

Response to the 2022 Review Committee's Report

Department of Earth and Space Sciences, University of Washington

Prepared by the Earth and Space Sciences Faculty Executive Committee and Senior Staff*

January 12, 2023

We thank the Review Committee for its work. The committee made recommendations across five categories. Here, we reproduce each of the recommendations in abbreviated form and respond within each category. The report largely endorses existing department plans with respect to faculty hiring, funding, and our educational programs. Consequently, most of the recommendations are straightforward and have already been implemented. We respond in more detail for those items where clarification is needed, particularly on questions of governance. Where specific documentation regarding policies and guidelines is indicated, we provide a timeline for completion.

We recognize the concerns expressed about communication, particularly between faculty leadership and grad students, and we appreciate the acknowledgement by the Review Committee that communication has been particularly challenging since the start of the COVID pandemic. We are confident that ongoing developments, discussed in this response, will effectively address these concerns.

We do not concur with the Review Committee's assessment of the department's DEI efforts, which implied that progress has stalled under current leadership. We outlined numerous practical advances in our self-study, many of which were praised by graduate students and postdocs in the anonymous comments that the Review Committee received. Moreover, faculty of color (among the undersigned) in our department have expressed their confidence in the Chair's leadership. We note that the Review Committee provided no opportunity for them to speak to these issues. There is always room for improvement, particularly in communication as noted above, but we wish to express our concern about the integrity and inclusivity of the report.

Review Committee statements are in italics, and the Department's responses are in plain text.

1. Governance, Administration, and Climate

- *The department should devise and disseminate pathways to increase communication and transparency.... Efforts should be made to ensure that an anonymous reporting tool is available and known.*
- *The department governance system should be refined and disseminated.... We recommend that the executive committee be elevated from an entity that occasionally meets at the chair's discretion to advise the chair to an entity that meets regularly with the ability of all members to raise topics of discussion. Further, the executive committee should return to a past practice of encompassing diverse representation with respect to seniority and other demographics.*
- *The department should consider expanding faculty mentoring to prepare junior and mid-career faculty to take on leadership positions in the department and college.*
- *The structure and purview of the DEI committee should be clarified.*

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- *The department should devise or confirm policies and guidelines and construct short and simple documents to convey the information, which should be posted on the website and cover at least the following topics: department governance; DEI initiatives; requirements and timelines for masters and doctoral degrees; and the promotion, merit, and tenure process.*
- *The department should conduct regular climate surveys across levels of seniority.*
- *The division of labor among current staff should be examined, clarified, and disseminated. Given high staff workloads, the department should continually review staffing levels.*

We recognize that much of our policy documentation is out of date and/or difficult to access. Addressing these problems has already been a priority. The new departmental web site, to be completed by the end of Spring quarter 2023, includes a well-organized section on governance structure and policies. To further ensure transparency, we announced a new Policy Committee last spring, which was convened in Autumn 2022, prior to the site visit comprising three faculty across career stages. The charge of the Policy Committee is as follows:

The Policy Committee is charged with 1) reviewing and organize existing policies and procedures, with the goal of having everything easy to find on the department web site and 2) consider any new suggestions for policy changes brought to the attention of the committee by students, faculty, other committees, the Chair, or staff, and make a recommendation to the faculty for their consideration.

We do not agree with the recommendation that the department “return to past practice”, in which the Executive Committee was very large and was appointed at the Chair’s discretion. Currently, our undergraduate and graduate program coordinators (who concurrently serve as Associate Chairs), and faculty council representative (who is elected by the full faculty), serve as committee members. This ensures that the Executive Committee involves those with relevant responsibilities directly associated with our programs and our students. We agree that there should be a junior faculty member, and an assistant professor was recently added. The committee does not make policy decisions, which are brought to and voted on by the full faculty. Committee members understand that they are encouraged to – and do – bring agenda items up to the entire committee. The committee meets regularly once per month, and additional meetings can be called by any member. The current committee includes professors at all ranks, and two of our minority faculty members. That there were no women on the Exec. at the time of the Review Committee’s visit reflects the low number of faculty women in the department (something that will change rapidly this year as new faculty arrive), and the fact that two have been on sabbatical. We recognize the need for a formal policy regarding the membership and function of the Executive Committee. This will be discussed by the full faculty, and the final charge and structure of the Executive Committee will be documented and disseminated by the end of the current academic year.

