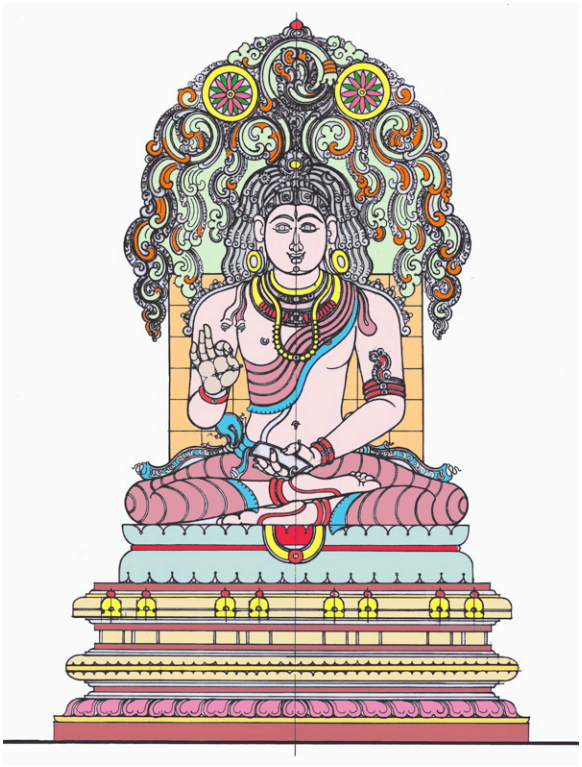
American University of Mayonic Science and Technology



Safety Codes
and
Student Responsibilities Regarding Safety

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Students participating in AUM S&T classes are adults. As adults, you are completely responsible for your behavior, safety and wellbeing. It is your responsibility to also be a team player thus if you see a fellow student behaving in a way that is inappropriate, unhealthy, damaging to the group consciousness, or dangerous both in class or during practicum's, it is your responsibility to be proactive and intervene.

Classes that may provide some health and safety hazards are 1. Construction practicum's and, 2. Travel to and inside India. Please read the course descriptions for those classes and if a syllabus is offered read that. There are no syllabi for courses that you hold the majority of the responsibility for its conduct and completion (practicum 2 & 3 for example). Also, the information letter sent to each student for a given practicum or trip to India should be carefully read and followed as health and safety information is given. Do not assume you know better and thus avoid the instructions.

You should personally become familiar with construction practices. You must go to existing job sites and observe, take classes at Home Depot, and read the recommended books on carpentry and architecture. It is not the responsibility of the University to teach you construction skills. We give you some basic information but it is your duty to really learn the language and methods. Your program would be a year longer and you would have two to three more practicum's if it were our job to teach you this information. You will fail as a Vaastu Consultant if you don't take responsibility to learn more about construction methods and materials. By the time you reach practicum three you should have a good grasp on general construction procedures. This will actually help you to be safer on the practicum's you must take.

Construction Health and Safety Information for Students

Health and Safety are YOUR responsibility and it is YOUR responsibility to know this information:

- Follow safety rules
- Wear and take care of personal protective equipment (safety glasses, safety vest if needed, hard hat if needed, steel toe boots or proper shoes depending on the site)
- Make sure all safety features of tools are engaged
- Don't let your work put another worker in danger (if you are carrying a long board look around you before turning around or sideways with the board on your shoulder for example)
- Replace dull or damaged hand tools immediately
- Avoid horseplay, joking around, practical jokes, socializing or other distracting activities
- Don't use drugs or alcohol on or off the job
- Report any unsafe work practices you observe immediately (tell the person you see acting or performing in an unsafe way)
- Familiarize yourself with construction safety (for example: http://www.cpwrconstructionsolutions.org/) Review this site thoroughly

- Be aware of the outside temperature. If it is hot wear lightweight, light colored loose clothing. If it is cold wear warm clothing
- Be sure to wear good work gloves and shoes
- Don't throw tools from above
- Watch your step on ladders and scaffolding
- Be constantly on the alert for your own actions and actions of others
- Be present and focus – don't day dream
- If you must use a tool that you have not used ask for proper instruction on its use
- Make sure to stay hydrated – you are responsible for bringing your own drinking water and snacks
- If you are tired ask for a group break
- Get plenty of rest at night – don't stay up late talking, working or for any other reason. Fatigue and carelessness (a consequence of fatigue) is the number one cause of accidents in a workplace.
- You must have travel insurance for any course that you travel to. No one else will pay for your medical bills if you are injured.

