Issue paper on OUS academic program management

- I. Introduction pose questions
 - a. How are low enrollment programs defined?

Using numbers of majors is horribly unreliable. If we added up the number of students that departments say they have we would have 50% more students that we actually do! Graduates of programs is also a very poor measure. Some service areas like mathematics or chemistry have high numbers in service general education courses and only need a few more courses to have a major. They have few grads, but lots of SCH overall. I would suggest that one way to show low program enrollment is to look at a particular prefix like CHEM and then determine the average enrollments. If I do that for most of our areas the high enrollments in a gen ed course balance-out the low enrollment ones.

b. What programs have been showing low enrollment trends?

Depending on how you measure enrollment (lees than 10- grads, say), we have several low production majors: Mathematics, Chemistry, Media Arts, Music, etc. If you count programs by average enrollment per course in a given prefix, we don't have anyone in real trouble (less that 10 average)

c. If a program continues to show low enrollment, is it eliminated? If not, why not?

We have reduced or removed certain programs: German minor, physics major, secondary education minor based on small numbers of graduates and high numbers of courses required for the major.

d. How are low enrollment <u>courses</u> defined? How do campuses manage courses with low enrollment?

We have been using 10 for lower division and 7 for upper division. I suppose this is moot now. It is too bad to not consider that in some majors where here are less than 10 grads and that there will therefore always be less that 10 in some upper division courses.

Why would a campus schedule a course that has a small number of students? Isn't that inefficient?

Here are the reasons:

1. It is required for the major and the major is a critical part of a liberal education and/or provides a base for some other work such as teacher education. We have few math graduates but the few we do have are needed to become teachers. If EOU drops mathematics then where will rural mathematics teachers come from?



2. Since small sections are often "paid for" by larger sections, there is overall balance to consider. If I teach 98 in a general psychology class, why not have 8 in an upper division course. The average is still high and my productivity can be justified overall.

3. Many of our low enrollment courses are paid per-student-per credit

4. Many of the low enrollment courses are part of the faculty members' load but are collected together as service courses for which a general load number is given: Seminars, practica, etc are not loaded credit-per-credit.

5. Dropping classes is an enrollment management nightmare. If students plan on a class in a term and we cancel it, then there are any repercussions concerning time to graduate etc. Further, if the faculty member drops a low enrollment course in any term, then the work they do to replace the course should have more import. It is often more difficult to find such replacement work for specialized faculty members.

6. Dropping classes also drops the overall SCH—thereby reducing overall productivity.

e. How many programs have been eliminated over the past 5 years?

German minor, physics major, secondary education minor, several programs in Bend (MTE and undergraduate elementary education)

f. How has the System handled program eliminations during times of budget reduction in the past? What has been the result?

In Measure 5 era we were required to cut programs in education, I remember losing several endorsements such as media arts, library, and some specialized sciences. On the arts and sciences side we lost computer science at the time. I am not sure if OUS said what to cut—only that we had to throw some things in. It seemed less about actual savings and more about politics from my point of view.

g. How do campuses deal with faculty of eliminated programs?

We have a CBA with the union where it is all spelled out.

- h. How does the Board address program duplication?
- i. How do the Board and universities ensure that new and existing programs meet Oregon's economic and employment needs?
- II. Analysis
 - a. Low enrollment programs current trends; service to general education vs majors

Without an analysis of overall faculty productivity I believe that this issue is simply a red herring. Let me give an example, Mathematics. If we define a low enrollment program by number of majors, then we relegate programs like mathematics to closure. EOU will never have high numbers in math. If we restrict the program to minimum class sizes, again, we

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would be forced to close the major and minor as some courses are designed for majors only. These courses will be inherently small as the number of majors is small. So, based on these criteria alone, the program would be in jeopardy. If one looks at overall faculty productivity in the area of mathematics, a different story emerges. Over half of what faculty members do in mathematics is provide service courses at the 100 and 200 level for other majors and institutional requirements.

