# Introduction to Computer Forensics Assessment Report
## Spring 2017
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# 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. One of the courses included in assessment is CGS 2135 *Introduction to Computer Forensics*. 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, Director of Academic Assessment, Academic Affairs (jfvangaalen@fsw.edu; x16965).

# 2 CGS 2135

## 2.1 LEARNING OBJECTIVES AND DESCRIPTIVE STATISTICS
The FSW Business faculty defined one areas of interest for evaluation in support of the state framework. The SLO and the measure of success related to CGS 2135 is:

➢ SLO 1 – Students will be assessed using common course lab exercises and exams. (Note that no achievement goal or outcome has been specified.)

During the spring 2017 semester, 152 individual lab rubric scores, three midterm examination scores (grade), and two final examination scores (grade) were tallied from 1 of 1 sections of CGS 2135. The rubric used for the laboratories is shown in Table 1. Descriptive statistics for laboratories are shown in Table 2 below. Descriptive statistics for midterm and final exams are shown in Table 3.

| Dimension | Achievement Level | | | | |
|---|---|---|---|---|---|
| **Understanding** | Exemplary 25 pts | Meets Expectations 20 pts | Developing 15 pts | Novice 10 pts | Not Acceptable 0 pts |
| **Planning and Execution** | Exemplary 25 pts | Meets Expectations 20 pts | Developing 15 pts | Novice 10 pts | Not Acceptable 0 pts |
| **Communication** | Exemplary 25 pts | Meets Expectations 20 pts | Developing 15 pts | Novice 10 pts | Not Acceptable 0 pts |
| **Persistence** | Exemplary 25 pts | Meets Expectations 20 pts | Developing 15 pts | Novice 10 pts | Not Acceptable 0 pts |
| **Demonstrate how to acquire electronic evidence (D1)** | Exceeds Expectations 5 pts | | Meets Expectations 3.0 pts | | Docs Not Meet Expectations 0 pts |
| **Demonstrate how to recover deleted data (D2)** | Exceeds Expectations 5 pts | | Meets Expectations 3.0 pts | | Docs Not Meet Expectations 0 pts |

*Table 1. Rubric used for laboratories in CGS 2135.*

|  | % Meets Expectations | Mean | n |
|---|---|---|---|
| Understanding | 41% | 11.9 | 27 |
| Planning and Execution | 41% | 11.1 | 27 |
| Communication | 41% | 11.9 | 27 |
| Persistence | 39% | 11.3 | 28 |
| Demonstrate how to acquire electronic evidence (D1) | 44% | 2.1 | 27 |
| Demonstrate how to recover deleted data (D2) | 44% | 2.1 | 16 |

*Table 2. Rubric scores with dimensions (left column) and percentage of scores achieving score of "Meets Expectations".*

| Measure | Overall Mean Score (n) |
|---|---|
| Midterm | 62.3 (n=3) |
| Final | 47.5 (n=2) |

*Table 3. Student achievement level by SLO for CGS 2135.  The examinations have a maximum of 100 points.*

## 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 2017 so no comparison study between dual enrollment and non-dual enrollment could be completed.

### 2.2.2 Online to Traditional Comparison

Only one section of the course was offered during spring 2017 so no comparison study between online and traditional could be completed.

### 2.2.3 Comparison by Campus/Site

Only one section of the course was offered during spring 2017 so no cross-campus comparison study could be completed.

## 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.

# 3 CONCLUSIONS

FSW's Business Department has employed common finals across multiple courses and in this report focused on CGS 2135 *Introduction to Computer Forensics*.  The results are intended to provide a baseline achievement moving forward.

## 3.1 CGS 2135

A drill-down of CGS 2135 results are as follows:
1. In a study of outcome, "Students will be assessed using common course lab exercises and exams. (Note that no achievement goal or outcome has been specified.)", the results exhibit the percentage of artifacts meeting expectations in laboratories for each rubric dimension range

from 39% to 44%.  Additionally, the mean score for the midterm is 62.3%.  For the final exam, the mean score is 47.5%.

2. No dual enrollment sections of the course were run during spring 2017 so no comparison study between dual enrollment and non-dual enrollment could be completed.

3. No comparison study between online and traditional courses could be completed because only one section of the course was offered during spring 2017.

4. No cross-campus comparison study could be completed because only one section of the course was offered during spring 2017.