

Police/Criminal Investigation & Justice Assessment Report Spring 2018

Author: Joseph F. van Gaalen, Ph.D., Director, Assessment & Effectiveness

1 INTRODUCTION

Florida SouthWestern State College's Business Department gathers a multitude of data from various courses as assessment tools in support of the Florida Department of Education Curriculum Framework. The courses included in assessment are CJE 1300 *Police Organization and Administration*, CJE 1640 *Introduction to Crime Scene Technology*, and CJE 2600 *Criminal Investigation Techniques*. The assessment outcomes are intended to provide a baseline and measurement of achievement moving forward. The assessment plan also provides comparisons between dual enrollment (concurrent) 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, Director of Assessment & Effectiveness, Academic Affairs (jfvangaalen@fsw.edu; x16965).

2 CJE 1300

2.1 LEARNING OBJECTIVES AND DESCRIPTIVE STATISTICS

The FSW Business faculty defined one area of interest for evaluation in support of the state framework for the spring 2018 term. The outcomes related to CJE 1300 are:

- CJ PO 05.0 Summarize law enforcement administration.
- CJE 1300 LO 05.01 Appraise the impact of national patrol studies.
- CJE 1300 LO 05.02 Compare and contrast the various organizational structures of law enforcement agencies.
- CJE 1300 LO 05.03 Give examples of different departmental recruiting techniques.
- CJE 1300 LO 05.04 Define the general principles of allocation and deployment of patrol resources.
- CJE 1300 LO 05.05 Explain the concepts of criminal investigation management and supervision of cases.
- CJE 1300 LO 05.06 Discuss the importance of specialized units.
- CJE 1300 LO 05.07 Identify crime prevention techniques.
- CJE 1300 LO 05.08 Discuss the relevance of Special Operations to the administration of police services.
- CJE 1300 LO 05.09 Discuss the various technologies utilized by law enforcement agencies.

The measurement and objectives related to CJE 1300 are:

- Outcome 1 – The total scores measured (combined total of assignments associated with Learning Outcome or Program Outcome) average ‘4’ or higher and that 80% of artifacts score ‘4’ or better.

During the spring 2018 semester, an enrollment of 28 contributed to scores tallied from 2 of 2 sections of CJE 1300. Descriptive statistics for achievement of outcomes are shown in Table 1. The graphical representation of mean scores is shown in Figure 1 and percentage of artifacts scoring ‘4’ or higher is shown in Figure 2. The goal that the total scores measured (combined total of assignments associated with Learning Outcome or Program Outcome) average ‘4’ or higher and that 80% of artifacts score ‘4’ or better was met. Outcome mean scores range from 4.2 to 4.6. Outcome percent scoring 80% or higher range from 83% to 98%.

Outcomes	# of Assignments Linked to Outcome	n	Mean	% Scoring 4 or Higher
CJ PO 05.0 Summarize law enforcement administration.	29	671	4.6	97%
CJE 1300 LO 05.01 Appraise the impact of national patrol studies.	11	123	4.6	98%
CJE 1300 LO 05.02 Compare and contrast the various organizational structures of law enforcement agencies.	15	526	4.6	97%
CJE 1300 LO 05.03 Give examples of different departmental recruiting techniques.	5	60	4.6	97%
CJE 1300 LO 05.04 Define the general principles of allocation and deployment of patrol resources.	15	155	4.6	96%
CJE 1300 LO 05.05 Explain the concepts of criminal investigation management and supervision of cases.	6	73	4.4	92%
CJE 1300 LO 05.06 Discuss the importance of specialized units.	14	156	4.5	95%
CJE 1300 LO 05.07 Identify crime prevention techniques.	7	72	4.4	94%
CJE 1300 LO 05.08 Discuss the relevance of Special Operations to the administration of police services.	5	66	4.2	83%
CJE 1300 LO 05.09 Discuss the various technologies utilized by law enforcement agencies.	7	83	4.3	89%

Table 1. Student achievement level by Outcome for CJE 1300.

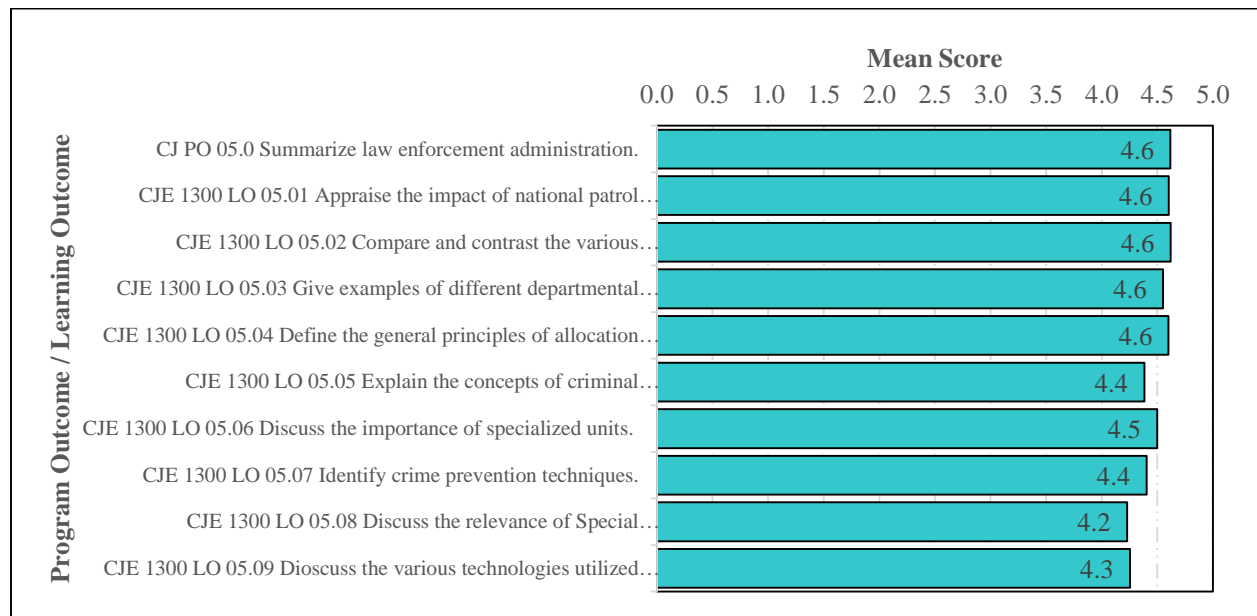


Figure 1. Bar graph of mean score by outcome for CJE 1300.

