

**Paramedic Education Program
Assessment Report
2015-2016**

Introduction

The Paramedic Education Program was established in 1977 at Oregon Health & Science University. A collaborative program with Oregon Institute of Technology was initiated in 2001. The program offers an Associate of Applied Science degree in Paramedicine and is nationally accredited by the Committee on Accreditation of Educational Programs for the Emergency Medical Services Profession (CoAEMSP), a specialized accrediting body recognized by the Council for Higher Education Accreditation and/or the Secretary of the U.S. Department of Education. The program is administratively located at the Oregon Tech urban campus in Wilsonville and splits classroom facilities with OHSU and Oregon Tech.

Program Educational Purpose, Objectives, and Student Learning Outcomes

In March 2013, the department reviewed the following program purpose, objectives and outcomes.

OHSU-OIT Paramedic Education Program Purpose

The purpose of the Oregon Health & Science University/ Oregon Institute of Technology Paramedic Education Program is to educate pre-hospital care providers; to prepare EMS leaders of the future; and to enhance the delivery of health care in the out-of-hospital setting.

Educational Objectives

The educational objectives of the program are to prepare students to:

1. Comprehend, apply, and evaluate information relative to the role of an entry-level Paramedic.
2. Demonstrate technical proficiency in all of the skills necessary to fulfill the role of an entry-level Paramedic.
3. Demonstrate personal behaviors consistent with professional and employer expectations of an entry level Paramedic.

Learning Outcomes

The following learning outcomes will be evaluated and analyzed every year to allow for longitudinal data analysis of the program's effectiveness. Graduates of the program will demonstrate:

1. An ability to understand, interpret and apply EMS and general medical knowledge necessary to function in a healthcare setting.
2. An ability to perform a broad range of paramedic level EMS skills both difficult and routine.
3. An ability to conduct oneself in an ethical and professional manner and show proficiency in interpersonal relations and communication.

2015-16 Assessment Activities

The program faculty conducted formal assessment of three student learning outcomes during the 2015-2016 academic year.

Student Learning Outcome #1: An ability to understand, interpret and apply EMS and general medical knowledge necessary to function in a healthcare setting.

We will use four measures of this outcome:

1. The **NREMT Psychomotor exam** is the comprehensive exam administered by the National Registry of EMT's that prospective paramedic candidates can take after completing the didactic portion of the paramedic program and is required to obtain a license to practice within the state of Oregon. Our target is to have 80% of the students pass with one attempt and for 90% to pass within 3 attempts.

Table 1: NREMT Psychomotor Exam

| | Percent of students passing with one attempt | Percent of students passing with two attempts | Percent of students passing with more than two attempts |
|----------|---|--|--|
| Class 42 | 89% | 11% | 0% |

2. **NREMT Written Paramedic Exam** is the comprehensive written exam administered by the National Registry of EMT's that prospective paramedic candidates must take after graduating from their paramedic program before they are granted a license to practice within an individual state. Our target is to have 80% of the students pass with one attempt and for 90% to pass within 3 attempts.

Table 2: NREMT Written Paramedic Exam

| | Passing with one attempt | Passing within three attempts | Passing within six attempts | Eligible for retest |
|----------|---------------------------------|--------------------------------------|------------------------------------|----------------------------|
| Class 42 | 96% | 0% | 0% | 4% |

3. **The CoAEMSP Graduate Summary Report** is the annual survey of the past year's graduates that we do as part of our accreditation. The survey queries the students as to how well our program prepares them to function in a healthcare/EMS environment. The survey is divided into three broad categories: Cognitive, Psychomotor and Affective, which match the three Learning Outcomes listed in this Assessment Report. Our target for Learning Outcome #1 is that 90% of the survey respondents check either 4 or 5 in response to each Cognitive question. The CoAEMSP Graduate Summary Report is included here as Appendix 1.

Results: Graduates of the 2015 cohort were surveyed in the fall of 2016 giving them 6-12 months of field employment experience. They rated a series of questions for each of the three learning domains on a scale of 1 to 5. The summary of their responses for learning outcome #1 include:

Cognitive Results = 99% of responses indicating a 4 or 5

4. **The CoAEMSP Employer Summary Report** is the annual survey of the past year's graduates' employers that we do as part of our accreditation. The survey queries the employers as to how well our program prepares the employed graduate(s) to function in a healthcare/EMS environment. The survey is divided into three broad categories: Cognitive, Psychomotor and Affective, which match the three Learning Outcomes listed in this Assessment Report. Although we have included this year's survey as part of this Assessment Report, we will only evaluate the information in these surveys every 3-5 years when we will evaluate the results of all years combined. Our reason for this is that although we feel that the information gathered is significant, the number of respondents is small. Our target for Learning Outcome #1 is that 90% of the survey respondents for the three years' surveys check either 4 or 5 in response to each Cognitive question. The CoAEMSP Employer Summary Report is included here as Appendix 2.

