

Test Tube Test – 3D Printer Certification

Objective:

To demonstrate safe and competent operation of the lab's 3D printing equipment. This test is required to gain *independent access* to the 3D printer. Passing is mandatory to pass the course.

Assignment Requirements:

1. Schedule Your Test

- Book **two 30-minute time slots**, spaced at least **1.5 hours apart**, with the course instructor (Prof. Overbey).

2. Session I: Demonstrate Operational Knowledge and Initiate a Form 4 3D Print Job

During the first session, you will be asked to:

- Identify and explain the function of the following:
 - 3D printer build platform
 - Resin cartridge
 - Resin mixer
 - Wash station
 - Curing station
- Answer basic safety questions related to printer operation and resin handling.
- Initiate printing of a test tube.

3. Session II: Washing and Curing Prints + Cleaning the Form 4 Printer

- Use proper post-processing techniques, including washing and curing the print.
- Properly clean the Form 4 3D printer.

Assessment Criteria:

To pass, you must:

- Correctly identify and describe all required components.
- Follow all safety procedures.
- Successfully complete a test tube print from start to finish.

Note:

This is a pass/fail assignment, as the printer is required for the final course projects. Students who do not pass on the first attempt will need to reschedule until they pass. Continued failure to pass will result in an incomplete for the course.