COURSE INFORMATION FORM

DISCIPLINE
Computer Science & Information Systems

COURSE TITLE
Database Applications & Design with Access

CR.HR. 3  LECT HR. 2  LAB HR. 2  CLIN/INTERN HR.  CLOCK HR.

CATALOG DESCRIPTION
This course is designed to provide students with an understanding of Microsoft Access by utilizing fundamental hands-on exercises. The student will develop skills through table, query, form, and report creation. In addition, advanced skills in report, form, and SQL techniques will be emphasized.

PREREQUISITES
CSIS 110 or CSIS 115

EXPECTED STUDENT OUTCOMES IN THE COURSE (ESO)
Upon completion of this course, the student will be able to:

1. Build tables, define fields, relate tables, and enter data.
2. Query databases and build customized reports.
3. Design and define relational database.
4. Transfer data into and out of various file formats.
5. Use database software to develop Web pages and hyperlinks.
6. Manipulate the data and database with introductory macro, query language and programming skills.
7. Analyze an existing database solution that is not working properly.
8. Import the data into Access and use action queries and SQL to normalize the database into an effective rational database.
9. Build complex forms and reports using SQL programming code.
10. Administer a Database System.

GENERAL EDUCATION OUTCOMES (ESO)
Specify which general education outcomes, if any, are substantially addressed by the course. Numbers in parentheses identify the Expected Student Outcomes linked to the specific General Education Outcome.

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>ESO</th>
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<tbody>
<tr>
<td>2. Critical Thinking</td>
<td></td>
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<tr>
<td>B. Define, analyze, and evaluate information, materials and data</td>
<td>(1-3,7)</td>
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<td>4. Integrate information and see relevant relationships that broaden and deepen understanding</td>
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PROGRAM-LEVEL OUTCOMES

CAREER AND TECHNICAL EDUCATION PROGRAM OUTCOMES
Specify which Career and Technical program outcomes, if any, are substantially addressed by the course by completing the “Career and Technical Education template” to show the relationship between course and program outcomes to assessment measures.

1. Use industry specific software and/or apply troubleshooting skills to solve problems.
2. Create and defend solutions to real life business challenges.

CLASS-LEVEL ASSESSMENT MEASURES
Student accomplishment of expected student outcomes may be assessed using the following measures. (Identify which measures are used to assess which outcomes.)

1. Hands-on applications (1-10)
2. Quizzes and exams (1-10)
3. Written reports (10)
COURSE OUTLINE FORM

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Individual instructors may order this outline as fits the needs of their individual courses. In addition, they may place more emphasis on some areas than on others. What is assured is that this particular list is covered in the course. Other topics may be added to a course as the instructor sees fit, and as time and interest allow. An *asterisk can be used to mark an item as optional.

I. Creating and using a database
II. Querying a database
III. Maintaining a database
   A. Updating records
   B. Validation rules
   C. Referential Integrity
IV. Sharing data among applications
   A. Importing & exporting data from Excel
   B. Importing & exporting data from Word
   C. Importing & exporting data from XML
V. Creating Multi-table forms and reports
VI. Using Macros, Switchboards, and PivotTables
VII. Using SQL
VIII. Advanced Report Techniques
   A. Creating reports in design view
   B. Mailing labels
IX. Advanced form techniques
   A. Creating combo boxes and option groups
   B. Creating Multi-page forms
X. Administering a database
   A. Using special field properties
   B. Creating and using indexes
   C. Encrypt a database
   D. Split a database
XI. Introduce Web Features for Access
   A. Add hyperlinks
   B. Creating HTML