Results: 6 employers who had hired graduates from the cohort were asked to respond to similar questions rating the three learning domains on a scale of 1 to 5. Their response is summarized below:

Cognitive Results = 99% of response indicating a 4 or 5

Summary of Assessment Results for Learning Outcome #1

After discussion, two elements are important to evaluate for outcome #1:

1. Assessment quality:

- We have four independent and temporally distinct measures to address this single learning outcome.
- Our problem with the value of all of these assessments is the small sample size. This is particularly problematic with the CoAEMSP reports as we are dependent on the response of employers and graduates. Despite our diligent attempts, the number of respondents for these two reports remains low. Additionally because our class size is usually < 35 students, Measures #1 and #2 represent a small sample size as well.
- Because of the small sample sizes, we have discovered that the performance of only one or two students (or graduates) can significantly impact whether we have successfully met our

goals. For this reason we have lowered our targets somewhat from previous years. Additionally In 2020, we plan to evaluate the results of 2016-2020 together in order to get a more complete assessment.

2. Student performance:

- Students are exceeding or meeting all four of the four measures for the learning outcome, and most importantly, successfully passing their national board exams and indicate that they feel qualified to perform their jobs once employed.
- Future years will attempt to better isolate year-over-year changes as well as increase the analyzed sample size through a rolling 5 year window for improved visibility to potential student performance improvements.

Student Learning Outcome #2: An ability to perform a broad range of paramedic level EMS skills both difficult and routine.

We will use three measures of this outcome:

1. The **Final Skills Exam** is the comprehensive skills exam that every student must pass in order to graduate from our program. Our target is to have 80% of the students pass with one attempt and for 100% to pass all sections with 1-2 attempts.

Table 3: Final Skills Exam

| Exam Section | Number of students passing with one attempt | Number of students passing with two attempts | Number of students passing with more than two attempts |
|-------------------------|--|---|---|
| Ventilation - Adult | 28 | | |
| Ventilation - Pediatric | 25 | 2 | 1 |
| IV Therapy | 26 | 2 | |
| IO Infusion | 26 | 2 | |
| Static Cardiology | 28 | | |
| Dynamic Cardiology | 28 | | 1 |
| Trauma Assessment | 25 | 3 | |
| Medical Assessment | 26 | 1 | 1 |
| BLS C-Spine Skill | 28 | 0 | |

2. The CoAEMSP Graduate Summary Report is the annual survey of the past year’s graduates that we do as part of our accreditation. The survey queries the students as to how well our program prepares them to function in a healthcare/EMS environment. The survey is divided into three broad categories: Cognitive, Psychomotor and Affective, which match the three Learning Outcomes listed in

this Assessment Report. Our target for Learning Outcome #2 is that 90% of the survey respondents check either 4 or 5 in response to each Psychomotor question. The CoAEMSP Graduate Summary Report is included here as Appendix 1.

Results: Graduates of the 2015 cohort were surveyed in the fall of 2016 giving them 6-12 months of field employment experience. They rated a series of questions for each of the three learning domains on a scale of 1 to 5. The summary of their responses include:

Psychomotor = 92% of responses indicating a 4 or 5

3. The CoAEMSP Employer Summary Report is the annual survey of the past year's graduates' employers that we do as part of our accreditation. The survey queries the employers as to how well our program prepares the employed graduate(s) to function in a healthcare/EMS environment. The survey is divided into three broad categories: Cognitive, Psychomotor and Affective, which match the three Learning Outcomes listed in this Assessment Report. Although we have included this year's survey as part of this Assessment Report, we will only evaluate the information in these surveys every three years when we will evaluate the results of three years combined. Our reason for this is that although we feel that the information gathered is significant, the number of respondents is small. Our target for Learning Outcome #2 is that 90% of the survey respondents for the three years' surveys check either 4 or 5 in response to each Psychomotor question. The CoAEMSP Employer Summary Report is included here as Appendix 2.

