

# Criminal Investigation/Justice Assessment Report Fall 2018

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## 1 INTRODUCTION

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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*, CJE 2600 *Criminal Investigation Techniques* and CJE 2671 *Latent Fingerprint Development*. 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, Asst. Vice President of Institutional Research, Assessment & Effectiveness, Academic Affairs ([jfvangaalen@fsw.edu](mailto:jfvangaalen@fsw.edu); x16965).

## 2 CJE 1300

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### 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 fall 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 fall 2018 semester, an enrollment of 51 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 4.8 to 4.9. Outcome percent scoring 80% or higher range from 97% to 99%.

Outcomes	# of Assignments Linked to Outcome	n	Mean	% Scoring 4 or Higher
CJ PO 05.0 Summarize law enforcement administration.	29	1055	4.8	99%
CJE 1300 LO 05.01 Appraise the impact of national patrol studies.	11	238	4.9	98%
CJE 1300 LO 05.02 Compare and contrast the various organizational structures of law enforcement agencies.	15	778	4.8	99%
CJE 1300 LO 05.03 Give examples of different departmental recruiting techniques.	5	66	4.8	98%
CJE 1300 LO 05.04 Define the general principles of allocation and deployment of patrol resources.	15	270	4.8	99%
CJE 1300 LO 05.05 Explain the concepts of criminal investigation management and supervision of cases.	6	68	4.8	99%
CJE 1300 LO 05.06 Discuss the importance of specialized units.	14	287	4.8	99%
CJE 1300 LO 05.07 Identify crime prevention techniques.	7	115	4.9	98%
CJE 1300 LO 05.08 Discuss the relevance of Special Operations to the administration of police services.	5	69	4.9	99%
CJE 1300 LO 05.09 Discuss the various technologies utilized by law enforcement agencies.	7	143	4.7	97%

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

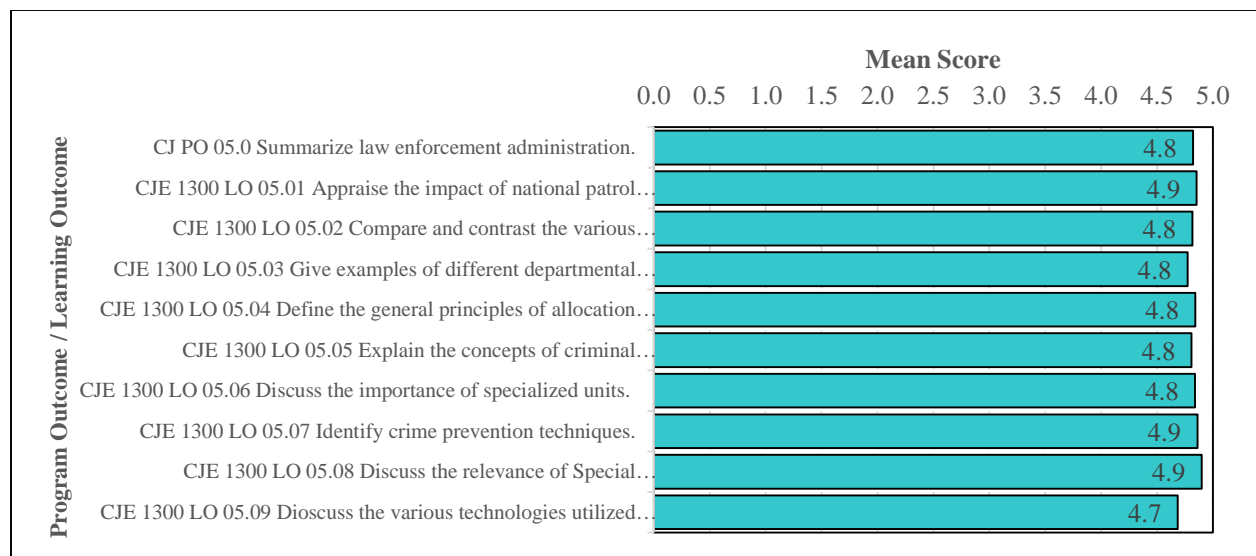


Figure 1. Bar graph of mean score by outcome for CJE 1300.

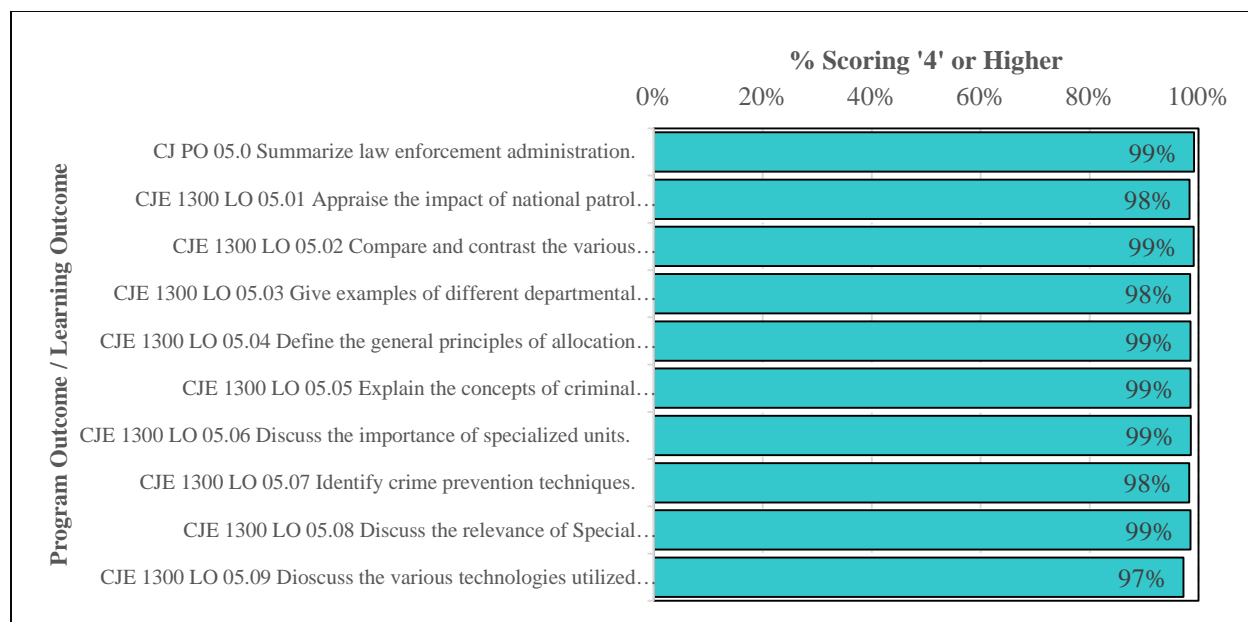


Figure 2. Bar graph of percentage of artifacts scoring '4' or higher by outcome for CJE 1300.

## 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 fall 2018 so no comparison study between dual enrollment and non-dual enrollment could be completed.

### 2.2.2 Online to Traditional Comparison

During the fall 2018 semester, one course section was offered online while another was offered traditionally. For the online section, the number of artifacts scored ranged from 15 to 465. For the traditional section, artifacts ranged from 51 to 590. A comparison of basic statistics is provided in Table 2. Online artifacts mean scores are lower for 10 of 10 outcomes (Figure 3). Percentage of artifacts scoring '4' or higher is lower for online artifacts for 9 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, LO 05.02, LO 05.07, and LO 05.08. 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.	590	<b>4.9</b>	99%	465	<b>4.8</b>	99%
CJE 1300 LO 05.01 Appraise the impact of national patrol studies.	223	4.9	99%	15	4.5	93%
CJE 1300 LO 05.02 Compare and contrast the various organizational structures of law enforcement agencies.	313	<b>4.9</b>	100%	465	<b>4.8</b>	99%
CJE 1300 LO 05.03 Give examples of different departmental recruiting techniques.	51	4.8	100%	15	4.5	93%
CJE 1300 LO 05.04 Define the general principles of allocation and deployment of patrol resources.	255	4.9	99%	15	4.5	93%
CJE 1300 LO 05.05 Explain the concepts of criminal investigation management and supervision of cases.	53	4.9	100%	15	4.5	93%
CJE 1300 LO 05.06 Discuss the importance of specialized units.	272	4.9	99%	15	4.5	93%
CJE 1300 LO 05.07 Identify crime prevention techniques.	100	<b>4.9</b>	99%	15	<b>4.5</b>	93%
CJE 1300 LO 05.08 Discuss the relevance of Special Operations to the administration of police services.	54	<b>5.0</b>	100%	15	<b>4.5</b>	93%
CJE 1300 LO 05.09 Discuss the various technologies utilized by law enforcement agencies.	128	4.7	98%	15	4.5	93%

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**.

