OAKTON COMMUNITY COLLEGE
SYLLABUS
CIS 101 Sec. 801
Introduction to Computer Information Systems
Mondays and Wednesdays June 7, 2010—July 28, 2010

I. GENERAL INFORMATION:

Instructor: Floyd Aylin (e-mail faylin@oakton.edu; Web page http://www.oakton.edu/~faylin; telephone (224) 595-1943.)
Office, room P238 (Skokie), hours MW 8:00 a.m.-9:00 a.m.
Class times: Mondays and Wednesdays 9:00 a.m.-12:50 p.m.
Location: Room P238, Skokie Campus
Credit: Three semester hours credit, based on three hours of lecture and one hour of laboratory work per week.

II. PREREQUISITE:

Recommended High School Algebra, MAT052, or equivalent skills.

III. COURSE (CATALOG) DESCRIPTION:

Course introduces computers and information systems. Content includes fundamental concepts of hardware and software as applied to computers in a business environment; programming, operating systems, the Internet, data communications, systems development life cycle, and information systems; use of typical software packages including word processing, spreadsheet, database and presentation graphics. Hands-on experience with personal computers in labs is recommended. Intended for those seeking a career as a computer professional, an understanding of the role of Information Systems in the business community, or introductory “end user” computer skills.

IV. LEARNING OBJECTIVES:

Students who successfully complete this course will be “computer literate” with a working knowledge of a variety of business software. They will understand the capabilities of computers and will be able to apply them to their own environments. Students will be able to:

A. Understand the functions of hardware, software, data, procedures, and people in a business computer system
B. Identify the major hardware elements of a computer system and describe the purpose of each element.
C. Understand the role of and use a variety of widely-used software packages including spreadsheets, word processors, databases, presentation software.
D. Demonstrate an understanding of the operating system and execute its associated commands properly.
E. Demonstrate an understanding of the programming process and the role of software in solving business-related problems.

F. Describe how communications and network technology is used.

G. Understand the role of and use the Internet.

H. Identify the requirements for choosing specific hardware systems and software packages.

I. Explain the role of information and how management information systems (MIS) are developed and used in an organization.

J. Understand how multimedia is used to enhance communication.

K. Understand basic systems analysis and design techniques.

L. Understand computer-related ethical, security, privacy, and legal issues.

M. Describe careers opportunities in the computer field.

V. ACADEMIC INTEGRITY:

Students and employees at Oakton Community College are required to demonstrate academic integrity and follow Oakton’s Code of Academic Conduct. This code prohibits:

- cheating
- plagiarism (turning in work not written by you, or lacking proper citation)
- falsification and fabrication (lying or distorting the truth)
- helping others to cheat
- unauthorized changes on official documents
- pretending to be someone else or having someone else pretend to be you
- making or accepting bribes, special favors, or threats
- any other behavior that violates academic integrity

There are serious consequences to violations of the academic integrity policy. Oakton’s policies and procedures provide students a fair hearing if a complaint is made against you. If you are found to have violated the policy, the minimum penalty is failure on the assignment and, a disciplinary record will be established and kept on file in the office of the Vice President for Student Affairs for a period of 3 years.

Details of the Code of Academic Conduct can be found in the Student Handbook.

VI. OUTLINE OF TOPICS:

A. Introductory computer concepts
   1. The major components of a computer
   2. Categories of computers
   3. The information processing cycle (input, process, output, and storage)
   4. History of computers and related technological advances
   5. Data representation and organization

B. Hardware
   1. Input devices
   2. Output devices
3. Processing devices  
4. Primary and secondary storage  
5.* Use of hardware  
6. Hardware selection  

C. Software  
1. Application software  
2. System software  
3. Programming languages  
4. Integrated software  
5. Software selection  

D. Operating systems  
1. Functions of an operating system  
2. Major operating systems used today  
3. Utilities and language translators  
4. Organization, creation, access, and back-up of files and disks  
5.* Operating system access and usage  

E. Word processing software  
1. Business use of word processing  
2. Word processing concepts and terminology  
3.* Word processing usage  

F. Spreadsheet software  
1. Business use of spreadsheets  
   a. Problem solving  
   b. Decision support  
2. Concepts and terminology of spreadsheeting  
3.* Spreadsheeting usage  

G. Database management software  
1. Traditional approaches to information processing  
2. File versus database systems  
3. Components of a database management system  
4. Database administration  
5. Database organization  
6.* Database usage  

H. Presentation software  
1. Business use of presentation software  
2. Concepts and terminology of presentation software  
3.* Presentation software usage  

I. Communications, networks, and the Internet  
1. Communications hardware and software  
2. Data transmission
3. Types of networks
4.* Internet and the World Wide Web
   a. Browsers
   b. Finding information
5.* E-mail

J. Introduction to programming
   1. Overview of programming languages
   2. The programming process
   3. The role of structured programs
   4.* Writing program code

K. Introduction to systems analysis and design
   1. Life cycle of a computer system
   2. Role of the systems analyst
   3. Analysis and design tools

L. Management information systems
   1. The role of information in an organization
   2. How information is used in organizations
   3. Types of management information systems

M. Multimedia
   1. Media used in multimedia applications
   2. Uses of multimedia applications
   3. Development of multimedia applications

N. Ethical, security, privacy, and legal issues
   1. Security risks and safeguards
   2.* Viruses and virus protection
   3.* Computer, disk, and file backup
   4. Information privacy issues
   5. Ethical issues related to the information age and the Internet
   6. Copyright issues

O. Career opportunities in the computer field

*Laboratory instruction and hands-on exercises will be given for each of these topics.

