1. **Assessment information collected**

1. Comprehensive examinations
2. Audience evaluations of oral thesis defense, with rankings on a scale of 1-5 (1 being excellent, 5 being poor)
3. Review of graduate theses by Program Head (rankings: Acceptable, Good, Very good, Outstanding)
4. Presentations and publications by graduates
5. First employment of graduates
6. Exit interview questionnaires collected from graduates to assess satisfaction with program and educational outcomes (rankings: not satisfied, mostly satisfied, very satisfied)

2. **Conclusions drawn from the information summarized above**

No students took the comprehensive examination during this reporting period. Five students defended theses, but only 4 received written audience evaluations. Average scores ranged from 1.27 – 1.93 (very good to excellent). Criticisms primarily included students not providing sufficient “big-picture” context for their research.

The student who received the lowest score at the defense also received low ratings of the written thesis from the program head, particularly with respect to editorial issues such as grammar, clarity of writing, formatting, missing elements from methods descriptions, and punctuation errors; in addition, articulation of the scientific content was also rated poorly in some cases. The other four Oceanography students also received relatively low ratings (acceptable or good) in some categories for many of the same issues, but two did receive “good” ratings for overall writing skills. All demonstrated command of the current literature in their fields. Students seem not to be receiving sufficient help from advisors or committee members in thesis editing. This practice should be remedied in future, beginning with Dean and Department Chair intervention to clarify the role of faculty in the thesis editing process and ensure that theses are not put forward for department-level signatures without thorough editorial review by all committee members. Students should continue to be encouraged to
practice writing skills as often as possible, and to enroll in the Proposal Writing and/or the Scientific Writing courses that are offered in SFOS.

Some students did not provide lists of their accomplishments or current employment information, but two responded that they had given multiple presentations on their work, and at least one chapter of the thesis was already published at time of submission. One student went on to a PhD program, and two others are working as research technicians in their fields.

Student exit interviews indicated that students were very satisfied with their research training and opportunities. Some commented that a greater diversity of courses should be offered in the oceanography disciplines, particularly in Geological and Chemical Oceanography. This is a struggle for the department given the number of faculty in these disciplines. At the program level, faculty are encouraged to offer courses with broader inter-disciplinary appeal. Increasing the enrollment in the Oceanography degree programs would also facilitate increased course offerings somewhat (i.e. because there would be sufficient enrollment in those courses).

3. Curricular changes resulting from conclusions drawn above
A new MA in Marine Science was created to address the needs of students who want an advanced degree for professional advancement but don’t necessarily need the more involved research experience that is involved in the MS. This option may also attract students who are working full time, e.g. in management agencies, allowing them to take classes and complete a graduate degree in a timely manner while still continuing to work.

The MS comprehensive exam requirement was evaluated in some detail, in an effort to address complaints about its effectiveness and appropriateness. A faculty committee conducted both student and faculty surveys, and compiled statistics on pass rates in conjunction with student qualifications (GPA, GRE scores) at time of admission to determine whether admission requirements should be tightened. The comprehensive exam committee also talked directly with students and allowed the next cohorts to vote on aspects of the exam structure (e.g., multi-day vs. single-day exam). Most students surveyed did not think the exam was unreasonable or unfair, but some had specific criticisms and suggestions for improvement. Many of these criticisms seemed to stem from isolated experiences by particular students who did not do well on the exam in the first attempt. It was ultimately determined that the exam should be retained in its current form, and that effort should be placed on communicating with students about expectations and providing some direction for preparing more effectively.
GPMSL faculty meet regularly to discuss and improve programs. Overall, we find that students are satisfied with the program, produce publishable-quality theses, and go on to find employment in the chosen field.

4. **Identify the faculty members involved in reaching the conclusions drawn above and agreeing upon the curricular changes resulting**

The program head is responsible for completing dissertation evaluation forms and reviewing exit interviews and accomplishment forms. All attendees are invited to complete defense evaluations. The long-time program head (Katrin Iken) stepped down at the end of fall 2015, and this report was prepared using archived data by the new program head (Sarah Hardy) who only reviewed spring 2016 dissertations first-hand. The GPMSL Outcomes Assessment Committee has in the past contributed to program review, but has been inactive for some time. SFOS is currently in the midst of an organizational restructuring, and the current program head will advocate for this committee to be revived under the new structure, so that a broader group of faculty will be involved in program review and improvement.