COMMON COURSE OUTLINE: Course discipline/number/title: BTEC 2370: Advanced Access

A. CATALOG DESCRIPTION
1. Credits: 2
2. Hours/Week: 2
3. Prerequisites (Course discipline/number): BTEC 1001, D2L Online Tutorial, or the instructor’s permission is required when the course is offered online; BTEC 2350 or BTEC 2355, BTEC 2200. College-level reading and writing skills: appropriate score on RCTC placement test or appropriate developmental course with grade of C or better.
4. Co-requisites (Course discipline/number): None
5. MnTC Goals (if any): NA

This course expands on the fundamentals of databases: multiple tables, advanced queries, design of forms and reports, command buttons, exchanging data and managing and securing a database. The student will develop a broad background in the use of Microsoft Access.

B. DATE LAST REVISED (Month, year): April, 2010

C. OUTLINE OF MAJOR CONTENT AREAS:
1. Table Design
   a) Look Up Wizards and Lookup Lists
   b) Subdata sheets
   c) Create & modify a PivotTable and PivotChart
   d) Data Validity
      i. Required fields
      ii. Default values
      iii. Validation Rule
      iv. Validation Text
   e) Input Masks
2. Advanced Queries
   a) Data Validation
   b) Using values and parameters in a query
   c) Query wizards
   d) Action queries
   e) Other queries: parameter, crosstab, find Unmatched Records, and Find Duplicate Records
3. Custom forms
4. Custom reports
5. Integrating Access with other programs
6. Explore table relationships
7. Automating tasks with macros
8. Visual Basic within Access
9. Managing and securing a database

D. LEARNING OUTCOMES (GENERAL): The student will be able to:
1. Calculate field values in PivotTables.
2. Create and modify required and default field properties.
3. Create and test validation rules and text.
4. Create and modify a Lookup Field.
5. Create a multi-valued Lookup Field.
6. Create and edit Input Masks.
7. Utilize the Form Tool and Identify form controls.
8. Create a Split Form, Multiple Items form, and a Datasheet form.
9. Create PivotTable and PivotChart forms.
10. Use the Blank Form Tool to create a form.
11. Create a form in Design View.
12. Add action buttons and controls.
13. Create and edit a form with a subform.
14. Customize a form by moving controls and adding a theme.
D. **LEARNING OUTCOMES (GENERAL):** The student will be able to: Continued...
   15. Create action queries.
   16. Test the Update criterion.
   17. Construct a table using the Make Table query.
   18. Construct and Run a Delete Query.
   19. Create and Edit a Crosstab Query.
   20. Construct a Parameter Query.
   22. Create a Find Duplicate Query.
   23. Create and edit a hyperlinked field.
   24. Add and use table attachment fields in tables, forms, and reports.
   25. Create and use a multiple attachment field in a form.
   26. Export objects as HTML files.
   27. Import and link to an HTML file.
   29. Export Access data to Excel.
   30. Create a database with exclusive access and encrypt a database with a password.
   31. Apply a digital signature and create a new package for distribution.
   32. Analyze relationships in the database.
   33. Use Performance Analyzer.
   34. Complete the Optimization Process after Optimization.
   35. Start, complete, and test a switchboard.
   36. Examine object dependencies.
   37. Create an embedded macro on forms and reports.
   38. Assign a Macro to an event.
   39. Create a macro with an SQL Expression on a form.
   40. Create global procedures with VBA.
   41. Create sub procedures with VBA.
   42. Write VBA procedures that handle events.
   43. Set database properties and test procedures.

E. **LEARNING OUTCOMES (MNTC):** NA

F. **METHODS FOR EVALUATION OF STUDENT LEARNING:**
   1. Homework assignments
   2. Student projects
   3. Theory exams
   4. Application exams

G. **SRCTC CORE OUTCOME(S) ADDRESSED:**
   - Communication
   - Critical Thinking
   - Global Awareness/Diversity
   - Civic Responsibility
   - Personal/Professional Accountability
   - Aesthetic Response

H. **SPECIAL INFORMATION (if any):**
   Normal fees that are charged for other computer classes and for online classes.