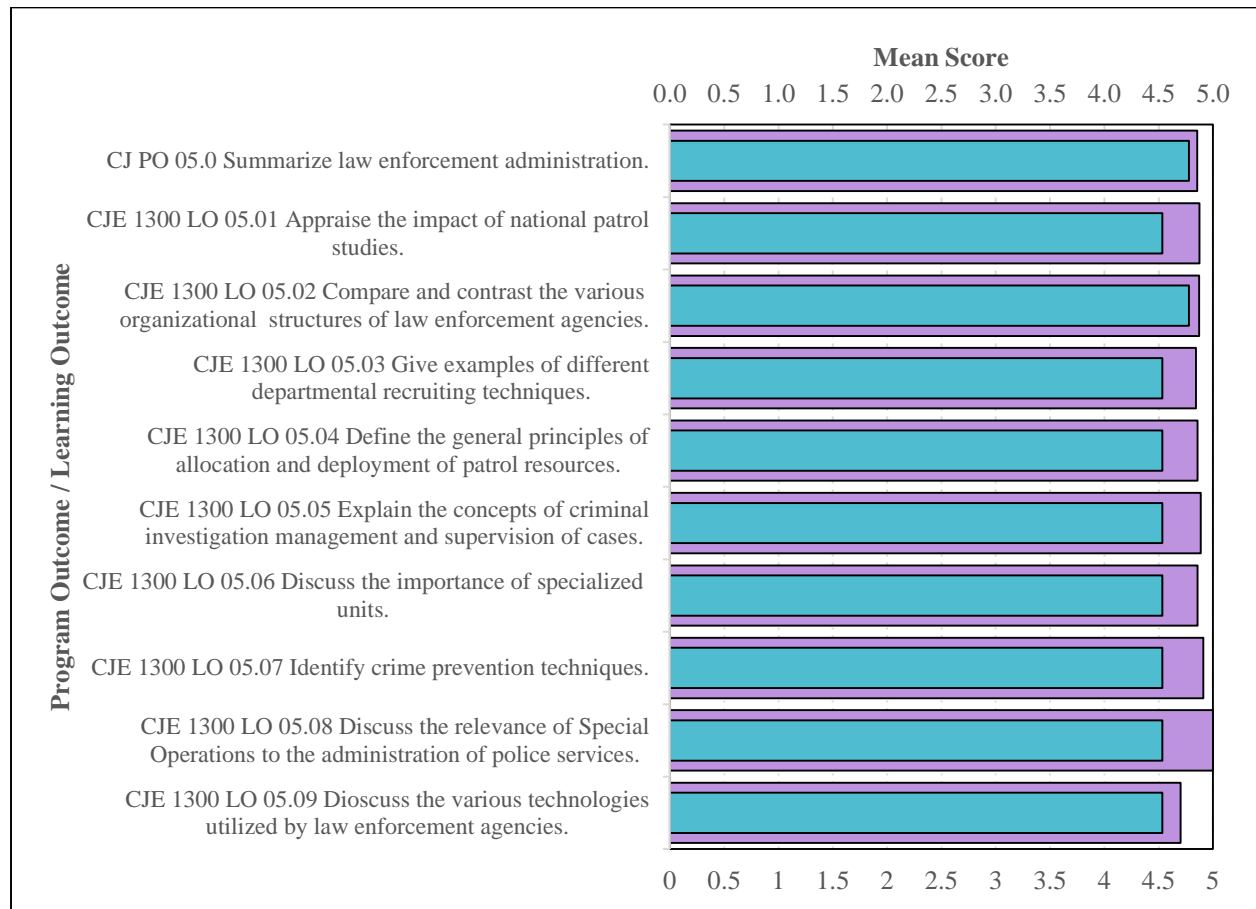


Figure 3. Comparison of mean scores by modality with Traditional (purple) and Online (aqua).

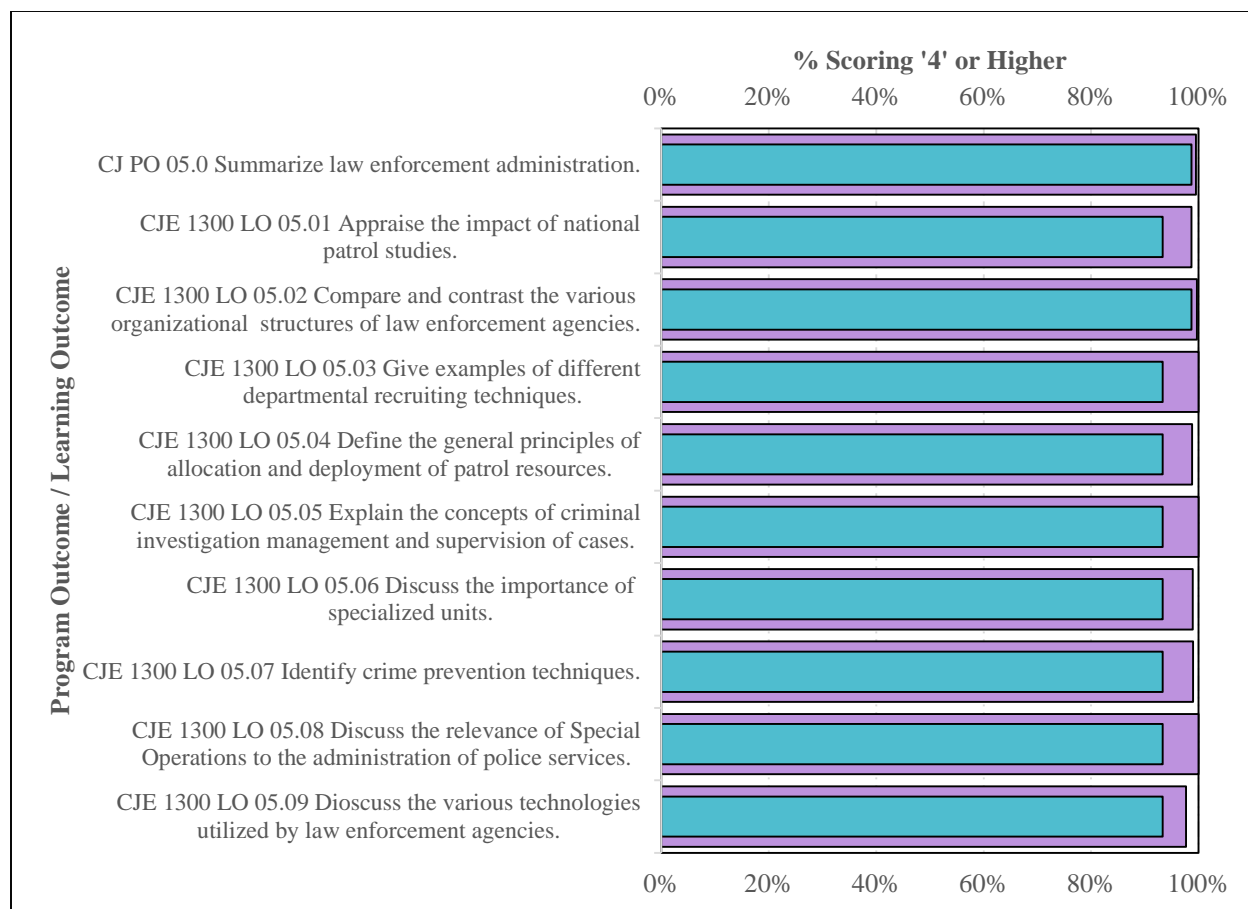


Figure 4. Comparison of percentage of artifacts scoring '4' or higher by modality with Traditional (purple) and Online (aqua).

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 12% to 43%.

### 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. All LOs exhibit a jump in scores in the most recent term. 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 until the most recent term.

