Course Number: 8136 (OHLAP Approved)

Pre-requisite: Fundamentals of Technology or Business and Computer Technology

Career Cluster/Pathway Information Technology/Information Support and Services, Network Systems


Length: 2 semesters (162 instructional periods of 46 minutes each)

Course Description: Students will prepare for positions related to the maintenance of computers and computer-related equipment through hands-on and project-based learning, textbook assignments, and Internet research. The focus of this course is in the hardware area.

Specific Learning Competencies - Upon successful completion of this course, the student will be able to:

1. Understand basic terms concepts, and functions of system components, including how each component should work during normal operation and during the boot process.
2. Demonstrate the basic procedures for adding and removing field replaceable units for both desktop and portable systems.
3. Identify the following problems for device installation and configuration—IRQs, DMAs, and I/O addresses.
4. Identify common peripheral ports, associated cabling, and their connectors and understand proper procedures for installation and configuration
5. Understand concepts and procedures relating to BIOS.
6. Demonstrate methods of upgrading equipment.
7. Diagnose, troubleshoot and isolate problems.
8. Provide preventive maintenance procedures.
9. Practice correct procedures for protecting against hazards to people, hardware, the workplace, and the environment.
10. Identify popular CPUs, motherboards, and RAM and their characteristics.
11. Demonstrate knowledge of basic printer concepts, operations, and components.
12. Understand basic networking concepts, how to swap and configure network cards, and repairs on the network.
13. Demonstrate and apply knowledge of hardware design, operation and maintenance.
14. Demonstrate knowledge of CPU components.
15. Install computer system (e.g., monitor, keyboard, disk drive, and printer).
16. Perform hardware installation, configuration, and upgrades.

Recommended Instruction:
1. Safety and Preventative Maintenance
2. Motherboard, CPU, and Memory
3. Case, Power Supply, and Video
4. Disk Drives
5. Input/Output Devices
6. Portable Systems
7. Printers
8. Networking Technology
9. Assembling a Computer
10. Installing and Starting Windows
11. Networking Concepts

Methods of Instruction:

Lectures, Discussions, use of Online Instructional material, hands-on projects, simulated labs,

Required Certifications: (Select from the following options)

ODCTE: Microcomputer Repair Technician OD41401

Brainbench: (Select two)
- Information Technology Terminology
- Technical Help Desk
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- MS Windows Fundamentals (any version)

Recommended Certifications:
  Brainbench: Listening Skills
  Telephone Etiquette

Recognized Primary Course Textbooks and Instructional Resources:
  *All-In-One A+ Certification, 4th Edition* by Mike Meyers - McGraw-Hill (Osborn)
  *Maintaining and Repairing PCs*, Charles J. Brooks, Marcraft 2007

Additional Resources:
  *Practical PC, 6th edition*, by Parsons and Oja – Thomson Course Technology
  CompTIA A+ 2009 Exam Objectives –
  [http://certification.comptia.org/resources/objectives.aspx](http://certification.comptia.org/resources/objectives.aspx)
  LabSim online resources
  www.professormesser.com

Course Methodology
Course delivery of content will be instructor led lectures, class led discussions, textbook readings, powerpoints, on-line resources, on-line material subscription, and hands-on individual and collaborative projects.

RESOURCES and MATERIALS:
Computers with Windows 7 operating systems.
IE Class – Online Webmastering Curriculum and Course Management System
Multimedia textbook
Various handouts and materials provided by the Instructor

CLASSROOM ETIQUETTE:
Be in assigned seat ready to work when the tardy bell finishes its ring.
You must have permission to leave the classroom for any reason.
Do not leave the class until you are dismissed by the instructor.
Be respectful of the rights and properties of others. Be polite and courteous to everyone.
When leaving the classroom, make sure you have logged out and the workstation is in proper order.
Discard all used computer paper in the trash. Documents left on the printer will be thrown away.
The chair should be pushed under the desk.
Bring paper, pencil/pen, books, and completed assignment daily.
Keep your hands, feet, books and objects to yourself.
Follow instructor's directions the first time.
Please no food, drink, or candy in the classroom
No swearing, cruel teasing, rude gestures, loud talking, or put downs.
No loud sounds from computer.
Do not share your logon ID and password with anyone.
NO INTERNET GAMES (if all class work is completed early you may do meaningful research on the internet, science project, homework, etc.) This will require instructor permission.
Students may NOT change the settings on any computer without approval of the supervisor or IT coordinator. This includes wallpaper, background images, mouse speed, sound settings, etc.
Students will not use unauthorized passwords, disclose confidential passwords, or enter or try to enter any unauthorized areas of the computer.
Students will not download any type of software on school computers.

ASSERTIVE DISCIPLINE PLAN: Discipline Policy of Idabel High School Student Handbook will be followed.

Consequences for Disruptive Behavior
Private conference with student to discuss problem and expected classroom behavior.
Referral to Assistant Principal.
ASSIGNMENTS:

Students will be required to complete assignments at school. You are expected to work in class daily. Because office equipment is necessary for the completion of most assignments, homework is kept to a minimum. Be ready to work! We will work from the beginning of your class to the end of your class. Students may have to utilize lunch time, advisement time, or before or after school to make up missed assignments. It is the STUDENT’S responsibility to contact the instructor to arrange to make up missed assignments. Make-up work policy will be followed from the Idabel High School Student Handbook.

TESTING:

Students should not talk to each other during a test. If you are taking a test and someone says something to you, it is your responsibility to let me know. Talking during a test may result in a recorded grade of “0” for cheating or other disciplinary measure(s) at the instructor’s discretion. Graded tests will be shown to you.

