**INTRODUCTION TO DATABASE SYSTEMS**

# AOM 132 – Section: 002

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| **Credit Hours:** 2.00 | **Lab Hours:** 0.00 | **Lecture Hours:** 2.00 |
| **IAI Core:** | **IAI Majors:** | **PCS: 1.2 Articulated** |

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| **Semester:** Fall 2014 | **Course Begins:** August 18, 2014 |  |
| Days: Monday | **Course Ends**: October 13, 2014Times: 6:00-7:50 | Room: 101 |

**Instructor:** Teresa Olson

1. **mail:** tolson6132@mchenry.edu or E-mail: olsonteresa10@gmail.com

**Phone:** 815-601-3218

**Office Hours:** Upon Request

# Office Location: A124

**Required Course:**

**Textbook(s):**

*New Perspectives, Introductory, Microsoft Access 2013*, by Adamski, Finnegan, and Scollard, with Sam 2013 Access Card, Course Technology 2014.

**Supplies**: You will need a computer running Windows 7 or 8 software, access to the Internet, and Microsoft Access 2013. You will also need Adobe Acrobat Reader - you probably already have this on your computer; however, this is a free Internet download, if you don’t.

# Please note that MCC computer classes are using Microsoft Office 2013. It is a course requirement that Access 2013 is used for all course assignments/quizzes/exams. If you do not have Access 2013, you are welcome to use MCC’s Computer Lab.

*This course assumes that students have learned basic Windows navigation and file management skills.*

# Course Description:

Introduction to Database Systems offers an overview of microcomputer database management systems. The course examines the purpose and function of various systems and teaches students basic database operations: creating files, adding and deleting records, creating queries, generating reports, indexing and creating relations. This course may be repeated twice for a maximum of 6 credit hours.

# Course Prerequisite: CIS 110

**Course Objectives:**

Upon completion of this course, the student will be able to:

* 1. Compare and contrast normalized and denormalized database designs
	2. Determine the correct use of data-types in field creation
	3. Define the differences between and the purpose of primary and foreign key structures
	4. Explain when to use database forms and reports in a database structure
	5. Gain an understanding of relational database design concepts
	6. Gain an appreciation for a normalized database design
	7. Describe how and when to create one-to-one table relationships
	8. Describe how and when to create one-to-many table relationships
	9. Design a normalized database structure
	10. Create table structures
	11. Manipulate data in datasheet views (add, remove, edit records)
	12. Create queries to filter and return specified records
	13. Design forms with and without the use of database wizards
	14. Modify forms after initial construction
	15. Design database reports with and without the use of wizards
	16. Modify reports after initial construction

# Course Outline:

1. Course Introduction
	1. Explain course syllabus
	2. Explain course objectives
2. Database Design Concepts
	1. Define database normalization
	2. Develop normalized database examples
	3. Discuss importance of database naming conventions and standards
3. Introduction to Access
	1. Develop skills necessary to view and print table structures
	2. Develop skills necessary to view and print database queries
	3. Develop skills necessary to view and print database reports
	4. Explain importance of database compaction and repair
	5. Develop skills necessary to compact and repair database structures
4. Maintaining Database Structures
	1. Create database tables
		1. Define fields
		2. Determine proper data-types
	2. Develop skills necessary to modify database table fields
		1. Modify table structure
		2. Rearrange fields within tables
		3. Assign property values where appropriate
5. Querying a Database
	1. Create and save database queries
	2. Run saved queries
	3. Print query results
	4. Define and develop database relationships between tables
6. Creating Forms and Reports
	1. Create and save database forms
		1. Use wizard to create database forms
		2. Print single form occurrences
	2. Create and save database reports
		1. Use wizards to create database reports
		2. Print reports
	3. Explain how and when to use database conversion utilities
7. Creating Advanced Queries
	1. Explain advanced query concepts
		1. Practice creating parameter queries
		2. Practice creating update queries
	2. Determine proper procedures for creating advanced queries
8. Creating Custom Forms
	1. Create database form without the use of database wizards
	2. Modify database forms using Toolbox techniques
9. Customizing Reports
	1. Create database reports without the use of database wizards
	2. Modify database reports using Toolbox techniques

# Assignments and Grading Criteria

* Syllabus Quiz – 13 points
* Six Tutorial Assignments – 25 points each
* Five Review Assignments – 25 points each
* Six SAM 2013 Tutorial Quizzes – 147 points
* Comprehensive Final Exam – 200 points
* TOTAL Possible – 635 points

# Course Grading Scale

635 – 571 points earned = A 570 – 508 points earned = B 507 – 444 points earned = C 443 – 381 points earned = D

380 points earned and below = F

# Grade Response Time

I prefer to grade all submissions at one time, therefore, I will grade all assignments that are not graded automatically, within five business days, after the assignment due date. Grades needing to be transferred from SAM 2013 to the Canvas grade book will be completed once the due date has passed.