Listed below are the regular 100-400 level courses we teach in the math prefix. The faculty members also teach in other prefixes as well such as Stat, but for illustration of the problem, this is one simple example. Note in the NUM column is the number of students in each section of mathematics. There are some sections with 30 or more, and some with fewer than 10. The average enrollment in all mathematics courses is 16.7. The larger numbers of students in lower division courses give rationale for the smaller upper division courses.

There are a couple of things that are worth saying about this schedule of courses. The first is that the faculty worked very hard on a program design that would insure that any student that paid attention to planning-out a schedule could graduate in four years. That said, the faculty went though the program and removed any "elective" per se expecting that any class it offered was a counter and that majors would be compelled to take the offering to graduate in a timely fashion. The faculty rotate the upper division courses in a two-year cycle and also substitute specialty topics, but these are requirements of the major and so are therefore should not be seen as "extra" or truly elective. Without these courses the students will not be able to complete the program in a four-year time frame.

Another factor to consider here is that some of these sections are designed to serve students with specific needs. The Math EXCEL for 111 is a special help session for students that need assistance to be successful in the course. This is a feature of our retention plan and is essential to helping students have success in their freshman year. Other classes such as Math 211, 213 are designed specifically for elementary teacher education majors. Without these courses we jeopardize the timely progress of students pursuing a major in elementary education.

A final consideration in the analysis of a low performing program is to consider the impact on the community and region if the program is reduced or eliminated. Eastern considered the impact of such a move in the Fall of 2007 while restructuring and reducing overall costs of the University. Mathematics was one possible area on the table for discussion of program elimination. If one looks at how much one might save in this overall curriculum, only three to four classes could be eliminated on this schedule that are specific to majors alone. All of the other courses are required by other EOU majors or other institutional requirements. We could have saved one faculty member in reducing the program to service alone and no major or minor.

The initial plan to cut mathematics was met with a great deal of issue. The community brought out concern that there would be no opportunity to develop a next generation of mathematics teachers in rural Oregon—now in desperate need and even more so in the future with increased diploma standards. The University community asked a penetrating question about how we could remain a liberal arts college without a basic degree like mathematics.

Students were alarmed at the reduction citing many students' interests to complete a program and the need for a planned phase-out that would be impossible given the short timeline of a program closure decision.

Based on the overall assessment of the data and the impact on the community, region and campus, the decision to keep the mathematics program was made and the relative small size of some courses was allowed. The faculty worked diligently to restructure the curriculum to design the most economic model—only teaching the courses that we must have to serve the students.

							NUM
SMT	Math	32270	MATH 105	001 Lotteries & Loans*SMI	4	Fisher B	19
SMT	Math	31852	MATH 105	101 Lotteries & Loans*SMI	4	Fisher B	24
SMT	Math	31362	MATH 111	001 College Algebra	4	Tanner S	30
SMT	Math	31553	MATH 111	003 College Algebra	4	Gregersen G	26
SMT	Math	31580	MATH 111	002 College Algebra	4	Tooke D	51
SMT	Math	32295	MATH 111	101 College Algebra	4	Dabalsa P	25
SMT	Math	31743	MATH 122	001 MathExcel For 111	1	Staff	6
SMT	Math	31363	MATH 211	001 Found Elem Math I*SMI	4	Tooke D	35
SMT	Math	32067	MATH 211	101 Found Elem Math I*SMI	4	Marlette K	30
SMT	Math	31501	MATH 212	001 Found Elem Math II*SMI	4	Gregersen G	15
SMT	Math	32068	MATH 212	101 Found Elem Math II*SMI	4	Marlette K	8
SMT	Math	32069	MATH 213	101 Found Elem Mth III*SMI	4	Marlette K	6
SMT	Math	31879	MATH 239	101 Surv Calculus Part I*SMI	2	Thurber J	10
SMT	Math	31880	MATH 240	101 Surv Calculus Part II*SMI	[2	Thurber J	3
SMT	Math	31560	MATH 251	002 Calculus I*SMI	4	Thurber J	24
SMT	Math	31578	MATH 251	001 Calculus I*SMI	4	Fisher B	20
SMT	Math	32271	MATH 321	001 Differential Equations	4	Tovar A	3
SMT	Math	32281	MATH 323	001 Intro Math Modeling	4	Tanner S	7
SMT	Math	32282	MATH 341	001 Linear Algebra	4	Tanner S	15
SMT	Math	32285	MATH 344	001 Modern Algebra I	4	Fisher B	5
SMT	Math	32403	MATH 405	002 R&C:Adv Linear Algebra	2	Tanner S	1
SMT	Math	32402	MATH 405	001 R&C:Galois Theory	2	Fisher B	0
SMT	Math	32272	MATH 407	001 Seminar/Capstone	1	Thurber J	4

