

STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

American Public University System

The Ultimate Advantage is an Educated Mind

**School of Science and Technology
Department of Information Technology
INFO261: Relational Databases with MS Access: Advanced
3 Credit Hours 8 weeks
Prerequisite(s): INFO161: Relational Databases with MS Access: Introduction**

Table of Contents

Instructor Information	Evaluation Procedures
Course Description	Grading Scale
Course Scope	Course Outline
Course Objectives	Policies
Course Delivery Method	Academic Services
Course Materials	Selected Bibliography

Instructor Information

Instructor: [\(Bio\)](#)
Email:
Phone:

[Table of Contents](#)

Course Description (Catalog)

This course focuses on developing Microsoft Access Switchboard applications; it includes: designing and building form and report interfaces, interfacing the Access database to a web page, building dynamic web pages, integrating Access with other Office applications such as Excel, building pivot tables and charts, categorizing the various types of join operations, examining the rudiments of the Visual Basic for Applications (VBA) code, debugging VBA code, creating macros and functions, and designing Access applications. Students must have access to Microsoft Access software. This software is not provided by the course material grant and must be purchased/provided by the student. Course software requirements with the appropriate versions are listed under the course materials site. Prerequisite: INFO161.

[Table of Contents](#)

Course Scope

This is the second course in the Relational Database Systems Suite of courses that focuses on the concepts of relational databases using Microsoft's Access database. This course focuses on the user interface, integration with the web, and building switchboard applications. Prerequisite(s): INFO161 - Relational Databases with MS Access: Introduction. Students must have access to Microsoft Access 2010 software.

[Table of Contents](#)

STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

Course Objectives

The successful student will fulfill the following learning objectives:

1. Appraise the principles for enhancing the man-machine interface and examine the role of human factors in form design.
2. Examine the concept of Domain Aggregation and discuss its impact on application quality.
3. Outline the process for creating HTML based Data Access Pages that interface with a Microsoft Access Relational Database and examine the impact of this capability on global e-commerce.
4. Assess the functionality and benefits of PivotTables and Pivot Charts and examine their impact on the efficiency of the man-machine interface.
5. Describe the concept of relationships between tables, categorize the different types of relationships between tables, and examine the impact of table relationships on data integrity.
6. Outline and demonstrate the process for creating a switchboard application.
7. Examine the rudiments of the Visual Basic for Applications (VBA) language and create Visual Basic for Applications code to perform database actions in an Access application
8. Appraise the correlation between security and data integrity in the context of relational databases; and assess security and access control in the context of relational databases.

Course Delivery Method

This course delivered via distance learning will enable students to complete academic work in a flexible manner, completely online. Course materials and access to an online learning management system will be made available to each student. **Online assignments are due by the last day of each week (Sunday)** and include Forum questions (accomplished in groups through a threaded online discussion), written textbook assignments and other written assignments as assigned and submitted for review by the Faculty Member. Assigned faculty will support the students throughout this eight-week course.

[Table of Contents](#)

Course Materials

Required Text

Microsoft Access 2010 Step by Step, Joyce Cox and Joan Lambert, Microsoft Press, ISBN 0735626928

Software Requirements

- Microsoft Access 2010
- Microsoft Word 2003 or any word processor with the ability to export a *.txt file.

[Table of Contents](#)

Evaluation Procedures

Your final course grade will be based upon the following:

<i>Course Requirement</i>	Percent
Forum Activities	16
Week 1 Activities	8
Week 2 Activities	8
Week 3 Activities	8
Week 4 Activities	8
Week 5 Activities	8
Week 6 Activities	8
Week 7 Activities	8
Week 8 Activities	28

STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

Total	100
--------------	------------

Access Assignments

You will complete the assignments as directed in the classroom. The required data files are on the disk that comes with your text or on the companion website.

Participation Points

Classroom interaction is a vital part of the online experience. Valuable knowledge can be gained from understanding the experiences of other class participants. You will earn participation points for activity in the online discussion.

I monitor the forum for participation so there is no reason for you to submit your comments and peer reviews as separate assignments.

Forums

Each week one or more questions will be posted in the online discussion. Each student will provide at a minimum a 150-word response no later than each Wednesday, to answer the online discussion questions. Additionally, you must provide a peer review of similar length in response to another student's online discussion input. Your peer review will review/analyze an input and provides justification why you agree/disagree with the information in the student input. You must always be courteous (professional) even in disagreement.

Submission of Textbook Assignments and Project Documents

Please include your name, course number (ex. INFO261), Student ID, assignment name and due date at the top of your submissions. Upload assignment.

