#### **Audio Devices**

- 1. Electrical devices use and retain potentially lethal voltages. Do not touch equipment or cables that have come in contact with fluids. Do not handle audio recording equipment with wet hands or feet.
- 2. Switch off the power before connecting or disconnecting power cables to audio equipment.
- 3. Inspect all audio cables and power connections for worn or loose plugs. Report problems to your instructor immediately.
- 4. Because long exposure to very loud sound can cause permanent and irreversible damage to your hearing, take great care when using any audio equipment. Hearing damage can come on gradually and therefore can go unnoticed until the condition is acute and the situation irreversible.
- 5. Make sure the output level of headphones are in the decibel range of normal conversation i.e. 50-60 dB.
- 6. Secure and balance microphone stands and booms to avoid dangerous situations
- 7. Report any problems associated with audio equipment to your instructor immediately.
- 8. To prevent fire, do not place electrical equipment close to combustible materials.
- 9. Store all audio equipment in the appropriate places.

## **Cable Use**

- 1. Electrical devices use and retain potentially lethal voltages. Do not touch equipment or cables that have been exposed to fluids.
- 2. When working with cords and cables, grasp the connectors, do not pull on the cable.
- 3. To avoid accidental damage to equipment and personnel, secure cables to the floor with safety covers or by taping them.
- 4. Regularly inspect all cables for damage and wear. Replace worn or damaged cables. Report all cabling problems to your instructor immediately.
- 5. Make sure all cables are labeled for use with specific pieces of equipment.
- 6. Store all cables in areas designated by your instructor.
- 7. Prevent accidents and cable damage by allowing sufficient cable length for all planned equipment movement. Use the appropriate clamps to secure cables to various kinds of mounts (tripods, microphone stands, lighting stands, etc.).
- 8. When disconnecting cables from equipment, fit a protective cap over each end to prevent moisture and dirt from damaging the sockets.
- 9. Use caution when attaching and disconnecting cables with plugs that house small pin connections.
- 10. To prevent internal damage to cables and equipment, avoid exaggerated twists and bends to cables when operating your studio equipment.
- 11. Never change or interfere with the operating environment set up by someone else without permission.

## **Cameras and Tripods**

- 1. Inspect all power connections for worn or loose plugs. Switch off the power before connecting or disconnecting cameras. Do not handle equipment with wet hands or feet.
- 2. Inspect all handles and shoulder straps for secure installation before use.
- 3. Do not use cameras near water or in rainy/moist situations.
- 4. Do not place cameras on unstable carts, stands, tripods, or brackets. When mounting a camera to a tripod, use only approved mounts and adapters. Do not leave cameras and tripods unattended outside the production area.
- 5. Avoid quick stops, excessive force, and uneven surfaces when using a camera mounted on a tripod.
- 6. Use only the manufacturer's approved power adapter and battery type for each camera. Inappropriate power sources can cause serious shocks to users, and permanent damage to the equipment. Never insert objects of any kind into openings on the camera; they may touch dangerous voltage points or short out parts that could result in a fire or electrical shock.
- 7. Do not attempt internal maintenance on equipment without permission.
- 8. Avoid sudden changes in temperature when using cameras; condensation may form on the lens and internal parts resulting in an unsafe malfunction of the equipment.
- 9. Inspect controls, locks, and mounts on all tripods to ensure operator and equipment safety.
- 10. Keep all equipment clean and stored in its appropriate case.
- 11. See your instructor for proper battery handling procedures (i.e. recharging, storage, disposal).

## **Chemical Handling**

In computer and communications technology, several chemicals may be used; from inks, solvents and cleaners to photographic processing and PCB production chemicals. Know how to handle these materials.