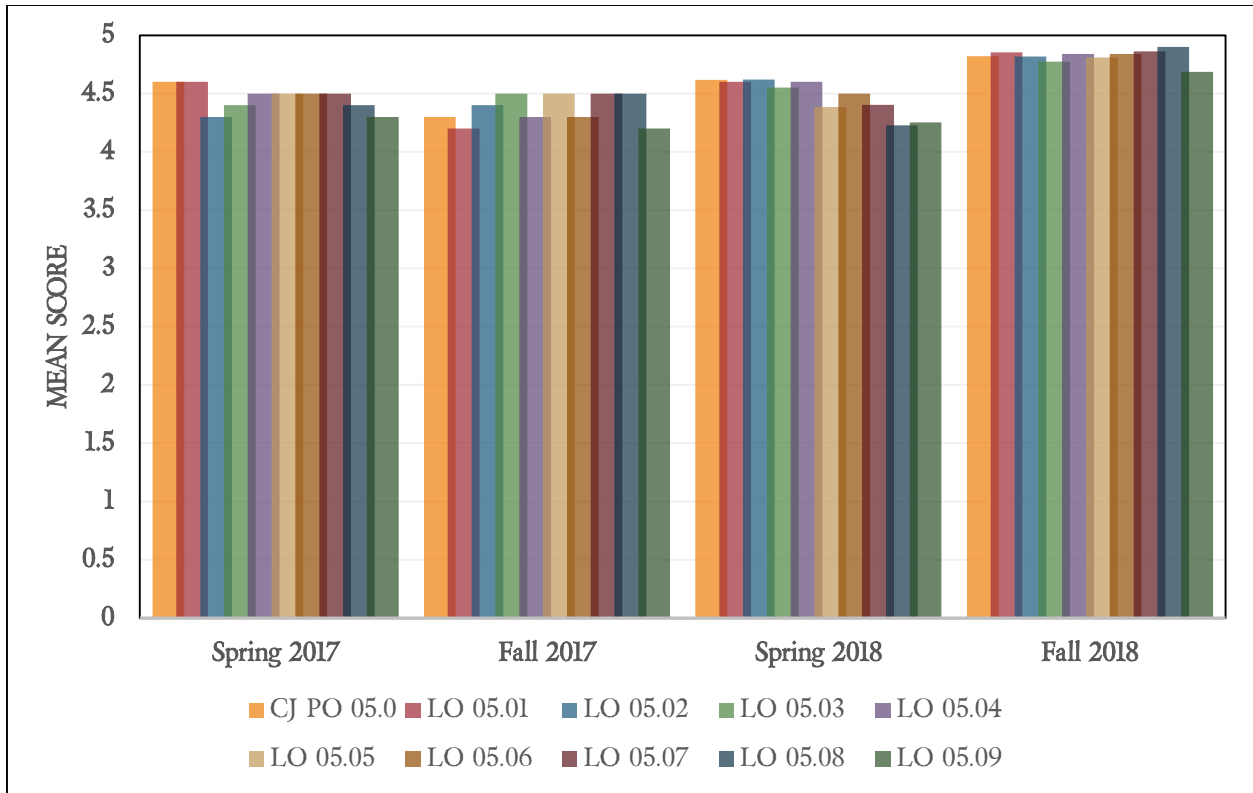


Figure 5. Bar graph of mean score by outcome for CJE 1300 over time

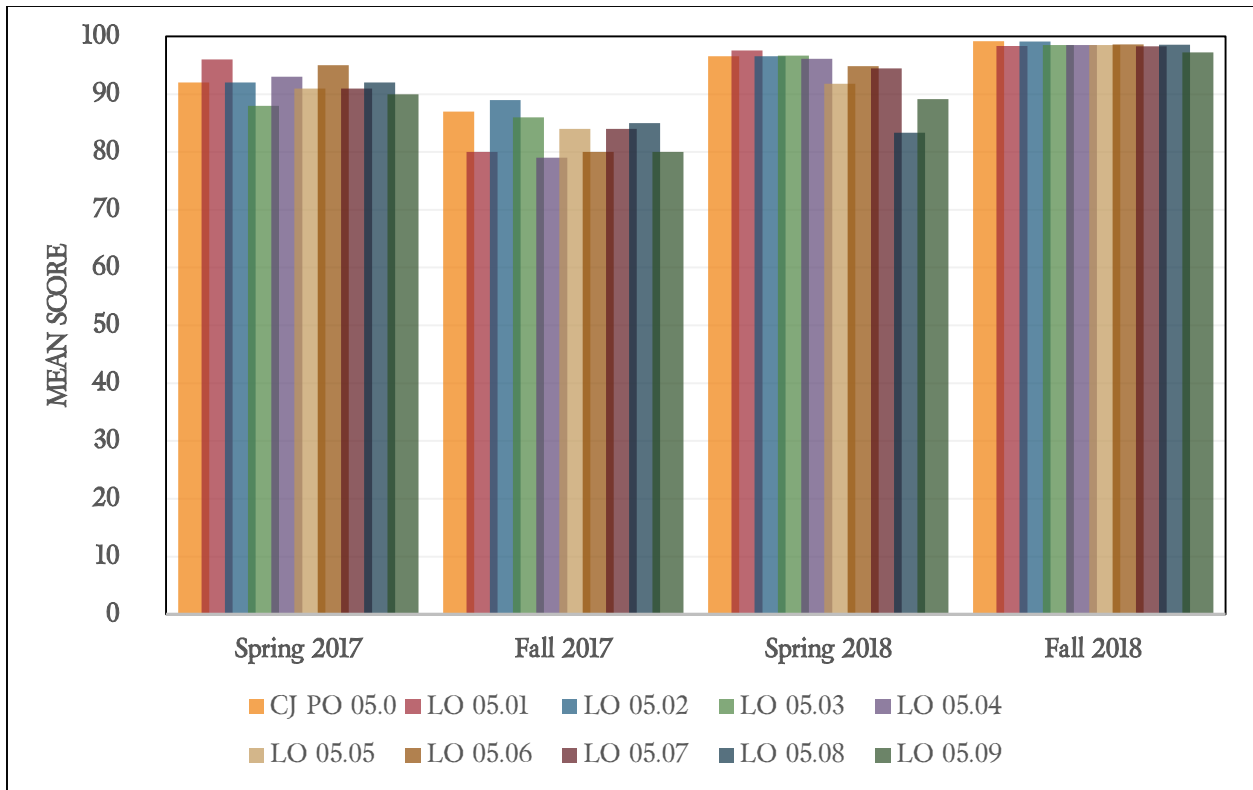


Figure 6. Bar graph of percentage of artifacts scoring '4' or higher by outcome for CJE 1300 over time.

## 3 CJE 1640

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### 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 fall 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 fall 2018 semester, an enrollment of 80 contributed, in part, to scores tallied from 1 of 3 sections of CJE 1640. The remaining two sections were incorrectly mapped to other criminal justice course outcomes and so no data was collected. 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 partially met. Outcome mean scores range from 4.0 to 4.7. Outcome percent scoring 80% or higher range from 74% to 94%. Note that no assignments were mapped to PO 02 in any of the courses and so no data was collected.

<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.	9395	4.6	92%
CJE 1640 LO 02.01 Demonstrate knowledge of the methodology used in crime scene recording and classifying physical evidence.	177	4.6	90%
CJE 1640 LO 02.02 Demonstrate abilities and skills needed in applying basic principles of crime scene investigation.	381	4.8	94%
CJE 1640 LO 02.03 Develop an understanding of the concepts of crime scene procedures.	299	4.7	94%
CJE 1640 LO 02.04 Demonstrate knowledge and skill in specialized crime scene procedures.	273	4.7	93%
CJE 1640 LO 02.05 Demonstrate ability to prepare crime scene related documents.	127	4.7	92%
CJE 1640 LO 02.06 Demonstrate ability to coordinate a crime scene investigation with other investigative personnel agencies.	123	4.6	91%
CJE 1640 LO 02.07 Demonstrate knowledge of the capabilities of a full service crime lab.	76	4.6	89%
CJE 1640 LO 02.08 Demonstrate knowledge of the chain of custody of evidence and submission protocols.	177	4.6	92%
CJE 1640 LO 02.09 Demonstrate knowledge of appropriate comparison standards.	77	4.5	87%
CJE 1640 LO 02.10 Demonstrate knowledge of the testing of biological evidence.	27	4.0	74%
CJE 1640 LO 02.11 Demonstrate knowledge of the collection methods of biological evidence.	27	4.0	74%
CJE 1640 LO 02.12 Demonstrate knowledge of the understanding of autopsy evidence collection.	27	4.0	74%
CJE 1640 LO 02.13 Demonstrate ability to determine appropriate collection, preserving, marking, and packaging methods of crime scene evidence.	227	4.7	92%

