

**SYSTEMS DESIGN**

# CIS 275- Section: 001

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|  | Online section |  |
| **Credit Hours:** 3.00 | **Lab Hours:** 1.00 | **Lecture Hours:** | 3.00 |
| **IAI Core:** | **IAI Majors:** | **PCS: 1.2 Articulate** |  |
| **Semester: Fall 2013** | **Course Begins: 9/30/13** | **Course Ends: 12/12/13** |
| **Days: Online** | **Times: online** | **Room: Online** |

**Instructor:** Meri Winchester

1. **mail:** meriwinchester@gmail.com

**Phone:** (cell) 815-575-1235 – you may text, but include your name

**Office Hours:** Posted online in canvas

**Office Location:** E110, office hours frequently in the classroom I will be teaching in right after

**Other Contact Information:** Please use Canvas email for any private communications, it is approved for use of grade discussions, private issues, etc.

# Website (optional):mchenry.instructure.com

**Required Course:**

**Textbook(s):** Shelly Cashman Series: Systems Analysis and Design ninth edition This is available as an Ebook at a significantly lower cost at: [http://www.cengage.com](http://www.cengage.com/) <http://www.cengagebrain.com/shop/isbn/9780538481618>

You can also find it online at [http://product.half.ebay.com/Systems-Analysis-and-Design-by-Gary-](http://product.half.ebay.com/Systems-Analysis-and-Design-by-Gary-B-Shelly-and-Harry-J-Rosenblatt-2011-Hardcover/110604274%26tg%3Dinfo) [B-](http://product.half.ebay.com/Systems-Analysis-and-Design-by-Gary-B-Shelly-and-Harry-J-Rosenblatt-2011-Hardcover/110604274%26tg%3Dinfo)

[Shelly-and-Harry-J-Rosenblatt-2011-Hardcover/110604274&tg=info](http://product.half.ebay.com/Systems-Analysis-and-Design-by-Gary-B-Shelly-and-Harry-J-Rosenblatt-2011-Hardcover/110604274%26tg%3Dinfo)

**Supplies (if desired):** <https://cacoo.com/> - free you will need this for creating some of the required diagrams **Course Description:**

# Course Description:

Systems Design is an introduction to the analysis and design of business systems. It covers procedures and techniques for analyzing existing systems as well as developing new ones.

# Course Note: Offered only in odd-numbered years. Course Prerequisite: CIS 117.

**Section Notes:**

Online, accelerated section.

# Course Objectives:

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

* 1. Use different planning tools
	2. Analyze project requirements
	3. Model enterprise applications
	4. Plan development strategies
	5. Understand multi-tier application structure
	6. Appreciate user centered design
	7. Understand inheritance

Page **1** of **7**

* 1. Design forms for ease of use.
	2. Use Unified Modeling Language to plan projects.
	3. Model application solutions.
	4. Present a project plan.

# Course Outline:

1. Systems Design an overview
	1. Types of Systems
	2. Organizational Structure
	3. System Development Tools
	4. Overview of Methodologies
2. Planning
	1. Strategic Planning
	2. Systems Development
	3. Evaluation
	4. Investigation
3. Modeling
	1. Modeling parts of a system
	2. System Requirements
	3. Scalability
	4. UML
4. Defining parts of a system through modeling
	1. Data and Process Modeling
	2. Diagrams
	3. Data Dictionary
	4. Description Tools
	5. Object Modeling
	6. Relationships
5. Unified Modeling language
	1. UML
	2. Objects
6. Alternative design methods
	1. Structures
	2. Software alternatives
	3. Buying COTS software
	4. Prototyping
7. Designing for users
	1. User Interface
	2. Input Design
	3. Report Design
8. Designing behind the scenes
	1. Data Design
	2. Relationships
	3. Normalization
	4. Database Models
9. System requirements
	1. Application Architecture
	2. Client server
	3. Processing
	4. Network
10. Developing the system
	1. Application Development
	2. Tools
11. Testing and documentation
	1. Testing
	2. Documentation
12. Implementation
	1. Training
	2. Converting to the new system
	3. Support and Maintenance
	4. Operations and Support

# Assignments and Grading Criteria

Chapter Quizzes: 30 percent of final grade Discussions: 50 percent of final grade

Final Exam: 20 percent of final grade (based on quizzes)

# Policies

**Attendance policy:** This course is asynchronous and online; spend the appropriate time in the online classroom to complete the required work.

**Late work/make-up policy:** Late work is only accepted in emergencies, determined on a case by case basis. Plan ahead; do not wait until the last minute to begin your work.

# Weekly Course Schedule

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| **Dates of Class Meetings** | **Course Schedule** |
| Week #1 | Getting Started* Introduce yourself
* Complete discussions
* Buy your book

Chapter 1: Introduction to systems Analysis and Design* Read chapter 1
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|  | Take quiz on chapter 1* Complete Chapter 1 discussion Questions
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| Week #2 | Chapter 2: Analyzing the Business Case* Read chapter 2
* Take quiz on chapter 2
* Complete Chapter 2 discussion Questions Read the Systems Analysts Toolkit: Part A
* Complete the discussion questions
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| Week #3 | Chapter 3: Managing Systems Project* Read chapter 3
* Take quiz on chapter 3
* Complete Chapter 3 discussion Questions Chapter 4: Requirements Modeling
* Read chapter 4
* Take quiz on chapter 4

Complete Chapter 4 discussion Questions |
| Week #4 | Chapter 5: Data an Process Modeling* Read chapter 5
* Take quiz on chapter 5
* Complete Chapter 5 discussion Questions Chapter 6: Object Modeling
* Read chapter 6
* Take quiz on chapter 6

Complete Chapter 6 discussion Questions |
| Week #5 | Chapter 7: Development Strategies* Read chapter 7
* Take quiz on chapter 7
* Complete Chapter 7 discussion Questions Chapter 8: User Interface Design
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|  | * Read chapter 8 Take quiz on chapter 8
* Complete Chapter 8 discussion Questions
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| Week #6 | Chapter 9: Data Design* Read chapter 9
* Take quiz on chapter 9
* Complete Chapter 9 discussion Questions Chapter 10: System Architecture
* Read chapter 10
* Take quiz on chapter 10
* Complete Chapter 10 discussion Questions
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| Week #7 | Chapter 11: Managing Systems Implementation* Read chapter 11
* Take quiz on chapter 11
* Complete Chapter 11 discussion Questions Chapter 12: Systems Support and Security
* Read chapter 12
* Take quiz on chapter 12
* Complete Chapter 12 discussion Questions
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| Week #8 | Thanksgiving break |
| Week 9 | Final Exam due December 6 |

**Withdrawals:** The last day to drop this course is **November 22 2013.** 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.

# 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 anytime 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.

# 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](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:

**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)

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.