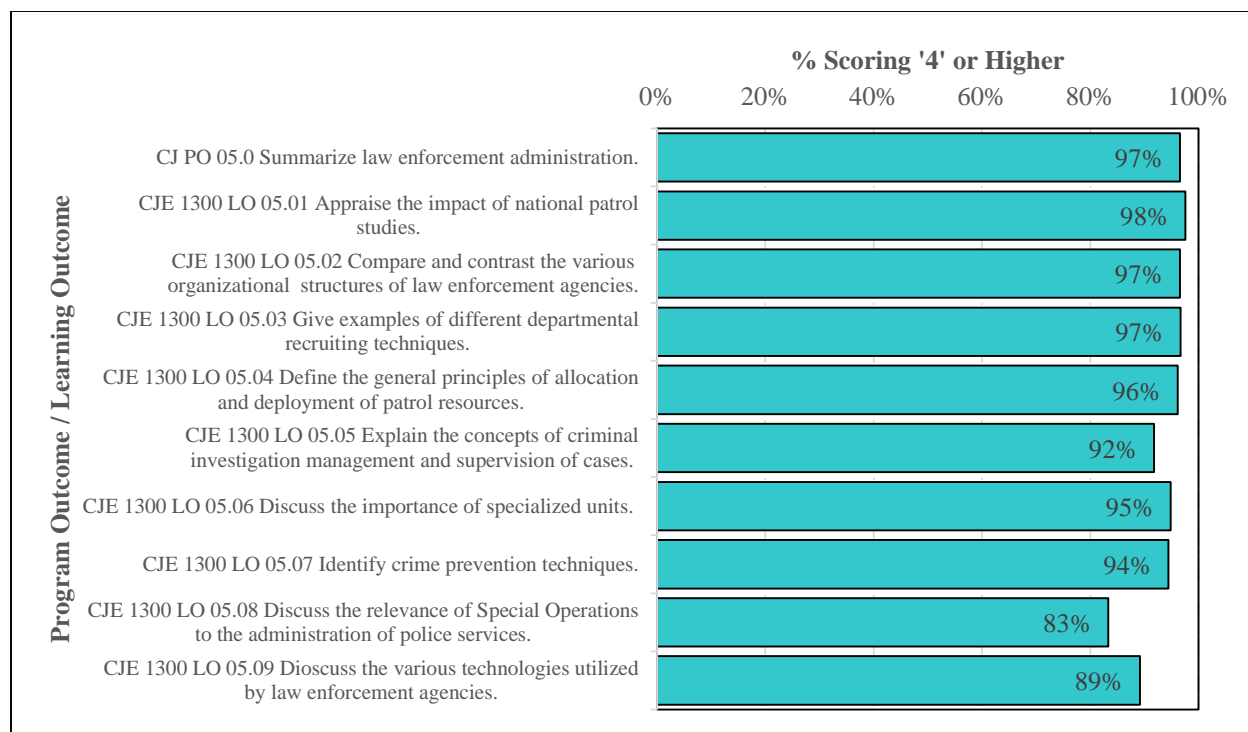


Figure 2. Bar graph of percentage of artifacts scoring '4' or higher by outcome for CJE 1300.

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 (Concurrent) to Non-Dual Enrollment Comparison

No dual enrollment (concurrent) sections of the course were run during spring 2018 so no comparison study between dual enrollment and non-dual enrollment could be completed.

2.2.2 Online to Traditional Comparison

During the spring 2018 semester, one course section was offered online while another was offered traditionally. For the online section, the number of artifacts scored ranged from 11 to 376. For the traditional section, artifacts ranged from 49 to 295. A comparison of basic statistics is provided in Table 2. Online artifacts mean scores are lower for 8 of 10 outcomes (Figure 3). Percentage of artifacts scoring '4' or higher is lower for online artifacts for 6 of 10 outcomes (Figure 4). Differences in the means were tested for significance using a Welch's t-test according to standard methods (Davis, 1973; McDonald, 2009; Wilkinson, 1999). The differences are found to be statistically significantly different for PO 5 and LO 05.02. Therefore, we must reject the null hypothesis that the difference in the means of the online and traditional scores of these essays is equal to 0, and we can conclude this with a 95% confidence that the differences in scores are not solely due to chance.

Outcomes	Traditional n	Traditional Mean	Traditional % Scoring 4 or Higher	Online n	Online Mean	Online % Scoring 4 or Higher
CJ PO 05.0 Summarize law enforcement administration.	295	4.4	93%	376	4.8	99%
CJE 1300 LO 05.01 Appraise the impact of national patrol studies.	112	4.7	98%	11	4.1	91%
CJE 1300 LO 05.02 Compare and contrast the various organizational structures of law enforcement agencies.	150	4.2	89%	376	4.8	99%
CJE 1300 LO 05.03 Give examples of different departmental recruiting techniques.	49	4.7	98%	11	4.1	91%
CJE 1300 LO 05.04 Define the general principles of allocation and deployment of patrol resources.	144	4.6	97%	11	4.1	91%
CJE 1300 LO 05.05 Explain the concepts of criminal investigation management and supervision of cases.	62	4.4	92%	11	4.1	91%
CJE 1300 LO 05.06 Discuss the importance of specialized units.	145	4.5	95%	11	4.1	91%
CJE 1300 LO 05.07 Identify crime prevention techniques.	61	4.5	95%	11	4.1	91%
CJE 1300 LO 05.08 Discuss the relevance of Special Operations to the administration of police services.	55	4.3	82%	11	4.1	91%
CJE 1300 LO 05.09 Discuss the various technologies utilized by law enforcement agencies.	72	4.3	89%	11	4.1	91%

Table 2. Comparison of basic statistics of student achievement level by Outcome for online and traditional. Statistically significant differences in the means between online and traditional sections is in **bold/italics**.

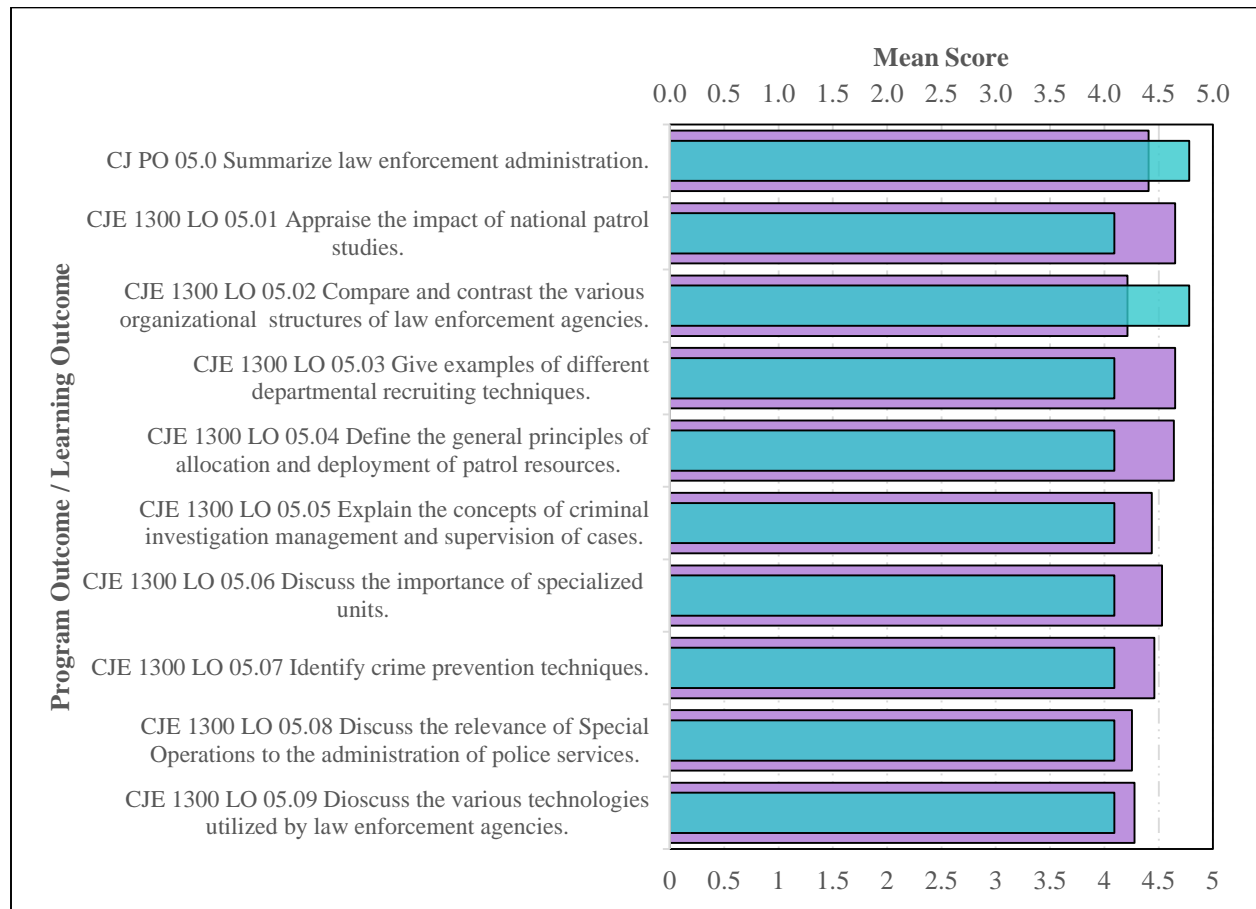


Figure 3. Comparison of mean scores by modality with Traditional (purple) and Online (aqua).