Regarding preparation for faculty leadership, both junior and mid-career faculty are already involved in gaining relevant experiences through chairing committees and participating on the Executive. For junior faculty, we are adopting the informal, long-standing Atmospheric Sciences policy, in which all junior faculty are assigned three faculty mentors who remain with them through their pursuit of tenure and professional development. The Policy Committee has been tasked with drafting a formal proposal on this subject, which will be considered by the full faculty and finalized by the end of the current academic year.

Concerns expressed by surrounding transparency appear to relate largely to the role of the “Diversity, Equity and Inclusion” (DEI) committee. The department has made substantial inroads on DEI goals in the last two years under current leadership, including the recent hiring of the most diverse cohort of faculty in our history, revisions to our field program to make is more accessible, a revised approach to TA

assignments, and more, which were detailed in the self-study. Nevertheless, DEI is a complex issue, and there can be legitimate differences of opinion on how to achieve shared goals. Discussions can be emotionally-charged, and have been particularly challenging during the last three years because of the COVID pandemic, as acknowledged by the Review Committee. The absence, previously, of a clearly-defined and agreed-upon role for a DEI committee, coupled with the decentralized nature of DEI efforts across the College, have also contributed to confusion and misunderstanding.

This year, prior to the site visit, the Chair met with students from the previous DEI committee, as well as the DEI chair and the Associate Chair/Undergraduate Program Coordinator (both minority faculty) to consider refinements to the department's mechanism for raising and addressing DEI-related issues. It was unanimously agreed that a faculty-led DEI committee should be replaced by a new student-led DEI Committee which would have a faculty mentor. Additionally, a new faculty-led Policy Committee was formed (see above) to address matters of policy (whether DEI-related or not). The charge of the DEI committee (reviewed by the full faculty at the November 2022 faculty meeting) is as follows:

The DEI Committee in ESS is a student-and postdoc-led committee. It is composed of one undergraduate, two graduate students and one postdoc representative, and one faculty mentor. Choice of the faculty mentor is by mutual agreement between the department faculty executive committee and the students/postdoc members of the Committee. The DEI Committee's role is to provide an early-career perspective on activities, programs, and policies in the department, with the goal of maintaining a diverse, equitable and inclusive program. The scope of the DEI Committee includes such things as making recommendations for improvements to department practices, supporting student-focused activities, and assisting department leadership in the design and implementation of surveys to assess and monitor the student experience. Recommendations that involve potential changes to formal department policy should be brought to the faculty-led policy committee, which is tasked with evaluation and formulation of policy ideas (including, but not limited to, those suggested by the DEI committee) which are then considered by the full faculty.

These ongoing developments should go a long way towards making the department's support for diversity and inclusion more transparent. We will be working with the DEI committee on implementing an annual climate survey. Note that our student advising staff already conduct an annual poll with undergraduates about their experiences.

The committee report echoed some inaccurate statements provided to them about anonymous feedback. ESS has always had avenues for anonymous feedback. The *electronic* submission of anonymous feedback via our online form was briefly unavailable because the software we were using (Catalyst tools) was no longer supported by UW-IT, and it took time to find an alternative solution that would ensure confidentiality. Furthermore, there are many other avenues to expressing concerns, anonymously or otherwise, which are detailed on the department website, and have not changed. See: https://www.ess.washington.edu/about/reporting_concerns.php

Anonymous feedback provides one mechanism for members of the ESS community to bring issues to the attention of departmental leadership. However, anonymous feedback precludes follow-up and verification of assertions, both of which are needed to appropriately address concerns, particularly those of a serious nature. Over-reliance on anonymous feedback, inconsistent practices in who receives such information and how it is used, and the potential for abuse, have been noted by the Ombud's office as a pervasive challenge at UW. For these reasons, while ESS will continue to provide the anonymous feedback option, we encourage direct communication.