Results: Six employers who had hired graduates of the 2015 cohort were asked to respond to similar questions rating the three learning domains on a scale of 1 to 5. Their response is summarized below:

Psychomotor = 99% of responses indicating a 4 or 5

Summary of Assessment Results for Learning Outcome #2

After discussion the faculty of concluded the following:

- Students are exceeding or meeting all three of the three measures for the learning outcome,
- Our problem with the value of all of these assessments is the small sample size. This is particularly problematic with the CoAEMSP reports as we are dependent on the response of employers and graduates. Despite our diligent attempts, the number of respondents for these two reports remains low. Additionally because our class size is usually < 35 students, Measures #1 represent a small sample size as well.
- Because of the small sample sizes, we have discovered that the performance of only one or two students (or graduates) can significantly impact whether we have successfully met our goals. For this reason we have lowered our targets somewhat from previous years. Additionally In 2020, we plan to evaluate the results of 2016-2020 together in order to get a more complete assessment.

Student Learning Outcome #3: An ability to conduct oneself in a professional manner and show proficiency in interpersonal relations and communication.

We will use three measures of this outcome:

1. **Externship Final Benchmark Assessment: Professionalism** is the final evaluation filled out by a faculty member on each student as they complete their externship. The evaluation is based both on the preceptor evaluations and on the student’s required paperwork that has been submitted to the faculty member over the course of the externship. One of the categories within the Assessment is Professionalism. The maximum number of points assigned in this category is 5. Our target is for 90% of the students to receive 5 points and for 95% of the students to receive 4 or 5.

Table 5: Externship Final Benchmark Assessment

| | Percentage of students with 5 points | Percentage of students with 4 or 5 points | Percentage of students with < 4 points |
|---|---|--|--|
| Professionalism: The student is consistently on time, prepared and demonstrates professional behavior. | 90% | 10% | 0% |

The CoAEMSP Graduate Summary Report is the annual survey of the past year’s graduates that we do as part of our accreditation. The survey queries the students as to how well our program prepares them to function in a healthcare/EMS environment. The survey is divided into three broad categories: Cognitive, Psychomotor and Affective, which match the three Learning Outcomes listed in this Assessment Report. Our target for Learning Outcome #3 is that 90% of the survey respondents check either 4 or 5 in response to each Affective question. The CoAEMSP Graduate Summary Report is included here as Appendix 1.

Results: Graduates of the 2015 cohort were surveyed in the fall of 2016 giving them 6-12 months of field employment experience. They rated a series of questions for each of the three learning domains on a scale of 1 to 5. The summary of their responses include:

Affective = 92% of responses indicating a 4 or 5

The CoAEMSP Employer Summary Report is the annual survey of the past year’s graduates’ employers that we do as part of our accreditation. The survey queries the employers as to how well our program prepares the employed graduate(s) to function in a healthcare/EMS environment. The survey is divided into three broad categories: Cognitive, Psychomotor and Affective, which match the three Learning Outcomes listed in this Assessment Report. Although we have included this year’s survey as part of this Assessment Report, we will only evaluate the information in these surveys every three years when we will evaluate the results of three years combined. Our reason for this is that although we feel that the information gathered is significant, the number of respondents is small. Our

target for Learning Outcome #3 is that 90% of the survey respondents for the three years' surveys check either 4 or 5 in response to each Affective question. The CoAEMSP Employer Summary Report is included here as Appendix 2.

Results: Six employers who had hired graduates of the 2013 cohort were asked to respond to similar questions rating the three learning domains on a scale of 1 to 5. Their response is summarized below:

Affective = 99% of responses indicating a 4 or 5

After discussion the faculty of concluded the following:

- We met all goals for this learning outcome.
- This learning outcome also suffers from a low sample size making generalizing the results difficult. For this reason we have lowered our targets somewhat from previous years. Additionally In 2020, we plan to evaluate the results of 2016-2020 together in order to get a more complete assessment.
- This is the most difficult of the outcomes to assess, as evaluation is the most subjective. Additionally, we rely completely on a variety of evaluators outside of our department that tend to turnover every year (externship preceptors and employer contacts) to provide the assessment. This makes consistent and uniform evaluation problematic.
- We have a strong belief that one of the most effective methods to teach professionalism to our students is to model this behavior. Towards this end, during the past year we instituted a Mentoring Program. We have recruited recently graduated alumni, who have not only shown beginning success in the employment realm, but who also demonstrate the ethical behavior and professionalism that we want to foster in our students. We have paired each student with one of these Mentors and set up guidelines for communication. While this program has only been in existence for just over one year, we have some initial indication of student interest in the program. A mid year survey showed that 75% of students in the class of 2015-2016, found the program "useful". The complete survey is submitted with this Assessment Report.