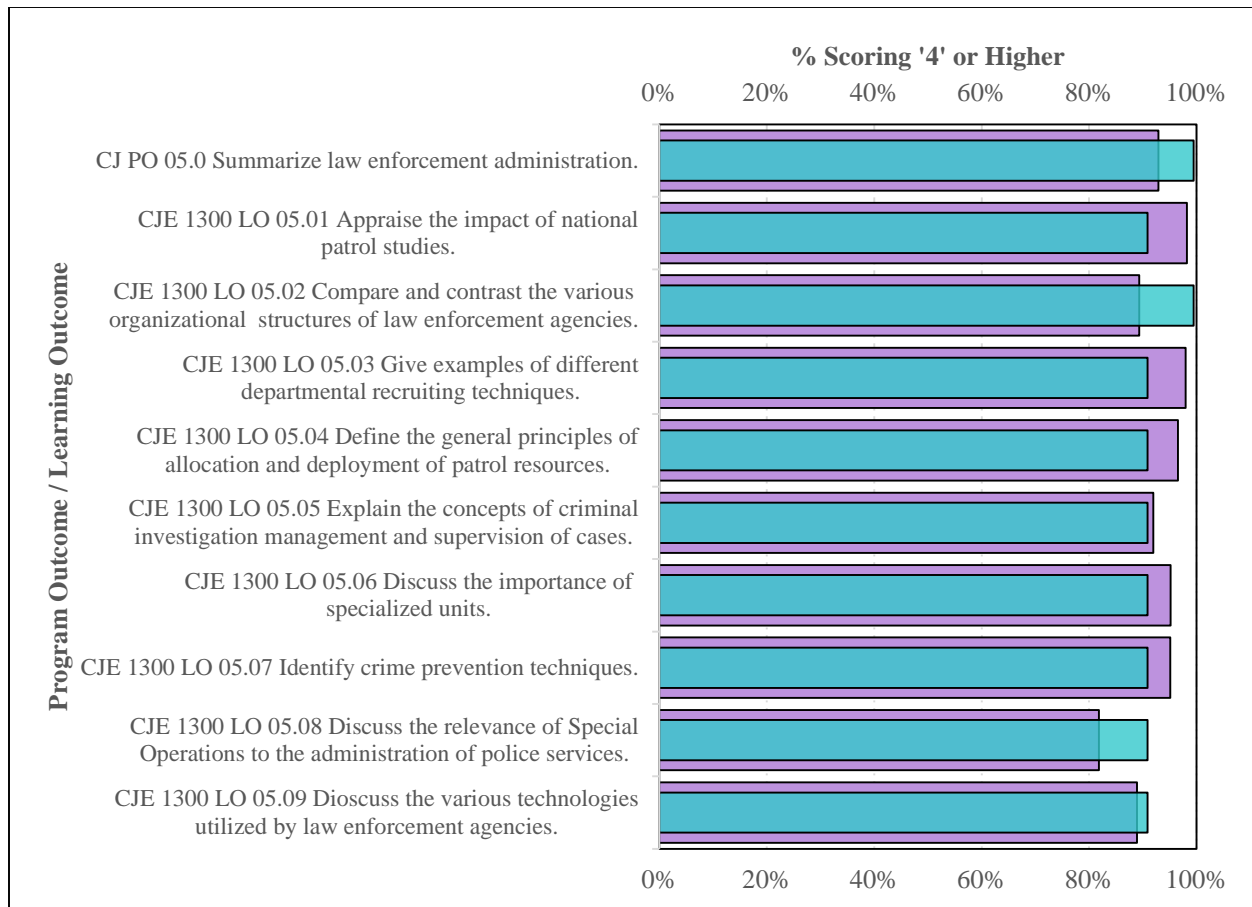


Figure 4. Comparison of percentage of artifacts scoring '4' or higher by modality with Traditional (purple) and Online (aqua).

Effect size was calculated using a method devised by Rosenthal and Rosnow (1991) for meta-analytical purposes in potential comparisons with other institutions (Lipsey and Wilson, 1993). The statistically significant results exhibit what Cohen (1988) would consider small-to-medium effect sizes. In other words, non-overlap score distribution from online artifacts to traditional artifacts range from approximately 8% to 38%.

2.2.3 Comparison by Campus/Site

Since the only two sites in which courses were offered was Thomas Edison and FSW Online, results of this comparison are exhibited in 2.2.2 (see above).

2.3 LONGITUDINAL STUDY

Description of achievement over time in CJE 1300 is provided in Figures 5 and 6. No LO exhibits a significant difference from any other over time. A difference is somewhat apparent between fall and spring terms. Note that comparison from fall terms to spring terms is less useful as assessment reports across multiple course level and program level assessments at Florida SouthWestern State College typically exhibit substantial differences from fall to spring term and are better interpreted from fall-to-fall and spring-to-spring (see <http://www.fsw.edu/facultystaff/assessment/history> for further details). Overall distribution exhibits a consistency over time.

