

**COMPUTER HARDWARE BASICS**

# CDM 140- Section: 001

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| **Credit Hours:** 2.00  **IAI Core:** | **Lab Hours:** 0.00  **IAI Majors**: | **Lecture Hours:** 2.00  **PCS: 1.2 Articulated** |
| **Semester: Fall 2014 Days: Wed** | **Course Begins: 10/15/14 Times: 6pm-9:50pm** | **Course Ends: 12/10/14 Room: A123** |

**Instructor:** Bill Skrzypczak

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**Phone:** 815-505-5489

**Office Hours:** Tue-Thu 4pm-6pm Wed 3pm-6pm

# Office Location: A124

**Required Course:**

**Textbook(s):**Troubleshooting & Maintaining Your PC 2nd Edition, PC’s For Dummies 7th Edition Author Dan Gookin

# Course Description:

Computer Hardware Basics builds on the computer fundamentals presented in Computer Literacy and Introduction to Windows. Topics relate primarily to microcomputer technology. Students learn about advanced operating system commands, utility software, software options, PC maintenance and installation, and hard drive concepts. This course is taught using a current operating system (e.g., Windows) and may be repeated once for a maximum of 4 credit hours. This course was formerly known as CIS 116 PC Operating Systems & Hardware.

# Course Prerequisite: CDM 110. Section Notes:

[Insert if applicable]

# Course Objectives:

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

* 1. Identify basic terms, concepts, and functions of system modules.
  2. Identify basic procedures for adding and removing field replaceable modules.
  3. Identify the procedures for installing Windows 9x, and Windows 2000 for bringing the software to a basic operational level.
  4. Identify common peripheral ports, associated cabling and their connectors.
  5. Identify proper procedures for installing and configuring IDE/EIDE devices.
  6. Identify common symptoms and problems associated with each module and how to troubleshoot and isolate the problems.
  7. Identify the purpose of various types of preventive maintenance products and procedures and when to use them.
  8. Identify the procedures for installing Windows 9x or Windows 2000 and bringing the software to a basic operational level.
  9. Identify procedures for loading/adding and configuring application device drivers and the necessary software for certain devices.
  10. Identify basic networking concepts.
  11. Identify the networking capabilities of Windows including procedures for connecting to the network.

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* 1. Develop an appreciation for troubleshooting techniques.
  2. Develop an appreciation the need for protection from electrostatic discharge

# Course Outline

1. Overview of Personal Computer systems.
2. Disassemble and remove all components from a personal computer.
3. Reassemble a personal computer.
4. Discuss Storage: Hard and Floppy disks, CD's, removable storage
5. Install partition and format a hard disk drive.
6. Install and configure a Windows operating system.
7. Discuss Utilities: Anti-virus, operating system patches, Internet Security
8. Discuss Chips: CPU's, RAM, CMOS, BIOS
9. Install RAM.
10. Perform basic troubleshooting on personal computer subsystems.
11. Perform basic preventive maintenance on a personal computer.
12. Network personal computers.
13. Install a printer as a network printer.

# Assignments and Grading Criteria

Quizzes 50% Labs 25% Final 25%

# Policies

**Attendance policy:** Mandatory

**Late work/make-up policy:** I don’t accept late work unless there are spectacular circumstances (alien invasion, WW3, etc) and then I will knock 20% off your grade.

# Weekly Course Schedule

[Insert date of each class meeting, topics to be covered, assignment due dates, testing dates, final exam date, etc. Table format below is optional.]

|  |  |
| --- | --- |
| **Dates of Class Meetings** | **Course Schedule** |
| Week #1 | {Tentative Activity} Overview Of Personal Computers |
| Week #2 | {Tentative Activity} Autopsy |
| Week #3 | {Tentative Activity} All About Hard Drives |
| Week #4 | {Tentative Activity} Operating Systems, Patches, Security, Viruses |
| Week #5 | {Tentative Activity} All About Memory |
| Week #6 | {Tentative Activity} Troubleshooting & Preventive Maintenance |
| Week #7 | {Tentative Activity} Printers & Networking |
| Week #8 | {Tentative Activity} Finals |

**Withdrawals:** The last day to drop this course is **11/27/14** [www.mchenry.edu/academiccalendar.asp](http://www.mchenry.edu/academiccalendar.asp) **].** 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)

# 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

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.