

Course Title: IST107 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

Upon completion of this course, students will be able to:

- Demonstrate the value of using a Database Management System to store and retrieve information.
- Understand the basic design and implementation strategies for the development of online databases.
- Develop a working knowledge of a particular Database Management System (in this case, Access 2016).
- Develop sophisticated queries and reports based on the database.
- Learn how queries and reports can support the business decision-making processes.
- Use the database to integrate with other programs such as Word Processing and Spreadsheet.

Assessment

(How do students demonstrate achievement of these outcomes?)

For each of the ten chapters, students are assigned two projects; 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. Due to weather conditions and needing to slow down the schedule, the mini-capstone 2 had to be dropped. 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	Course Capstone
Student #1	55	54
Student #2	0	0
Student #3	95	85
Student #4	80	28
Student #5	78	34
Student #6	100	54

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Student #7	95	76
Average	72%	47%
Completed	84%	55%

Only two students passed the course capstone. If this was the first time I had used that capstone, I would be very concerned, but I have used this same project for at least three years, with much better results in each previous year. As much as I tried to warn the students about the amount of time it would take, they must not have taken me seriously.

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. I think I will scaffold the assignment to make sure they stay on top of it.

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. We need a tutor in the Learning Center that understands Access.