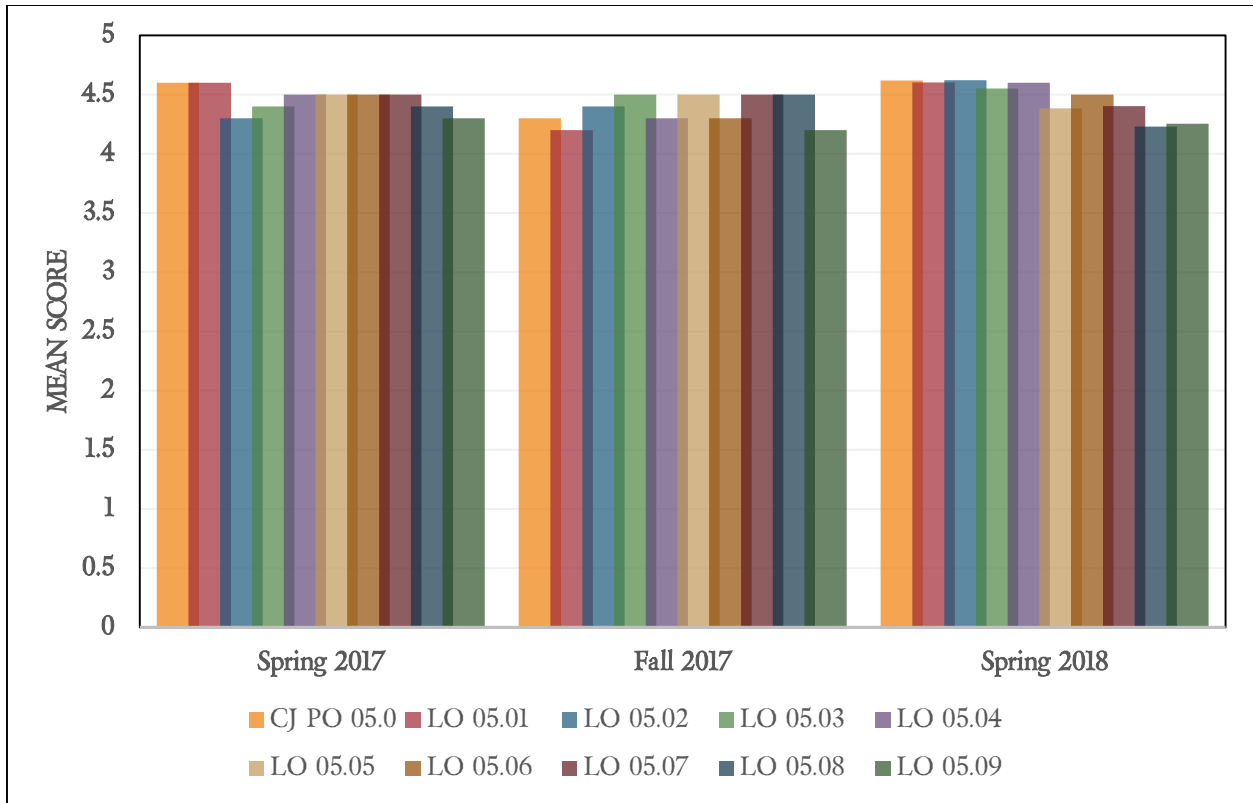


Figure 5. Bar graph of mean score by outcome for CJE 1300 over time

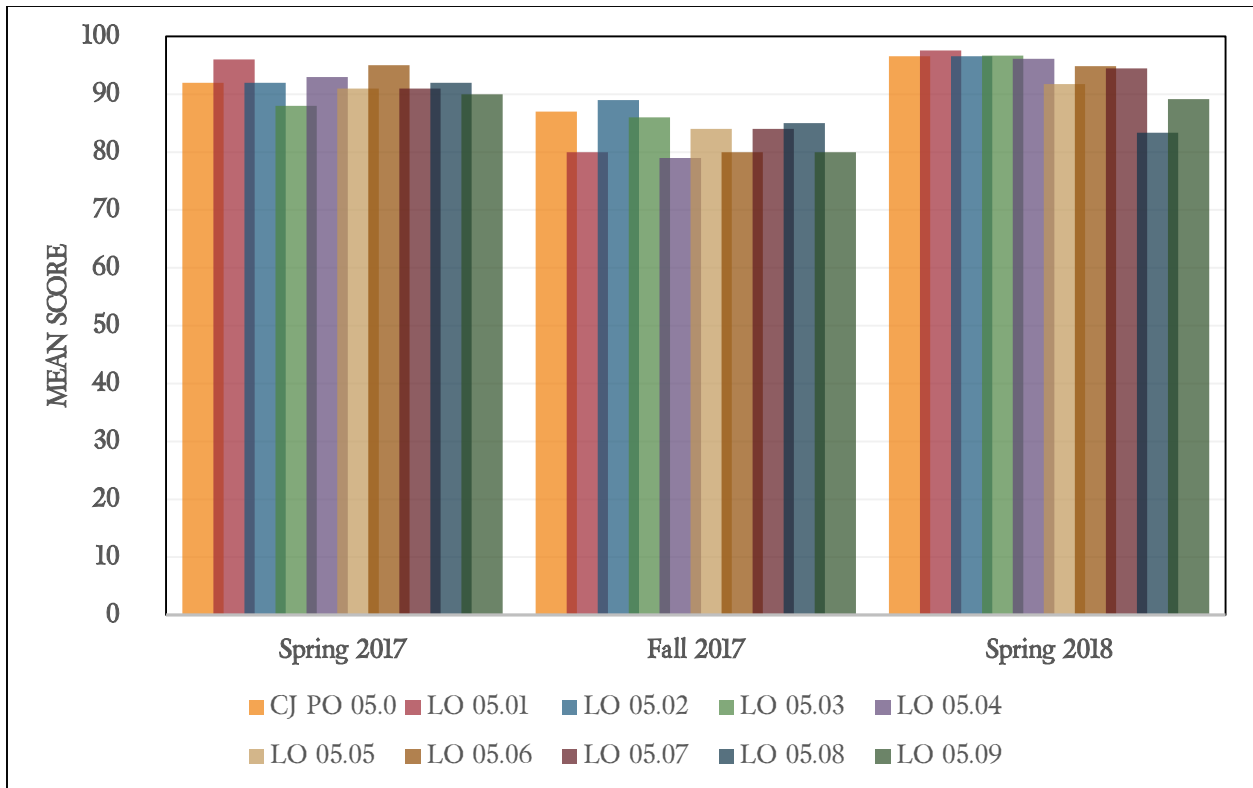


Figure 6. Bar graph of percentage of artifacts scoring '4' or higher by outcome for CJE 1300 over time.

3 CJE 1640

3.1 LEARNING OBJECTIVES AND DESCRIPTIVE STATISTICS

The FSW Business faculty defined one area of interest for evaluation in support of the state framework for the spring 2018 term. The outcomes related to CJE 1640 are:

- CJE 1640 LO 02.03 Develop an understanding of the concepts of crime scene procedures.
- CJE 1640 LO 02.04 Demonstrate knowledge and skill in specialized crime scene procedures.
- CJE 1640 LO 02.05 Demonstrate ability to prepare crime scene related documents.
- CJE 1640 LO 02.06 Demonstrate ability to coordinate a crime scene investigation with other investigative personnel agencies.
- CJE 1640 LO 02.07 Demonstrate knowledge of the capabilities of a full service crime lab.
- CJE 1640 LO 02.08 Demonstrate knowledge of the chain of custody of evidence and submission protocols.
- CJE 1640 LO 02.09 Demonstrate knowledge of appropriate comparison standards.
- CJE 1640 LO 02.10 Demonstrate knowledge of the testing of biological evidence.
- CJE 1640 LO 02.11 Demonstrate knowledge of the collection methods of biological evidence.
- CJE 1640 LO 02.12 Demonstrate knowledge of the understanding of autopsy evidence collection.
- CJE 1640 LO 02.13 Demonstrate ability to determine appropriate collection, preserving, marking, and packaging methods of crime scene evidence.

The measurement and objectives related to CJE 1640 are:

- Outcome 1 – The total scores measured (combined total of assignments associated with Learning Outcome or Program Outcome) average '4' or higher and that 80% of artifacts score '4' or better.

During the spring 2018 semester, an enrollment of 86 contributed to scores tallied from 3 of 3 sections of CJE 1640. Descriptive statistics for achievement of outcomes are shown in Table 3. The graphical representation of mean scores is shown in Figure 7 and percentage of artifacts scoring '4' or higher is shown in Figure 8. The goal that the total scores measured (combined total of assignments associated with Learning Outcome or Program Outcome) average '4' or higher and that 80% of artifacts score '4' or better was met. Outcome mean scores range from 4.1 to 4.7. Outcome percent scoring 80% or higher range from 88% to 94%.

<i>Outcomes</i>	<i>n</i>	<i>Mean</i>	<i>% Scoring 4 or Higher</i>
CS PO 02.0 Demonstrate knowledge of collection and development of evidence.	686	4.7	93%
CJE 1640 LO 02.01 Demonstrate knowledge of the methodology used in crime scene recording and classifying physical evidence.	262	4.7	94%
CJE 1640 LO 02.02 Demonstrate abilities and skills needed in applying basic principles of crime scene investigation.	454	4.7	94%
CJE 1640 LO 02.03 Develop an understanding of the concepts of crime scene procedures.	324	4.6	91%
CJE 1640 LO 02.04 Demonstrate knowledge and skill in specialized crime scene procedures.	310	4.6	92%
CJE 1640 LO 02.05 Demonstrate ability to prepare crime scene related documents.	170	4.6	94%
CJE 1640 LO 02.06 Demonstrate ability to coordinate a crime scene investigation with other investigative personnel agencies.	205	4.7	93%
CJE 1640 LO 02.07 Demonstrate knowledge of the capabilities of a full service crime lab.	68	4.4	88%
CJE 1640 LO 02.08 Demonstrate knowledge of the chain of custody of evidence and submission protocols.	304	4.7	93%
CJE 1640 LO 02.09 Demonstrate knowledge of appropriate comparison standards.	71	4.4	89%
CJE 1640 LO 02.10 Demonstrate knowledge of the testing of biological evidence.	70	4.6	96%
CJE 1640 LO 02.11 Demonstrate knowledge of the collection methods of biological evidence.	24	4.1	88%
CJE 1640 LO 02.12 Demonstrate knowledge of the understanding of autopsy evidence collection.	24	4.1	88%
CJE 1640 LO 02.13 Demonstrate ability to determine appropriate collection, preserving, marking, and packaging methods of crime scene evidence.	391	4.7	93%

Table 3. Student achievement level by Outcome for CJE 1640.

