

s. R. Crown Hall 3360 South State Street Chicago IL 60616 arch@iit.edu 312.567.3260

## **FACILITIES**

## **Materials Lab**

#### THE FACILITY

The Materials Lab is located in the M&M building, located due west of Crown Hall against the Metra tracks. Arrayed on the ground floor is a complete wood, metal and plastics shop that includes a CNC milling machine and flat bed router. On the second floor of this same building we have three Universal laser cutters. The shop area is divided into two halves, and when one of the halves is being used by a class, the other half will remain open for general student use.

#### Access

The Materials Lab is only open to qualified, currently enrolled, architecture students. Before you can use the facility you must qualify by passing a written test. This test measures your knowledge of safe operating procedures of the shop's equipment. If you are entering the three year master's degree program, instruction this safety instruction will be part of your studio work.

However, if you are a transfer student or if you are in one of the other master's degree programs, you will have to make a special effort to qualify yourself, which you do by passing a written test on machine and work place safety, and a schedule for these test sessions will be posted by the door of the M&M shop office. A list of students who are qualified to use the shop is kept by the door to the shop office.

To prepare for this test you can either attend one of the two-session Safety Orientation Classes or you can watch the video of this class. Signup sheets for the classes, which are held during the first weeks of each semester, are posted on the bulletin board by the shop office door in M&M. To see the video go to Graham Resource Center page on the College of Architecture website

Students must observe safe working practices when working in the shop, and these are explained in the Safety Orientation Class and Video. Failure to do so can result in expulsion from the Materials Lab. Whenever you are in doubt about the safety of an operation, please ask for advice or assistance from the staff.

Machine guards must be used whenever practical. In particular the table saw guards must be used when ripping any part wider than 12". The machining of small parts poses particular dangers. No work piece that is smaller than 3" in its longest dimension may be cut on the table saw. Long hair, loose sleeves, dangling jewelry or cords present a special danger around machinery. Bare feet also pose an unnecessary risk of injury. Students must eliminate these sartorial hazards before working in the shop.

This facility is staffed when it is open for use, and students may not work in the shop or the laser lab after the posted hours. After 10:00 pm these staff members ask everyone to leave, and for safety, liability and security reasons lock up for the night. Students are not allowed to work alone or after hours.

During periods when school is not in session, Faculty may obtain access keys for their own use. They may also bring students into the shop that are working directly under their supervision. Under no circumstances is the faculty person to leave the student(s) unsupervised, nor are they permitted to give the access key to a student.

#### **LASER CUTTERS**

Only students who have passed the special laser cutter training session can use the laser cutter. The schedule of these training sessions, which are offered during the first few weeks of each semester, is posted by the doorway to the laser room. The list of those students who are permitted to use the machine is posted on the wall in the laser room.

Students who have attended the laser cutter training can make appointments to reserve up to two hours per week on the laser cutters. Students needing additional laser time can only obtain it on a standby basis. Appointments can be canceled at any time, but missed appointments can result in termination of reservation privileges. Students who use unapproved materials, or who do not stand by the machine while it is working will forfeit their access to the machine.

# MATERIALS LAB HOURS FOR THE 2010-11 ACADEMIC YEAR:

 Monday
 9:00 am-10:00 pm

 Tuesday
 9:00 am-10:00 pm

 Wednesday
 9:00 am-10:00 pm

 Thursday
 9:00 am-10:00 pm

 Friday
 12:00 pm-6:00 pm

 Saturday
 12:00 pm-5:00 pm

 Sunday
 12:00 pm-10:00 pm

## LASER CUTTER RESERVATIONS

Students must make laser cutter reservations in person. To make a reservation please go to the shop crib during regular business hours and speak to a student attendant. Appointments can be scheduled for any given week beginning on Thursday noon of the previous week.