GRADING SYSTEM:

At the end of each grading period, all assignments and tests will be averaged. Grades will be in accordance with the Idabel High School scale:

- 90-100 = A (Excellent) Honors Course 5.0
- 80-89 = B (Above average) Honors Course 4.0
- 70-79 = C (Average) Honors Course 3.0
- 60-69 = D (Below average) Honors Course 2.0
- 0-59 = F (Failing)

Grade will be computed in the following manner:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projects/Labs</td>
<td>40%</td>
</tr>
<tr>
<td>Tests and Quizzes</td>
<td>30%</td>
</tr>
<tr>
<td>Daily Work</td>
<td>20%</td>
</tr>
<tr>
<td>Class Participation (weekly grade)</td>
<td>10%</td>
</tr>
</tbody>
</table>

Business Professionals of America – BPA

Every student enrolled in the Computer Repair course is eligible to be a member of Business Professionals of America (BPA). BPA members are given an opportunity to test their skills and knowledge with others in the state of Oklahoma. In order to participate, students must pay a membership fee of $25.00. Each member is expected to participate in fund raising activities to
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defray the costs associated with these activities. Competition in the work place is fierce, and BPA competitions help develop the necessary competitive and leadership skills that are vital to competing in a global business environment. For more information, access BPA’s website at www.bpa.org.

SAFETY:

On a regular basis we will practice fire, disaster, and safety drills on campus. You are required to follow all rules pertaining to the drills. The all-school safety information is posted in the office. Safe operation of equipment and safe work habits will ensure the personal and professional wellbeing of students. Students are required to pass a safety test with a grade of 100%. The following are basic rules that apply at all times:

- Keep feet, purses, books, and other personal items away from the aisle.
- Do not roll or spin in chairs.
- Never pull the cord to remove the plug from the socket.
- Report any malfunction of equipment to the instructor immediately.
- Operate equipment correctly and safely.
- Do not move equipment or tamper with cables. The hardware is set up and arranged in a necessary manner.

EQUIPMENT:

Our class is equipped with computers, printers, scanners and other items commonly found in all business environments. You are responsible for exercising proper care of each piece of equipment that you use in the class. Problems of any nature should be reported to the instructor. Equipment is set up in a matter that is necessary. Do not unplug or move any equipment without first discussing it with the instructor.

COMPUTER ETHICS:

Each of you is responsible for following “rules of conduct for network security” and “rules of conduct for e-mail” as shown below. All students must sign an agreement to abide by these rules. The Acceptable Use Policy that you signed during enrollment applies to this class and any other computer you use on campus. Violation of this policy may result in a suspension of your computer privileges or other appropriate disciplinary action by the instructor and/or campus administrators.

NETIQUETTE (E-MAIL RULES): There may be a time when you wish to access me by e-mail or me to access you by e-mail. We will all utilize the following netiquette rules.

Generally accepted rules of network etiquette:
- Keep your e-mails short and only send them when necessary.
- Be polite. Your messages should not be abusive to others (courtesy is contagious).
Delete old mail regularly in order to free disk storage space.
Do not send anything you would not want someone other than your intended recipient to see.
Do not write anything about anyone that you would not say directly.

STUDENT RULES OF CONDUCT FOR NETWORK SECURITY:

The Career and Technology Education class computers are connected. Consequently, the actions of individual students could affect computer operations for more than one computer or one class. The following Rules of Conduct are established to ensure trouble-free operations of the network:

1. No student will work on the computers in the class unless instructor's permission is given to that student directly.

2. Each student will be issued a USER ID and a PASSWORD for access to their work station computer. The ID and PASSWORD may not be changed. The safeguarding of the student's USER ID and PASSWORD is the student's responsibility.

3. Students will use the Internet for office projects. While on the Internet, students are reminded that the District has the right to monitor the sites that they use. E-mail and Internet sites that contain profanity, sexually explicit material, and expressions of bigotry, hatred, or racial discrimination nature will be reported to administration. The downloading of any material is prohibited by the District without prior permission of the instructor.

4. No copying of any software off class computers, the campus network, or off program diskettes is permitted. **This is also a federal law.**

5. Students will not bring any storage devices from outside into the classroom without express permission of the instructor. Many viruses are being introduced into computers and networks by outside storage devices even without the knowledge of the computer user.

6. Students will use their individual folders on the “S: directory” to save documents, as well as to open pre-existing documents.

7. Students who violate any of the rules of conduct will be subject to disciplinary action which may include being barred from utilizing school computers.
I am looking forward to a great year! If you have any questions or comments feel free to contact me during class to set up an appointment, by phone, or email.

I have read and understand course syllabus for Computer Repair I and agree to abide by all rules. The syllabus is available for download on the instructor’s website found at www.ihs.idabelps.org.

Student Signature_________________________________________ Date ________________

Parent Signature__________________________________________ Date ________________

I understand that assignments will be posted online, and I will be responsible for turning assignments online. I understand there will be delivered from an online subscription source that I will have access to during school. I understand I will be given access credentials to access the online resources outside of school also.

Student Signature_________________________________________ Date ________________

Parent Signature__________________________________________ Date ________________

I, ____________________________________________ (parent’s name printed) give permission for my child’s picture and/or work to be posted online. I understand only first names of students will be used to identify my student. I also give permission for my child to utilize the online learning management system utilized by the teacher (currently edmodo.com.)

Parent Signature__________________________________________ Date ________________

NOTE TO PARENTS: You must contact me if you wish to have access to our classroom website. I will supply you with a personal code that allows you to see and/or monitor your student’s progress. Please keep in mind that grades posted on assignments are not reflective of final grade in my class. The official gradebook is WenGage. You may request access to the school’s gradebook through a link on Idabel High School’s home page at www.ihs.idabelps.org.