VII. METHODS OF INSTRUCTION:

A. Lecture and discussion in the classroom
B. Instruction and hands-on computer exercises in the laboratory
C. Quizzes and exams
D. Classroom and laboratory assignments
VIII. COURSE PRACTICES REQUIRED:

1. Appropriate attendance
2. Completion of assignments and tests
3. Reading
4. Use of computer hardware and software

IX. INSTRUCTIONAL MATERIALS:


C. Office 2007 software

Supplemental materials may be required. Instructor will provide these materials as handouts or provide students with information how these materials may be obtained.

X. METHODS OF EVALUATING STUDENT PROGRESS:

Points on quizzes, examinations, and assignments will be accumulated over the course of the semester. The following scale will be applied to the total points on assignments and quizzes/exams to determine the final grade:

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90% - 100%</td>
<td>A</td>
</tr>
<tr>
<td>80% - 89%</td>
<td>B</td>
</tr>
<tr>
<td>70% - 79%</td>
<td>C</td>
</tr>
<tr>
<td>60% - 69%</td>
<td>D</td>
</tr>
<tr>
<td>Below 60%</td>
<td>F</td>
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</tbody>
</table>

Homework assignments (projects) are scored as follows:

- Assignment is complete and reflects accurate solutions to the learning objectives of the lesson: 100% of possible points.
- Assignment is nearly complete, and/or contains one or two inaccurate solutions to the learning objectives of the lesson: 85% of possible points.
- Assignment is missing one or two learning elements and/or solutions, and student clearly had some difficulty with the learning objectives but presents evidence of a serious effort to complete the assignment: 70% of possible points.
- Assignment not submitted, or evidence of no serious attempt to complete the learning objectives: 0% of possible points.
XI. **OTHER COURSE INFORMATION:**

If you have a documented learning, psychological, or physical disability you may be entitled to reasonable academic accommodations or services. To request accommodations or services, contact the ASSIST office in Instructional Support Services. All students are expected to fulfill essential course requirements. The College will not waive any essential skill or requirement of a course or degree program.

**Quizzes and examinations:** The student is expected to take all quizzes during the regularly scheduled class period. If you are ill or an emergency arises, call me or email me before class; otherwise, the exam grade is “0” (zero). The midterm exam and final exam will be open book take home. Please note: you must take both the midterm and final examinations in order to receive credit for the course.

**Laboratory and homework assignments:** It is important that each student complete lab homework assignments on a timely basis in order not to fall behind in mastery of the course material. Students will be given one week in which to complete each out-of-class assignment unless otherwise noted. **All assignments will be emailed to me (faylin@oakton.edu) on or before the beginning of the class when due.** An assignment is considered to be late if not submitted in the first ten minutes of class. **If a student must be absent from a class when an assignment is due, that student is responsible for submitting the assignment to my email on or prior to the due date.** Assignments submitted one week late will receive a late penalty of 15%. Assignments submitted two weeks late will receive a late penalty of 30%. The final opportunity for submitting a late assignment is the beginning of class two weeks after the assignment’s due date. **Assignments more than two weeks late will not be accepted.** Please note that penalties are subtracted from the score that the student would have received had the assignment been submitted on time. No assignment(s) will be accepted once the final examination is administered.

The instructor reserves the right to make changes to the syllabus on an as-needed basis. Any such changes will be announced in class. If you are not in class, it is your responsibility to find out about these changes from one of your classmates.

XII. **COLLEGE POLICY ON THE OBSERVANCE OF RELIGIOUS AND NATIONAL HOLIDAYS:**

“Oakton Community College recognizes the broad diversity of religious beliefs of its student body. To resolve conflicts that could arise from various observances, it is the College’s practice that, when possible, examinations and major assignments should not be scheduled for these times. If exams or assignments must occur on a major religious holiday, students who inform instructors ahead of time of their intended absence will not be penalized. It is the responsibility of the student to inform his or her instructor(s) well in advance of an intended absence. Instructors should inform students of this practice at the beginning of the semester so that exams and assignments can be planned accordingly.
XIII. LECTURE/LABORATORY TOPIC OUTLINE AND ASSIGNMENT ROSTER:

Because the textbook and laboratory manual for CIS101 were designed as tutorials, we'll take advantage of the linear arrangement of the material and follow the presentation of topics as outlined by the authors. The laboratory manual depends on some prerequisite knowledge of the Windows operating system, and the author provides the appropriate background material in the beginning of both books.