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



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



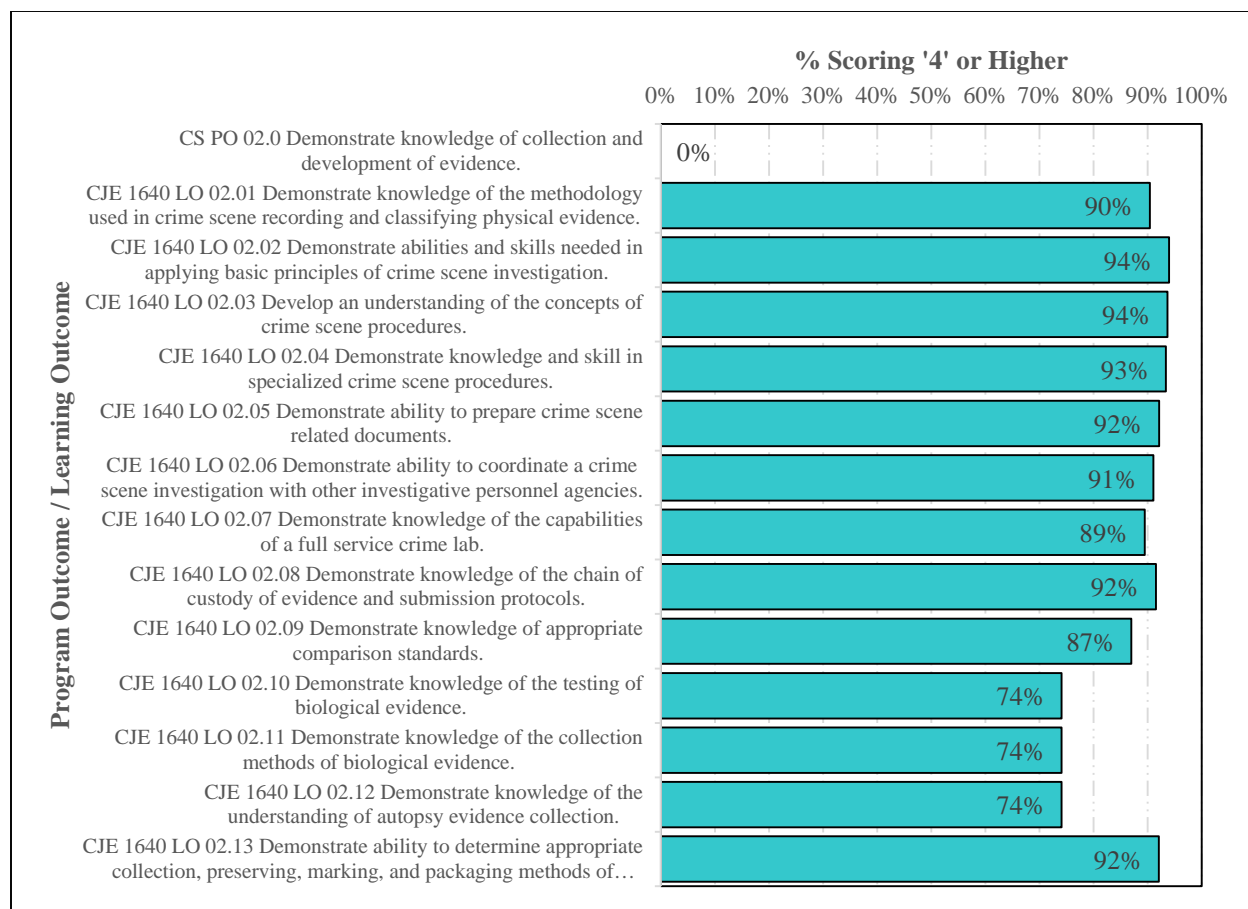


Figure 8. Bar graph of percentage of artifacts scoring '4' or higher by outcome for CJE 1640.

### 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 fall 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 fall 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 with spring 2019 data.

## 4 CJE 2600

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### 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 fall 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 fall 2018 semester, an enrollment of 45 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 4.6 to 4.6. Outcome percent scoring 80% or higher range from 90% to 94%.

<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	1105	4.6	93%
CJE 2600 LO 03.01 Explain investigative techniques used in solving crimes.	28	1104	4.6	93%
CJE 2600 LO 03.02 Explain general criminal laboratory techniques.	5	188	4.6	94%
CJE 2600 LO 03.03 Explain the necessity for and the methods of marking and preserving evidence.	15	573	4.6	94%
CJE 2600 LO 03.04 Discuss the necessity for and importance of crime scene protection.	12	509	4.6	94%
CJE 2600 LO 03.05 Discuss the importance of evidence to court proceedings following arrest.	8	290	4.6	90%
CJE 2600 LO 03.06 Identify various types of investigative technology.	7	264	4.6	93%
CJE 2600 LO 03.07 Describe the steps of a preliminary investigation.	4	131	4.6	91%
CJE 2600 LO 03.08 Demonstrate ability to draw a simple crime scene sketch.	11	417	4.6	94%
CJE 2600 LO 03.09 Discuss principles of proper interrogation techniques.	22	885	4.6	93%
CJE 2600 LO 03.10 Explain the importance of police records to the investigative process.	5	161	4.6	91%

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

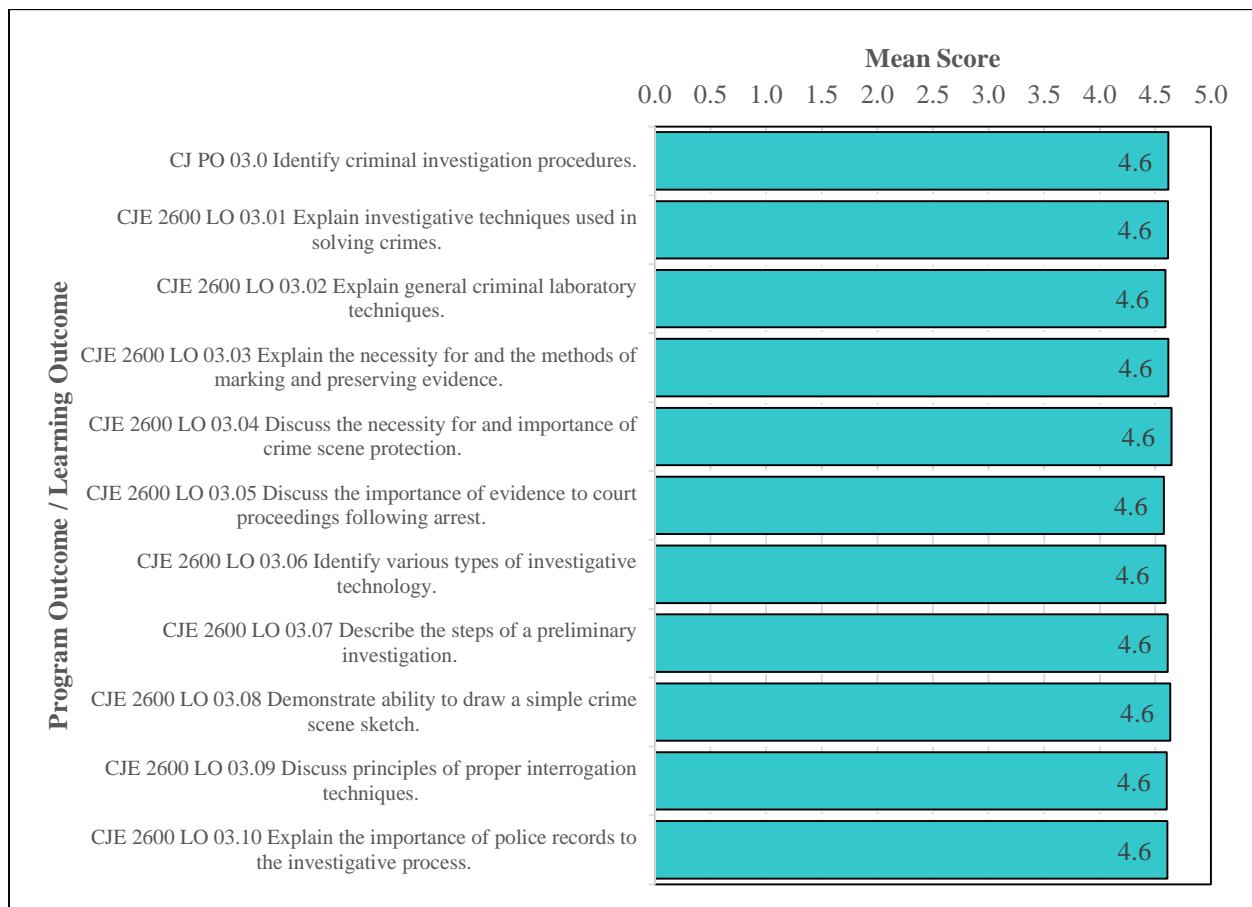


Figure 9. Bar graph of mean score by outcome for CJE 2600.



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 fall 2018 so no comparison study between dual enrollment and non-dual enrollment could be completed.

