

Office of the Dean

November 30, 2022

**MEMORANDUM**

TO: Michael Bruno  
Provost

VIA: Laura E. Lyons  
Interim Vice Provost for Academic Excellence

FROM: Charles Fletcher, Interm Dean  
School of Ocean and Earth Science and Technology

SUBJECT: 3-Year Response to External Program Review



The following concerns were raised in the SOEST Program Review of 2019. This mid-cycle review covers progress in each area since our one-year report

1. Budget stresses
2. Mentoring of junior scientists
3. Workplace climate
4. Individual unit issues

The period since our one-year response (8/14/20) has been characterized by unusual circumstances: the COVID hiring freeze, transition to online and hybrid instruction, and retirement of longtime SOEST Dean Brian Taylor. Each of these placed stress on various parts of the SOEST operation, and each has been met with success and optimism by SOEST personnel.

**1. Budget Stresses**

Support for New Initiatives - The external review committee expressed concern that serial cuts had "driven SOEST leadership into triage mentality." I am happy to report that we have expanded on the "slow to no" approach that was adopted in our one-year report and now operate with a "if it makes sense, lets make it happen" mentality. Some examples:

- a. Under the interim Dean we have supported SSA's for merit, equity, and market in ~8 cases. In another 6 cases our review resulted in lack of support for SSA requests coming from faculty.
- b. The interim Dean's office has added 0.25FTE each to three specialist faculty positions in Earth Sciences to resolve long-standing complaints concerning lack of adequate support for key lab facilities.
- c. The interim Dean's office is funding a new position of Director of the [Maile Mentoring Bridge Program](#) operated out of the SOEST Student [Academic Services](#) Office.
- d. SOEST Academic Services is also now providing comprehensive peer advising and tutoring as well as undergraduate recruitment services.
- e. The interim Deans office has provided funds for revolving fund lab renovation in Oceanography, funded a reading room in honor of Emeritus Professor Fred MacKenzie, and funded an additional APT in support of department functions.



- f. Several faculty have complained to the interim Dean that in negotiating start-up packages and salaries they were taken advantage of and only found out later that they could have asked for more.
  - i. In response we have standardized starting salaries and start-up packages to equitably launch new faculty into successful careers. Additionally, we have loosened restrictions on use of start-up funds (e.g., in support of RA's, a practice previously prevented).
- g. The interim Deans office has instigated a new policy establishing equity between TA and RA salaries releasing ~\$100k/yr in Dean's office funding.
- h. The interim Dean's office has provided increased student space to Department of Ocean and Resource Engineering by relocating the SOEST Machine Shop to the UH Marine Center and renovating the ground floor of HIG for student use.
- i. The interim Dean's office is supporting creation of a new position of Assistant Director of HIMB in response to a medical emergency facing the Director.

External Support for SOEST Programs - SOEST continues to lead the UH system in external grants from agencies at all levels of government as well as corporate and nonprofit sources.

## 2. Mentoring of Junior Scientists

Mentoring programs are evident at several levels in SOEST.

- a. All chairs and units heads conduct day-long onboarding events for new faculty, post-docs, and students at the start of every semester.
- b. Graduate students and postdoctoral scholars are mentored in every department using IDP's ([Individual Development Plans](#)) as a focus of the mentoring journey.
- c. All graduate students meet with faculty who are independent of their classwork and research in order to engage in a frank and constructive exchange. These meetings, typically occurring in the Spring semester, are preceded with written surveys where supervisors, advisors, and students all record their thoughts on standardized forms.
- d. The new SOEST post-doc policy is a model of fair treatment requiring all PIs to budget and use official employment opportunities to engage postdoctoral scholars.
- e. Pre-tenure faculty are provided with mentors both within and outside of their units, as well as annual reviews of performance and progress with their chair, director, and /or head of DPC.
- f. The SOEST Research Council has developed professional development plans for pre-tenure faculty.

## 3. Workplace Climate

Two major achievements characterize progress in this category.