- Before handling any chemicals, ensure you understand the safe handling procedures as outlined on container labels, WHMIS data sheets, designated instructions or posted classroom procedures as appropriate. If you are unsure, see your instructor before proceeding.
- 2. Place any chemicals in approved, labeled containers ONLY.
- 3. DO NOT mix chemicals without prior knowledge of the consequences.
- 4. Discard any used chemicals in approved disposal containers ONLY. Ensure instructors are aware of near-full containers. DO NOT dispose of chemicals down drains. Ask your instructor for proper disposal methods and procedures.
- 5. Ensure that there is adequate ventilation when using chemical substances.
- 6. Do not use any chemical for any other purpose other than what it is designed for.
- 7. Use appropriate PPE (personal protection equipment) at all times when handling chemicals. PPE includes eye protection, skin protection, gloves, aprons or coveralls, foot protection, as required under safe operating procedures.
- 8. Take note of expiry dates and storage requirements of chemicals. Do not use chemicals beyond their expiration.

## **Computer and Electrical Devices**

- 1. Use all computer equipment with care. Electrical devices use and retain potentially lethal voltages.
- 2. Do not touch equipment that has come in contact with fluids. Risk of electric shock is greater in areas that are wet or damp. Do not operate any electrical equipment or computers in wet or damp areas.
- 3. When working with cords and cables, grasp the plastic insulation around the plug.
- 4. To protect equipment from accidental damage, do not place coats, backpacks, food, or beverages on or near computer tables.
- Respect the rights of others who use the computer room by keeping it tidy and accepting responsibility for equipment used, including protection from theft, damage, or misuse.
- 6. Inspect any tools, power cords, and electrical fittings for damage or wear prior to each use. Use cords or equipment that are rated for the level of amperage or wattage that you are using. Do not use outlets or cords that have exposed wiring. Report any damage to your teacher and repair or replace damaged equipment immediately.
- 7. Make sure extension cords cannot present a tripping hazard.
- 8. Be aware that unusually warm or hot outlets may be a sign that unsafe wiring conditions exists. Unplug any cords to these outlets and do not use until your instructor has checked the wiring.
- 9. Know where the circuit breakers are located in case of an emergency.
- 10. Do not touch a person or electrical apparatus in the event of an electrical accident. Always disconnect the electrical current first.

## **Ergonomics and Hardware**

- Ensure you have a comfortable layout of computer equipment and notebooks or texts.
- 2. Surfaces should be kept neat to avoid accidental bumping of equipment or blocking ventilation.
- 3. The best monitor position is 55cm to 66cm (22 to 26 inches) from yourself and at a height level with your eyes.
- 4. Sit straight up and place feet flat on the floor. Keep thighs parallel to the floor and do not cross legs.
- 5. Where possible, use small area lights rather than bright overall lighting. Do not place lights directly behind or in front of you. You can also reduce screen glare by using a filter attached to the monitor.
- 6. In the case of those who wear eyeglasses, use tinted lenses recommended for computer users.
- 7. For keyboarding, position the body so that it is centred on the G and H keys. Place the elbows slightly away from the sides in a relaxed position. Keep the wrists straight and in position just above the keyboard. Ensure that the keyboard is at a height enabling the lower arms to form a 70- to 90-degree angle with the upper body.
- 8. Relieve long periods of computer use with breaks involving stretching and movement. Do not spend longer than 2.5 hours without taking a 15-minute break from computer use.

# **Fire Extinguishers**

- 1. If you see a fire, call for attention; get everyone out, pull fire alarm.
- 2. Stay calm.
- 3. If using a fire extinguisher:
- □ PULL THE PIN, AIM LOW AT BASE OF FIRE
- □ SQUEEZE HANDLE, SWEEP SLOWLY AT BASE OF FIRE
- STAY LOW TO AVOID HEAT AND SMOKE
  - 4. Have the fire department check to make sure the fire is out.
  - 5. Ventilate when fire is completely out.

CLASS A water	A	Ordinary Combustibles: paper, cloth, wood, rubber, many plastics.
CLASS B	В	Flammable Liquids: oil, grease, gasoline, some paints, solvents etc.
CLASS C dry chemical	G	Electrical: wiring, fuse boxes, electrical equipment etc.
CLASS D special liquid or powder		Combustible Metals: magnesium, sodium.

