**ESSEX COUNTY COLLEGE**

**Business Division**

**CIS 237 *–* Advanced Micro Computer Database**

**Course Outline**

**Course Number & Name:**  CIS 237 Advanced Micro Computer Database

**Credit Hours:**  3 .0 **Contact Hours:** 3.0 **Lecture:** 3.0 **Lab:**  N/A **Other:**  N/A

**Prerequisites**:  Grade of “C” or better in CIS 137

**Co-requisites:** None **Concurrent Courses:** None

**Course Outline Revision Date:**  Fall 2010

**Course Description**: This course is a continuation of CIS 137, which introduced students to databases in MS Access. Continuing the step-by-step instruction using case studies, this course covers advanced Access features including sophisticated queries, reports based on databases, queries and reports that can support the business decision-making processes, data access pages which provide internet access to databases, exporting data from the databases to an HTML file that is accessed over the Internet (www) or intranet (local), and integrating the database with other programs (e.g., word processing, spreadsheet, etc.). An advanced research project is required.

**Course Goals:** Upon successful completion of this course, students should be able to do the following:

1. demonstrate advanced MS Access data mining;
2. customize a database in MS Access;
3. protect data and analyze the performance of a database; and
4. exchange data with other applications.

**Measurable Course Performance Objectives (MPOs)**: Upon successful completion of this course, students should specifically be able to do the following:

1. Demonstrate advanced MS Access data mining:
   1. *create a PivotTable view;*
   2. *select an appropriate chart type;*
   3. *edit a PivotChart;* and
   4. *create and perform calculations in a PivotTable*
2. Customize a database in MS Access**:**
   1. *create macros in Access;*
   2. *assign macros to events;*
   3. *describe and implement Visual Basic for Applications (VBA);* and
   4. *manage data using SQL*

**Measurable Course Performance Objectives (MPOs)** (continued):

1. Protect data and analyze the performance of a database:

* 1. *password protect a database;*
  2. *save databases as ACCDE files;*
  3. *analyze database table structures and relationships;*
  4. *move data to new database files;* and
  5. *create usable switchboards*

1. Exchange data with other applications:
   1. *create a hyperlinked field;*
   2. *attach files and graphics to records;*
   3. *export database objects as HTML files;*
   4. *share XML data;*
   5. *share data with Excel;* and
   6. *manage e-mail data*

**Methods of Instruction**: Instruction will consist of lectures, web/computer assignments, and class discussions.

**Outcomes Assessment:** Connect assignment,quiz, test and exam questions are blueprinted to course objectives. A checklist rubric is used to evaluate the research project for the presence and student mastery of course objectives. Data is collected and analyzed to determine the level of student performance on these assessment instruments in regards to meeting course objectives. The results of this data analysis are used to guide necessary pedagogical and/or curricular revisions.

**Course Requirements:** All students are required to:

1. Maintain regular attendance.

2. Complete assigned work including the research project on time.

3. Take part in class discussions.

4. Take all quizzes, tests and exams as scheduled.

**Methods of Evaluation:** Final course grades will be computed as follows:

**% of**

**Grading Components final course grade**

* **Attendance/Participation 0 – 10%**

Attendance and class participation shows commitment to learning and interest in microcomputer applicationsin business.

* Connect Assignments (dates specified by the instructor)**10 – 30%**

Connect is a web-based assignment and assessment solution software package required to be used in this course. Connect ‘MY IT LAB’ is designed to assist students with their coursework based on their individual needs.

* **Quizzes, 2 or more Tests, Midterm Exam and a Research Project**  **25 – 50%**

(dates specified by the instructor)

Quizzes, Tests, and the Midterm Exam will show evidence of the extent to which students meet course objectives including, but not limited to, identifying and applying concepts, understanding terms and demonstrating evidence of a basic foundation of microcomputer applications in business organization. The midterm exam should indicate synthesis of course material learned in the first half of the course. The research project will provide further evidence of synthesis of course content and achievement of course objectives.

* **Final Exam**   **30 – 35%**

The comprehensive Final Exam will examine the extent to which students have understood and synthesized all course content and achieved all course objectives.

Note: The instructor will provide specific weights, which lie in the above-given ranges, for each of the grading components at the beginning of the semester. Also, students may use laptop computers in class.

**Academic Integrity:** Dishonesty disrupts the search for truth that is inherent in the learning process and so devalues the purpose and the mission of the College.  Academic dishonesty includes, but is not limited to, the following:

* plagiarism – the failure to acknowledge another writer’s words or ideas or to give proper credit to sources of information;
* cheating – knowingly obtaining or giving unauthorized information on any test/exam or any other academic assignment;
* interference – any interruption of the academic process that prevents others from the proper engagement in learning or teaching; and
* fraud – any act or instance of willful deceit or trickery.

Violations of academic integrity will be dealt with by imposing appropriate sanctions.  Sanctions for acts of academic dishonesty could include the resubmission of an assignment, failure of the test/exam, failure in the course, probation, suspension from the College, and even expulsion from the College.

**Student Code of Conduct:** All students are expected to conduct themselves as responsible and considerate adults who respect the rights of others. Disruptive behavior will not be tolerated. All students are also expected to attend and be on time all class meetings. No cell phones or similar electronic devices are permitted in class. Please refer to the Essex County College student handbook, *Lifeline*, for more specific information about the College’s Code of Conduct and attendance requirements.

**Course Content Outline:** based on the text **The Pearson Custom Program for CIS Advanced** **Micro Computer Database**  custom Essex County College edition with ‘MY IT LAB’ Access Code, by Robert T Grauer; published by Pearson; ISBN #: 978-0-558-08986-3

**Class Meeting**

**(80 minutes) Chapter/Topics**

1 Introduction to the online software and creation of student accounts

**Chapter** **1**

2 Create a PivotTable

3 – 4 View Select an appropriate chart type, edit a PivotChart

5 – 6 Identify a chart type, create calculations in a PivotTable

7 **Test 1** on Chapter 1

**Chapter** **2**

8 – 9 Macros in Access

10 – 11 Assign macros to events, Visual Basic for Applications (VBA)

12 – 14 Manage data using SQL, review for the Midterm Exam

15 **Midterm Exam** on Chapters 1 & 2

**Chapter 3**

16 – 18 Password protect a database, save databases as ACCDE files

19 – 20 Analyze database table structures and relationships, move data to new database files

21 Create usable switchboards

**22 Test 2** on Chapter 3

**Chapter 4**

23 – 24   Create a hyperlinked field, attach files and graphics to records

25 Export database objects as HTML files

26 – 27 Share XML data, share data with Excel, manage e-mail data

28 **Research Project due**, Review for the Final Exam

29 Review for the Final Exam (continued)

30   Comprehensive **Final Exam** on all course material covered