

MATERIALS LAB STUDENT POLICIES

NEWSCHOOL OF ARCHITECTURE + DESIGN
MATERIALS LAB

MAY, 2014

THEORY

The theory of the Materials Lab is to provide an environment for students to explore new materials, procedures and methods to enhance their learning experience here at NewSchool. We strongly feel that through didactic engagement in the build process, students gain an understanding of the design process which extends beyond capabilities of the classroom or the studio. The exploration, engagement and problem-solving skills developed in the Materials Lab create vital skills which will carry-through into whatever chosen avenues students explore post-graduation.

RESOURCES

NSAD's Materials Lab is a comprehensive 3000 sq. ft. facility where students can work with materials as diverse as wood and metal to plastics and composites. Students create representations of their ideas using the fabrication capabilities offered by the lab, including:

Woodworking

Students have access to a wide range of professional working tools including a cabinet saw, band saws, drill press, compound plunge miter saw, panel saw, table router, fixed sanders, planer, joiner as well as a full array of both power and manual hand tools.

Metalworking

Access to tools for all types of metalworking including a shear, break, roller, MIG welders, Oxy-Acetylene torch, drill press, vertical mill, horizontal band saw, as well as angle grinders, drills, clamps and additional hand tools.

Digital Facility

An expanding facility which includes two 4' x 8' industrial CNC (Computer Numerically Controlled) machines which utilize both lasers and high-speed milling technology to produce precision parts. Also available are three smaller-format cabinet lasers cutters for more intricate work. Finally, a SLS 3D printer for the fabrication of highly complex 3D geometries which cannot be produced by traditional fabrication methods.

The least tangible resource of the lab is the resource of ideas. The staff and management are heavily involved in the creative process on a day to day basis and can be of great service during the conceptual process. This often involves a student working with a staff person to consider, evaluate and enhance ideas through speech, drafting and physical modeling.

HOURS

The facility is open 7 days a week while school is in session, staffed by two full-time employees and a team of experienced federal work study employees. Hours vary from 60 hours a week during regular demand with increased hours added as needed during busy periods.

Typical hours of operation are 10 AM to 4 PM Monday, Wednesday and Friday, 10 AM to 10 PM Tuesday and Thursday and 11 AM to 7 PM on Saturday and Sunday. These hours may vary so please check the latest hours at the Materials Lab or on the website.

POLICIES

Lab

- Never be in the lab without a staff member present
- Always wear appropriate safety protection for your activity
- Always wear safety glasses when in the lab
- Do not work when you are tired or impaired
- Ask a staff person whenever you are uncertain how to operate a machine, select a material, or how to safely perform an operation
- Clean up when you are done
- Use all safety guards, do not remove or disable any safety equipment
- Any project should be related to course work only. If you want to work on a project outside of classwork, clear this with the staff first.
- Only green-tagged tools are available for checkout
- Respect the decision of any staff person, they are the final say.

Wood Area

- Do not wear loose clothing or headphones, tie up long hair.
- Do not cut wood with nails, metal or other contaminants
- Leave all safety guards in place
- Nothing in wood should ever be 'forced'. If something is not cutting properly, adjusting easily or is awkward, ask a staff member for assistance.
- Cleanup after you are done working
- Store material only in appropriate shelves or racks
- Put away any hand or power tools when you are done using them
- Always turn on the dust collector before using any fixed tool then, turn off when done

Metal Area

- Wear proper safety equipment for welding, cutting or any activity in metal
- Make sure to use safety screens when welding
- Turn off all gas bottles when you are done using them
- Clean up after you are done working
- Put away any power tools, welders or cutters when you are done using them
- If a tool has coolant, make sure it is working properly when you are cutting
- Select the correct TPI (Tooth Per Inch) of a blade for the material you are cutting
- Work only with mild steel or aluminum. Ask if you wish to use other metals.

Digital Area

- Never approach a digital tool when it is working, make certain it is complete before approaching
- Make sure you are on-time for your appointments, being 10 minutes late forfeits your appointment
- Those with missed appointments cannot make another appointment for the remainder of the week
- Always cleanup up when you are done working
- Only use approved materials for the digital equipment you are using
- Plan ahead, work will often take much longer than you expected, especially if it is your first time
- Make certain the appropriate ventilation is on when using any tool and the ventilation is working properly