

Safety Components

For the Game Design, Web Design and MS Office Applications classes and most Information Technology lessons, the safety expectations deal with safe computer use while sitting at a table. These expectations deal with addressing repetitive stress syndrome. Additionally, using public computers, the issue of germs on keyboards and hands is also addressed.

While working on computers, students will be reminded and encouraged to:

- Sit upright in their chairs
- Keep their feet flat on the ground
- Relax their shoulders and wrists
- Position their computer close and centered on their body
- Use a soft touch when typing
- Take breaks when needed
- Stretch when needed
- Clean your hands and keyboard before using the computer

For a few of the information technology lessons, the students will be opening up the computer cases and either examining or changing the components within. The students will need to be aware of the electrical hazards, loose cables, and sometimes stubborn components.

When assembling or disassembling a computer, students are expected to:

- Do not wear open toed footwear
- Secure loose clothing and hair
- Do not consume or place food or water near the work area
- Make sure the computer box is off and unplugged
- Place detached cords away from the work area to avoid cluttering the area
- Use an Electrostatic Discharge (ESD) wristband
- Discharge static in your body by touching bare metal in the computer case before reaching in the box
- Hold the computer components by the edges; avoid touching the microchips or contacts
- When a component won't remove or attach easily and cleanly, ask for help
- Do not use magnetized tools on internal components of the computer
- Use tools with care; do not place them in your pocket; be aware of where you're putting them when setting them down
- Do not be a distraction of others when they are working inside of the computers; horseplay will not be tolerated
- Do not leave an open computer unattended
- Report any injuries to the instructor when they occur

At the beginning of each semester, each class will receive a lesson on the safety issues while using a computer for extended periods. A copy of the presentation exam and exam are provided below. For the IT classes, before beginning the first activity where students will open up a computer, they will be presented with a lesson on the proper and safe procedures. A copy of the demonstration outline and exam are provided below.

Students earn a weekly score for Classroom Participation. During the daily activities in the classroom, students are observed for their behavior. With any problems observed the student will receive a reminder; any continued problem behavior will cause a penalty to their Classroom Participation and Employability grade for the week. For each class, the instructor maintains a student roster checklist, used daily. These behaviors are recorded on this checklist.

Demonstration Lesson Outline - Internal Computer Hardware Safety

- Before working
 - No open toed footwear
 - Securing loose clothes and hair
 - No food or water
 - Peripherals detached and out of the way
 - Computer box off and unplugged
 - Computer power cord out of the way
 - No magnetized tools
 - Pay attention to where you place tools
 - Do not be distractions to others
- Opening the computer box
 - Removing the case cover
 - ESD Wristbands
 - Attaching the ESD wristband clip
 - Do not leave open computer unattended
- Working on the computer
 - Report any injuries immediately to the instructor
 - Discharging static in your body
 - Use the back of your hand in case of muscle contractions
 - Do everytime you move along the floor
 - Hold the computer components by the edges
 - Avoid touching the microchips and contacts
 - When a component won't detach easily, ask for help
 - Record the details of how the wires and components are attached inside
 - Complete the lesson task assigned
- Reassembling the computer
 - Refer to notes on how the components and wires are attached
 - When ready, check for unused parts
 - Ask for help if you can't determine where every part belongs
 - Close the computer case
 - Reattach the computer peripherals; attach the power cord
 - Turn on the computer to test its operation
 - Pay attention to its beeping - the number will indicate good operation or not (the number varies with the brand of computer)
 - Double check the assembly - safely remove the peripherals, open up the computer again, and check, etc.

Safe Computing

Computer Related Repetitive Stress Injuries

<https://kidshealth.org/en/teens/rsi.html>

Repetitive Stress Injury

<http://my.clevelandclinic.org/health/articles/repetitive-stress-injury>

6 Stretches to Combat Repetitive Stress

<http://www.onemedical.com/blog/live-well/repetitive-stress-stretches/>

Computer Workstations eTool

<https://www.osha.gov/SLTC/etools/computerworkstations/index.html>

Exercises while Computing

NIOSH Publications on Video Display Terminals

<https://www.cdc.gov/niosh/docs/99-135/pdfs/99-135.pdf>

See page 100 - exercises for VDT operators

Exercises for computer users

<http://www.nyphysicaltherapist.com/blog/2013/12/exercises-for-computer-users/>

Protecting your Wrists: 5 Exercise for Computer Users

<http://www.premierortho.com/protecting-your-wrist/protecting-wrists-5-exercise-computer-users/>

Computer Ergonomics: How to Protect Yourself from Strain and Pain

<https://www.uhs.umich.edu/computerergonomics>

How to Exercise While Sitting at Your Computer

<http://www.wikihow.com/Exercise-While-Sitting-at-Your-Computer>

Ergonomic Keyboards

Computer Ergonomic Keyboard

<http://www.ergonomics-info.com/computer-ergonomic-keyboard.html>

Alternative Keyboards

<https://www.cdc.gov/niosh/docs/97-148/pdfs/97-148.pdf>

Top Ten: Alternative and Ergonomic Keyboards

<http://www.apartmenttherapy.com/top-ten-alternative-and-ergono-85228>

Study Reveals So-Called Ergonomic Keyboards Aren't Healthier

<http://www.claimsjournal.com/news/national/2014/01/09/242633.htm>

6 Reasons You Shouldn't Buy Into the Ergonomic Keyboard Hype

<http://www.daskeyboard.com/blog/6-reasons-you-shouldnt-buy-into-the-ergonomic-keyboard-hype/>