General Construction Site Safety

Because of the very nature of the work, construction site workers face a higher risk of accidents and injury than the normal industrial employee. The personal protective safety equipment worn to reduce lead exposures can in turn increase accident potential by:

- Reducing dexterity
- Narrowing the field of vision and clarity
- Reducing communication and hearing capabilities
- Increasing heat stress

What is an accident?

An accident is an undesirable, unplanned event resulting in personal physical harm or damage to property. An accident may be the result of an unsafe act, such as dropping a tool to the ground from above without looking or not wearing safety glasses or goggles, or the result of an unsafe condition, such as cleaning a cement mixer with a hose while standing next to an extension cord joint. Another example is walking behind someone who is pounding with a sledgehammer. These situations can be related, since an individual's unsafe act can result in an unsafe condition for someone else.

Preventing Accidents

The two main approaches to reducing or preventing accidents are: eliminating unsafe conditions and reducing unsafe acts.

Eliminate Unsafe Conditions

You must be aware of conditions that can contribute to an accident and then work to remove exposure to these conditions. Examples are live electrical circuits or wearing improper protective equipment (eye goggles for example). Of course, it is difficult to eliminate all unsafe

conditions, and it's even more difficult to predict or anticipate where such conditions may exist or develop on construction jobs.

Reduce Unsafe Acts

Each worker must make a conscious effort to work safely despite the hazardous conditions that may exist at any site. A high degree of safety awareness must be maintained so that the safety factors involved in a job become an actual part of the job. By being conscious of the task you are performing, the environment in which it is being performed, as well as how you are going to actually perform the task, you will be capable of identifying potential hazards that will cause you to act in an unsafe manner.

General Safety

Safety is the condition of being secure from hurt, injury, or loss. Therefore, to be safe, you act in two ways, **Proactively** and **Reactively**. When you act proactively, you anticipate problems before they occur and take steps to make sure accidents don't happen. When you act reactively, you are responding to problems after they occur. Workers are best protected when they act proactively.

- Watch for falling tools from above.
- Do not walk under or near a ladder when someone is on it unless you are stabilizing it.
- Watch where you step (holes in the ground, openings in scaffolding, tools on the ground).
- Do not walk behind or in front of a person using a shovel, pick, sledge hammer, hand hammer, saw, or any other tool – keep your distance to keep you both safe.
- Do not lift anything that is too heavy for you – get help.
- Be careful when you use power tools – watch your hands, eyes, legs and the same on others who may be near.
- If you see someone acting in an unsafe way tell him or her.
- Help keep the site clean and orderly. Be proactive and pick things up if you see them.
- Put tools away in their proper place if they are not in use.
- If you are upset or angry get over it or leave the site – emotional situations can cause accidents.
- Your mental attitude is important to working safely. Don't be a complainer – take care of it yourself. If you get upset with someone else take care of it then and there.

SAFE WORK PRACTICES

ELECTRICAL SAFETY

The use of water increases the chances for electrical shock when working around extension cords, electrical tools, electrical panels, conduit, light fixtures, alarm systems, junction boxes, computers, transformers, etc. It is important for workers to be aware of locations of hazards before they begin work. Most AUM S&T projects do not require many electrical conditions but this knowledge will be helpful for you when you work on a large site.

