Course Title: IST173 Database Fundamentals – 3 credits

Course Instructor: Douglas Courter; reviewed by K Weil-Yates, FT Faculty/Lead Instructor for CSS/NetAdmin

Expected Learning Outcomes for Course

- Think critically

- Communicate effectively with both verbal and written forms

- Apply concepts of database conventions in a database environment.

- Determine requirements for database design.

Assessment
(How do students demonstrate achievement of these outcomes?)

For each of the ten chapters, students are assigned several projects; a keywords quiz, a grader project and an exam. There are also two mini-capstone projects, the first covering the first four chapters, the second covers the last six chapters. These are very outcome-based—meaning there are general instructions and not step-by-step instructions. The "final" is a course capstone which covers all the key skills in the chapter. The course emphasis is on the ability to start from scratch and design custom database applications.

Validation
(What methods are used to validate your assessment?)

Besides the chapter assignments, the main methods to evaluate proficiency are the two mini-capstone projects and the main course capstone.

Results
(What does the data show?)

Student	Mini-Capstone 1	Mini-Capstone 2	Course Capstone
Student #1	48	0	0
Student #2	96	91	96
Student #3	96	76	57
Average	80%	56%	51%
Completed	80%	84%	77%

When you remove the student who did not complete two of the main projects, the two remaining students did well. Student 3 admitted that he did not give the course capstone the time and effort it needed, although he thought it was a fair test of the course's content. Student 1 continued to attend class throughout the semester, so I do not know why he quit turning in assignments.

Follow-up
(How have you used the data to improve student learning?)

In the fall we are updating the textbook to the 2019 version of Office. I will review the course capstone to make sure the students have the skills to complete it. Review the outcomes to show that this course is more advanced and has a higher skill set than that of IST 107; the course also needs to meet the needs of students who will be in a competitive job market in cybersecurity and digital forensics.

Budget Justification
(What resources are necessary to improve student learning?)
Students who have attempted to get support from the Learning Center did not find people qualified to help them with many of the skills in this course.