

Eastern Wyoming College

Instructional Program Review 2012-2013

Program: Pre-Professional

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EASTERN WYOMING COLLEGE Pre-Professional Program Review

Program Name: Pre-Professional

Part I: Statistical Data from the past three years:

	2009-2010	2010-2011	2011-2012	5-Year Average
Annualized FTE Enrollment	Not tracked	Not tracked	Not tracked	Not tracked
Annualized FTE Faculty	Not tracked	Not tracked	Not tracked	Not tracked
# Majors	51	75	89	76
# of graduates	0	3	7	4

FTE = Full-time equivalent

Pre-Professional Majors Headcount by category	2009-2010	2010-2011	2011-2012	5 year average
Pre-medical Technology	1	0	4	2
Pre-Dentistry (includes Pre-Dental Hygiene)	5	3	4	3
Pre-Pharmacy	1	2	1	2
Pre-Medicine	4	5	11	5
Pre-Nursing	85	80	67	73
Pre-Veterinary	6	11	14	8
Total	102	101	101	94

Modes of Delivery:

online

compressed video

face-to-face

Student Access Points: The majority of our Pre-Professional students enter as traditional freshmen, some of whom have completed concurrent enrollment courses in Biology, Math, or English. The non-traditional students who enter the program may have completed previous college course work.

Part II Narrative Analysis

Description of Community Need/ State and National Trends:

Professional health careers are popular areas of study for traditional as well as non-traditional students. EWC offers A.S. Degrees in Pre-Medicine, Pre-Dentistry, Pre-Veterinary Medicine,

Pre-Pharmacy, Pre-Medical Technology and Pre-Nursing. The number of Pre-professional majors has stayed steady the past three years with 101-102 students declaring those major per year.

There continues to be a shortage of nurses (and other health care professionals) nationally as well as locally. EWC is committed to providing the necessary pre-nursing course work for all levels of nursing programs (including LPN, ADN, and BSN), and also provides advising and prerequisite course work for a great variety of health careers in areas EWC does not offer specific degrees (such as pre-radiology tech, pre-dental hygiene, pre-chiropractic, pre-mortuary science, etc.)

After completing their courses at EWC, those students aiming for doctoral degrees transfer to four-year institutions to complete additional coursework, or for many programs a Bachelor's degree, before applying to Pharmacy, Medical, or Veterinary Schools. Our Pre-Med and Pre-Dentistry students commonly apply to their professional schools through the WWAMI and WYDent programs administered through the University of Wyoming.

Activities in Support of Student Recruitment and Retention

Recruiters have been made aware that EWC is a good starting point for students interested in health careers, and are working to recruit more pre-professional students.

Science Division scholarships are also used as recruiting tools – they are primarily awarded to incoming freshmen, but each year some are awarded to returning students, which aids in retention of students who have been very successful in their freshmen course work.

Assessment of Student Learning:

The Pre-Professional outcomes assessment is rubric based and evaluates each graduating student individually in core competencies (communication skills, analytical and quantitative reasoning, technology skills, social awareness, and information literacy), as well as discipline-specific knowledge in science courses specific to the major. Science faculty members assess students as novice, partially proficient, proficient, or advanced in each area. Average scores are compiled, and results of their assessment are then provided to each student individually. The objective of the assessment process is to identify areas within the Pre-Professional program that may need additional emphasis to more adequately prepare students for entry into and success in the various professional programs .

Transfer-student data show that EWC's transfer students do well as juniors at area four-year institutions. Anecdotal reports from area nursing programs (particularly the University of Nebraska's BSN program in Scottsbluff) tell us that they are impressed with the level of preparedness of students coming from Eastern Wyoming College, and that they do exceptionally well in their nursing program.

A copy of the current Outcomes Assessment report is attached.

Strengths of the Program and Faculty:

Program Strengths:

In general, Pre-Professional programs require students to take two semesters of Biology, Chemistry, and Microbiology, as well as Pre-Calculus Algebra, and Trigonometry. Many of the programs also require various other courses such as Organic Chemistry, Physics, Genetics, Anatomy/Physiology, Calculus, or Statistics. Science labs are taught by the lecture instructors (rather than teaching assistants), so lab instruction is of high quality and reinforces lecture topics. In addition, Pre-Professional students must also complete the General Education courses required for any A.S. degree, and those courses are taught by capable, caring faculty.

Due to the large number of math and science courses required, it is often advantageous for students pursuing Pre-Professional degrees to begin their education at Eastern Wyoming College, where class sizes in these fields of study are smaller. The individual attention that students receive in the rigorous courses is very beneficial to most students' success. In particular, students from small high schools seem to feel more comfortable at Eastern Wyoming College. Eastern Wyoming College, with its smaller size, cost-effective tuition, and highly qualified instructors can provide students with a great start towards a professional career.