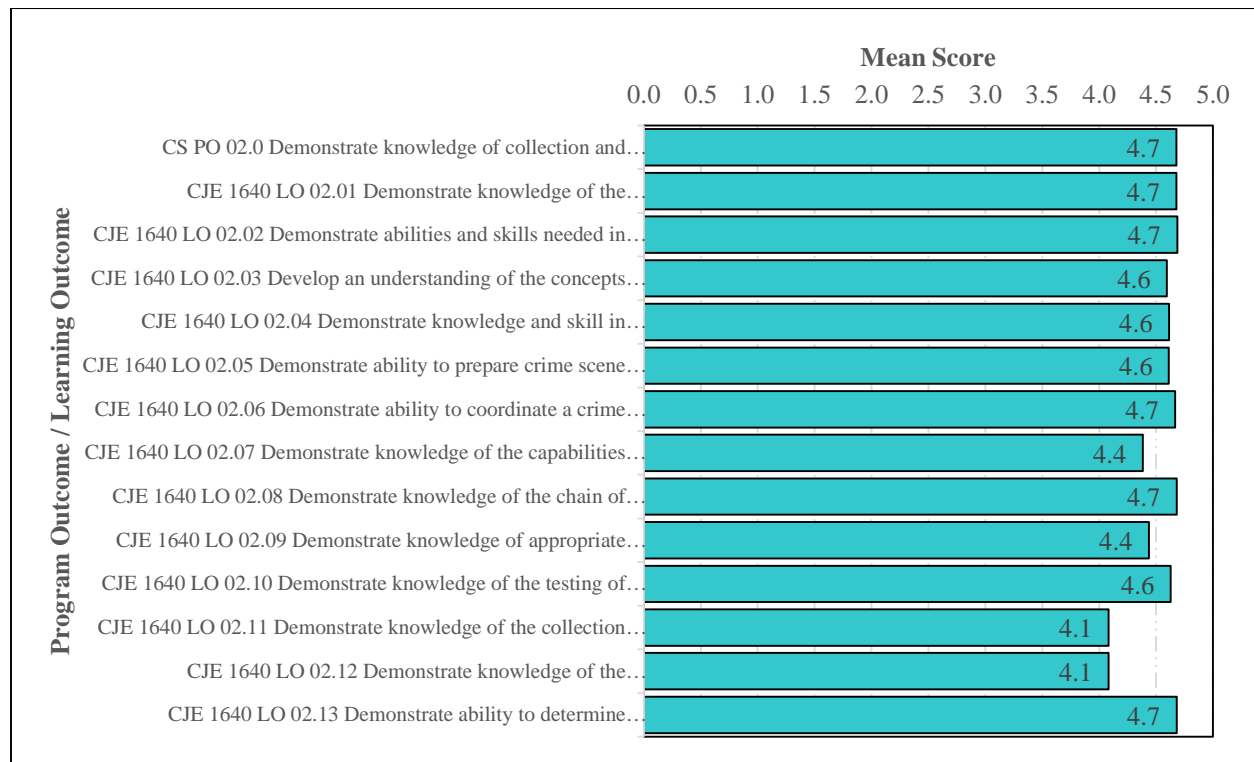


Figure 7. Bar graph of mean score by outcome for CJE 1640.



Figure 8. Bar graph of percentage of artifacts scoring '4' or higher by outcome for CJE 1640.

3.2 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.

3.2.1 Dual Enrollment (Concurrent) to Non-Dual Enrollment Comparison

No dual enrollment (concurrent) sections of the course were run during spring 2018 so no comparison study between dual enrollment and non-dual enrollment could be completed.

3.2.2 Online to Traditional Comparison

While both online and traditional sections of the course were offered in spring 2018, data was not able to be recorded in the traditional section, and so no comparison could be made.

3.2.3 Comparison by Campus/Site

Since the only two sites in which courses were offered was Thomas Edison and FSW Online, results of this comparison are exhibited in 3.2.2 (see above).

3.3 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 beginning spring 2019.

4 CJE 2600

4.1 LEARNING OBJECTIVES AND DESCRIPTIVE STATISTICS

The FSW Business faculty defined one area of interest for evaluation in support of the state framework for the spring 2018 term. The outcomes related to CJE 2600 are:

- CJ PO 03.0 Identify criminal investigation procedures.
- CJE 2600 LO 03.01 Explain investigative techniques used in solving crimes.
- CJE 2600 LO 03.02 Explain general criminal laboratory techniques.
- CJE 2600 LO 03.03 Explain the necessity for and the methods of marking and preserving evidence.
- CJE 2600 LO 03.04 Discuss the necessity for and importance of crime scene protection.
- CJE 2600 LO 03.05 Discuss the importance of evidence to court proceedings following arrest.
- CJE 2600 LO 03.06 Identify various types of investigative technology.
- CJE 2600 LO 03.07 Describe the steps of a preliminary investigation.
- CJE 2600 LO 03.08 Demonstrate ability to draw a simple crime scene sketch.
- CJE 2600 LO 03.09 Discuss principles of proper interrogation techniques.
- CJE 2600 LO 03.10 Explain the importance of police records to the investigative process.

The measurement and objectives related to CJE 2600 are:

- Outcome 1 – The total scores measured (combined total of assignments associated with Learning Outcome or Program Outcome) average '4' or higher and that 80% of artifacts score '4' or better.

During the spring 2018 semester, an enrollment of 83 contributed to scores tallied from 3 of 3 sections of CJE 2600. Descriptive statistics for achievement of outcomes are shown in Table 4. The graphical representation of mean scores is shown in Figure 9 and percentage of artifacts scoring '4' or higher is shown in Figure 10. The goal that the total scores measured (combined total of assignments associated with Learning Outcome or Program Outcome) average '4' or higher and that 80% of artifacts score '4' or better was met. Outcome mean scores range from 4.7 to 4.8. Outcome percent scoring 80% or higher range from 93% to 96%.

<i>Outcomes</i>	<i># of Assignments Linked to Outcome</i>	<i>n</i>	<i>Mean</i>	<i>% Scoring 4 or Higher</i>
CJ PO 03.0 Identify criminal investigation procedures.	28	2027	4.7	93%
CJE 2600 LO 03.01 Explain investigative techniques used in solving crimes.	28	2027	4.7	93%
CJE 2600 LO 03.02 Explain general criminal laboratory techniques.	5	344	4.7	92%
CJE 2600 LO 03.03 Explain the necessity for and the methods of marking and preserving evidence.	15	1037	4.7	93%
CJE 2600 LO 03.04 Discuss the necessity for and importance of crime scene protection.	12	924	4.7	93%
CJE 2600 LO 03.05 Discuss the importance of evidence to court proceedings following arrest.	8	536	4.7	94%
CJE 2600 LO 03.06 Identify various types of investigative technology.	7	488	4.7	93%
CJE 2600 LO 03.07 Describe the steps of a preliminary investigation.	4	228	4.7	94%
CJE 2600 LO 03.08 Demonstrate ability to draw a simple crime scene sketch.	11	755	4.8	93%
CJE 2600 LO 03.09 Discuss principles of proper interrogation techniques.	22	1602	4.7	93%
CJE 2600 LO 03.10 Explain the importance of police records to the investigative process.	5	247	4.7	96%

Table 4. Student achievement level by outcome for CJE 2600.