### 4.2.2 Online to Traditional Comparison

During the fall 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 40 to 389. For the traditional section, artifacts ranged from 91 to 716. 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 lower for online artifacts for 11 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 be statistically significantly different in all outcomes. Therefore, we can 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			Online		
	n	Mean	% Scoring 4 or Higher	n	Mean	% Scoring 4 or Higher
CJ PO 03.0 Identify criminal investigation procedures.	716	<b>4.7</b>	94%	389	<b>4.5</b>	91%
CJE 2600 LO 03.01 Explain investigative techniques used in solving crimes.	715	<b>4.7</b>	94%	389	<b>4.5</b>	91%
CJE 2600 LO 03.02 Explain general criminal laboratory techniques.	131	<b>4.8</b>	96%	57	<b>4.1</b>	88%
CJE 2600 LO 03.03 Explain the necessity for and the methods of marking and preserving evidence.	399	<b>4.7</b>	95%	174	<b>4.3</b>	91%
CJE 2600 LO 03.04 Discuss the necessity for and importance of crime scene protection.	348	<b>4.8</b>	96%	161	<b>4.3</b>	91%
CJE 2600 LO 03.05 Discuss the importance of evidence to court proceedings following arrest.	196	<b>4.7</b>	92%	94	<b>4.4</b>	87%
CJE 2600 LO 03.06 Identify various types of investigative technology.	178	<b>4.7</b>	95%	86	<b>4.3</b>	90%
CJE 2600 LO 03.07 Describe the steps of a preliminary investigation.	91	<b>4.8</b>	95%	40	<b>4.3</b>	83%
CJE 2600 LO 03.08 Demonstrate ability to draw a simple crime scene sketch.	280	<b>4.8</b>	96%	137	<b>4.4</b>	89%
CJE 2600 LO 03.09 Discuss principles of proper interrogation techniques.	580	<b>4.7</b>	94%	305	<b>4.5</b>	91%
CJE 2600 LO 03.10 Explain the importance of police records to the investigative process.	118	<b>4.7</b>	94%	43	<b>4.3</b>	84%

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**.

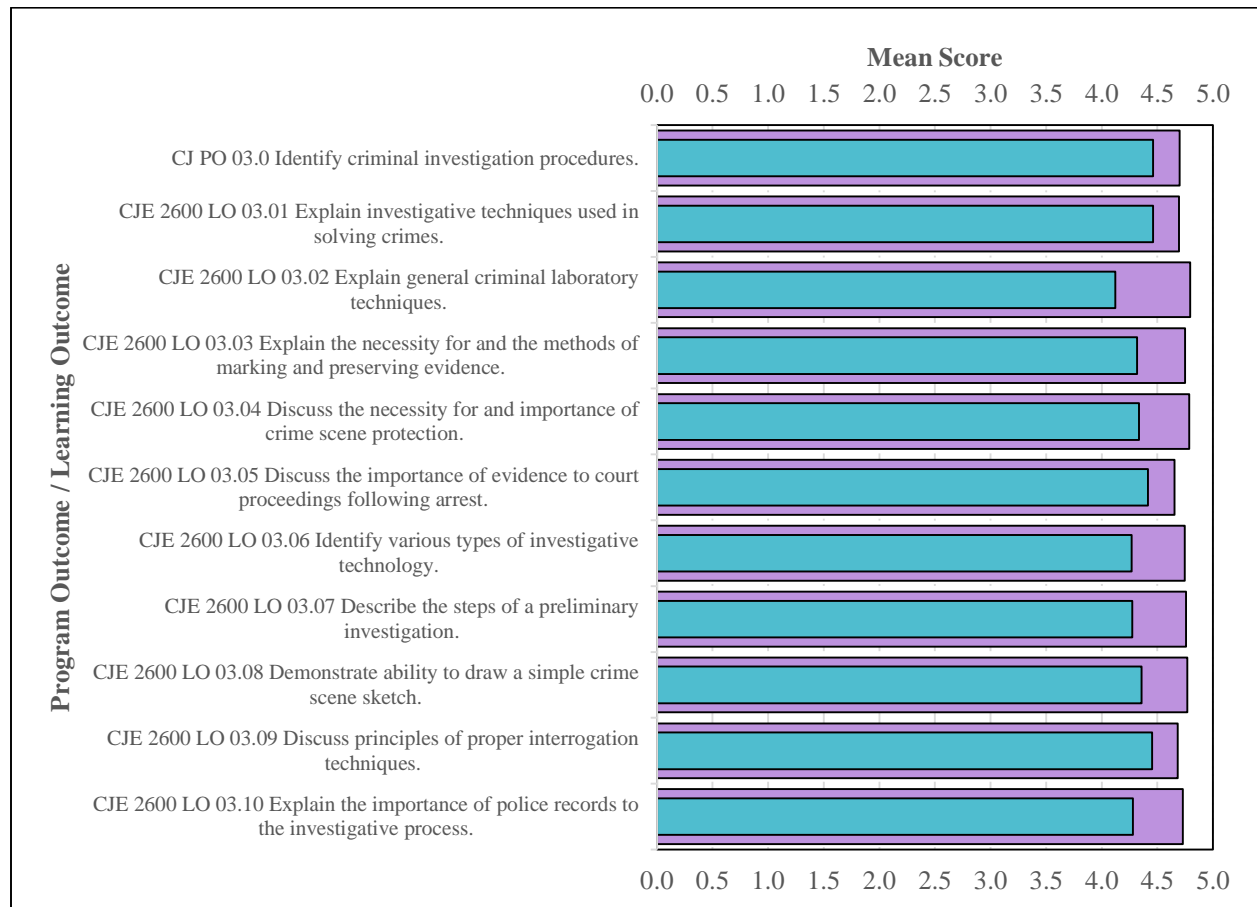


Figure 11. Comparison of mean scores by modality with Traditional (purple) and Online (aqua).

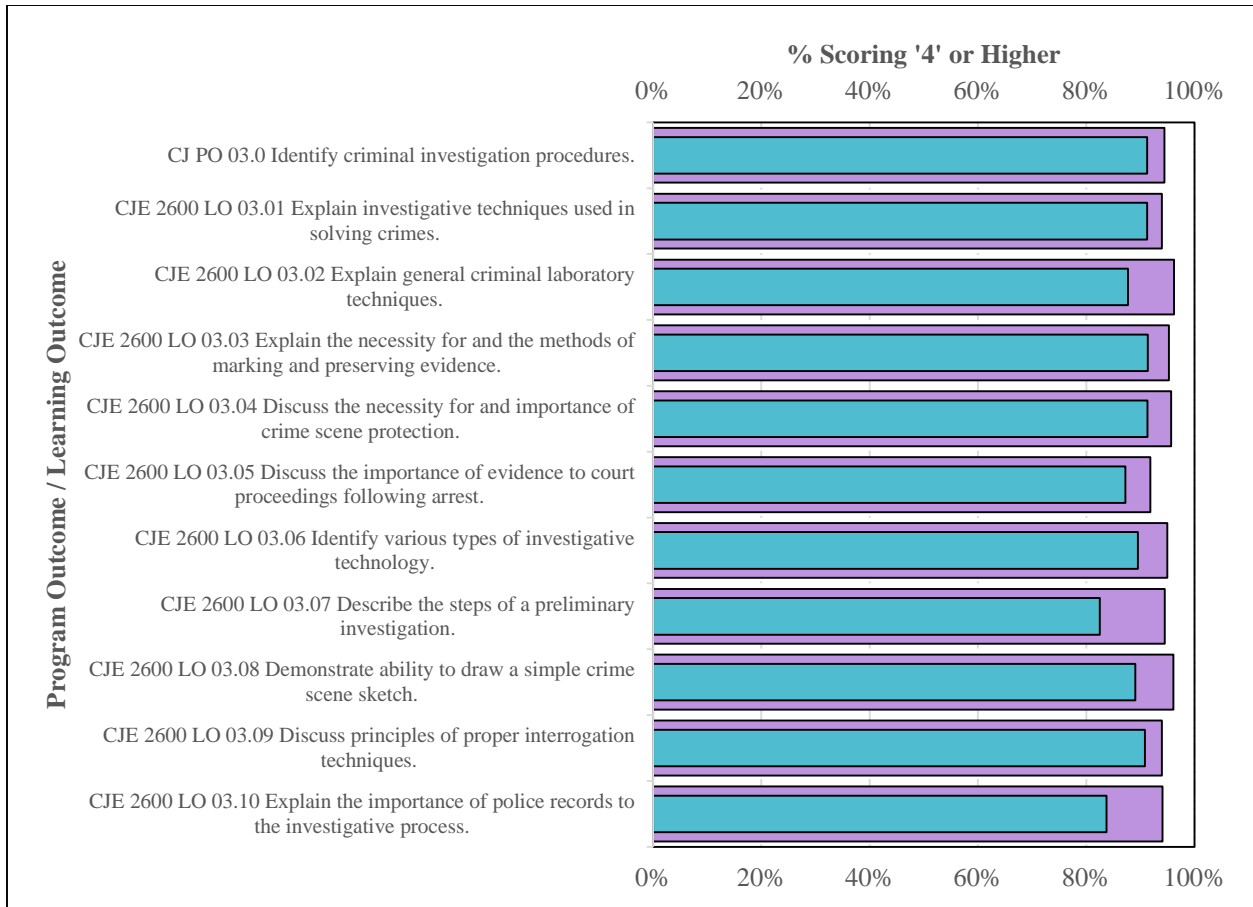


Figure 12. Comparison of percentage of artifacts scoring '4' or higher by modality with Traditional (purple) and Online (aqua).