Safety Precautions for Electrical

- De-energize as much equipment as possible. Use portable floodlight systems for lighting.
- Consider using dry removal in areas immediately adjacent to energized electrical equipment, if de-energizing is not feasible.
- Use nonconductive scrapers and vacuum attachments (wood, plastic, rubber).
- Wear heavy insulated rubber boots and gloves when working around energized wiring.
- Put "hot line" covers over energized cables and power lines.
- Make sure all electrical equipment in use has a Ground Fault Circuit Interrupter (GFCI) before the job starts. This means checking outlets, wiring, extension cords, and power pickups. Check for the ground-pin on plugs.
- Use care not to damage insulated coverings with scrapers, scaffolding wheels, etc.
- Do not string electrical wiring across floors.
- Do not allow water to accumulate in puddles on work area floors or the ground.
- Ensure electrical outlets on site are tightly sealed and taped to avoid water spray.
- Always perform a pre-work walk-through to identify potential sources of electrical hazards to workers, as well as any equipment that may be damaged by wet removal methods.
- Electrical equipment and lines should be considered energized, unless tested and determined otherwise.

FALL PROTECTION

Slips, trips, and falls account for many of the injuries and deaths on construction jobs, especially for those working on roof construction or high wall construction. Whenever work takes place at heights there should be an evaluation of the proper methods of access and protection from falls.

Many accidents occur on high parts of projects because workers think that, because they will only be "out on the edge" a few minutes, they don't need to wear any protective equipment. They are wrong. Many accidents happen in that short time the worker is exposed. Don’t go on roofs or scaffolding thinking that you won’t fall. Watch yourself. It is also important to ensure that the work area is free of debris (both at heights and on the ground).

Slips, Trips, and Falls

Many accidents occur because of all the equipment that is lying around on a work site. Much of this equipment needs to be there, and workers need to learn to be careful. However, many things can be picked up and moved out of the way, which will reduce the number of accidents. For example, when debris is removed, the accumulations should be bagged and removed from the floor or ground as soon as possible. This simple step, which may require a little more initial effort, will make end of job cleanup easier and the overall job safer.

Safety Harnessing Systems

Personal protective equipment, such as safety harnesses (when needed), is important when guard rails and other barriers are not possible. Falls from heights are the leading cause of death in construction. Many, if not almost all, of these accidents would have been prevented if the fall

protection standards had been followed. *Many of the accidents occur within the first few minutes of being exposed to the hazard. This is simply because too many workers feel that since they are only going to be out there a few minutes or less, why take the time to get the harness and tie off?*

Below are some general guidelines for storage and maintenance of fall protection systems:

- Always place your safety system where it cannot get damaged. *Don't throw it in the bottom of the toolbox or on the ground. Hang it up.*
- Inspect each day and remove from service immediately any damaged equipment.
- Never store equipment near excessive heat, chemicals or their fumes, or sunlight.
- Avoid dirt buildup. Clean with a mild, non-abrasive soap and hang dry.
- Never use equipment for anything other than a fall arrest system.
- Once exposed to a fall, immediately remove system from service.

Most AUM S&T practicum's do not require a harness but if you are a consultant you might be going on top of a roof to install a kalash. Be sure you are roped in. Or, have a construction worker do the installation after the ceremony.

LADDERS AND SCAFFOLDS

Scaffolding and ladders are almost always needed for projects on building structures and they always present a risk. The following simple steps can be taken to ensure that the equipment you are using is in good condition and the method being used is correct.

Ladders

The following items should be checked on a regular basis by you:

- Complete inspections are done periodically.
- Defective ladders are tagged and not used. *No improvised repairs.*
- Safety feet spreaders and other components of ladders are in good condition.
- Rungs are kept free of grease, oil, and other types of dirt. *Keep it clean.*
- Ladders are not used for other than their intended purpose. *Ladders must not be used as a platform or walk board.*
- Extension ladders should be used with a 1-4 lean ratio. *Remember, 1 foot (0.3m) out for every 4 feet (1.3m) of elevation.*
- The user faces the ladder while going up and down.
- Tops are not used as steps. *Get a longer ladder.*
- Ladders are secured to prevent displacement during use.