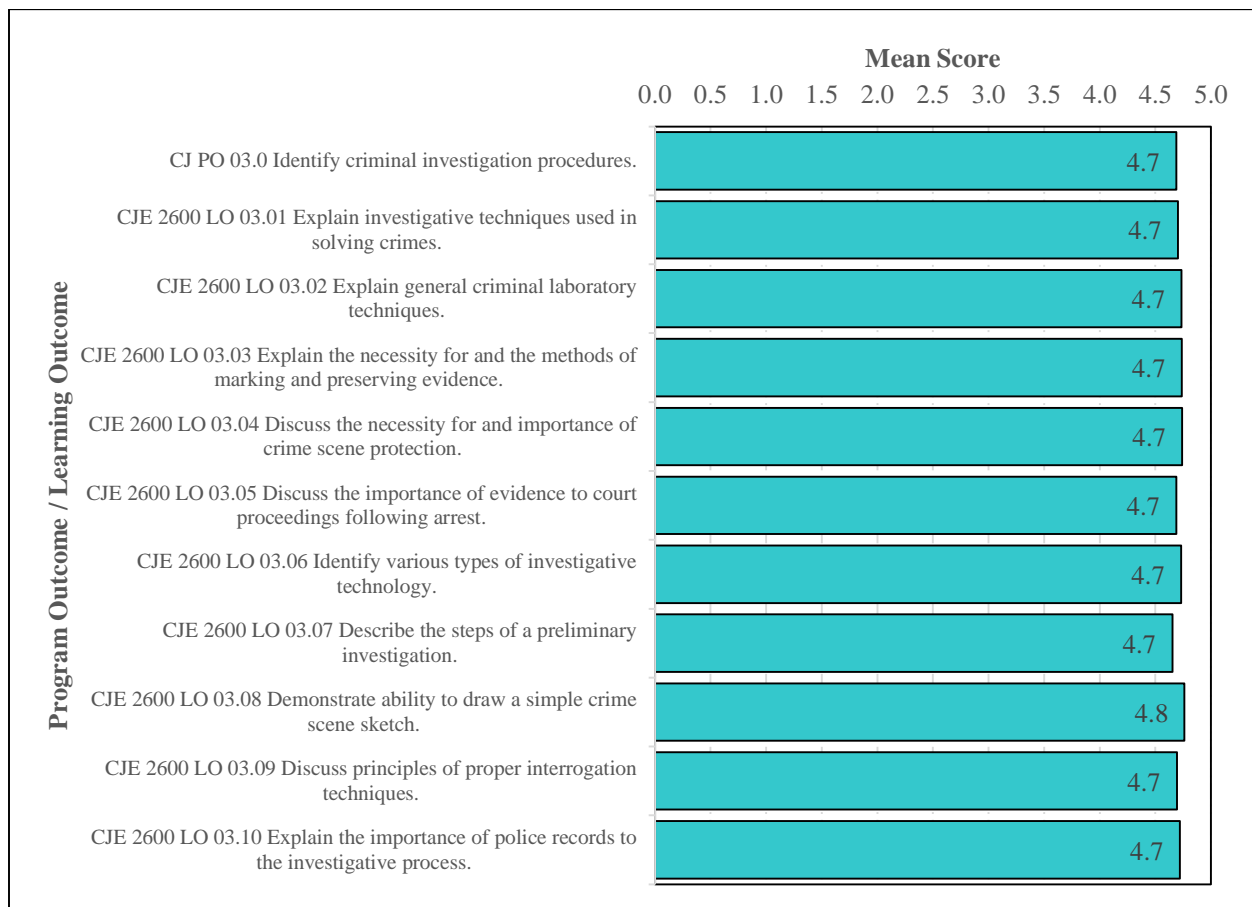


Figure 9. Bar graph of mean score by outcome for CJE 2600.



Figure 10. Bar graph of percentage of artifacts scoring '4' or higher by outcome for CJE 2600.

4.2 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.

4.2.1 Dual Enrollment (Concurrent) to Non-Dual Enrollment Comparison

No dual enrollment (concurrent) sections of the course were run during spring 2018 so no comparison study between dual enrollment and non-dual enrollment could be completed.

4.2.2 Online to Traditional Comparison

During the spring 2018 semester, one course section was offered online while two others were offered traditionally. For the online section, the number of artifacts scored ranged from 65 to 650. For the traditional section, artifacts ranged from 163 to 1377. A comparison of basic statistics is provided in Table 5. Online artifacts mean scores are nearly identical to traditional artifacts (Figure 11). Percentage of artifacts scoring '4' or higher is higher for online artifacts for 8 of 11 outcomes (Figure 12). Differences in the means were tested for significance using a Welch's t-test according to standard methods (Davis, 1973; McDonald, 2009; Wilkinson, 1999). The differences are found to not be statistically significantly different for PO 5 and LO 05.02. Therefore, we cannot reject the null hypothesis

that the difference in the means of the online and traditional scores of these essays is equal to 0, and we cannot conclude this with a 95% confidence that the differences in scores are not solely due to chance.

Outcomes	Traditional			Online		
	n	Mean	% Scoring 4 or Higher	n	Mean	% Scoring 4 or Higher
CJ PO 03.0 Identify criminal investigation procedures.	1377	4.7	92%	650	4.7	96%
CJE 2600 LO 03.01 Explain investigative techniques used in solving crimes.	1377	4.7	92%	650	4.7	96%
CJE 2600 LO 03.02 Explain general criminal laboratory techniques.	242	4.7	93%	102	4.7	91%
CJE 2600 LO 03.03 Explain the necessity for and the methods of marking and preserving evidence.	737	4.7	93%	300	4.8	94%
CJE 2600 LO 03.04 Discuss the necessity for and importance of crime scene protection.	649	4.8	94%	275	4.7	93%
CJE 2600 LO 03.05 Discuss the importance of evidence to court proceedings following arrest.	383	4.7	92%	153	4.7	99%
CJE 2600 LO 03.06 Identify various types of investigative technology.	340	4.8	94%	148	4.6	91%
CJE 2600 LO 03.07 Describe the steps of a preliminary investigation.	163	4.6	92%	65	4.7	98%
CJE 2600 LO 03.08 Demonstrate ability to draw a simple crime scene sketch.	520	4.8	93%	235	4.7	95%
CJE 2600 LO 03.09 Discuss principles of proper interrogation techniques.	1090	4.7	91%	512	4.7	97%
CJE 2600 LO 03.10 Explain the importance of police records to the investigative process.	179	4.7	94%	68	4.8	99%

Table 5. Comparison of basic statistics of student achievement level by Outcome for online and traditional. Statistically significant differences in the means between online and traditional sections is in **bold/italics**.

