

# EMS Assessment Report

## Spring 2019

Author: Joseph F. van Gaalen, Ph.D., Asst. VP, Institutional Research, Assessment & Effectiveness

### 1 INTRODUCTION

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Florida SouthWestern State College's Emergency Medical Services Program began a study in AY 2018-19 exploring comparative achievement in the Paramedic College Credit Certificate and the Emergency Medical Services AS Program. The study consists of three parts, the first two of which are course level assessments; one from a CCC/AS course (EMS 2119 *Fundamentals of Emergency Medical Care*) and the second from an AS specific course (EMS 2661 *Paramedic Field Internship*). The third part is a new outcome (based on discussions from AY 2017-2018 developmental plan) to understand achievement and progression of students from a course that serves as both a requirement for the CCC EMT and AS EMS program (EMS 2119) to a course that serves exclusively as a requirement for the AS EMS program (capstone course EMS 2661).

The assessment outcomes are intended to provide a baseline and measurement of achievement moving forward as well as investigate the strength and performance of items in the exam. The assessment plan also provides comparisons between dual Enrollment and non-dual enrollment students, online versus traditional students, and by site, where possible. Where data is sufficient, additional analyses are provided including distribution studies and longitudinal studies.

For additional detail or further analysis not provided in this report, please contact Dr. Joseph F. van Gaalen, Asst. Vice President of Institutional Research, Assessment & Effectiveness, Academic Affairs ([jfvangaalen@fsw.edu](mailto:jfvangaalen@fsw.edu); x16965).

### 2 EMS 2119

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#### 2.1 LEARNING OUTCOMES, OBJECTIVES, AND DESCRIPTIVE STATISTICS

The FSW Emergency Medical Services Program Director defined a goal of determining general baseline results for core components of the EMS 2119 course for the spring 2019 term.

During the spring 2019 semester, an enrollment of 76 contributed to scores tallied from 3 of 3 sections of EMS 2119. Descriptive statistics for achievement of outcomes are shown in Table 1. A distribution of scores is shown in Figure 1. Mean scores are described herein as percentages because total scores vary by examination. Mean scores range from 86% to 93%. The OB & PEDS Exam exhibits the lowest mean score and is distinguishable in score distribution shown in Figure 1 where a secondary peak of scores can be seen in the 80%-84% range compared with other examinations. This secondary peak appears to be a trend, having being present in the fall 2018 study as well.

<i>Core Exams</i>	<i>n</i>	<i>Mean (as %)</i>
Airway & Respiratory	70	88%
Cardiology	70	91%
Operations Unit	70	92%
Medical Unit	70	93%
Trauma Unit	70	87%
OB & PEDS Unit	70	86%

Table 1. Student achievement level by Outcome for EMS 2119.

