my full effort into them or taking fewer but needing to wait 2 years to fulfill some requirements. Also, my department doesn't count "tools" courses (e.g. scientific writing, ArcGIS, communicating oceans sciences) towards out-of-option requirements. I think it is a mistake to devalue such skill-based courses. Yes, knowledge-based traditional courses are very important towards a graduate degree as a certain amount depth and breadth of knowledge is going to be assumed in association with the degree; however, I think skills are equally important. When I graduate and apply for jobs, employers are going to be more interested in what skills I have than what courses I took. Value skills-based tool courses! Give students a reason to take tools courses and become more well-rounded scientists.
19. The lack of consistency between advisory committees across disciplines.
20. The quarter vs. semester scheduling (many incoming graduate students are only familiar with semester system) coupled with classes heavy in such topics as Physics, Differential Equations, Vector Calculus, Linear Algebra, etc.
21. Different levels of preparation among students, transition to graduate learning environment
22. Too long to get graduate and find a job
23. Research is tough!
24. Seeing research through to its conclusion
25. Time management

The third question asked students, if they could change one thing about their graduate education to make it more successful of fulfilling, what would it be?
1. Better computer resources within the department.
2. Reorganize two-year course schedules to have a better progression of classes. Too lumped in some portions (i.e. all required P.O. classes in one year)
3. I would have taught more.
4. Better advisor availability/guidance
5. I was a bit directionless in the beginning, which makes me feel like I wasted some time to some degree, although I did learn some things in the process. Might have streamlined that a bit.
6. Don't know yet, I'm only 1 year in.
7. More flexibility in terms of courses that can be used to meet department requirements
8. Find out all the rules for international graduate students and payroll BEFORE HAND!! (International student orientation was useless for grad student finances.)
9. Co-advisor with experience related to my interests to complement the expertise of my current advisor
10. Again, this is a personal thing and does not reflect on the program as a whole, but I would choose a different adviser to work with. Still, this is the most important failing to me, and I think that my committee also hasn't done enough when it noticed these problems. I think that if there were some more oversight of the relationships/collaborations between

students and their advisers, students (like myself and others I know) wouldn't 'fall through the academic cracks' as I feel I have.
11. Office closer to advisor.
12. Swap AMATH402 for a linear algebra course
13. I can't think of anything right now. Overall, I am very happy with my department.
14. Same as stated above. Reduce the research expectations of the Master's degree. It should only take 2 years. Students work very hard, and it still takes them more than 3 years to complete. It does not take a long time because students aren't working hard enough, as implied sometimes by the faculty. Instead, the scale of the projects required is just too large. It is not another PhD. Don't change anything else. Everything else is wonderful.
15. I'd pick a new advisor
16. I'd make friends.
17. My advisor. Lines of communication are not as clear as I would like them to be. I think that has slowed down my progress several times.
18. More interdisciplinary courses taught with other departments and/or co-taught by different disciplines within our school.
19. Improve guidelines to committees so that expectations for students at the Masters, General and Final exams are more consistent. This will allow students to know what is coming and prepare accordingly.
20. I would have tried to enter graduate school sooner after completing my undergraduate degree.
21. More interaction between subfields within oceanography
22. Get into a different field
23. Slightly different research focus.
24. No single change that I can think of.