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-to-large effect sizes. In other words, non-overlap score distribution from online artifacts to traditional artifacts range from approximately 17% to 46%.

#### 4.2.3 Comparison by Campus/Site

Of the artifacts collected from CJE 2600, a range of 41-325 originated from the Collier campus, 40-389 from FSW Online, and 50-391 from the Thomas Edison (Lee) campus. A comparison of mean scores is provided in Table 6. The Thomas Edison (Lee) campus exhibits the highest mean scores in 8 of 11 outcomes. The Collier campus exhibits the highest mean in the remaining 3 of 11 outcomes. In terms of percentage scoring 4 or higher, the Collier campus exhibits the highest in 10 of 11 outcomes. The Thomas Edison (Lee) campus exhibits the highest in the remaining 1 of 11 outcomes. A comparison of mean scores is also shown in Figure 13.

Outcomes	Collier			FSW Online			Thomas Edison (Lee)		
	n	Mean	% Scoring 4 or Higher	n	Mean	% Scoring 4 or Higher	n	Mean	% Scoring 4 or Higher
CJ PO 03.0	325	4.6	<b>95%</b>	389	4.5	91%	391	<b>4.8</b>	94%
CJE 2600 LO 03.01	325	4.6	<b>95%</b>	389	4.5	91%	390	<b>4.7</b>	93%
CJE 2600 LO 03.02	62	4.8	<b>97%</b>	57	4.1	88%	69	<b>4.8</b>	96%
CJE 2600 LO 03.03	175	4.7	<b>97%</b>	174	4.3	91%	224	<b>4.8</b>	94%
CJE 2600 LO 03.04	153	<b>4.8</b>	<b>98%</b>	161	4.3	91%	195	4.8	94%
CJE 2600 LO 03.05	85	4.6	<b>94%</b>	94	4.4	87%	111	<b>4.7</b>	90%
CJE 2600 LO 03.06	84	4.7	<b>95%</b>	86	4.3	90%	94	<b>4.8</b>	95%
CJE 2600 LO 03.07	41	<b>4.8</b>	<b>98%</b>	40	4.3	83%	50	4.7	92%
CJE 2600 LO 03.08	131	<b>4.8</b>	<b>98%</b>	137	4.4	89%	149	4.7	94%
CJE 2600 LO 03.09	261	4.6	<b>95%</b>	305	4.5	91%	319	<b>4.8</b>	93%
CJE 2600 LO 03.10	44	4.6	93%	43	4.3	84%	74	<b>4.8</b>	<b>95%</b>

Table 6. Comparison of sample size, mean scores, and % scoring 4 or higher by site. Bold denotes highest among all sites for both mean scores and % 4 or higher.

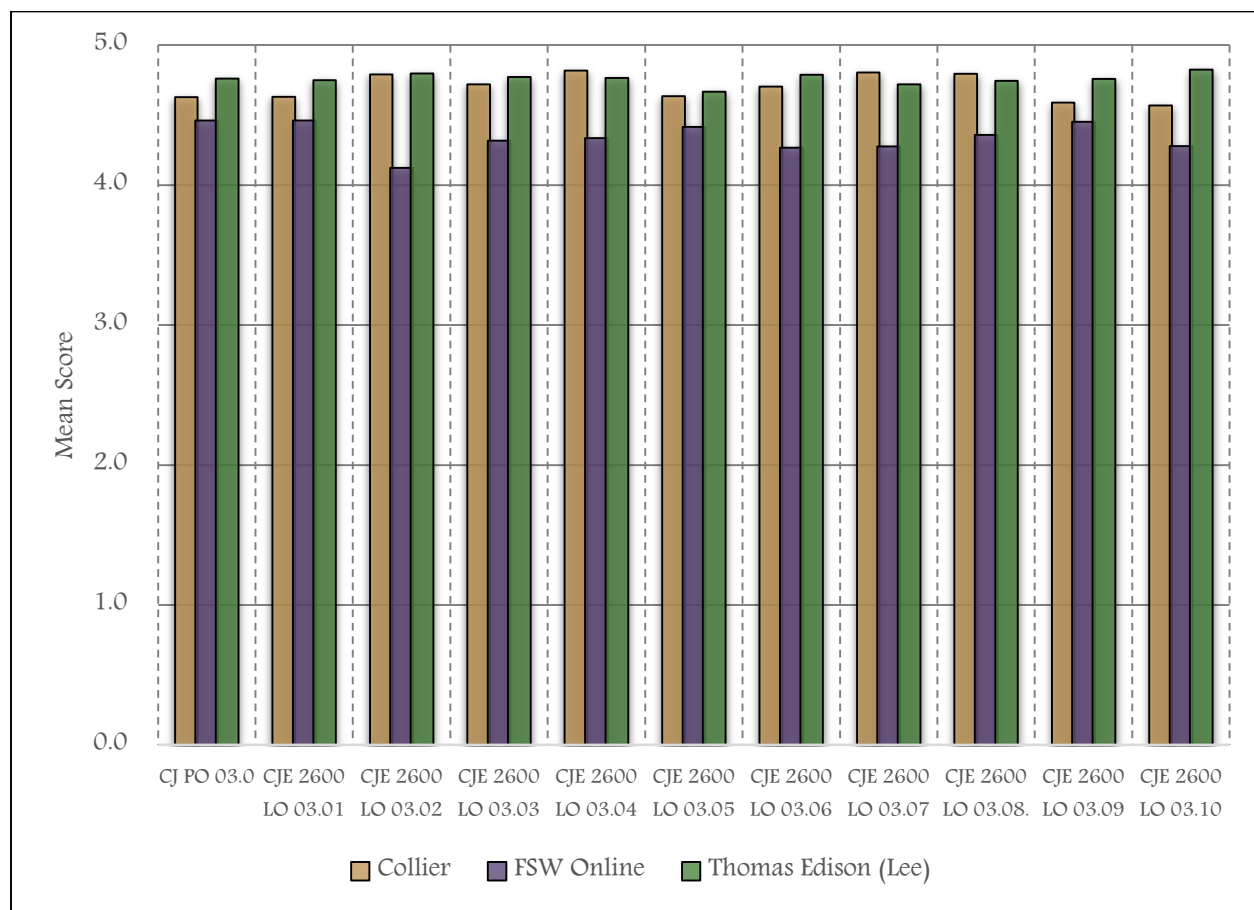


Figure 13. Comparison of mean scores by site for CJE 2600.

### 4.3 LONGITUDINAL STUDY

Description of achievement over time in CJE 2600 is provided in Figures 14 and 15. 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). Over time, only LO 03.03 and LO 03.05 exhibit percentages less than 90%, each just once.