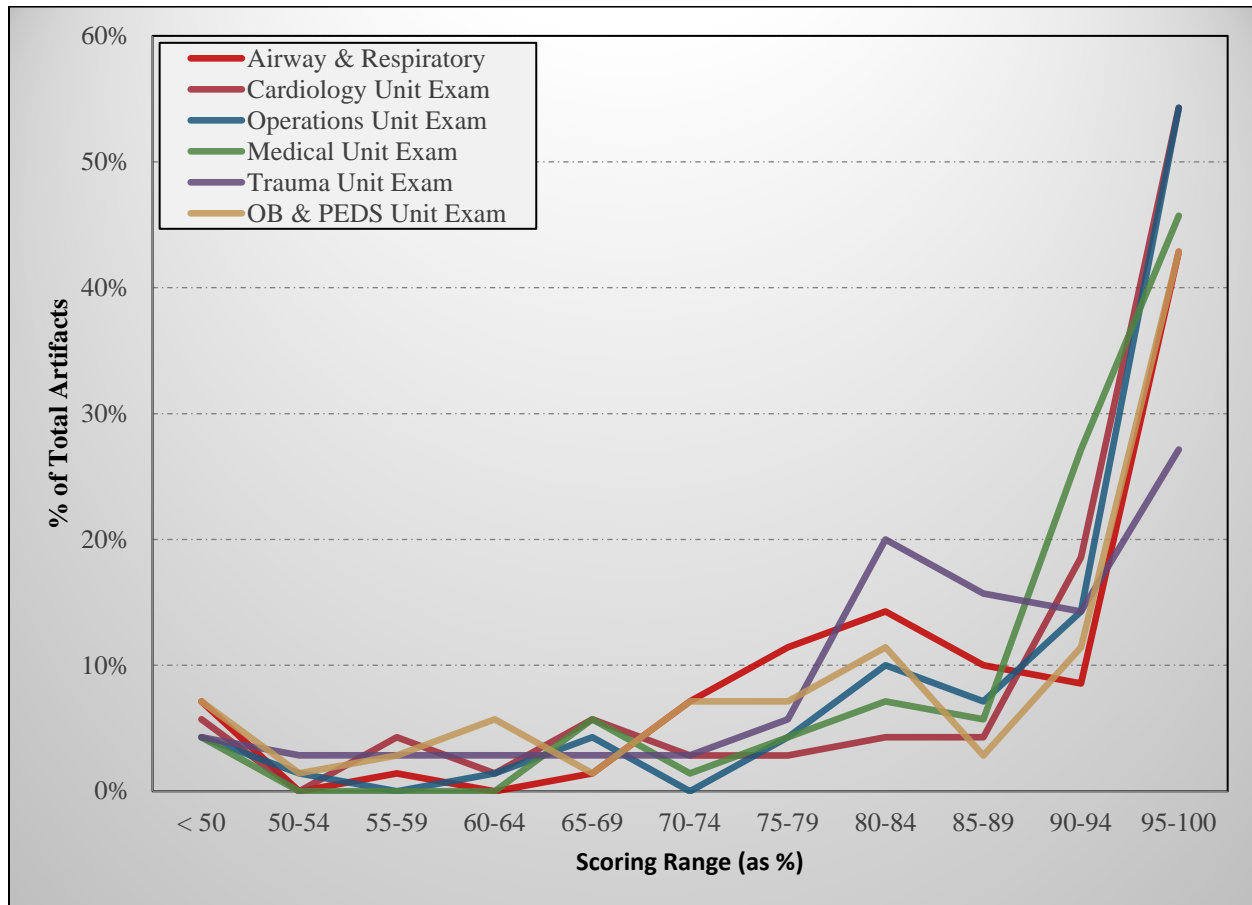


Figure 1. Line graph of score distribution for EMS 2119.

## 2.2 EXPLORATORY ANALYSIS AND SIGNIFICANCE TESTING

Multiple comparisons of artifact scores across varying formats, campuses, and student types were made, where possible, in order to add depth to the causes of the distribution of the artifacts. Each course was divided into the appropriate subgroups to perform the analysis. In cases where a subgroup is not represented in the course comparisons were not conducted and are noted for comprehensiveness.

### 2.2.1 Dual Enrollment to Non-Dual Enrollment Comparison

No dual enrollment sections of the course were run during spring 2019 so no comparison study between dual enrollment and non-dual enrollment could be completed.

### 2.2.2 Online to Traditional Comparison

No online sections of the course were run during the spring 2019 semester, so no comparison study between online and traditional could be completed.

### 2.2.3 Comparison by Campus/Site

Of the range of 70 artifacts collected from EMS 2119, 15 for each exam originated from the Charlotte campus, 29 from the Collier campus, and 26 for each exam from the Thomas Edison (Lee) campus. A comparison of mean scores is provided in Table 2 and graphically represented in Figure 2. The Charlotte campus exhibits the highest mean score in 4 of 6 exams. The Thomas Edison (Lee) campus exhibits the highest in the remaining 2 of 6. The Collier campus consistently exhibits the lowest mean scores in all six exams. This follows fall 2018, where Collier exhibited the lowest in 5 of 6 exams.

	<b>Airway &amp; Respiratory</b>	<b>Cardiology Unit Exam</b>	<b>Operations Unit Exam</b>	<b>Medical Unit Exam</b>	<b>Trauma Unit Exam</b>	<b>OB &amp; PEDS Unit Exam</b>
Charlotte	88%	<b>92%</b>	<b>93%</b>	<b>96%</b>	<b>92%</b>	91%
Collier	85%	91%	92%	91%	82%	78%
Thomas Edison (Lee)	<b>92%</b>	90%	93%	92%	89%	<b>92%</b>

Table 2. Comparison of mean scores by site. Bold denotes highest among all sites.