We agree with report comments about the challenges with the division of labor among staff and note that ESS has been chronically understaffed relative to other units in the College. Recent hires made this year have already made a significant positive impact.

2. Faculty Composition and Future Directions

- *Given the numerous and excellent recent hires that have filled in department gaps in topics and teaching, we hope ESS will seize the opportunity to develop a compelling vision for elevating an already strong department reputation for innovative and impactful science. This should include developing a strategic hiring plan, emphasizing engagement by the junior faculty.*
- *The department should ensure that the faculty mentoring plan for junior faculty is put in place and supported by staff and administration.*

We agree with both of these suggestions. The recent faculty hires arose from the previous strategic hiring plan, and work was begun on a new, comprehensive strategic plan as part of the work on the self-study last year. The new strategic plan will take elements of the self-study, coupled with the feedback provided by the Review Committee report, and plans for completion this year will be discussed at the upcoming faculty retreat.

3. Funding

- *The department should develop a long-term funding plan for the proportion of funds allocated towards various departmental needs, including infrastructure, staffing, students, and faculty startup.*
- *The department should engage with the college to promote fundraising to build the departmental endowment, especially among past alumni.*
- *There is a need for university investment in infrastructure. A clear space policy would help ensure equitable allocation of quality space.*
- *There is a need to strengthen linkages with the college. We were surprised by the perception of some in the department that it was challenging to align department priorities and messaging with that of the college due to the ESS field linking to extractive industries.*
- *There is a need to identify appropriate sizes of startup packages that balance the need for attractive recruitment against available funds. The department should consider options beyond the current indirect cost partial funding model.*

We largely agree with these recommendations – long-term budget planning has indeed been a priority of the current Chair – but we note some clarification on the last two items. Funding is a complex issue that has been made difficult by the historical lack of clarity and consistency from the upper administration. It has been further stymied by the inequitable distribution of funds in the ABB structure, which has disadvantaged ESS more than any other unit in the College of the Environment.

The report provided very little in terms of concrete recommendations to the UW administration; this was a missed opportunity. We appreciate that our College has partly rectified historical inequities in ABB distributions, resulting in a small increase to our permanent funding. We look forward to continuing to work with the Dean's office in better rationalizing and incentivizing the allocation of TA resources (one of our largest expenses), and with the Advancement office in fundraising. A more consistent and transparent approach to ABB allocations at the University level would help both the College and the Department maintain the excellence of their internationally-recognized research and educational programs.

ESS already has very strong linkages throughout the College, across multiple areas of research and teaching, in almost all areas of research, many examples of which were provided in the Self-Study. The perception that it is difficult to align department priorities with the goals of the College reflects a

concern that the emphasis placed on climate solutions and social science (e.g., as exemplified by EarthLab), does not project upon much of the fundamental research in which our department engages. This is true, but we also appreciate that the Dean has repeatedly emphasized the role of fundamental research. We do not consider this dynamic to be a major concern.

The size of ESS startup packages has been commensurate with those at our peer institutions. Our recent hiring success – the most diverse cohort in our history – could not have been achieved without offering competitive start-up packages. Pressure on start-up funds reflects the large number of retirements within a very short time frame, not a lack of fiscal planning over the long term. Diversity and excellence, stated mission goals of the College and the University, require investment.

4. Undergraduate program

- *The change in research focus from Space Physics to Planetary Science suggests that the Space Physics BS track is likely to change. This represents a risk in that a large fraction (more than 40% in 2020 and 2021) of ESS majors are in that track. Modifying the Physics track to include more terrestrial geophysics and instrumentation may or may not maintain the same enrollment.*
- *Professional preparation for ESS majors needs strengthening. Redesign of the capstone experience is an urgent task that is essential for the continued success of the ESS undergraduate program. Substantial intellectual and financial resources will be needed to pull this off. The planned hiring of two surface processes faculty should help complete filling instructional gaps and may help in improving the professional preparation of ESS graduates. A dedicated teaching or professional practice faculty member would be very helpful in this regard.*
- *The exceptionally large SCH provided by the Department and the large number of majors for an Earth Science program warrant additional central funding to support this successful undergraduate enterprise.*

We agree with all these points. The Curriculum Committee has been charged with revising the undergraduate curriculum and has made substantial progress. We will have a draft proposal to discuss at the January faculty retreat, and plan to finalize the new curriculum by the end of the current academic year. We have made the case to the Dean's office that a new dedicated teaching faculty member will eventually be needed, particularly for our very-large enrollment class (ESS 101), to ensure the growth of our program and its sustainability given that loss of key personnel is likely in the next 5-10 years, at most.