Scaffolding

Most projects involve the use of scaffolding. Proper setup, regular inspection, and basic maintenance is important. Remember, scaffolding can be any elevated working surface, ranging from a plank laid over two sawhorses to a manufactured lift.

The following steps must be followed when erecting, dismantling, or working on scaffolds.

- Setup and dismantling of scaffolding must be done under the supervision of a competent person and follow manufacturer's specifications.
- All workers are expected to report any apparent deficiencies to supervision or the competent person immediately.
- All personal protective equipment, such as harnesses, will be worn at heights greater than 6 ft (1.8m) if an individual will be suspended in an open area.

Hazardous Atmospheres

In confined spaces there often is a lack of natural air movement, which leads to the most commonly found hazard: hazardous atmosphere. You should recognize these hazardous atmospheres:

- Oxygen-deficient
- Flammable
- Toxic

Oxygen-Deficient

An oxygen-deficient atmosphere has less than 19.5 percent available oxygen. Any atmosphere with less than 19.5 percent oxygen should not be entered without an approved self-contained breathing apparatus (SCBA) or airline respirator with escape SCBA. Generally AUM students will not be in such spaces in a practicum.

Flammable Atmospheres

A flammable atmosphere develops when a flammable gas, vapor, or dust is present in the air at concentrations between the Lower Flammable Limit (LFL) and the Upper Flammable Limit (UFL).

Toxic Atmosphere

Any substances, including the following, should be considered hazardous in a confined space:

- Liquids, residues, or sludge.
- Materials used in the confined space, for example, cleaning solvents, paints, welding fumes.
- Perfume, aftershave, essential oils are not appropriate on a building site. Some people are allergic to them.

Feet and Hands, Head and Eyes

All body parts are subject to harm on a construction site. Feet, hands, head and eyes are especially susceptible**.**

Hands

Your hands will be used for everything you do on a construction site. You must protect them from splinters, burns, cuts, scrapes, wet, cold, blisters, and any other possible damage or injury. Wear proper gloves for the task at hand.

Feet

Your feet must be protected from injury due to stubbing toes, dropping objects, blisters, stubbing of toes, wetness from water or perspiration, stepping on nails, spraining ankle by stepping on something that will twist it, and any other harm. Wear good shoes or boots and do not wear sandals on the job site.

Head and Eyes

Your head is subject to harm from sun, cold, wind, falling objects, being hit by boards, bricks, shovels and other tools. Protect your head. At times you should think about getting a hard hat especially if you go to a job site as a Vaastu Consultant.

Your eyes are subject to dust, splinters, flying objects, particles from sawing, falling tools and other injuries. Protect them with protective glasses or goggles.

If you get hurt it is your fault. You have not been on the lookout for possible hazards or you have acted in a way that was unsafe. If your action hurts someone else it is also your fault as you have not been on the lookout for people around you. Thus, as you can see there is a mutual responsibility for safety on a work site. And, ultimately it is you who must look out for you. And, you who must look out for others – they are your team.

Use Of Tools

Every tool used on a construction site holds the possibility of causing an injury. Every thing from a hammer, screwdriver, to power tools, shovels, picks and other tools can cause small and large injuries. Every tool must be respected. If you don't know how to use it ask someone to show you how.

Be careful of yourself and others when using tools. Go slowly and carefully with everything you do until you learn how to use the tools properly.

- Turn off a saw as soon as the cutting is done.
- Turn off any power tool as soon as the particular piece of work is done.
- Put shovels, hoes, picks, etc away immediately following use.
- Do not drop a hoe, shovel, or rake on the ground – someone can get injured from tripping on it or stepping on the head and having the handle fly up and strike the head or face.
- Clean all tools before putting them away
- Be careful to not lift more than you can safely

Sometimes things happen out of the blue. Make an effort to watch out for "the blue."