# **General Housekeeping**

- Everything has a proper storage location.
   If you don't know where it is, please ask.
   If you do know, put it back.
- If it is broken, report it.
   If it doesn't work, report it.
   If it's broken or doesn't work, don't use it.
- 3. Dirt, dust, debris are harmful to your safety and health. Even if you didn't put it there, pick it up, clean it up, or move it aside.
- 4. If you spill or drop any fluid on the floor, clean it, or use absorbent materials. You are responsible for prevention of injuries.
- 5. Never block fire exits, fire pull alarms, doorways, aisles, and electrical breakers of machine switches for any reason at any time.
- 6. Oil, gas, and other vehicle fluids all have proper storage containers.

Make sure you use them.

Never mix chemicals.

#### **Internet Use**

- 1. Do not download and install any program from the Internet without the permission of your instructor.
- 2. Do not make anyone's personal information available on the Internet, either through chatrooms, email, or the completion of forms and questionnaires.
- 3. Use school computer equipment only for approved educational purposes. The following are NOT legitimate uses:
  - a. downloading and installing unapproved software;
  - b. using computers for any activity that is rude, racist, profane, criminal, harassing, or offensive to others;
  - c. copying software illegally or using unapproved software
  - d. copying without permission the intellectual or creative property of others
  - e. creating or spreading computer viruses
  - f. gaining unauthorized access to files belonging to another student or teacher
  - g. changing or interfering with the operating environment of a computer, including accessing or changing any elements of the operating or networking systems, or any other network that can be accessed through the LAN, WAN, or Internet.

## **Ladder Safety**

- Follow your instructor's and the ladder manufacturer's instructions when using ladders at all times. Do not use ladders that have loose rungs, cracked or split side rails, missing rubber foot pads, or are otherwise visibly damaged. Keep ladder rungs clean and free of grease; remove buildup of material such as dirt or mud.
- 2. Open the stepladder spreaders and shelf fully before climbing. Allow only one person on the ladder at a time. Do not carry items in your hands while climbing up or down a ladder.
- 3. Face the ladder when climbing up or down it. Maintain a three-point contact by keeping both hands and one foot or both feet and one hand on the ladder at all times when climbing up or down the ladder. When performing work from a ladder, face the ladder and do not lean backward or sideways from the ladder.
- 4. Do not stand on tables, chairs, boxes or other improvised climbing devices to reach high places; use a ladder. Check stability. Ensure that all ladder feet are on a firm, level and non-slippery surface. Do not stand on a ladder that wobbles, or that leans to the left or right of center.
- 5. Do not stand on the top two rungs of any ladder.
- Do not move a ladder while someone is on it. Avoid pushing or pulling stepladders from the side. Repeated sideways movement can make ladders wobbly since they are weaker or less stable in those directions.
- 7. Do not place ladders on unstable bases such as barrels, boxes, loose bricks, pails, or concrete blocks.
- 8. Use a stepladder that is about 1m (3 ft) shorter than the highest point you have to reach. This gives a wider, more stable base and places the shelf at a convenient working height.

## **Lighting Safety**

- 1. Electrical devices use and retain potentially lethal voltages. Do not touch equipment or cables that have come in contact with fluids. Do not handle instruments with wet hands.
- Switch off the power before connecting or disconnecting power cables. Inspect all power connections for worn or loose plugs. Avoid contact with metal while working with power cables.
- 3. that the ladder is the correct height for the task f a taller ladder is required, refer to the teacher for direction. Use wooden or fiberglass ladders where possible. Do not leave wrenches or other tools on a ladder. While working from a ladder, do not lean out to reach a lighting instrument; move the ladder.
- 4. Securely clamp all lighting instruments to the lighting grid or other suspension system.
- 5. All lighting instruments on a suspension system must be fitted with an additional safety cable.
- 6. Because lamps, barn doors, handles and many other parts of production lighting instruments get hot enough to cause severe burns, always wear protective work gloves when handing this equipment.
- 7. Allow bulbs to cool before replacing them. Do not touch quartz lamps with bare hands; fingerprints can cause a bulb to overheat and burn out.
- 8. Report any problems associated with a lighting instrument to your instructor immediately.
- 9. To prevent fire, do not place lighting instruments close to combustible materials.
- 10. Studio lighting instruments produce a high-intensity light beam; therefore, to avoid vision damage, refrain from staring into the light beam. Work from behind rather than in front of a lighting instrument.
- 11. Store all equipment in appropriate places.