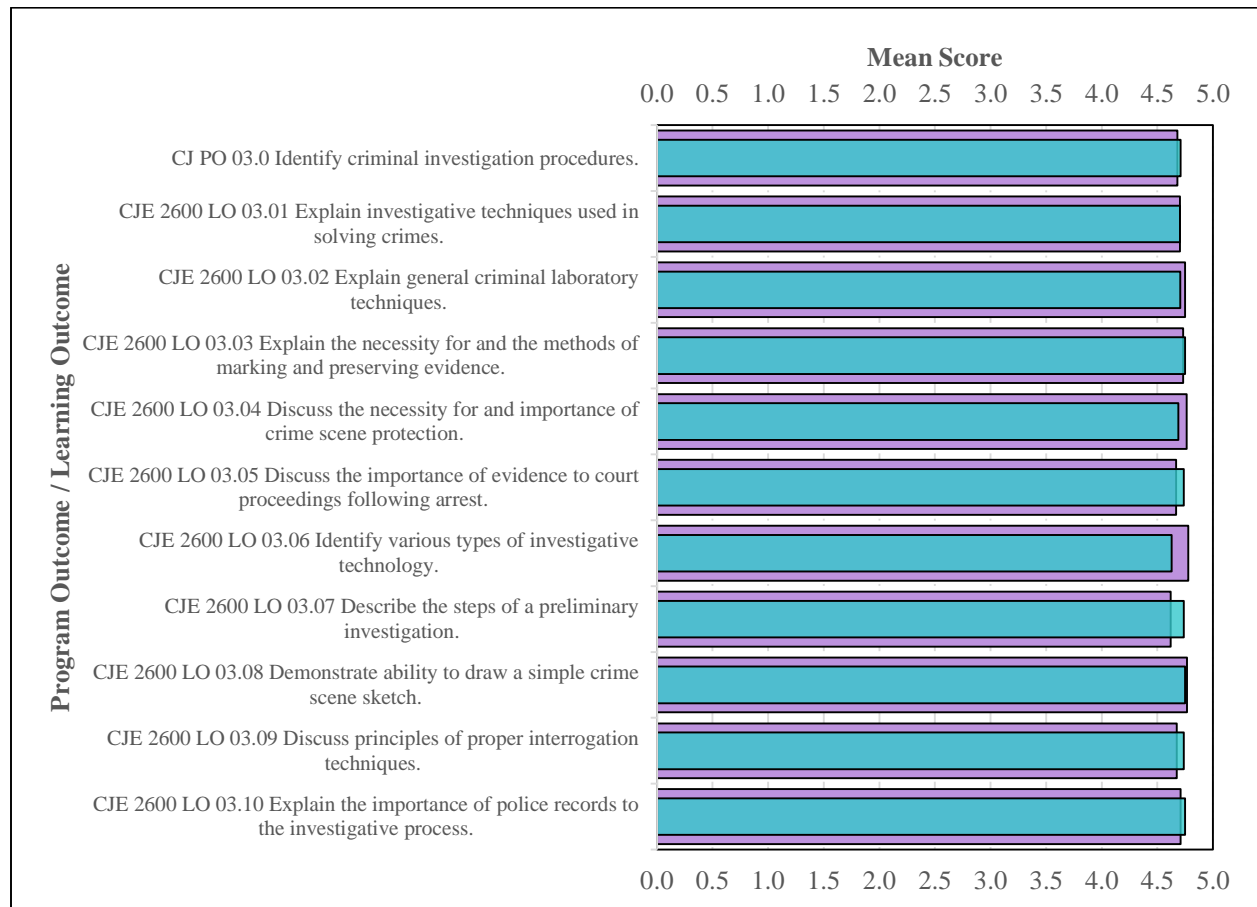


Figure 11. Comparison of mean scores by modality with Traditional (purple) and Online (aqua).

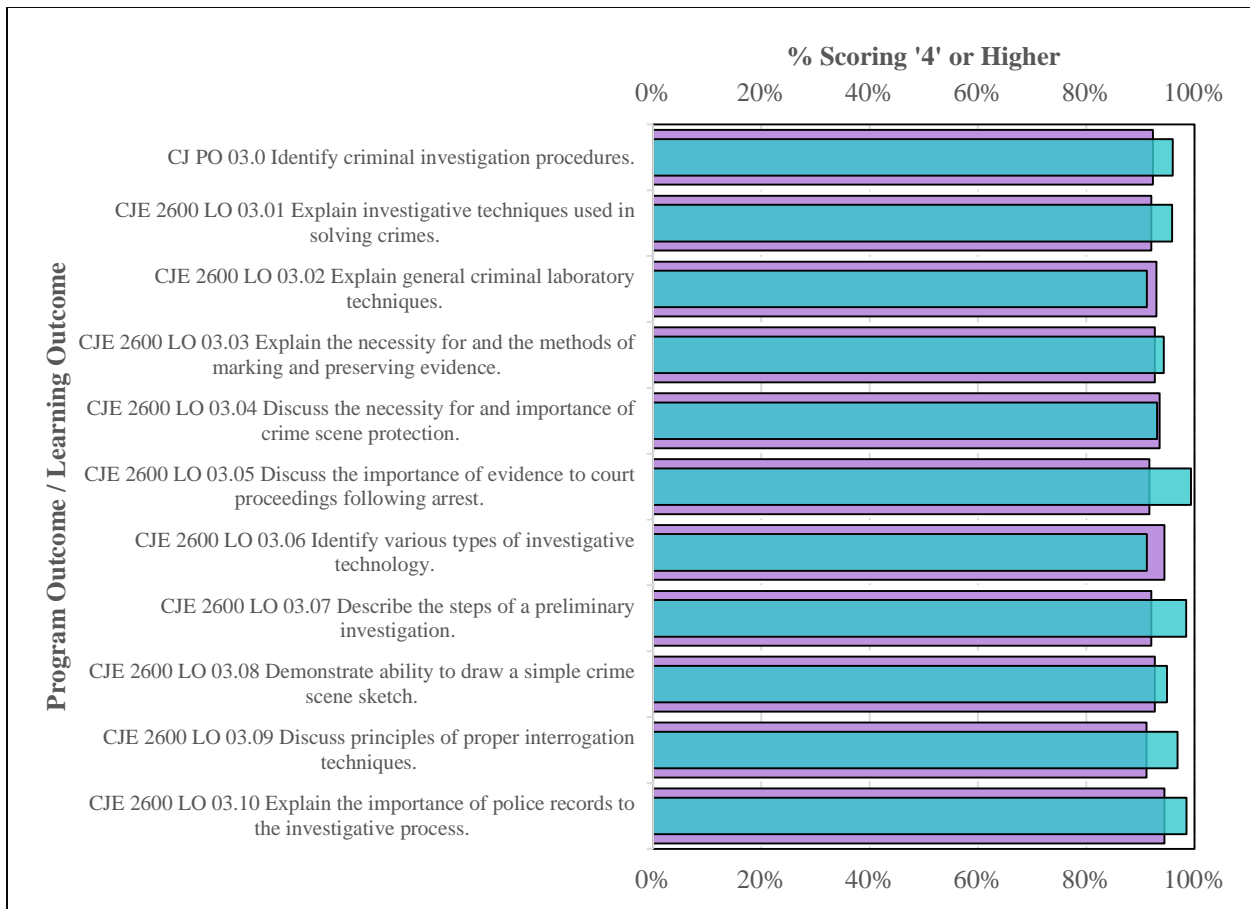


Figure 12. Comparison of percentage of artifacts scoring '4' or higher by modality with Traditional (purple) and Online (aqua).

Effect size was calculated using a method devised by Rosenthal and Rosnow (1991) for meta-analytical purposes in potential comparisons with other institutions (Lipsey and Wilson, 1993). The statistically significant results exhibit what Cohen (1988) would consider small effect sizes. In other words, non-overlap score distribution from online artifacts to traditional artifacts range from approximately 2% to 12%.

4.2.3 Comparison by Campus/Site

Since the only two sites in which courses were offered was Thomas Edison and FSW Online, results of this comparison are exhibited in 4.2.2 (see above).

4.3 LONGITUDINAL STUDY

Description of achievement over time in CJE 2600 is provided in Figures 13 and 14. No LO exhibits a significant difference or trends from any other over time. Note that comparison from fall terms to spring terms is less useful as assessment reports across multiple course level and program level assessments at Florida SouthWestern State College typically exhibit substantial differences from fall to spring term and are better interpreted from fall-to-fall and spring-to-spring (see <http://www.fsw.edu/facultystaff/assessment/history> for further details). Overall distribution exhibits a consistency over time.