# Policies:

This is an online section of AOM132 class. We will not meet face-to-face but will use technology to interact.

One of your first assignments is to complete the **Course Syllabus quiz**. Please review the course syllabus prior to completing this quiz. This quiz may be taken once, contains 12 questions, and is timed at 15 minutes. This quiz is due by **August 25, 2014 at 11:55 p.m., CST**.

Before you begin the assignments, please download the data files needed for this course. You will find the Tutorial and Review Assignment data files in the **Home tab of Canvas**.

You are also required to register yourself in SAM 2013 and join our class, using the access card purchased with your textbook. The web address for SAM 2013 is <http://sam.cengage.com/Login.aspx?ReturnUrl=%2f>. **The Institution Key needed to register is T2028524**. If you need further instructions on setting up your SAM 2013 account, an instructional video and PowerPoint presentation are included in the **Home tab of Canvas, in the Course Syllabus & Resources area**.

Required coursework is outlined in the **Home** area of **Canvas** and is broken down by tutorials with noted due dates. **Each chapter contains an assignment sheet, outlining the assignment requirements for that tutorial**. You will need to complete each tutorial in order.

Many of the exercises instruct you to print. Y**ou do not need to print.** Assignments will be submitted in Canvas drop boxes and quizzes/exams will be completed in SAM 2013.

All grades for this course will be posted and updated in Canvas. Grades earned in SAM 2013 will be transferred to Canvas upon each due date.

# Make sure all work is your own. Any student involved in cheating or plagiarism will receive a zero on that assignment, test, or quiz, and/or possible failure/withdrawal from class.

**Career Portfolio**

Please remember to save a project or two from this class, to include in your career portfolio, if you are required to take AOM250 - Administrative Office Procedures course.

# Attendance Policy (From MCC Catalog)

All students at McHenry County College are expected and strongly urged to attend every class meeting. Class attendance has repeatedly been shown to have a definite relationship to a student’s grades, and the repeated failure of a student to attend classes can be expected to result in a lower grade and/or possible instructor initiated administrative withdrawal from the course. Instructors may, at their discretion and with full support from the College, require attendance, establish an excused absence policy, and impose penalties for non-attendance. Such policies, if established by an individual instructor, shall be provided in writing with the course syllabus and fairly imposed.

Your attendance within an online course is not the same as attendance in a traditional course, however, you are expected to keep up with the coursework, participate fully in discussions, and work towards the course objectives just as you would in a traditional course. Thereby, the above does apply to students who are not working toward course objectives, including logging into the class site at least two times per week.

# Learning and Assessment

This course has specific assignments that facilitate learning in a variety of levels. Each chapter identifies the course objectives, an outline, and an overview of the areas of study.

* Assignments are a form of self-evaluation of material that was read, reviewed and learned.
* Quizzes and tests are a form of self-evaluation of learning. They serve to ensure basic comprehension of terms, definitions, concepts, and issues.
* Final Exam is a comprehensive form of evaluation. It serves to ensure basic comprehension of database skills, terms, and concepts.

# Students are responsible for their own learning in any course, but particularly online. They will have to choose to read the material, complete the assignments, and ask for help when needed. The ideal student for this class will be a self-directed learner who has a good ability to read and understand both concrete and abstract concepts. Supplemental materials and assistance will be provided to any student who requests additional assistance.

**Late Work/Make-Up Policy**

It is important to complete your work on time. Assignments, quizzes, and exams are due by **11:55 p.m., CST on their due date**. Please do not wait until the last minute to complete assigned work - technology is wonderful, but as we know, many problems can occur with computers. **Having computer problems will not extend due dates for any work**.