Average

16.7

Eastern has more than ample opportunity to explore how we should view low enrollment programs. Clearly, on rubric of class size or number of graduates is an inadequate way of fueling a decision of whether or not to retain a program. Overall productivity, regional need, and the core value as part of a liberal arts institution are additional variables in considering the utility of courses or majors. We should not rest on a simple solution to a complex problem.

I would not argue that a standard of less than 10 is a place for scrutiny and study, however. Our deans are well-versed in thinking about low numbers and have exacted actions in trying to reduce or

mitigate the impact of low enrollment sections. Given below are the current strategies that EOU employs to bring higher efficiency to the low enrolled course problem:

- 1) Primarily, efficient scheduling and planning of the major requirements of the program and the elimination of "electives" per say. We have promoted the idea of the "most efficient" model for program planning such that students in each major have access to the number and kind of courses they have in a two-year window and that the electives we offer are the courses that the students take in order to graduate in a timely fashion., We have removed schedule conflicts, have created alternate year course options, and have given place holder positions for required courses whose topics may change over time.
- 2) Some low enrollment courses have been eliminated if they were considered extra or unnecessary to provide students with the core major experience.
- 3) Some low enrollment courses have been shifted to online offerings. We drop the on-campus section and give the faculty member the online course instead. On campus students are then assigned this modality of instruction and are not penalized by differential tuition. The enrollment of the online course is greater than that of the on campus course as it combines the small number on campus and the small number online in one section.
- 4) Some low enrollment sections are combined with online sections to create a hybrid course using technology such as *Illuminate*. This web-based instructional product allows on campus students and off campus students to meet virtually in time and through media to participate in real time in the course. The added numbers of distance students boosts the low enrollment of a course.
- 5) Some low enrollment courses may be moved to an overload assignment by switching a larger online section into a faculty member's load. The course would then be taught as a cost-neutral section where tuition received would be equal to or greater than the cost of instruction.
 - b. Low enrollment courses undergrad/grad; taught by regular faculty vs adjuncts
 - c. History of program eliminations
 - d. Program changes (revising an existing program to better meet new needs)
 - e. Program additions
- III. Solutions -- an alliterative four "P's" approach respond to questions posed
 - a. <u>Portfolio</u> the board's guiding principle in managing OUS; mission approval authority and Kirby's task group that is addressing that (including in-depth campus visits)
 - b. <u>Policy</u> the board's new academic program review policy and process that includes as required elements an explanation of how the program will meet state educational and economic needs and how the program will employ technology in its delivery
 - c. <u>Partnerships</u> here we need to really look hard with provosts at the potential for collaborations not only in graduate or specialized areas but also in the core undergraduate programs (e.g., could SOU meet the needs for German, which was eliminated, by contracting with another campus or making use of online approaches?)
 - d. <u>Priorities</u> agility in modifying existing programs to meet evolving economic and employment needs (example: PSU's morphing of its MA writing program to a more professionally focused MFA to reflect the growing creative services sector in Portland); how the current program priority areas are tied to OUS/board goals of educational



attainment and economic/community vitality (need to name some examples of such programs)