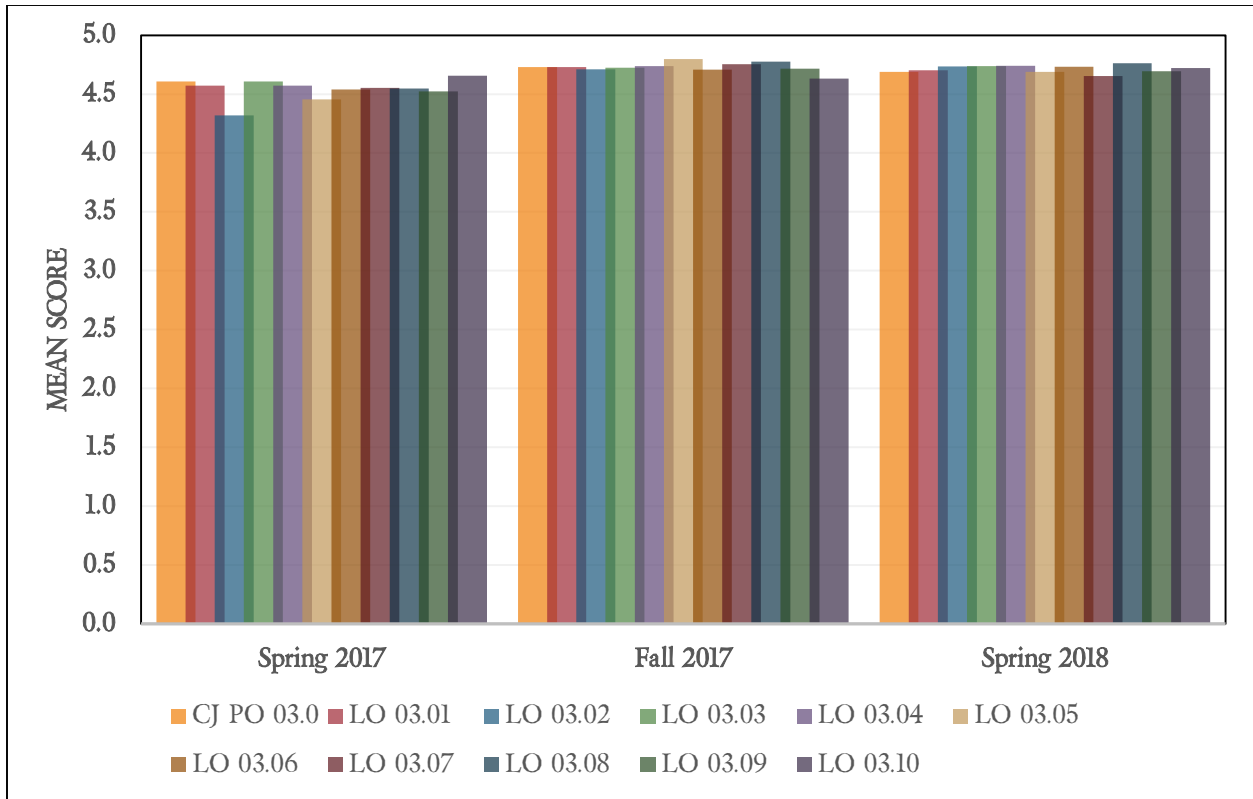


Figure 13. Bar graph of mean score by outcome for CJE 2600 over time.

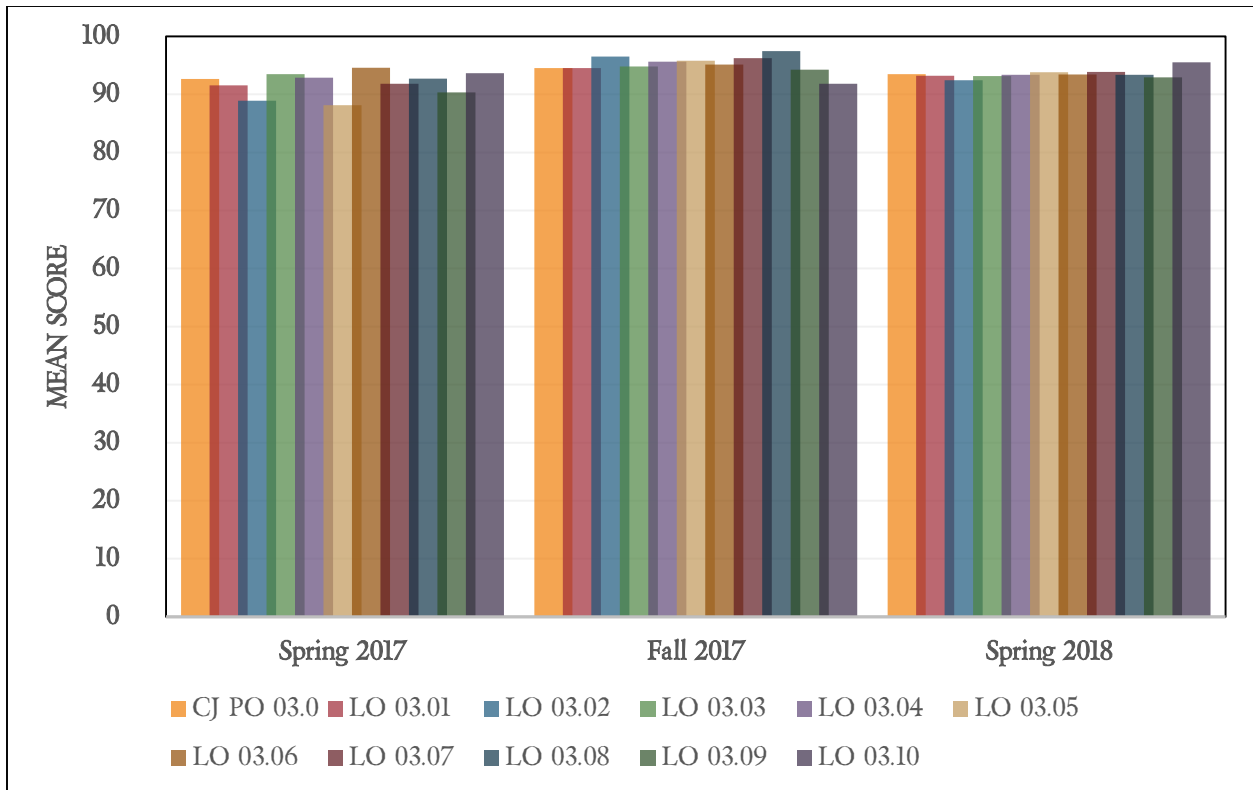


Figure 14. Bar graph of percentage of artifacts scoring '4' or higher by outcome for CJE 2600 over time.

5 CONCLUSIONS

FSW's Business Department gathers a multitude of data from various courses as assessment tools in support of the Florida Department of Education Curriculum Framework. The courses included in assessment are CJE 1300 *Police Organization and Administration*, CJE 1640 *Introduction to Crime Scene Technology*, and CJE 2600 *Criminal Investigation Techniques*. The assessment outcomes are intended to provide a baseline and measurement of achievement moving forward.

5.1 CJE 1300

A drill-down of CJE 1300 results are as follows:

1. In a study of outcome achievement, "the total scores measured (combined total of assignments associated with Learning Outcome or Program Outcome) average '4' or higher and that 80% of artifacts score '4' or better", was met. Outcome mean scores range from 4.2 to 4.6. Outcome percent scoring 80% or higher range from 83% to 98%.
2. In a study comparing online with traditional course sections, the online artifacts mean scores are lower for 8 of 10 outcomes. Percentage of artifacts scoring '4' or higher is lower for online artifacts for 6 of 10 outcomes. The differences are found to be statistically significantly different for PO 5 and LO 05.02.
3. No cross-campus comparison was completed because the only two sites in which courses were offered was Thomas Edison and FSW Online. Results of this comparison are exhibited in #2 above.
4. In a longitudinal study of achievement, no LO exhibits a significant difference from any other over time. A difference is somewhat apparent between fall and spring terms.

5.2 CJE 1640

A drill-down of CJE 1640 results are as follows:

1. In a study of outcome achievement, "the total scores measured (combined total of assignments associated with Learning Outcome or Program Outcome) average '4' or higher and that 80% of artifacts score '4' or better", was met. Outcome mean scores range from 4.1 to 4.7. Outcome percent scoring 80% or higher range from 88% to 94%.
2. No online to traditional study could be completed because while both online and traditional sections of the course were offered in spring 2018, data was not able to be recorded in the traditional section, and so no comparison could be made.
3. No cross-campus comparison was completed because the only two sites in which courses were offered was Thomas Edison and FSW Online. Results of this comparison are exhibited in #2 above.
4. No longitudinal study was completed. As further data is collected in coming terms, this section will track achievement through time and highlight strengths, weaknesses and any long term trends beginning spring 2019.

5.3 CJE 2600

A drill-down of CJE 2600 results are as follows:

1. In a study of outcome achievement, "the total scores measured (combined total of assignments associated with Learning Outcome or Program Outcome) average '4' or higher and that 80% of

artifacts score '4' or better", was met. Outcome mean scores range from 4.7 to 4.8. Outcome percent scoring 80% or higher range from 93% to 96%.

2. In a study comparing online with traditional course sections, the online artifacts mean scores are nearly identical to traditional artifacts. Percentage of artifacts scoring '4' or higher is higher for online artifacts for 8 of 11 outcomes. The differences are found to not be statistically significantly different.
3. No cross-campus comparison was completed because the only two sites in which courses were offered was Thomas Edison and FSW Online. Results of this comparison are exhibited in #2 above.
4. In a longitudinal study of achievement, no LO exhibits a significant difference or trends from any other over time.

6 REFERENCES

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