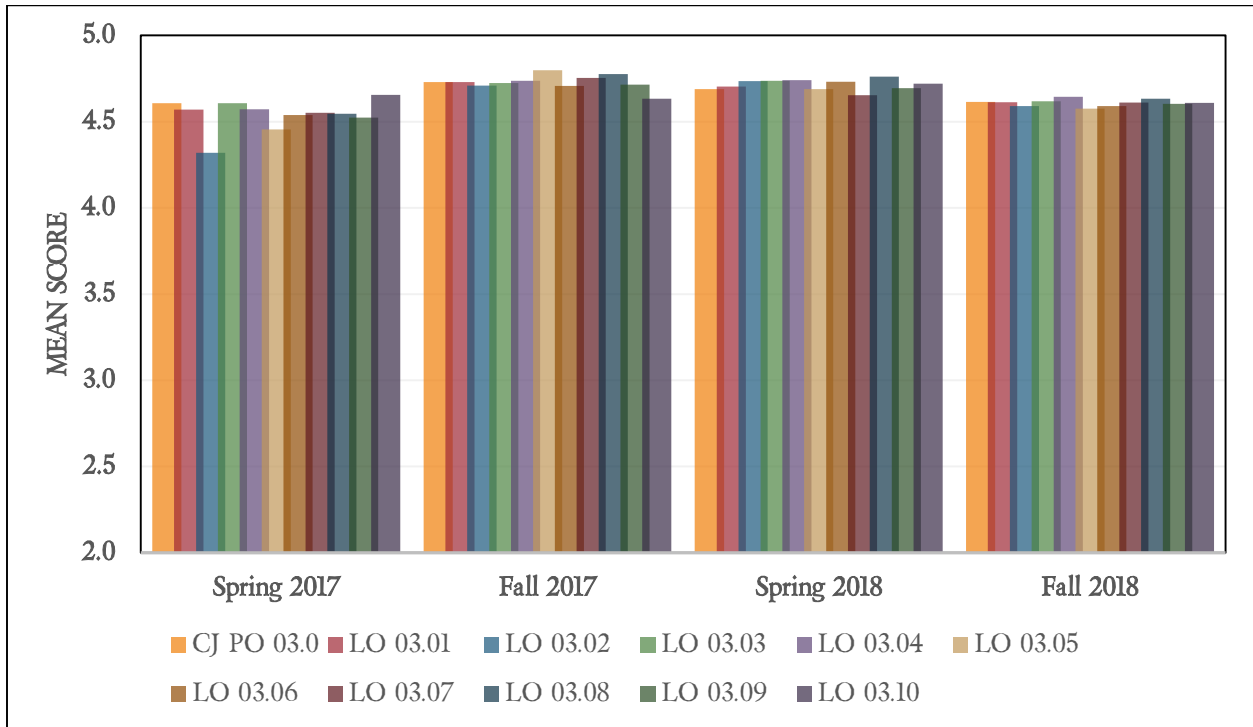


Figure 14. Bar graph of mean score by outcome for CJE 2600 over time.

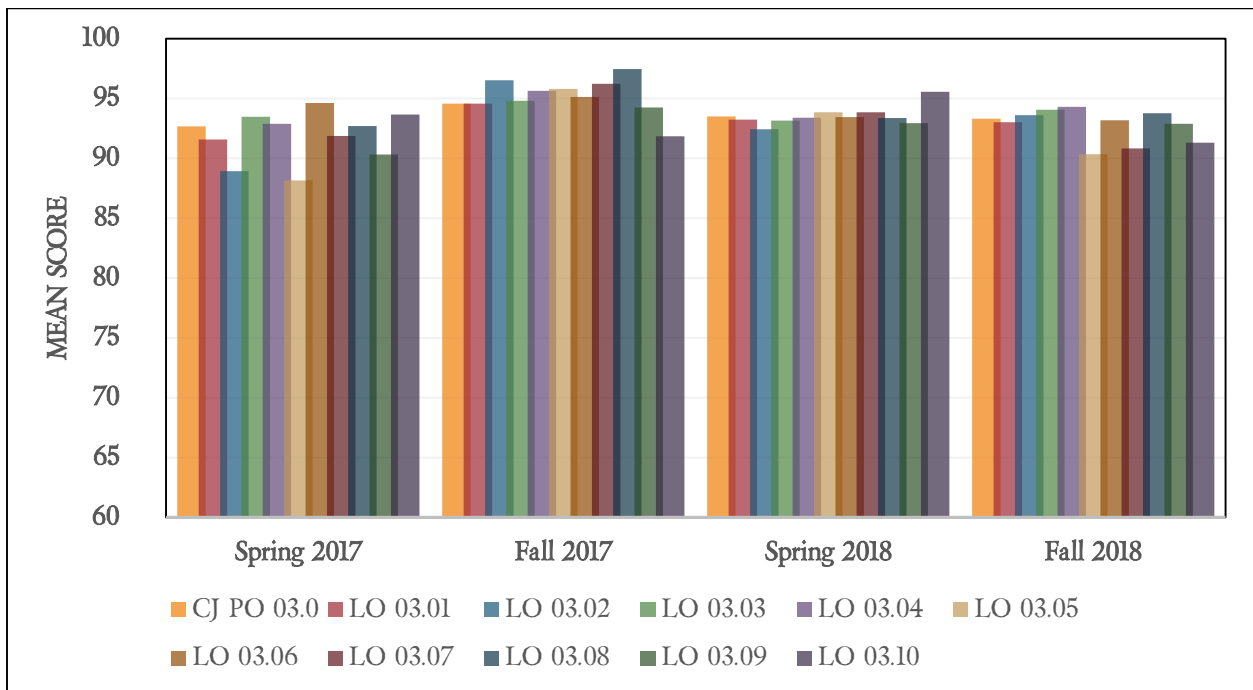


Figure 15. Bar graph of percentage of artifacts scoring '4' or higher by outcome for CJE 2600 over time.



## 5 CJE 2671

### 5.1 LEARNING OBJECTIVES AND DESCRIPTIVE STATISTICS

The FSW Business faculty defined one area of interest for evaluation in support of the state framework. The outcomes related to CJE 2671 are:

- CS PO 02.0 Demonstrate knowledge of collection and development of evidence.
- CS PO 03.0 Demonstrate knowledge of fingerprint development and preservation.
- CJE 2671 LO 03.01 Demonstrate knowledge of the techniques involved in the detection, enhancement, and recovery of latent fingerprints.
- CJE 2671 LO 03.02 Demonstrate appropriate application of processing techniques.
- CJE 2671 LO 03.05 Demonstrate ability to roll standard prints.

The measure of success related to CJE 2671 is:

- 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 fall 2018 semester, an enrollment of 29 contributed to scores tallied from 2 of 2 sections of CJE 2671. Descriptive statistics for achievement of outcomes are shown in Table 7. The graphical representation of mean scores is shown in Figure 16 and percentage of artifacts scoring ‘4’ or higher is shown in Figure 17. 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 4.3 to 5.0. Outcome percent scoring 80% or higher range from 98% to 100%.

Outcomes	n	Mean	% Scoring 4 or Higher
CS PO 02.0 Demonstrate knowledge of collection and development of evidence.	27	4.3	100%
CS PO 03.0 Demonstrate knowledge of fingerprint development and preservation.	556	4.9	98%
CJE 2671 LO 03.01 Demonstrate knowledge of the techniques involved in the detection, enhancement, and recovery of latent fingerprints.	225	4.9	99%
CJE 2671 LO 03.02 Demonstrate appropriate application of processing techniques.	217	4.9	98%
CJE 2671 LO 03.05 Demonstrate ability to roll standard prints.	38	5.0	100%

Table 7. Student achievement level by Outcome for CJE 2671.

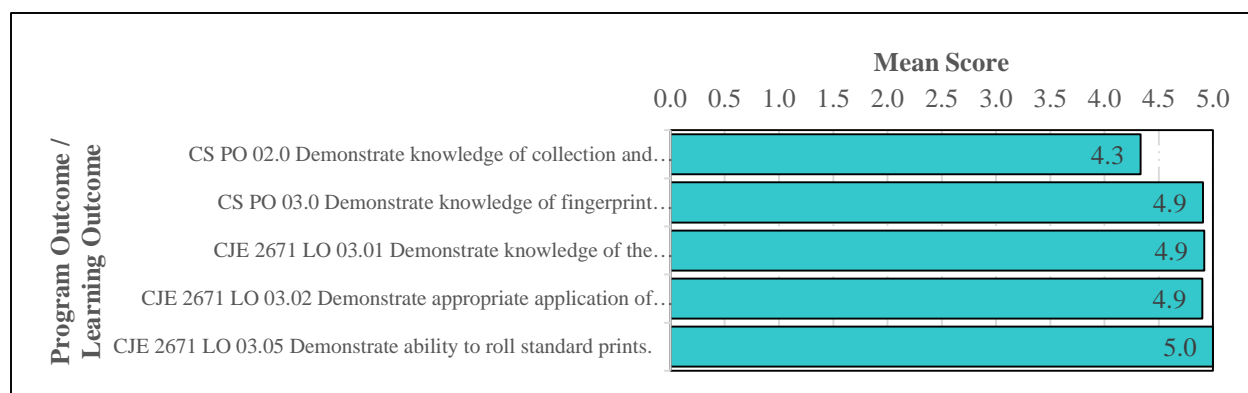


Figure 16. Bar graph of mean score by outcome for CJE 2671.