- a. A SOEST [Code of Conduct](#) has been developed and adopted across the school. The code outlines a commitment to ethical and professional conduct among all community members, including all executives, staff, faculty, researchers, students, visitors, and volunteers. It is expected that members' ongoing personal and professional development will promote inclusivity, professionalism, trust, respect, transparency, and communication.
- b. A new position in the Deans Office has been created, [Director of Diversity Initiatives](#). Initially the interim Deans office was going to fund this as a temporary position. However, the Provosts Office has agreed to fund this as a permanent APT position (thank you!). The position has been advertised and is now closed, and a search committee is evaluating potential candidates with the expectation of conducting interviews at the beginning of the new year (2023).

#### 4. Individual Unit Issues

Across SOEST the population of undergraduate and graduate students has risen steadily since the external review (Figure 1).

#### ATMO, EARTH, MBio, OCN and ORE

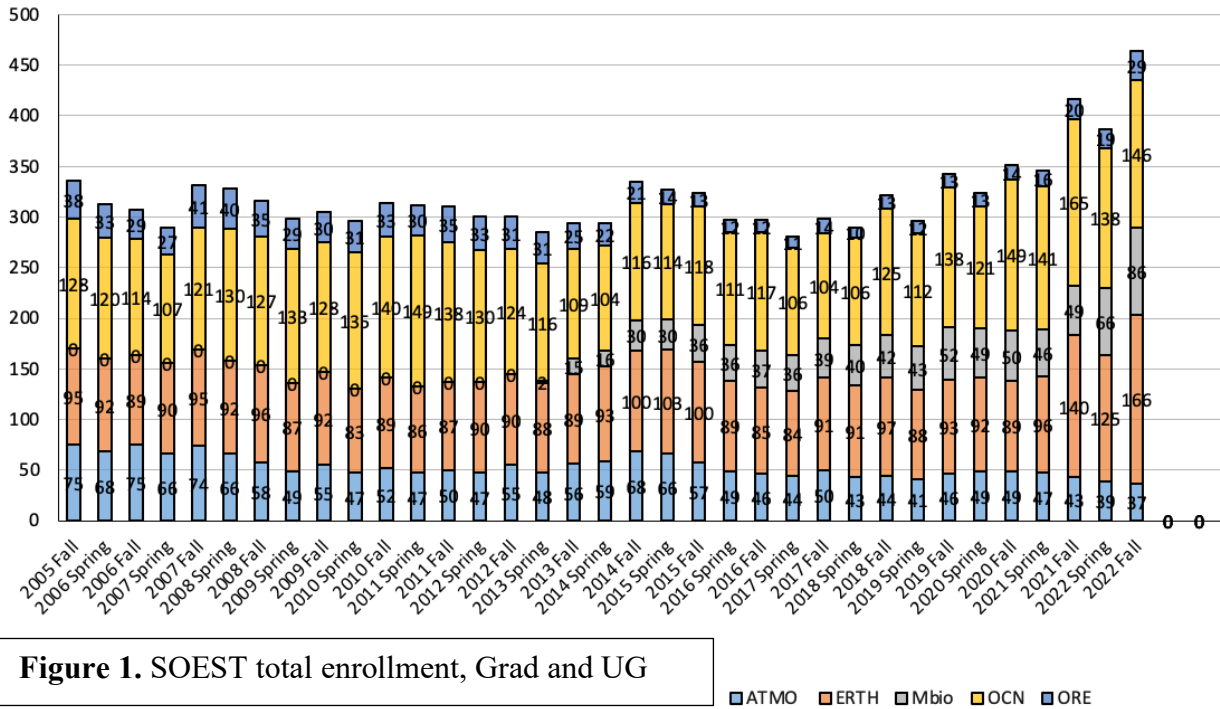


Figure 1. SOEST total enrollment, Grad and UG

- a. Atmospheric Sciences (ATMO) – The positive faculty and administrative response to recommendations in the external review has continued. Student numbers (SSHs) are on the rise in undergraduate courses, and graduate enrollment has been holding steady following a 3 year decline. The exciting story, however, lies with the rising number of undergraduate majors which, at 17, is a 7 year high not seen since Sp. 2016. Faculty expect that large numbers of students enrolling in ATMO classes will translate into continued growth in majors. In addition the following efforts have been implemented:
  - i. Starting Fall 2020, ATMO implemented a combined Bachelor’s and Master’s (BAM) pathway degree which can be completed in 5 years. The BAM pathway requires a total of 152 combined credits. Of these, 7 can be double-counted toward both degrees.
  - ii. Undergraduate peer mentoring,
  - iii. A Python programming class,
  - iv. An online 5-year course offering plan,
  - v. A new student computer laboratory,
  - vi. Weekly meteorology discussion sessions,
  - vii. HIG building repairs have been a special point of emphasis, and
  - viii. Teaching quality has been stabilized.
- b. Earth Sciences (ERTH) – After considerable effort the EARTH faculty have revamped their undergraduate program from one steeped in traditional geology to a modern