# Soldering Safety

- 1. Ensure adequate ventilation. Solder may contain lead. DO NOT breathe fumes from soldering or desoldering operations.
- 2. Clamp work securely while performing soldering or desoldering. Use a vice or other approved clamping systems to keep your hands free to work.
- 3. Use heat sinks to protect circuit components. Do not apply excessive heat or apply heat for excessive lengths of time.
- 4. Beware of hot soldering irons and components. Make sure others are aware of hot tools. Switch off and/or unplug soldering tools when not in use. Allow to cool before storing.
- 5. Use appropriate PPE (personal protection equipment) at all times when soldering or desoldering. PPE includes eye protection, (use at all times), skin protection, and heat protection, as required under safe operating procedures.
- 6. Keep area clean around workplace at all times.
- 7. When working with used circuit boards, make sure desolder or solder area is clean and free of dust or grease before applying heat.
- 8. Be aware of the location of your soldering iron or pencil while it is hot, or cooling. Make sure you place the hot iron in an appropriate holder to prevent heat or fire damage.
- 9. When soldering wire connections, make sure the wires are tightly connected. Use appropriate covering like heat shrink tubing or twist-on connectors to protect the splice. Do not use wires with melted insulation or exposed conductors.

## **Studio Safety**

- 1. Be aware of all emergency exits and procedures.
- 2. Use all electrical equipment with care. Electrical devices use and retain potentially lethal voltages. Know where the breakers and boxes are located in case of an emergency.
- 3. Do not touch a person or electrical apparatus in the event of an electrical accident. Always disconnect the current first.
- 4. Do not touch equipment that has come in contact with fluids. Risk of electric shock is greater in areas that are wet or damp. Do not operate any electrical equipment in wet or damp areas. Wear dry, non-slip footwear at all times.
- 5. Inspect any tools, power cords, and electrical fittings for damage or wear prior to each use. Do not use outlets or cords that have exposed wiring. Report and damage to your teacher and repair or replace damaged equipment immediately.
- 6. Use cords or equipment that are rated for the level of amperage or wattage that you are using. Be aware that unusually warm or hot outlets may be a sign that unsafe wiring conditions exist. Unplug any cords in these outlets and do not use until your instructor has checked the wiring.
- 7. Securely clamp all lighting instruments to the lighting grid or other suspension system. All lighting instruments hung on a suspension system must be fitted with an additional safety cable.
- 8. Install portable ramp covers over all cables crossing the exit lanes in the production work area. Make sure extension cords cannot present a tripping hazard. Secure unstable items in an upright position (flats, risers, stands, etc.) to ensure they don't fall.
- 9. Store all equipment appropriately and in its proper place. Keep stairs and doorways clear of all obstructions.
- 10. To avoid heat build up in the production area, switch off lighting instruments and other heat generating equipment when not in use.

# **Tool Safety**

- 1. Wear safety eyewear at all times when using hand and/or power tools.
- 2. Do not continue to work if your safety glasses become fogged; stop work and clean the glasses until the lenses are clear and defogged.
- 3. Use tied off containers to keep tools from falling off of scaffolds and other elevated work platforms.
- 4. Transport hand tools only in tool boxes or tool belts; do not carry tools in your clothing.
- 5. Warn your instructor of any worn, damaged or defective toolsDo not use them until repaired. Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose. Do not perform "make-shift" repairs to tools.
- 6. When handing a tool to another person, direct sharp points and cutting edges away from yourself and the other person.
- 7. When using knives, shears or other cutting tools, cut in a direction away from your body.
- 8. Do not carry tools in your hand when you are climbing; carry tools in tool belts.
- 9. Do not throw tools from one location to another, from one person to another, or from scaffolds or other elevated platforms.