At work, and in business, you are expected to complete your work on time. If there is an issue, you need to indicate that prior to the deadline. We are using the same principles in this class. I will NOT accept any late work unless you contact me prior to the due date to request and for an extension to be considered. **Extensions will not be granted for the final exam due date.**

**Withdrawals: The last day to drop this course is September 30, 2014**. Failure to attend class does not constitute official withdrawal. If students are considering a withdrawal, they should consult directly with the instructor and an academic advisor. Students may withdraw from a class through the Registration Office, either in person or by fax: (815) 455-3766. In their request, students should include their name, student ID number, course prefix, number and section, course title, instructor, reason for withdrawing, and their signature. Withdrawal from a course will not be accepted over the telephone.

Please refer to the following link for other important college dates: [www.mchenry.edu/academiccalendar.asp.](http://www.mchenry.edu/academiccalendar.asp)

# General Education Goals:

1. Critical Thinking: To identify, define, analyze, synthesize, interpret, and evaluate ideas.
2. Information Literacy: To locate, evaluate, and use resources effectively.
3. Effective Communication: To develop, articulate, and convey meaning.
4. Ethical Awareness: To identify and make responsible choices in a diverse world.
5. Technological Literacy: To use tools skillfully.

# Assessment:

Some student work may be collected for the purpose of assessment, including student competency in the general education goals, the program, or the course.

# Effective Fall 2014: Student E-Portfolio:

The instructor of the course will designate at least one graded assignment for possible inclusion in the student E- portfolio. Students applying for an AA, AS, AFA, AES, or AGE degree must document their learning outcomes with a graded assignment for each of the five general education goals by the time of graduation. These five assignments and a cover letter will be in the student E-portfolio in Canvas.

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# Weekly Course Schedule

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| **Week** | **Topics and Readings** | **Assignments &Due Dates** |
| Week 1 8/18/2014 | Review Course Syllabus, Canvas, & Register in SAM2013Tutorial 1 – Creating a Database | Tutorial 1 Assignment pgs. AC1-44. Submit in Canvas. Review Assignment pg. AC45-6. Submit in Canvas.Tutorial 1 Quiz in SAM 2013.**DUE BY 9/7/14 AT 11:55PM, CST** |
| Week 2 8/25/2014 | Tutorial 2 – Building a Database & Defining TableRelationships | Complete Syllabus Quiz in Canvas.Tutorial 2 Assignment pgs. AC51-104. Submit in Canvas.Review Assignment pg. AC105-106. Submit in Canvas. Tutorial 2 Quiz in SAM 2013.**DUE BY 9/7/14 AT 11:55PM, CST** |
| Campus Closed | Monday, September 1 |  |
| Week 3 9/8/2014 | Tutorial 3 – Maintaining & Querying a Database | Tutorial 3 Assignment pgs. AC115-170. Submit in Canvas.Review Assignment pg. AC171-172. Submit in Canvas. Tutorial 3 Quiz in SAM 2013.**DUE BY 9/15/14 AT 11:55PM, CST** |
| Week 49/15/2014 | Tutorial 4 – Creating Forms& Reports | Tutorial 4 Assignment pgs. AC179-221. Submit inCanvas.Review Assignment pg. AC222-223. Submit in Canvas. Tutorial 4 Quiz in SAM 2013.**DUE BY 9/22/14 AT 11:55PM, CST** |
| Week 5 &Week 6 9/22/20149/29/2014 | Tutorial 5 – Creating Advanced Queries &Enhancing Table Design | Tutorial 5 Assignment pgs. AC233-293. Submit in Canvas.Review Assignment pg. AC294-295. Submit in Canvas. Tutorial 5 Quiz in SAM 2013.**DUE BY 10/6/14 AT 11:55PM, CST** |
| Week 710/6/2014 | Tutorial 6 – Using FormTools & Creating Custom Forms | Tutorial 6 Assignment pgs. AC301-345 **ONLY**. Submitin Canvas.Tutorial 6 Quiz in SAM 2013.**DUE BY 10/12/14 AT 11:55PM, CST** |
| Week 8 10/13/2014 | **COMPREHENSIVE FINAL EXAM** | **COMPLETE FINAL EXAM IN SAM 2013 DUE 10/13/14 BY 11:55PM, CST** |

**Academic Support for Special Populations Students**

McHenry County College offers support services for students with special needs. It is the student's responsibility to meet with the Special Needs Coordinator and provide current documentation regarding his/her disability and receive information about the accommodations that are available.

In addition, as a student enrolled in a career or technical education program at McHenry County College, you may be eligible for services and assistance under the Carl D. Perkins III Grant. Grant funds are used, in part, to assist students who are at risk of not succeeding in their educational pursuits.

