



MakerGym

Policy Manual and User Agreement

[125 Academy Street](#)
[Pearson Hall Room 102](#)
(302)-831-2184

udel.edu/makergym
MakerGym@udel.edu

MakerGym Charter

*The primary use of the MakerGym is making.
All makes and makers are equal in the UD MakerGym.*

The MakerGym is an interdisciplinary design and fabrication studio, focused on student empowerment and collaboration. This creative space is equipped with a robust array of processes which compliment and provide depth to existing making capabilities on campus in order to support education, entrepreneurship, research and personal growth. All students have access to our resources including the necessary training and design consultation to help them turn their ideas into action. This is everyone's sandbox.

Core Values:

Success Safely

Respect Others and Ideas

Stewardship of Resources

The MakerGym is committed to creating a welcoming community for all, regardless of making experience. Use of the MakerGym implies acceptance of our policies and safe operating procedures.

Operations

The University of Delaware MakerGym is a mixed-use space, serving students, student groups, faculty, staff and academic programs. To maximize access for all, we offer both walk-in hours and reservable time slots based upon user types.

Hours

Students/Faculty/Staff

Operating Hours

Monday 9am-4:00 pm

Tuesday 9am-4:00 pm

Wednesday 9am-8:00 pm

Thursday 9am-4:00 pm

Friday 9am-4:00 pm

The MakerGym is closed when the University is closed.

Access during inter-sessions is by reservation only.

Walk-ins and reservation availability may be impacted by the MakerGym Event Calendar, published on the MakerGym website.

Accessing The Space

All visitors to the MakerGym must check-in using the QR code on the door or with an available staff member upon entering the space. Staff will make resources available to users upon check-in. Users must request materials, tools and equipment from MakerGym Staff. When a user is prepared to leave, they must check-out with a MakerGym staff member who will verify the return of MakerGym assets, cleanliness of utilized workspaces and collect unused materials.

During check-in, users will be asked to accept the User Agreement. This contract implies knowledge and consent to MakerGym policies and Safe Operating Procedures (SOP). Access credentialing will be associated with your University issued ID.

Accessibility Statement

University of Delaware MakerGym is committed to providing access to all students. Please contact MakerGym Staff via email (makergym@udel.edu) to determine what accommodations may be made to facilitate your safe use of the space.

Shared Space

Makers are mindful of others' access to space, tools and materials. If demand is present, users may be asked to suspend their making, limit materials or share in order to allow reasonable opportunity for everyone. Consideration and fairness are expected when utilizing MakerGym resources.

Design Consultation

The MakerGym seeks to empower and enable all users as Makers. Turn-key development or solutions are not offered. The MakerGym does not provide manufacturing services. MakerGym Staff are available by appointment to provide consultation for original ideas, with the expectation that users commit to necessary training, discovery and practice.

Training

All users, regardless of previous experience, must complete and maintain MakerGym training credentials in order to use MakerGym assets. Training covers Personal Protective Equipment (PPE), Safe Operating Procedures (SOP), design guides, material selection and costing for each process we offer.

The MakerGym maintains a tiered training structure, as outlined on the [MakerGym Website](#). Equipment is banded by risk class, required skills and operational similarities. Some equipment, such as basic hand tools and cameras, do not have associated training requirements; instead users are provided SOP's and other reference material for proper use. It is expected that all users seek staff assistance if they are unsure of tool or material selection, or specific tool operation.

The training and workshop schedule is available on the MakerGym website. Pre-registration is required. If the training facilitator determines that your performance, retention or product during training does not demonstrate minimum proficiency you may be asked to retake applicable training.

Reservations

MakerGym training, equipment, space and materials are available both for walk-ins and reservations. Reservations or requests must be made through the MakerGym website. If at the end of a reservation the equipment is unreserved for the next hour, the user may then extend their reservation and continue working. Equipment is expected to be in a ready status at the end of a reservation. Process cycle times relative to the end of a reservation must be accounted for. Failure to show for a reservation may affect future access. Staff reserves the authority to cancel, suspend or defer a reservation.

Research or Faculty Requests

To support embedded making in course curricula, Faculty shall work with the MakerGym to ensure resources and access are available for their class projects, while minimizing impact to regular operations.