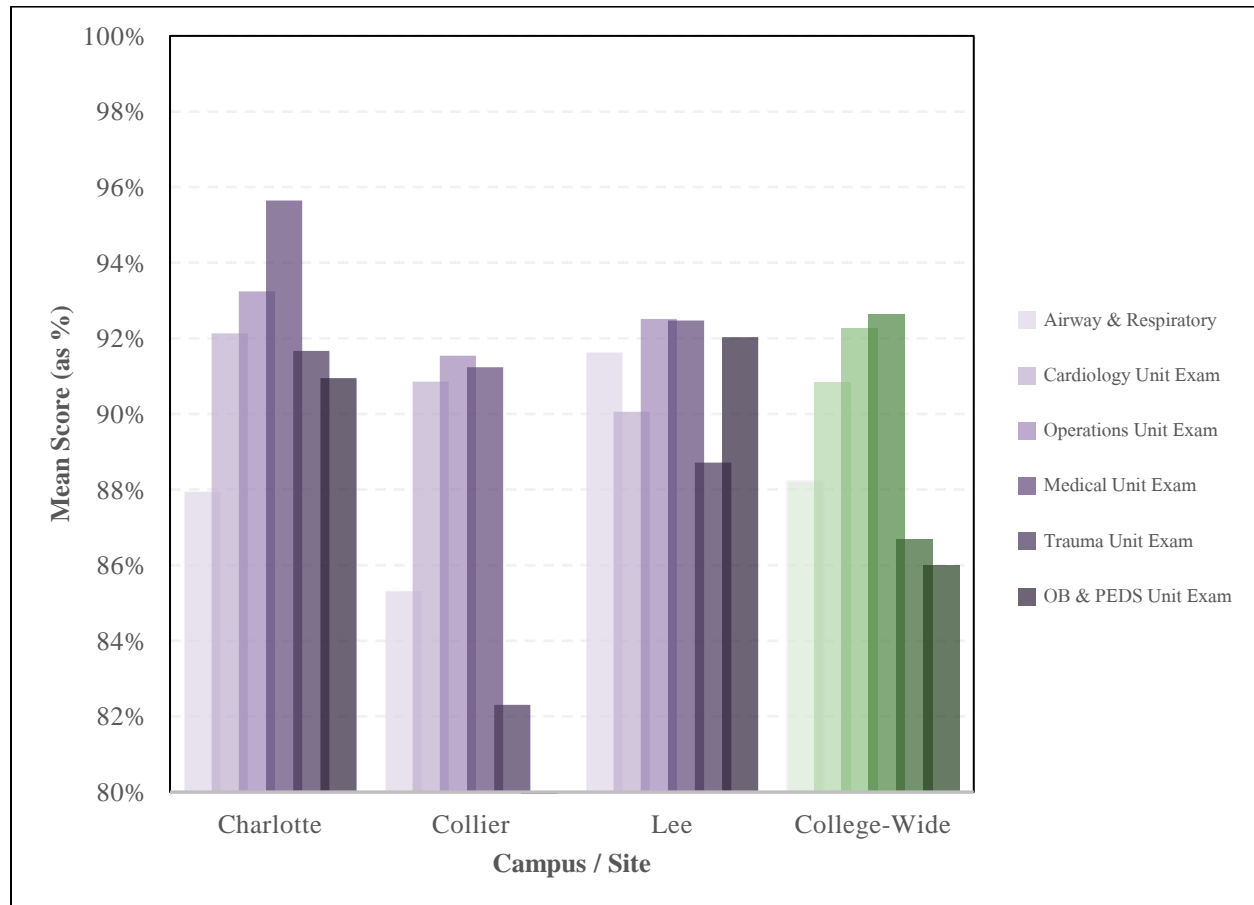


Figure 2. Comparison of mean scores (as %) by site.

## 2.3 LONGITUDINAL STUDY

As further data is collected in coming terms, this section will track achievement through time and highlight strengths, weaknesses and any long-term trends following fall 2019.

## 3 EMS 2661

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No sections of the course were run in spring 2019 so no analysis was completed.

## 4 CCC EMT AND AS EMS PROGRESSION

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No progression study could be continued from fall 2018 because no additional sections of EMS 2661 were run in spring 2019. As a result, the most current results for this section are encompassed in the Fall 2018 Assessment Report.

## 5 CONCLUSIONS

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FSW's Emergency Medical Services Program began a study in AY 2018-19 exploring comparative achievement in the Paramedic College Credit Certificate and the Emergency Medical Services AS Program. The study consists of three parts, the first two of which are course level assessments; one from a CCC/AS course (EMS 2119 *Fundamentals of Emergency Medical Care*) and the second from an AS specific course (EMS 2661 *Paramedic Field Internship*). The third part is a new outcome (based on discussions from AY 2017-2018 developmental plan) to understand achievement and progression of students from a course that serves as both a requirement for the CCC EMT and AS EMS program (EMS 2119) to a course that serves exclusively as a requirement for the AS EMS program (capstone course EMS 2661).

### 5.1 EMS 2119

A drill-down of EMS 2119 results are as follows:

1. During the spring 2019 semester, an enrollment of 76 contributed to scores tallied from 3 of 3 sections of EMS 2119.
2. In a study comparing core exams (Airways & Respiratory, Cardiology, Operations Unit, Medical Unit, Trauma Unit, and OB/Peds Unit), mean scores range from 86% to 93%. The OB & PEDS Exam exhibits the lowest mean score.
3. No dual enrollment sections of the course were run during spring 2019 so no comparison study between dual enrollment and non-dual enrollment could be completed.
4. No online sections of the course were run during the spring 2019 semester, so no comparison study between online and traditional could be completed.
5. In a cross-campus comparison study, the Charlotte campus exhibits the highest mean score in 4 of 6 exams. The Thomas Edison (Lee) campus exhibits the highest in the remaining 2 of 6. The Collier campus consistently exhibits the lowest mean scores in all six exams. This follows fall 2018, where Collier exhibited the lowest in 5 of 6 exams.

## 5.2 EMS 2661

A drill-down of EMS 2661 results are as follows:

1. No sections of the course were run in spring 2019 so no analysis was completed.

## 5.3 EMT / EMS PROGRESSION

A drill-down of EMS 2661 results are as follows:

1. No progression study could be continued from fall 2018 because no additional sections of EMS 2661 were run in spring 2019. As a result, the most current results for this section are encompassed in the Fall 2018 Assessment Report.