While you cannot reserve a time online, the laser cutter schedule is available online at the following link: www.iit.edu/arch/resources/grc



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### **CNC MILLING MACHINES**

Using these milling machines is more complicated than operating the laser cutter. Only students in certain studio classes in which the process is taught, or students working under the supervision of one of the Materials Lab staff may operate this equipment.

#### **COMMERCIAL WORK**

The Materials Lab exists to support the educational mission of the College. In addition, faculty and currently enrolled students may use the facility to work on personal projects if it is not busy. However, commercial projects, such as a model for an architectural firm, can be brought into the shop only if all commercial work conditions are met.

#### **TOOL CHECK-OUT**

Architecture students may borrow hand and power tools from the shop's collection for use in their studio projects. Students may borrow tools, preferably, for no more than three days. Because our collection is shared among a large number of students, students who need a tool for a prolonged period of time are encouraged to buy their own.

If you bring your own tools into Crown Hall, please clearly mark your name on them, so they can be returned to you when they are misplaced. There is an engraver in the Shop's Crib, so you can mark indelibly on practically any material. Apart from drills and Dremel tools, students may not bring personal power tools into the college because the university will not be responsible for their unauthorized use.

## STORAGE OF MATERIALS AND PROJECTS

Unfortunately, there is not enough space to store non-active projects. Therefore, do not bring your materials into the shop until you are ready to use them, and then pursue your project aggressively. Normally students store materials on the shelves with their names and contact information clearly marked on them. When you leave for the day, clear your project off of the workbench and store any small parts in one of the lockers beneath the benches or in a box on one of the shelves.

Each morning when the shop is straightened out and the workbenches cleaned off, materials left about will be placed in the scrap pile. Materials in the scrap pile are free and available to anyone who wants to use them. Abandoned projects will be thrown out, however, sometimes it's hard to distinguish between abandoned projects and idle projects. Protect yourself by completing your project swiftly and then removing it from the shop. If you have a special storage problem, please speak with John Kriegshauser or one of the assistant supervisors.

## SPRAYING PAINT

The spray booth located at the south end of M&M is the appropriate place to spray paint, aerosol adhesives and lacquers in the College because it provides an exhaust fan and air filters. Using aerosols at your desk results in overspray mess and a toxic atmosphere in the studio. Adjacent to the booth is a paint cabinet in which you can store your paint. Please put your name on any cans of paint that you want to keep.

Paint, ink, solvents and other flammable or toxic liquids may not be poured down the sink. Instead discard these materials in the red paint waste containers located by the spray booth. Aerosol cans, whether empty or full, should be disposed of in the box marked for that purpose by the spray booth. These materials are then removed by a specialized waste hauler.

## STUDENT LOCKERS

Students can obtain lockers designed to hold their studio supplies. Each locker accommodates two students. You can either share with a friend, or you allow chance to determine your locker partner. Your locker will be as near to your drawing table as possible. Students in the core studios can acquire their lockers immediately after the first studio session. Students in the elective studios will have to wait until their studios are assigned to them, which is usually a week later.

All of the lockers are reissued at the beginning of the Fall Semester. You must clean out the contents of your locker before that time or risk losing them.

# COMMERCIAL WORK CONDITIONS FOR USE:

- 1. Only currently enrolled students may perform the work.
- 2. The project must not interfere in any way with school projects.
- 3. An overhead fee of \$100 per hour per worker must be paid to the College. The charge will be assessed for the number of hours that the worker(s) are in the room.

# SPRAY PAINT GUNS

Students can borrow spray guns directly from the shop supervisor by putting up a \$20 cleaning deposit. If the gun is not completely clean upon return, the deposit will be forfeited.

#### LOCKER KEYS

You can obtain your locker key from John Kriegshauser, Michael Gillhouse or Brett Balogh in the M&M office on Mondays, Wednesdays and Fridays from 9:00 am-10:00 pm. You must bring \$10 as a deposit to obtain your locker key. This \$10 will be refunded to you when you return the key. If you lose your key, you forfeit the deposit.