Advisors encourage Pre-Professional students to complete an Associate's Degree, but most of EWC's pre-professional students (particularly our Pre-Nursing students) choose to simply concentrate on taking those courses which are pre-requisites for their particular professional programs. Some of our Pre-Professional graduates earn INST degrees if they are unable to complete the rigorous sequence of courses for a pre-professional degree in four semesters.

Our non-traditional pre-professional majors often take only one or two classes a semester (particularly those in our outreach areas), and are in the program for several years. EWC has made many of the courses needed as pre-requisites for area professional programs available as online courses to reach our site-bound pre-professional students.

Faculty Strengths:

The Science Division at EWC is very fortunate to have highly qualified, dedicated faculty members who instruct and advise the Pre-Professional students. Two of EWC's science faculty members have professional degrees; one R.N., and one M.D. (who also has an undergraduate professional degree in Medical Technology). In addition, one science faculty member has a Ph.D. in Chemistry and another is currently pursuing a Ph.D. in Zoology. Our four Pre-Vet advisors (who are Veterinary Technology instructors) have earned degrees in Veterinary Medicine.

Personalized advising by EWC's knowledgeable pre-professional advisors is a key to students' success in applying and gaining admission to professional programs. Pre-Professional Advisors participate in advising conferences conducted by some of the area professional schools.

Part III Recommendations

Faculty Recommendations:

EWC needs to continue to offer a wide range of courses for students in Pre-Professional programs to facilitate our students' entry to, and success in, professional programs. Also, to best serve our students' needs, the faculty needs to continue professional development activities, and maintain articulation with the area professional programs.

Labs for the Science courses which make up the core of the Pre-professional program need to have regular equipment/technology upgrades. Supply budgets need to increase to keep up with rising costs of materials and shipping.

Recruitment of quality "math & science ready" students continues to be an important goal. Additional numbers of academically well prepared pre-professional students at EWC would benefit the college in a variety of ways. Their increased numbers would improve enrollment in our second year science and math courses. Since many of these students are high-achieving students, they are generally available to serve as our tutors in the Learning Skills Lab, and their presence in EWC's General Education classes raises the overall quality of classroom interaction.

Division Chair Recommendations:

1. The quality and variety of course offerings in the Pre-Professional programs needs to continue. Faculty need to continue to collaborate to assure the course offerings meet the needs of students. Annual faculty attendance at Professional conferences, workshops, and statewide articulation meetings is highly commendable and needs to continue. Continued participation in the INBRE program also needs to be a priority.
2. Budget allocations for lab supplies and equipment need to be increased to reflect the increased cost of these items and the continual need to replace equipment as it diminishes through attrition or becomes outdated.
3. Efforts to recruit high-achieving students is important to maintain the viability of the program. I recommended that these efforts be increased by offering scholarships or other forms of incentive for students who demonstrate a high aptitude in science and mathematics.

Vice President's Recommendations:

The Pre-professional cluster of programs helps prepare students for transfer into a variety of programs at both four-year colleges and our sister community colleges. In particular, almost 80 percent of these students are pursuing nursing careers. Our qualified and dedicated faculty members help prepare the pre-professional students by providing quality classroom and laboratory experiences. In fact, we hear back from these students who frequently comment that the foundation courses they received at Eastern Wyoming College are the most important factor in their overall success in subsequent programs. In addition, the student advising is critical to the

students being able to enter programs and take the appropriate sequence of courses in order to accomplish their goals in a reasonable amount of time. Advisors ensure that articulation agreements and program changes are in line with the receiving institutions. Although students do not always finish the degrees with us before they transfer on, this should be viewed in a positive fashion as the advisors help the students make the appropriate choices while helping them maintain their financial aid eligibility. Pre-professional faculty members provide the bulk of all science courses delivered by the College to all students who need at least one lab science course for graduation requirements. The FTE of those course areas is significant to the overall enrollment.

I agree with the faculty and division chair recommendations and would add the following:

1. Continue to work closely with recruiters and others to attract more students into this program track. Students who enter with math and science readiness are more likely to finish the degrees and to participate in the sophomore level courses that our instructors are qualified to deliver.
2. Work closely with outreach coordinators and others to provide the appropriate distance offerings for students throughout our service area who make up a significant percentage of the overall pre-professional student enrollments. In particular, we have now added microbiology and medical terminology to our distance learning rotation schedule.
3. Serve as resources and advisory members for the effort that is underway in Douglas to add a nursing program at the branch campus location in concert with the Converse County Memorial Hospital efforts.
4. Examine all pre-professional programs for possible revisions in programming so that the programs are closer to the 60 credit hours required for associate programs. This national direction as well as statewide efforts to be able to complete associate degrees in 60 credit hours and baccalaureate degrees in 120 credit hours needs to be reviewed as it impacts students' eligibility for federal financial aid and completion rates. Consider a "meta" major for pre-professional medical careers that would help ensure students receive strong foundation courses as well as enroll in sophomore level courses that in turn would encourage students to complete degrees with EWC.
5. Continue to collaborate with adjunct and concurrent instructors to assure course quality and common course objectives and outcomes.