Reedley College

Spring 2016

3/14/16 – 4/06/16

## Course: IS 61 Computer Building and Configuration

## Class meets: TTH 3 – 8:50

Instructors: David L. Atencio, BA computer science/MBA

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Office Hours: TBA

**Text Books and Study Material:** Computer hardware – Motherboard, RAM, etc…

1. **Course Description and Information:**

This course introduces and emphasizes the proper procedure of building a personal computer system. Students will learn how to select, assemble, and configure the necessary components to build and to configure a personal computer system. The course will include a discussion and hands-on activities of how to install operating system and application software as well as to use appropriate diagnostic software to solve hardware or software problems.

1. **Course Learning Objectives and Outcomes:**

**Objectives:**

* Apply work safety procedures
* Use appropriate tools
* Identify all hardware components of a personal computer, desktop and a laptop
* Select appropriate hardware components for a desktop computer
* Assemble all needed hardware components of a desktop computer
* Configure the settings of hardware components of a desktop computer and a laptop computer
* Connect basic input and output devices of a desktop computer and a laptop computer
* Replace hardware components of a desktop computer and a laptop computer
* Install operating system and other needed system software
* Connect peripheral devices and network devices
* Configure the settings of input, output, and network devices

**Outcomes:**

* Select appropriate hardware components for a computer system.
* Install and configure hardware components of a computer system.
* Install and configure system and application software.
* Troubleshoot basic hardware problems.

1. **Attendance:** Attendance is required and the instructor reserves the right to take roll at any time during the duration of the class period. To achieve successful completion of the course, it is critical for the students taking this course to attend all classes. I may drop you if you have more than three consecutive unexcused, absences.
2. **Policies:** Campus code requires that shoes or sandals and appropriate attire be worn at all times on Eating, drinking, and smoking is not allowed in the classroom or computer labs. Cell phone must be turned off or in the silence mode while class is in session. A student will be subject to discipline if she or he:

* Prevents other students from pursuing their authorized curricular or co-curricular interests.
* Interferes with or disputes faculty and administrators who are fulfilling their professional responsibilities.
* Prevents classified employees from fulfilling their prescribed duties.
* Deliberately endangers the safety of persons or the security of college property.
* Violates Reedley College computers and networks usage policy.

1. **Behavioral Standards:** Your classmates and I would greatly appreciate that students in the class take care of any personal needs (i.e., using the rest room, getting a drink, sharpening a pencil) before class begins. Please turn off you cell phones when entering the class. You may not use your phone as a calculator. I would appreciate that you not bring guests to class. I start class on time, please don’t be late. If you are late, it is your responsibility to ensure you are counted for attendance after class. You may not surf the internet during lectures.
2. **Academic Dishonesty:** Students at Reedley College are entitled to the best education that the college can make available to them, and they, their instructors, and their fellow students share the responsibility to ensure that this education is honestly obtained. Because cheating, plagiarism, and collusion in dishonest activities erode the integrity of the college, each student is expected to exert an entirely honest effort in all academic endeavors. Academic dishonesty in any form is a very serious offense and will incur serious consequences.

* **Plagiarism:** Plagiarism is the adoption or reproduction of the ideas or words or statements of another person without due acknowledgment. This can range from borrowing without [attribution](http://en.wikipedia.org/wiki/Attribution) a particularly apt phrase, to paraphrasing someone else's original idea without citation, to wholesale [contract cheating](http://en.wikipedia.org/wiki/Contract_cheating). When plagiarizing, students will often turn to the [Internet](http://en.wikipedia.org/wiki/Internet), due the ease of [copying and pasting](http://en.wikipedia.org/wiki/Copying_and_pasting) from websites. Other more old fashioned forms of plagiarism such as [paper mills](http://en.wikipedia.org/wiki/Essay_mill) and passing off obscure articles or chapters of books of others as original work also still occur. Plagiarized papers are often riddled with gross inconsistencies such as referencing non-existent sections of the essay, changes in spelling and grammar customs, or the argument changing in mid-paragraph.
* **Cheating:** Cheating is the act or attempted act of taking an examination or performing an assigned, evaluated task in a fraudulent or deceptive manner, such as having improper access to answers in an attempt to gain an unearned academic advantage. Cheating can take the form of [crib notes](http://en.wikipedia.org/wiki/Cheat_sheet), looking over someone's shoulder during an exam, or any forbidden sharing of information between students regarding an exam or exercise. Also, the storing of information in graphing calculators, pagers, cell phones, and other electronic devices has cropped up since the information revolution began. Incidents of cheating and plagiarism may result in a variety of sanctions and penalties, which may range from a failing grade on a particular examination, paper, project, or assignment in question to a failing grade in the course at the discretion of the instructor and depending upon the severity and frequency of the incidents.

1. **Accommodations for students with disabilities**: If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act please contact me as soon as possible.
2. **Learning Methods:**
   1. Lectures – used to provide bring all students to a level playing field of learning
   2. Required reading
   3. Class projects and Blackboard assignments (lab work)
   4. Textbook assignments (lab work)
3. **Reading and Lab Assignments:**  Assigned chapters MUST be read prior to attending class. Students are required to complete class/lab assignments in class. You may collaborate with fellow students on lab assignments. Late lab assignments will not be accepted.
4. **Outcomes assessment:**

Quizzes (1 @ 20 points each) 20 points

Labs (8 @ 20 points each) 160 points

Research/Participation 100 points

Final Exam/demonstration 100 points

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Total 380 points

Grading scale:

90-100% = A 80-89% = B 70-79% = C 60-69% = D <60% = F

1. **Final Drop Date:** TBD
2. **Examinations and assignments:** All examinations must be completed individually. Students may make use of the help feature of any application provided in the classroom computers. Students may use their books and notes for all examinations. I will keep open the previous week, current week and one future week at all times for assignments and exams. Once a week is closed out it will be too late to make up.

13. **Schedule** Note: I reserve the right to make changes to any part of the syllabus

| **Date** | **Video Assignments** | **Reading Assignments** | **Homework/Lab Assignments** |
| --- | --- | --- | --- |
| ***Week 1*** |  | Lessons in Electric Circuits  Electrical Safety Pages 77-92  Safe practices | **Tuesday:**  Basic Electricity  Workplace safety  Basic hand tools  Test equipment  Electrical Measurements  Repair tool kits  **Lab 1:**  Body resistance  Intro to the Multi-meter  **Thursday:**  **Lab 2:**  Power audit  Calculate total watts  Ohms laws |
| ***Week 2*** | How to use a multi-meter  Check networks with a cable tester  Basic tools |  | **Tuesday:**  **Lab 3:** Use technical documentation  Hardware  Identify user needs  Parts sources  Selecting the hardware  **Lab 4:** PS testing  **Lab 5 Build Computers**  System unit and processing devices  Storage devices  Ports and connectors  Bus  communication and Networking devices Operating system  Input devices Output devices  Device drivers  Utility programs  Networks  Peripheral devices  **Thursday:**  **Lab 5 continued** |
| ***Week 3*** |  |  | **Tuesday:**  **Lab 7:**  Selecting other software  **Lab 8:**  Putting it all together – Computer design  **Thursday:** Final Demonstration |