curriculum focused on training environmental professionals. Students have responded. With 113 majors and 166 graduate and undergraduate students total, the EARTH program now has the *highest student count in its >50 year history*. New degrees have been developed, including:

- i. BA in Environmental Earth Science,
- ii. BS track emphasizing Basic Science and Research,
- iii. BS in Earth Sciences, and a
- iv. Minor in Earth Science.

The department has moved forward on other fronts as well:

- i. A strategic plan for addressing recent retirements and taking advantage of hiring opportunities when available;
- ii. In order to remain competitive with peer programs, EARTH faculty have voted to raise their minimum entrance RA and TA to top of scale Step 20;
- iii. Increasing to 0.75 FTE, S faculty who run critical lab facilities;
- iv. Increasing cultural and workplace sensitivity with an active [JEDI](#) program involved in all aspects of department activities.

The department continues to achieve high rankings globally and nationally with recent rankings in the top 51-100 worldwide and No. 22 in the USA in both Geology and Geophysics. The department is internationally recognized for its research in 4 divisions 1) Geophysics and Tectonics, 2) Marine and Environmental Geology, 3) Volcanology, Geochemistry and Petrology, and 4) Planetary Geoscience and Remote Sensing.

- c. Oceanography (OCN) – The Oceanography Department has seen tremendous growth in service courses with SSH's more than doubling. The [OCN 201](#) instructors have worked hard to produce an online class that is convenient, engaging, and challenging. All course content, quizzes, and exams are hosted on Lulima (no textbook needed). The course itself is organized into eight modules, each covering a series of topics with a unifying theme. Other OCN highlights include:
- i. The Global Environmental Science (GES) program has maintained strong enrollment with 92 majors in Fall 2022.
  - ii. Following review in Summer '21, the [GES program](#) is now accredited by the Applied and Natural Science Commission of ABET, the *nations first accredited environmental program*, adding great value to the BS degree.
  - iii. The total number of graduate students (54) and undergraduate majors (92) shows that a growth trend begun five years ago is continuing.
  - iv. In order to remain competitive with peer programs, OCN faculty have voted to raise their minimum entrance RA and TA to top of scale Step 20.

Following recommendation by the review committee that the department engage in strategic planning, a new [comprehensive plan](#) has been produced with specific goals in areas of:

- i. Research, Education and Student Experience,
- ii. Community Outreach and Engagement,
- iii. Institutional Stability,
- iv. JEDI and NH Place of Learning, and an overarching goal to
- v. Rebuild and Renew the Faculty.

- d. Ocean and Resources Engineering (ORE) – Now that all empty faculty positions have been filled, the ORE Department has seen rapid growth in their graduate student population. The number of MS (18) and PhD students (11) represents the

*largest one year growth in department history* and is reaching numbers that have not been seen since 2012. In addition ORE has:

- i. Seen strong success in student recruitment,
  - ii. Stabilized administrative support,
  - iii. Expanded into new space for student offices and laboratory facilities,
  - iv. Implemented new undergraduate courses ORE202 Ocean Technology – Man in the Sea, ORE203/203L Surf Science and Culture, and
  - v. To facilitate course selection and planning, ORE has created an online (google doc) 5 Year Teaching Plan.
- e. Graduate Program in Marine Biology (MBio) – The MBio program continues to grow with a *record high class of 86 students* in the MS (27) and PhD (59) pathways. Following a faculty retreat in 2020 the core curriculum of the MarBio program was revamped and has now been adopted. In addition:
- i. MBio was granted permanent status by the Board of Regents on May 21, 2020.
  - ii. RA/TA pay inequity continues to exist between the two schools in the MBio program (SOEST and SoLS). This cannot be resolved from the SOEST side of the partnership.