Faculty, Research or Private venture requests for materials or support will be considered. Inquire through the MakerGym website for availability and costing. Faculty, Researchers and Private Ventures may not circumvent policies by having students or staff access MakerGym resources.

Class Reservations

Classes can use the MakerGym in various capacities. Class requests must be made through the MakerGym website. Faculty must complete orientation and applicable training prior to their class visit.

1. Class Orientation (1 Hour Session)
 - Tour, Policies, Making connections and applications to your coursework
 - For courses with embedded making projects for which students will need access to the MakerGym throughout the semester
 - Students would return to complete specific training on their own, outside of class
2. Class Project/Workshop (1 Orientation + 1-2 Sessions)
 - For courses with making projects that require access to the MakerGym during class meeting times and beyond
 - Focused training sessions would provide students with credentials for specific processes, so that they can use MakerGym resources during and outside of class
3. Semester-long Commitments
 - Available for individual spaces within (or the) entire MakerGym
 - User training requirements will apply.

- Scheduling now for the Spring and Fall semesters
- Full semester - 3 and 4 credit classes

Group and Event Reservations

Groups can use the MakerGym in various capacities. Fees, training and scheduling restrictions may apply. Group requests can be made by [contacting the MakerGym](#).

Safety Policy

Personal Protective Equipment (PPE)

- Universally, eye protection is required in the MakerGym. Exceptions include:
 - Meetings or similar activities during which no tools are present in the occupied space (i.e. conference room, classroom).
 - When designated by Staff.
- Users must wear appropriate PPE, as defined by the corresponding Safe Operating Procedure (SOP).
- Required PPE is available for users during their visit to the MakerGym. Users are welcome to bring their own PPE, if it complies with applicable OSHA standards.

Safe Attire and Accessories

Users Shall:

- Wear closed-toe, closed-back, flat-soled shoes.
- Wear attire which maximizes protection of the skin on arms, legs, ankles and chest.
- Tie back long hair.
- Remove jewelry and other loose fitting accessories.

Users Shall Not:

- Wear loose clothing, low cut tops, shorts or ripped pants.
- Have anything around their neck, including scarves, necklaces, lanyards, etc.

Food/Beverage

- Universally, food is not permitted in the MakerGym. Exceptions include:
 - Meetings or similar activities during which no tools are present in the occupied space (i.e. conference room, classroom).
 - When designated by Staff.
- Non-alcoholic drinks are permitted, and must have a sealed lid.

Distractions

- Universally, unless directly related to making, listening devices, cell phones and other diversions are not permitted in the MakerGym. Exceptions include:

- Meetings or similar activities during which no tools are present in the occupied space (i.e. conference room, classroom).
- When designated by Staff.

Tool and Equipment Use

Users Shall:

- Access only the resources for which they have valid training.
- Comply with prescribed SOPs.
- Follow Staff directions and warnings.
- Seek advice when uncertain.
- Use a tool only for its intended purpose.
- Report concerns regarding space, equipment or users to Staff.
- Stop using a tool if it is not working properly and seek assistance from Staff.
- Clearly designate temporary floor, pathway or overhead hazards and obstructions related to their work.
- Keep workspaces and equipment clean.

Users Shall Not:

- Utilize the shop unless a staff member is on duty in the shop.
- Enter the 3D Printing enclosure.
- Remove equipment or tools from their designated area.
- Leave tools unattended.
- Walk away from equipment while it is still running or moving.
- Obstruct emergency exits.
- Enter the MakerGym while under the influence of drugs and alcohol.

Reporting

There is an inherent possibility that users may experience superficial cuts, scrapes and bruises during safe making practices. These are not necessarily required to be reported. Perpetual occurrences of this nature should be discussed with Staff to determine opportunities to be avoided or minimized.

Near misses, injuries, illness and incidents of concern must be reported to Staff immediately, even if medical attention is not required. Users must complete documentation as determined by Staff and EHS protocols.

Notify University of Delaware Public Safety in the event of an emergency or if immediate medical attention is required.