5. Graduate program

- *The preliminary examinations for the Ph.D. programs should be made more uniform to the extent it better serves the students. A limited set of exam outcomes should be constructed.*
- *The department should immediately review and revise documents related to expectations and procedures for progression through the graduate degree. There needs to be a single source of consistent information and guidance given to the students.*
- *The department needs to engage in a planning process to determine whether it is willing to commit to a high-quality applied MS program. Collaboration with the college to devise sufficient financial return for viability is essential. Further integrating with the BS program, reducing the research requirement .. and reconsidering the curriculum to include in-demand skills related to the expertise of newer faculty seem like potential trajectories toward an expanded and sustainable program. The applied Masters program complements the graduate research*

program, provides important linkages with industry, and provides something of a model for improved professional preparation for ESS undergraduates.

Requirements and potential outcomes for the Prelim are already clearly documented, and expectations are provided in a two-quarter long class (ESS 594), with students reporting that they felt that the class prepared them very well for success in the exam. We agree that greater clarity on the written part of the exam would be beneficial, and that documents relating to expectations and procedures for other milestones for graduate students, such as the General Exam, need to be reviewed and potentially revised. This is a task that has been embraced by the Policy Committee, which had already been appointed for this purpose, prior to the Review Committee visit.

We appreciate the confidence placed by the Review Committee in the success and reputation of our applied M.S. program, MESSAGE (Masters in ESS: Applied Geosciences). We agree very much that a thorough consideration of the future of MESSAGE is needed. The report correctly identifies that the major challenge is that the program's success is related to its high ratio of faculty-to-student instruction and mentoring, and that continued success will either require new investment (e.g., a teaching or professional-practice faculty member), or that we will need to reduce the requirements of the program to reduce load on the faculty. For example, the committee report suggests having students complete group projects rather than individual projects for their capstone work. Which direction to go in, or whether to eliminate the program, will be part of the strategic planning discussions this year, and a decision will be made by the end of Autumn quarter, 2023.

**Additional comment from the Dean, College of the Environment
Submitted to the Graduate School on February 27, 2023**

Dear Review Committee,

Thank you for your thoughtful and thorough review of the Department of Earth and Space Sciences. Opportunities like these that allow a deep dive into our academic units are vital to us remaining strong and proactive at the university, regional, and national levels.

The Dean's Office is well-aware of the strong role that ESS plays in contributing to both undergraduate and graduate programming in our College. We are committed to continuing to work with ESS, as with all of our units, to support strong environmental literacy across the campus (as evidenced by successful service courses at the 100 and 200 level), the ability of undergraduate majors to have authentic field experiences which combine skills and content learning, and strong graduate programming situating our students in leading industry, government and academic careers.

Integrating DEI principles across all areas of the College of the Environment remains one of the highest priorities of the Dean's Office. We are prepared to do everything possible to empower the ESS DEI committee to integrate DEI principles in the department for education, including strategies for increasing diversity among our undergrad and graduate students, recruitment, hiring and promoting faculty and staff, research and outreach.

The Dean's Office is also committed to transparency in our state budgeting efforts, as well as in working individually with units like ESS to realize private funding opportunities as they arise. We look forward to collaboratively identifying promising new revenue streams, building the department's endowment, and building new partnerships to increase our impact through leading-edge research and a richer student experience.

Lastly, I am eager to continue building a positive and productive relationship between the Dean's Office and the Department, and to align and elevate mutual priorities through meaningful collaboration and communication.

I appreciate the Review Committee's time, effort, and care to provide their feedback. Their ideas and recommendations serve to only further strengthen an already stellar unit here at the University of Washington.

Regards,

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