1. Analyzed numbers of students we might expect in the BS in Environmental Science degree
   a. Based on data from undergraduate admissions, we expected ~70 new BS ES majors in
      Fall 2016. This turned out to be reasonably accurate, and the current mix is 23 FTF, 7
      FRSH, 5 SOPH, 25 JR, 10 SR.

2. Identified potential bottleneck classes for the BS in Environmental Science. These include, with
   our analysis:
   a. GEOG 101 Our Physical Environment (required for BS ES and BS Geog; GE LD Area
      B1). Not a likely problem because there is no lab, and we offer three sections a semester,
      2 in LLH.
   b. GEOG 102 The Human Environment (required for BS ES and BS Geog; GE LD Area
      D1). Same assessment as 101, though not in LLH.
   c. GEOG 160 Introduction to Environmental Science (required for BS ES; GE LD Area
      B2+B3).
      i. Originally (F2014, F2015, S2016) offered as one lecture of 60 and two lab
         sections, due to limited lab space (HSS 383) and need to use HSS 383 for regular
         classes, part of the agreement with the university to gain that department-
         controlled space.
      ii. In each offering, filled early during enrollment, creating a likely bottleneck for
         new BS ES students.
      iii. Fall 2016: offered as two lectures of 74 with three lab sections each, increasing
         capacity to 148/semester. Similarly scheduled in Spring 2017. This was possible
         by unhousing classes that need the HSS 383 to make room in the schedule for the
         lab sections. A request has been made to Academic Resources for an increase in
         our classroom allocations to make this possible, with the rationale that the new
         BS program requires it.
   d. GEOG 205 Geographic Techniques (required for BS ES and BA Geog).
      i. Requires computing resources, so is scheduled in HSS 290, with a capacity of 23
         students. Two sections thus provide for a maximum of 46 students per semester.
         We thus expect this to present the greatest potential as a bottleneck class, starting
         in Spring 2017, when enough of the new BS majors may be looking for this
         class.
      ii. We may be able to add one additional section in HSS 290 by using evening
          offerings or one remaining daytime slot, though this will require department
          resources to staff that section, or we may need to request a bottleneck
          augmentation.
      iii. We are also looking at creating online materials to increase the capacity of this
          course.
   e. GEOG 603 Introduction to Geographic Information Systems (required for BS ES, BS
      Environmental Studies NRMC, commonly taken by BA Geog students and students in
      other majors).
i. Current capacity: 2 sections of 23 students each, in HSS 290. Insufficient to meet demand.
   ii. We increased capacity by creating 2 separate lab sections of 20 each, with 1 lecture of 40. This may allow us to create 2 lectures of this size, thus doubling capacity, though this will create a scheduling conflict with other classes in 290 and the need to expand 205 enrollment, described above.

f. GEOG 500 GWAR (required for BS ES and BA Geog).
   i. Current capacity: 1 section of 25 students. Insufficient to meet demand, especially as more BS students are at junior level.
   ii. We will need to identify ways of expanding capacity, and will need to use bottleneck class augments for this, as well as increased allocation of classroom space.

g. GEOG 690 (required for BS ES and BA Geog).
   i. Current capacity: 1 section of 25 students. Insufficient to meet demand, especially as more BS students are at senior level.
   ii. We will need to identify ways of expanding capacity, and will need to use bottleneck class augments for this, as well as increased allocation of classroom space.