Weekly learning objective details:

Week 1: A database is the computer equivalent of an organized list of information. Tables are the core database objects. Access data is organized in tables made up of columns and rows, called [fields](#) and [records](#). In a relational database, tables can be related based on common fields, enabling the retrieval of information from more than one table at the same time. The purpose of the other database objects—forms, reports, queries, macros, and modules—is to interact with one or more tables. Every Access object has two or more views. For example, you view data in a table in Datasheet view and define how the data is structured in Design view. If you want to print a database object, be sure the information you need is visible on the screen before you print

Week 2: Access 2010 includes templates to help you create databases and application parts to help you add related tables and other database objects. Rather than storing all information in one table, you can create different tables for each type of information, such as customers, orders, and suppliers. You can create a simple table structure by entering data and naming fields in Datasheet view. You can also set the data type and certain properties. You can manipulate or hide columns and rows without affecting the data. In Design view, you can modify any table, whether you created it manually or as part of a template. Data types and properties determine what data can be entered in a field, and how the data will look on the screen. Caution: changing some properties might affect the data. You can create a relationship between the primary key field of one table and the foreign key field of another so that you can combine information from both tables

Week 3: The quickest way to create a form that includes all the fields from one table is by using the Form tool. You can then use the form to view and enter records. A form that is based on a table is bound to that form. The table is called the [record source](#). By default, the form displays one text box control and its

STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

associated label control for each field in the table each text box control is bound to its field, which is called the [control source](#). Each control has several properties that you can change in Layout view or Design view to improve the look and layout of the form.

Week 4: You can sort a table in either ascending or descending order, based on the values in any field (or combination of fields). You can filter a table so that information containing a combination of characters is displayed (or excluded from the display). You can apply another filter to the results of the previous one to further refine your search. The Filter by Form command filters a table or form based on the information in several fields. You can use the Advanced Filter/Sort command to search a single table for records that meet multiple criteria

Week 5: You can create a report that displays only some of the fields in a table by using the Report wizard. The report can be sorted and grouped to summarize the data in a table in a meaningful way. You can refine a report in Layout view by manipulating its controls and setting its properties. You can also format the controls to structure and highlight data. In Print Preview, you can see how the report will look when printed and make adjustments before you print.

Week 6: The Data Type setting restricts the data that can be entered into an Access database to a specific type. The Field Size property for the Text, Number, and AutoNumber data types restricts the number of characters allowed in a Text field or the number of digits allowed in a Number or AutoNumber field. The Input Mask property controls the format in which data can be entered. You can use a validation rule to precisely define acceptable data. Access tests entries against the rule and rejects any that don't comply.

Week 7: Forms have three main sections: Form Header, Detail, and Form Footer. You can size them to suit the needs of the form. You can customize any section of your form's layout by adding and deleting labels, moving labels and text box controls, and adding graphics. After you define a relationship between tables, you can add subforms to your forms. You can create forms to send in Outlook e-mail and automatically update an Access database with the responses.

Week 8: You can create a query by using a wizard or by using the Query Designer. Queries can use aggregate functions such as Sum and Avg to summarize data. You can design queries that perform calculations on matched data. An update query performs an updating action on its results, such as replacing the contents of a field. A delete query deletes records that meet specific criteria. Use caution with this type of query; the effects can be far reaching, and you can't recover deleted records.

[Table of Contents](#)

Grading

Please see the [Student Handbook](#) to reference the University's [Grading Scale](#).

[Table of Contents](#)

Course Outline

<u>WEEK</u>	<u>TOPICS</u>	<u>LEARNING OBJECTIVES</u>	<u>READINGS</u>	<u>ASSIGNMENTS</u>
1	Explore an Access 2010 Database	CO-1	Textbook: Ch 1	Introduce yourself in the Forum Week1 Assignment in the Classroom
2	Create Databases and Simple Tables	CO-1, CO-2	Textbook: Ch 2	Week 2 Assignment in the Classroom
3	Create Simple Forms	CO-2, CO-3	Textbook: Ch 3	Week 3 Assignment in the Classroom
4	Display Data	CO-3	Textbook: Ch 4	Week 4 Assignment in the Classroom
5	Create Simple Reports	CO-3, CO-4	Textbook: Ch 5	Week 5 Assignment in the Classroom
6	Maintain Data Integrity	CO-4	Textbook:	Week 6 Assignment in the Classroom

STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

			Ch 6	
7	Create Custom Forms	CO-4, CO-5	Textbook: Ch 7	Week 7 Assignment in the Classroom
8	Create Queries	CO-5	Textbook: Ch 8	Week 8 Assignment in the Classroom

[Table of Contents](#)

Policies

Please see the [student handbook](#) to reference all University policies. Quick links to frequently asked question about policies are listed below.

[Drop/Withdrawal Policy](#)
[Plagiarism Policy](#)
[Extension Process and Policy](#)

WRITING EXPECTATIONS

All written submissions should be submitted in a font and page set-up that is readable and neat. It is recommended that students try to adhere to a consistent format, which is described below.