The traits that often prevent students from succeeding are: economic disadvantage, academic disadvantage, disability/disabilities, single parent, displaced homemaker, nontraditional, and limited English proficiency (LEP). The definitions of each trait are available in the Special Needs Office. Students with one or more of these traits are referred to as **Perkins Special Populations Students.**

If you would like to know if you are eligible for services at any time during the semester, please do not hesitate to contact the Special Needs Coordinator. The office is Room A260, and phone number is (815) 455-8676.

# Academic Integrity

As an educational community, McHenry County College values the pursuit of academic excellence and integrity. In accordance with this philosophy and Chapter 10, Act 5 of the 1994 Illinois Community College Act, academic dishonesty in any form, including cheating, plagiarism, and all other acts of academic theft, is considered intolerable. Appropriate sanctions, up to and including suspension from the College will be imposed by authorized College personnel.

# Copyright Policy

MCC will maintain current procedures and guidelines to ensure that all staff and students comply with applicable copyright laws and other intellectual property protection laws. The College will encourage staff and students to engage in the development of intellectual property and facilitate ownership protections with respect to such development of intellectual property.

The College expects that staff and students will act responsibly and ethically in a manner consistent with all copyright laws and College copyright procedures and guidelines. This policy authorizes the College to adopt and maintain such procedures and guidelines necessary to ensure compliance with copyright laws and to facilitate ownership protection with respect to the development of intellectual property.

# Student Code of Conduct and the Judicial Process

Consistent with the MCC mission is an expectation that students will govern themselves in terms of appropriate behavior with emphasis on self-respect and respect for others. It is the practice of the College to respect the properly exercised rights of its students. The College recognizes a student’s rights within the institution to freedom of speech, inquiry and assembly; to the peaceful pursuit of education; and to the reasonable use of services and facilities at MCC.

MCC has adopted a Student Code of Conduct and judicial process to maintain a learning environment of respect, civility, safety, and integrity for all members of the MCC community.

Whenever possible, sanctions for violations of the Student Code of Conduct may be educational in nature. However, violations affecting the health and safety of members of the MCC community are deemed to be the most serious. Therefore, acts of violence, threats or dangerous behavior are most likely to result in a suspension from the College. Violations of the academic dishonesty policy may also result in suspension or expulsion from the institution and/or reduced or failing grade.

# Children on Campus

For the safety of children on campus, children (i.e., less than 16 years of age) are not permitted on campus unattended by a parent/guardian, except when they are attending classes offered by MCC for children. The College requires that no children be allowed into a classroom/laboratory environment, including the Testing Center, Learning Center and computer labs, solely for the purpose of a parent/guardian to provide direct supervision of his/her child.

# Teaching Schedule

The scheduling of the activities and teaching strategies on this syllabus, but not the objectives or content, may be altered at any time at the discretion of the instructor. The instructor reserves the right to modify the course and/or requirements as needed during the semester.

# Resources

The following are useful resources available to you as a student at McHenry County College:

**Advising and Transfer Center: Phone (815) 479-7565; Office A257** [www.mchenry.edu/ATC/Index.asp](http://www.mchenry.edu/ATC/Index.asp)

# Counseling:

**Phone (815) 455-8765; Office A257**

[www.mchenry.edu/counseling](http://www.mchenry.edu/counseling)

# Financial Aid:

**Phone (815) 455-8761; Office A262**

[www.mchenry.edu/financialaid](http://www.mchenry.edu/financialaid)

# Library:

This workforce solution was funded by a grant awarded by the U.S. Department of Labor’s Employment and Training Administration. The solution was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timelines, usefulness, adequacy, continued availability, or ownership. This solution is copyrighted by the institution that created it. Internal use, by an organization and/or personal use by an individual for non-commercial purposes, is permissible. All other uses require the prior authorization of the copyright holder.

**Phone (815) 455-8533; Office A212**

[www.mchenry.edu/library](http://www.mchenry.edu/library)

# Special Needs:

**Phone (815) 455-8676; Office A260**

[www.mchenry.edu/specialneeds](http://www.mchenry.edu/specialneeds)

# Tutoring and Study Skills (Sage Learning Center):

**Phone (815) 455-8579; Office A247**

[www.mchenry.edu/sage](http://www.mchenry.edu/sage)