XIV. CLASSROOM SECURITY

In response to Columbine and the NIU tragedies police agencies in Illinois have developed training for law enforcement and the public school systems. These Nationally accepted law enforcement response plans have been adopted by Oakton's Public Safety Department. Your actions will influence others. Therefore, Oakton is asking you as a student to:

- stay calm
- secure the immediate area; lock, block, & barricade
- call 911 and:
  - report your specific location
  - number of people at your location
  - injuries
  - assailants: location, number, race, gender, clothing, physical features, type of weapon

One final note: the person who reads the assigned material in a timely fashion, performs the assignments, and pays close attention to the terminology, will succeed in the course. There are no “silly” questions. If you are having difficulties with the material and need additional explanations, ask during class or stop by my office. It is my job to assist you. If you need additional assistance such as help with study habits, hints on test taking, pointers on note taking, or tutoring on PC-specific topics, mathematics, or English, I will direct you to someone who can help you.

XV. ASSIGNMENTS


<table>
<thead>
<tr>
<th>Week</th>
<th>Week</th>
<th>Topic</th>
<th>Supplemental Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6/7/10</td>
<td>Course introduction; Introduction to computers Your Oakton e-mail account.</td>
<td>Text Chapter 1</td>
</tr>
<tr>
<td>1</td>
<td>6/9</td>
<td>The system unit</td>
<td>Text Chapter 2</td>
</tr>
<tr>
<td>2</td>
<td>6/14</td>
<td>Storage</td>
<td>Text Chapter 3</td>
</tr>
<tr>
<td>Week</td>
<td>Week</td>
<td>Topic</td>
<td>Unit</td>
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<tr>
<td>2</td>
<td>6/16</td>
<td>Input and output; Four-week quiz (Topics 1-3 and LabMan Units M and N)</td>
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</tr>
<tr>
<td>3</td>
<td>6/21</td>
<td>Operating system software</td>
<td></td>
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<tr>
<td>3</td>
<td>6/23</td>
<td>Application programs</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>6/28</td>
<td>Networks and data communications</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>6/30</td>
<td>The Internet and the World Wide Web: Mid-term examination (Topics 4-7 and LabMan Units A-D)</td>
<td></td>
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<tr>
<td>5</td>
<td>7/7</td>
<td>Network security</td>
<td></td>
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<td></td>
<td></td>
<td>Multimedia</td>
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<tr>
<td>6</td>
<td>7/12</td>
<td>Internet commerce</td>
<td></td>
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<tr>
<td>6</td>
<td>7/14</td>
<td>Information systems and systems analysis</td>
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</tr>
<tr>
<td>7</td>
<td>7/19</td>
<td>Programming and programming languages; Twelve-week quiz (Topics 8-12 and LabMan Units E-I)</td>
<td></td>
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<tr>
<td>7</td>
<td>7/21</td>
<td>Databases</td>
<td></td>
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<tr>
<td>8</td>
<td>7/26</td>
<td>Computer security, Intellectual property and computer ethics</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>7/28</td>
<td>Course review and final examination (includes Topics 13-16 and LabMan Units J-L)</td>
<td></td>
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</tbody>
</table>

**Lab Assignments:**

<table>
<thead>
<tr>
<th>Week</th>
<th>Week</th>
<th>Topic</th>
<th>Unit</th>
<th>Homework</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6/7/10</td>
<td>Word 2007</td>
<td>Unit D</td>
<td>Independent Challenge 1 page 97(<em>do not include Advanced Challenge</em>), plus Independent Challenge 2 page 98 (<em>do not include Advanced Challenge</em>).</td>
</tr>
<tr>
<td>2</td>
<td>6/14</td>
<td>Word 2007</td>
<td>Unit F</td>
<td>Independent Challenge 1 page 146(<em>include Advanced Challenge</em>), Independent Challenge 2, page 147(<em>do not include Advanced Challenge</em>).</td>
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<tr>
<td>Week</td>
<td>Date</td>
<td>Course</td>
<td>Unit</td>
<td>Assignment Details</td>
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<tr>
<td>5</td>
<td>7/7</td>
<td>Access 2007</td>
<td>L</td>
<td>Skills Review, page 293, steps 1 thru 4 only.</td>
</tr>
<tr>
<td>6</td>
<td>7/12</td>
<td>PowerPoint 2007</td>
<td>M</td>
<td>Independent Challenge 1 page 319 (include Advanced Challenge first 5 bullet point steps only), plus Independent Challenge 3 page 320 (do not include Advanced Challenge).</td>
</tr>
<tr>
<td>7</td>
<td>7/19</td>
<td>Integration of Office 2007 Programs</td>
<td>O</td>
<td>Skills Review, pages 365-366, steps 1, 2 and 4 only.</td>
</tr>
<tr>
<td>7</td>
<td>7/21</td>
<td>Word Capstone Project 1</td>
<td></td>
<td>This is the assignment, we will do in class</td>
</tr>
<tr>
<td>8</td>
<td>7/26</td>
<td>Excel Capstone Project 1</td>
<td>Capstone Project page 2 back of book</td>
<td>This is the assignment, we will do in class</td>
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<tr>
<td>8</td>
<td>7/28</td>
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