Public Safety Dispatch
911 (campus phone)
(302)-831-2222 (cell phone)

Acceptable Use

Lawful Making

MakerGym fabrication equipment may not be used to create artifacts that are:

- Prohibited by local, state or federal law.
- Unsafe, harmful, dangerous or pose a threat to the well-being of others.
- In violation of another's intellectual property rights.

Manufacturing

The MakerGym supports the development of one-off projects, concepts, prototypes and first production runs. Users may not mass produce items, whether for profit or as an alternative to sourcing from a viable vendor.

Alternative Use

The primary use of the MakerGym is making. Activities not directly associated with ideation, design, prototyping, fabricating and testing will be monitored and regulated. Examples of restricted activities include:

- Studying
- Sleeping
- Meals
- Unrelated group meetings
- Gaming

Kitchen

The MakerGym Kitchen is restricted to staff and event use only.

Lockers

The MakerGym lockers can be reserved for your personal belongings while using the space. Items must be removed when you leave for the day.

Security

Violation of relevant policies may result in loss of access, and may be referred to Public Safety and the Office of Student Conduct. Examples of these infractions include: attempting to defeat

control systems, accessing MakerGym assets for others using your credentials, circumventing equipment safety systems, theft and vandalism.

Dispute Resolution

Conflict may arise between users, or between a user and MakerGym Staff. In the event that a user disagrees with a MakerGym Staff decision, users are expected to respectfully raise their objection, and comply with the Staff request. Users may resolve concerns of this nature with the MakerGym Operations Manager by appointment, and shall not engage in dispute with Staff.

Environmental Impact Statement

Makers should be conscious of the implications of their design and fabrication decisions on the environment. Material selection should be mindful of renewability, sustainability, supply chain, life cycle, energy and health.

Materials

Material optimization is outlined in corresponding Design Guides and Safe Operating Procedures. Users will reduce waste stream by returning unused materials to collection bins. Outside materials require MakerGym Staff approval prior to processing on MakerGym equipment. The MakerGym stocks an array of materials for purchase. Material and vendor information is available on the MakerGym website. See Appendix for costing.

Purchasing Materials

Material is sold in various increments and formats. See the Material Price Sheet in the appendix. Material prices are updated at the beginning of each semester to reflect market conditions.

Complimentary Materials

The MakerGym provides the following at no cost for usual and customary applications:

Fasteners

- Zip-Ties
- Screws
- Bolts, washers and nuts
- Thread

Adhesives

- Wood Glue
- Marine Goop
- Construction Adhesive
- Hot Glue Sticks
- Epoxy
- Rubber Cement
- Tape

Electronics

- Wire
- Heat Shrink
- Simple Circuit Components
- Solder

Project Storage

Users may store projects that are in progress in the provided blue bins within The Cage. Users must request a bin through MakerGym Staff. All projects and bins shall be labeled. Bins must be emptied and returned when the project is complete. Storage for unused material is limited; users should plan material purchases accordingly. Projects and materials remaining after Finals Week will be considered abandoned and disposed of by MakerGym Staff.

MakerGym User Agreement

By signing the University of Delaware MakerGym User Agreement, you are certifying that you have fully read, understand and will abide by the policies detailed in this manual.

Users agree to comply with all Safe Operating Procedures and signage during the use of MakerGym resources, and to seek staff assistance if they are unsure of tool or material selection, or specific tool operation.

Users will be required to acknowledge and recertify their understanding of any subsequent revisions to this University of Delaware MakerGym Policy Manual and User Agreement in order to maintain access to University of Delaware MakerGym resources.

Name:

UD ID#:

Signature:

Date:



APPENDIX

Material Costing - Spring 2022

Wood	Per Square Inch
3mm Baltic Birch	\$0.01
6mm Baltic Birch	\$0.01
12mm Baltic Birch	\$0.02
18mm Baltic Birch	\$0.03
3D Printing Fllament	Per Gram
PLA	\$0.02
Resin - Standard	\$0.14
Resin - Engineering	\$0.16
Onyx	\$0.21
Water Jet	\$0.66 Per Minute
Acrylic	Per Square Inch
1/8" Cast Acrylic	\$0.08
1/4" Cast Acrylic	\$0.15
Fine Arts Printing	Per Linear Inch
24" Wide Paper	\$0.48
44" Wide Paper	\$0.88