- Typewritten in double-spaced format with a readable style and font and submitted inside the electronic classroom (unless classroom access is not possible and other arrangements have been approved by the professor).
- Arial 11 or 12-point font or Times New Roman styles.
- Page margins Top, Bottom, Left Side and Right Side = 1 inch, with reasonable accommodation being made for special situations and online submission variances.

CITATION AND REFERENCE STYLE

Assignments completed in a narrative essay or composition format must follow APA guidelines. This course will require students to use the citation and reference style established by the American Psychological Association (APA), in which case students should follow the guidelines set forth in *Publication Manual of the American Psychological Association* (6th ed.). (2010). Washington, D.C.: American Psychological Association.

LATE ASSIGNMENTS

Students are expected to submit classroom assignments by the posted due date and to complete the course according to the published class schedule. As adults, students, and working professionals I understand you must manage competing demands on your time. Should you need additional time to complete an assignment please contact me before the due date so we can discuss the situation and determine an acceptable resolution. Routine submission of late assignments is unacceptable and may result in points deducted from your final course grade.

DISCLAIMER STATEMENT

Course content may vary from the outline to meet the needs of this particular group.

Academic Services

ONLINE LIBRARY RESEARCH CENTER & LEARNING RESOURCES

The Online Library Resource Center is available to enrolled students and faculty from inside the electronic campus. This is your starting point for access to online books, subscription periodicals, and Web resources that are designed to support your classes and generally not available through search

STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

engines on the open Web. In addition, the Center provides access to special learning resources, which the University has contracted to assist with your studies. Questions can be directed to orc@apus.edu.

- **Charles Town Library and Inter Library Loan:** The University maintains a special library with a limited number of supporting volumes, collection of our professors' publication, and services to search and borrow research books and articles from other libraries.
- **Electronic Books:** You can use the online library to uncover and download over 50,000 titles, which have been scanned and made available in electronic format.
- **Electronic Journals:** The University provides access to over 12,000 journals, which are available in electronic form and only through limited subscription services.
- **Turnitin.com:** Turnitin.com is a tool to improve student research skills that also detect plagiarism. Turnitin.com provides resources on developing topics and assignments that encourage and guide students in producing papers that are intellectually honest, original in thought, and clear in expression. This tool helps ensure a culture of adherence to the University's standards for intellectual honesty. Turnitin.com also reviews students' papers for matches with Internet materials and with thousands of student papers in its database, and returns an Originality Report to instructors and/or students.
- **Smarthinking:** Students have access to 10 free hours of tutoring service per year through Smarthinking. Tutoring is available in the following subjects: math (basic math through advanced calculus), science (biology, chemistry, and physics), **accounting, statistics, economics, Spanish**, writing, grammar, and more. Additional information is located in the Online Research Center. From the ORC home page, click on either the "Writing Center" or "Tutoring Center" and then click "Smarthinking." All login information is available.

[Table of Contents](#)

Selected Bibliography

Grading Rubrics

APUS Assignment Rubric Undergraduate Level	EXEMPLARY LEVEL 4	ACCOMPLISHED LEVEL 3	DEVELOPING LEVEL 2	BEGINING LEVEL 1	TOTAL POINTS
FOCUS/THESIS	Student exhibits a defined and clear understanding of the assignment. Thesis is clearly defined and well-constructed to help guide the reader throughout the assignment. Student builds upon the thesis of the assignment with well-documented and exceptional supporting facts, figures, and/or statements.	Establishes a good comprehension of topic and in the building of the thesis. Student demonstrates an effective presentation of thesis, with most support statements helping to support the key focus of assignment.	Student exhibits a basic understanding of the intended assignment, but the thesis is not fully supported throughout the assignment. While thesis helps to guide the development of the assignment, the reader may have some difficulty in seeing linkages between thoughts. While student has included a few supporting facts and statements, this has limited the quality of the assignment.	Exhibits a limited understanding of the assignment. Reader is unable to follow the logic used for the thesis and development of key themes. Introduction of thesis is not clearly evident, and reader must look deeper to discover the focus of the writer. Student's writing is weak in the inclusion of supporting facts or statements.	20
CONTENT/SUBJECT KNOWLEDGE	Student demonstrates proficient command of the subject matter in the assignment. Assignment shows an impressive level of depth of student's ability to relate course content to practical examples and applications. Student provides comprehensive analysis of details, facts, and concepts in a logical sequence.	Student exhibits above average usage of subject matter in assignment. Student provides above average ability in relating course content in examples given. Details and facts presented provide an adequate presentation of student's current level of subject matter knowledge.	The assignment reveals that the student has a general, fundamental understanding of the course material. Whereas, there are areas of some concern in the linkages provided between facts and supporting statements. Student generally explains concepts, but only meets the minimum requirements in this area.	Student tries to explain some concepts, but overlooks critical details. Assignment appears vague or incomplete in various segments. Student presents concepts in isolation, and does not perceive to have a logical sequencing of ideas.	20
CRITICAL THINKING SKILLS	Student demonstrates a higher-level of critical thinking necessary for	Student exhibits a good command of critical thinking skills in the	Student takes a common, conventional approach in guiding the reader through	Student demonstrates beginning understanding of key	20

