

Eastern Wyoming College

Instructional Program Review 2015-2016

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:

	2012-2013	2013-2014	2014-2015	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	85	85	87	93
# of graduates	4	10	2	5

FTE = Full-time equivalent

Pre-Professional Majors Headcount by category	2012-2013	2013-2014	2014-2015	5 year average
Pre-Medical Technology	5	2	1	2
Pre-Allied Health (DH, RAD, MT, etc.)			19	n/a
Pre-Dentistry	3	2	1	3
Pre-Pharmacy	1	3	1	2
Pre-Medicine	8	11	10	9
Pre-Nursing	55	53	48	61
Pre-Veterinary	13	14	7	12
Total	85	85	87	94

Modes of Delivery:

online

compressed video

face-to-face

Budgets: Educational Supplies _____ Travel _____

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 or may not 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. A new Pre-Allied Health Degree (for pre-dental hygiene, pre-radiology tech, pre-physical therapy assistant, etc. students) was created

in 2014 to allow students taking course work in those areas to map out and complete an associate's degree if they wished to do so before transferring on to a professional program. The number of Pre-professional majors have declined since the high numbers in 2011-2013 (with 102-104 majors), but has remained steady the past three years with 85-87 students declaring these majors per year.

There continues to be a need for nurses (and other health care professionals) nationally as well as locally. In response to the need for nurses in our Converse County service area EWC has established a new Associate Degree R. N. (ADN) program at our Douglas Campus which will start its first twelve-student class in August 2016. Pre-Nursing majors account for 65% of our pre-professional majors.

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-chiropractic, pre-mortuary science, pre-physical therapy, etc.)

After completing their courses at EWC, those students aiming for doctoral degrees transfer to four-year institutions to complete additional coursework and/or a Bachelor's degree before applying to Pharmacy, Medical, or Veterinary Schools. Our Pre-Med and Pre-Dentistry students ultimately 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 rubrics based and evaluates each graduating student individually in core competencies (communication skills, analytical and quantitative reasoning, technology skills, and social awareness), as well as discipline-specific knowledge in science courses specific to the major. Science faculty members assess students in each area. Average scores for each student are compiled, and results of the assessment are then provided to each student individually. Outcomes scores and scoring trends are evaluated by the science faculty members with an eye to where our program could improve student outcomes. 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.

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 Biology, Chemistry, and Microbiology courses, as well as Pre-Calculus Algebra and Trigonometry. Some of the programs also require courses such as Organic Chemistry, Physics, 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.

Our pre-nursing and pre-allied health graduates are readily accepted into area professional programs (e.g. nursing, radiology technology, dental hygiene) and do well if they have achieved a GPA ≥ 3.3 . 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.

Transfer-student data show that EWC's pre-professional transfer students do well as juniors at area four-year institutions. We hear back from many who are then accepted into Medical, Dental, Pharmacy, or Veterinary Medicine Schools.

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 be able 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 Center for Teaching and Learning, 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 maintained or 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.
4. With the anticipated retirement of Dr. Peggy Knittel in 2017, it will be necessary to have a plan in place for someone to take on her heavy advising load. Perhaps one or more

instructors with expertise in this area could be trained by her during the 2016-17 academic year.

Vice President's Recommendations:

With respect to faculty and Division Chair recommendations, professional development is extremely important to the effectiveness of the Pre-Professional programs and I encourage the faculty to develop a professional development plan for the next three years and report out progress annually.

While the faculty and Division Chair make correct statements regarding the need to increase the supply budget, this recommendation is not in their control, especially in this time of diminishing budgets.

Next, the faculty identify recruitment of quality “math & science ready” students as a goal. This is a worthy goal and I recommend that the faculty develop strategies for the next three years on how to accomplish a specific recruitment goal in collaboration with the recruitment office.

Lastly, with directives from the Board of Trustees and the President, the Pre-Professional program will need to focus on retention and completion. That being said, the number of declared majors have slightly increased over the past three years, however the three year average of declared majors has significantly increased over the previous three year average. Interestingly, completion rates have remained constant at five percent. Therefore, it is my opinion that the Science Division faculty:

- consider developing strategies to retain students in major and those taking courses to fulfill general education requirements.
- consider developing strategies to increase the number of majors completing each program

As we evolve program reviews into meaningful documents, some of these recommendations will naturally occur.