

Job Title: Digital Fabrication Student Technician**Department: Academic Services****Division: Academic Affairs****FLSA Status: Non-Exempt****Reports to: Digital Fabrication Studio Manager****Work Schedule: Part time 5-10 hours per week | regular business hours, evenings, and weekends | 1 semester appointment, renewable**

General purpose: The Digital Fabrication Student Technician assists with the day-to-day operations of the Digital Fabrication Studio, supports student work in the Fabrication Studio, and field questions pertaining to Digital Fabrication Studio facilities.

Summary of Essential Functions

- Attend to students in the computer lab and answer software questions
- Support students with CNC milling, 3d printing, and laser cutting
- Troubleshoot RepRap 3d printers
- Ensure that the lab is set up and cleaned up at the beginning and end of each shift.
- Report any damaged equipment or lack of resources to the Digital Fabrication Studios Manager

Essential Duties & Responsibilities:

- Assist with, maintaining EHS compliance, enforcing EHS policies, modeling safe studio practices, and generally ensuring safety.
- Clean and put away all tools at the end of each shift to ensure that the dFab studio is well maintained
- Provide support to student community and monitor the equipment in the Digital Fabrication Studio.
- Enforce studio policies and demonstrate the ability to effectively communicate best practices with regard to software, materials, processes and machinery in dFab.
- Provide assistance to other Digital Fabrication Student Technicians and work-study; we work as a team, not everyone knows everything or is expected to know everything.
- Demonstrate the ability to self-assess and openly admit when you do not know the answer; demonstrate the ability to seek answers to questions independently.
- Help students learn by encouraging them re-teach information they just learned
- Setup and cleanup lasers at the beginning and end of each laser shift including checking lenses and tidying the room.
- Setup and cleanup RepRaps at the beginning and end of each homework shift including extruding a bit of material to ensure that they work, cleaning up any scraps and tidying up the printing station and turning them off at the end of shift.
- Offer laser training at the beginning of each laser shift
- Communicate with the Studio Manager to help maintain tools, supplies and safety in the dFab.
- Perform other related duties as assigned.

Knowledge, Skills, and Abilities

- Ability to collaborate with a community of students and faculty
- Proficient communication skills and an intent to foster effective relationships in our community
- Practical working experience laser cutting, 3D printing, CNC milling and/or 3d scanning
 - Knowledge of rep-rap, z-corp, objet, Universal Laser Systems, Trotec, MultiCAM, Rolland, Haas, Arduino is a plus
- Practical working experience in 3D software for computer aided design, and computer aided manufacturing
 - Knowledge of Rhino, Illustrator, SolidWorks, Job Control, Job Console, Slic3r, Pronterface, Skanect, Arduino is a plus
- Good mechanical sensibility
- Quality craftsmanship and a desire to incorporate cross disciplinary methods in your work
- Strong organizational skills
- Sensitive to student needs

Minimum qualifications:

- Current student at MICA

- Previous job experience (not your first job)
- The capability to independently use our laser cutters and our RepRap 3d printers
- Experience with Rhinoceros3d, Illustrator and Windows OS.

Preferred Qualifications:

- 1+ years' experience working with 3D modeling and CAM software
- 1+ years' experience operating and maintaining 3D printers, laser cutters, and CNC mills/routers
- Experience working as a technician in a fabrication studio on campus
- Experience working with Objet printers, Z-Corp printers, and CNC routers
- Skills in RhinoCAM, and Grasshopper
- Knowledge of electronics and experience working with Arduino
- Knowledge of programing/scripting languages such as Python, Processing, or C
- Experience building 3D printers and other digital fabrication machinery
- Good solid portfolio, website preferred

Reporting to this position:

- No direct reports

Conditions of Employment:

- Required to work evenings and weekends

Physical demands and work environment: The physical demands and work environment characteristics described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

- *Physical Demands:* While performing the duties of job, the employee is occasionally required to stand, walk; sit; use hands to finger, handle, or feel objects, tools, or controls; reach with hands and arms; balance; stoop; talk or hear. The employee must occasionally lift up to 45 pounds. Specific vision abilities required by the job include close vision, distance vision, color vision, peripheral vision, depth perception, and the ability to adjust focus.
- *Work environment:* While performing the duties of the job, the employee is exposed to weather conditions prevalent at the time. The noise level in the work environment is usually minimal, but ear protection is required at times.
- *Required training:* Handbook orientation, Anti-Harassment, Hazard Communication, Emergency Plans & Fire Prevention, Personal Protection Equipment.

General sign-off: The employee is expected to adhere to all company policies.

I have read and understand this explanation and position description.

Signature: _____ Date: _____

Human Resources:

Date Created/Revised: 03.03.2015