	<p>300-400 level work. Learner provides a strategic approach in presenting examples of problem solving or critical thinking, while drawing logical conclusions which are not immediately obvious. Student provides well-supported ideas and reflection with a variety of current and/or world views in the assignment. Student presents a genuine intellectual development of ideas throughout assignment.</p>	<p>presentation of material and supporting statements. Assignment demonstrates the student's above average use of relating concepts by using a variety of factors. Overall, student provides adequate conclusions, with 2 or fewer errors.</p>	<p>various linkages and connections presented in assignment. However, student presents a limited perspective on key concepts throughout assignment. Student appears to have problems applying information in a problem-solving manner.</p>	<p>concepts, but overlooks critical details. Learner is unable to apply information in a problem-solving fashion. Student presents confusing statements and facts in assignment. No evidence or little semblance of critical thinking skills.</p>	
ORGANIZATION OF IDEAS/FORMAT	<p>Student thoroughly understands and excels in explaining all major points. An original, unique, and/or imaginative approach to overall ideas, concepts, and findings is presented. Overall format of assignment includes an appropriate introduction (or abstract), well-developed paragraphs, and conclusion. Finished assignment demonstrates student's ability to plan and organize research in a logical sequence. Student uses at least of 5-7 references in assignment.</p>	<p>Student explains the majority of points and concepts in the assignment. Learner demonstrates a good skill level in formatting and organizing material in assignment. Student presents an above average level of preparedness, with a few formatting errors. Assignment contains less than 5 resources.</p>	<p>Learner applies some points and concepts incorrectly. Student uses a variety of formatting styles, with some inconsistencies throughout the paper. Assignment does not have a continuous pattern of logical sequencing. Student uses less than 3 sources or references.</p>	<p>Assignment reveals formatting errors and a lack of organization. Student presents an incomplete attempt to provide linkages or explanation of key terms. The lack of appropriate references or source materials demonstrates the student's need for additional help or training in this area. Student needs to review and revise the assignment.</p>	15
WRITING	<p>Student demonstrates an</p>	<p>Student provides an</p>	<p>Assignment reflects basic</p>	<p>Topics, concepts, and</p>	15

CONVENTIONS (GRAMMAR & MECHANICS)	excellent command of grammar, as well as presents research in a clear and concise writing style. Presents a thorough, extensive understanding of word usage. Student excels in the selection and development of a well-planned research assignment. Assignment is error-free and reflects student's ability to prepare a high-quality academic assignment.	effective display of good writing and grammar. Assignment reflects student's ability to select appropriate word usage and present an above average presentation of a given topic or issue. Assignment appears to be well written with no more than 3-5 errors. Student provides a final written product that covers the above-minimal requirements.	writing and grammar, but more than 5 errors. Key terms and concepts are somewhat vague and not completely explained by student. Student uses a basic vocabulary in assignment. Student's writing ability is average, but demonstrates a basic understanding of the subject matter.	ideas are not coherently discussed or expressed in assignments. Student's writing style is weak and needs improvement, along with numerous proofreading errors. Assignment lacks clarity, consistency, and correctness. Student needs to review and revise assignment.	
USE OF COMPUTER TECHNOLOGY/ APPLICATIONS	Student provides a high-caliber, formatted assignment. Learner exhibits excellent use of computer technology in the development of assignment. Quality and appropriateness of stated references demonstrate the student's ability to use technology to conduct applicable research. Given assignment includes appropriate word processing, spreadsheet and/or other computer applications as part of the final product.	Assignment presents an above-average use of formatting skills, with less than 3 errors. Students has a good command of computer applications to format information and/or figures in an appropriate format. Student uses at least two types of computer applications to produce a quality assignment.	Student demonstrates a basic knowledge of computer applications. Appearance of final assignment demonstrates the student's limited ability to format and present data. Resources used in assignment are limited. Student may need to obtain further help in the use of computer applications and Internet research.	Student needs to develop better formatting skills. The student may need to take additional training or obtain help from the Educator Help Desk while preparing an assignment. Research and resources presented in the assignment are limited. Student needs to expand research scope. The number of formatting errors is not acceptable.	10
TOTAL POINTS					100