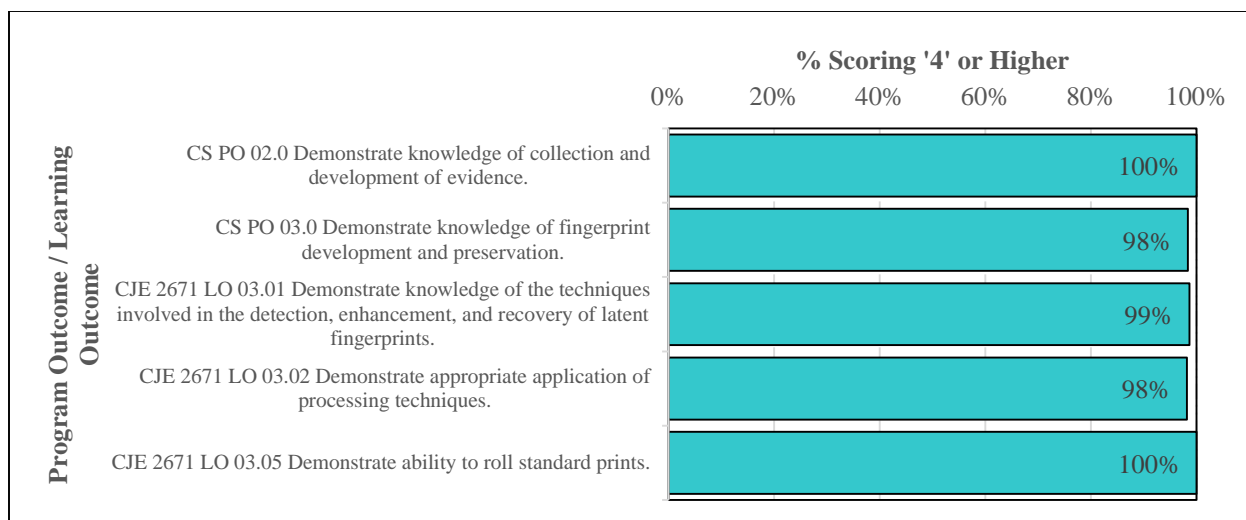


Figure 17. Bar graph of percentage of artifacts scoring '4' or higher by outcome for CJE 2671.

## 5.2 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.

### 5.2.1 Dual Enrollment to Non-Dual Enrollment Comparison

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

### 5.2.2 Online to Traditional Comparison

No online sections of the course were run during the fall 2018 semester and so no comparison of online to traditional sections could be completed.

### 5.2.3 Comparison by Campus/Site

While two sections of the course were offered, both were run on the same site (Thomas Edison) so no cross-campus comparison could be completed.

## 5.3 LONGITUDINAL STUDY

Description of achievement over time in CJE 2671 by mean scores for each outcome is shown in Figure 18 below. Results exhibit similar scores over time. Program Outcome 02.0 consistently is the lowest scoring at 4.4 and 4.3 in the most recent two years. By comparison, the other outcomes range from 4.8 to 5.0.

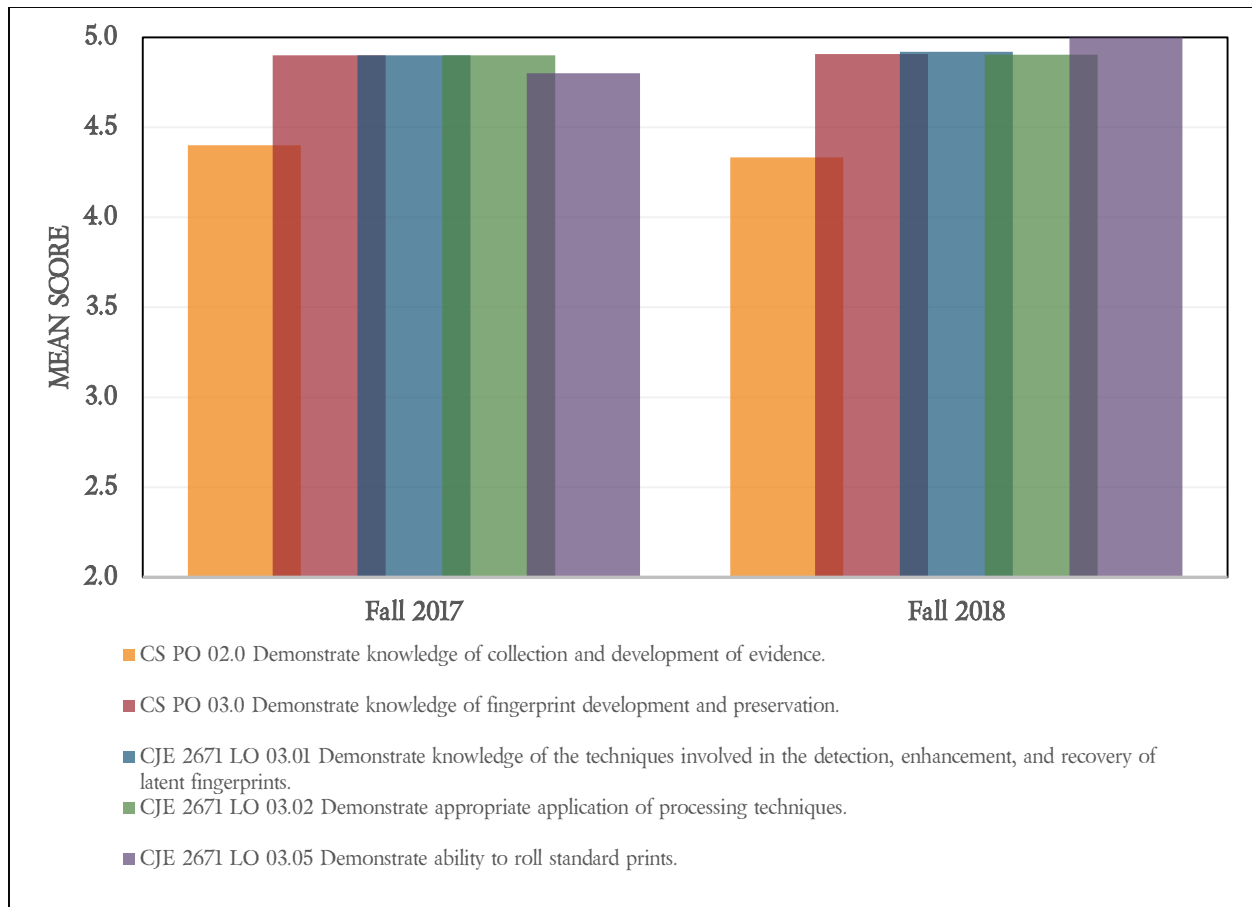


Figure 18. Comparison of CJE 2671 outcome mean scores over time beginning Fall 2018.

## 6 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*, CJE 2600 *Criminal Investigation Techniques* and CJE 2671 *Latent Fingerprint Development*. The assessment outcomes are intended to provide a baseline and measurement of achievement moving forward.

### 6.1 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 4.8 to 4.9. Outcome percent scoring 80% or higher range from 97% to 99%.
2. In a study comparing online with traditional course sections, the online artifacts mean scores are lower for 10 of 10 outcomes. Percentage of artifacts scoring '4' or higher is lower for online

artifacts for 9 of 10 outcomes. The differences are found to be statistically significantly different for PO 5, LO 05.02, LO 05.07, and LO 05.08.

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, all LOs exhibit a jump in scores in the most recent term.

## 6.2 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 partially met. Outcome mean scores range from 4.0 to 4.7. Outcome percent scoring 80% or higher range from 74% to 94%. Note that no assignments were mapped to PO 02 in any of the courses and so no data was collected.
2. No online to traditional study could be completed because while both online and traditional sections of the course were offered in fall 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 with spring 2019 data.

## 6.3 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 4.6 to 4.6. Outcome percent scoring 80% or higher range from 90% to 94%.
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 lower for online artifacts for 11 of 11 outcomes. The differences are found to be statistically significantly different in all outcomes.
3. In a comparison across sites, the Thomas Edison (Lee) campus exhibits the highest mean scores in 8 of 11 outcomes. The Collier campus exhibits the highest mean in the remaining 3 of 11 outcomes. In terms of percentage scoring 4 or higher, the Collier campus exhibits the highest in 10 of 11 outcomes. The Thomas Edison (Lee) campus exhibits the highest in the remaining 1 of 11 outcomes.
4. In a longitudinal study of achievement, no LO exhibits a significant difference or trends from any other over time. Over time, only LO 03.03 and LO 03.05 exhibit percentages less than 90%, each just once.

## 6.4 CJE 2671

A drill-down of CJE 2671 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 4.3 to 5.0. Outcome percent scoring 80% or higher range from 98% to 100%.
2. No online sections of the course were run during the fall 2018 semester and so no comparison of online to traditional sections could be completed.
3. While two sections of the course were offered, both were run on the same site (Thomas Edison) so no cross-campus comparison could be completed.
4. In a longitudinal study of achievement, results exhibit similar scores over time. Program Outcome 02.0 consistently is the lowest scoring at 4.4 and 4.3 in the most recent two years. By comparison, the other outcomes range from 4.8 to 5.0.

## 7 REFERENCES

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