



STANDARD OPERATING PROCEDURE (SOP)

PATTERN CONSTRUCTION LABORATORY
of the Faculty of Engineering
Study Program in Family Welfare and Education

UNIVERSITAS NEGERI SURABAYA

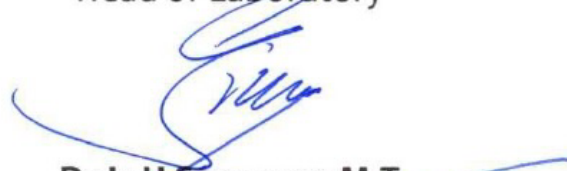
STANDARD OPERATING PROCEDURE (SOP)

FACULTY OF ENGINEERING

LABORATORY OF FAMILY WELFARE STUDY PROGRAM

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1. PURPOSE

This SOP regulates the operational procedures, safety management, and utilization of the facilities in the **Pattern Construction Laboratory** of the Family Welfare Study Program. It ensures that pattern construction-related practical activities, research, and educational tasks are performed efficiently and safely.

2. SCOPE

This SOP applies to all users of the Pattern Construction Laboratory, including lecturers, students, technicians, and any other parties involved in using laboratory facilities. It includes:

- The use of equipment and facilities for pattern construction projects.
 - Ensuring work safety and security.
 - Maintenance and care of laboratory equipment.
 - Daily operational procedures.
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3. DEFINITIONS

- **Pattern Construction Laboratory:** A facility used for teaching, training, research, and development in pattern making and construction techniques under the Family Welfare Study Program.
 - **Laboratory Users:** Students, lecturers, technicians, or staff involved in laboratory activities.
 - **Personal Protective Equipment (PPE):** Equipment such as gloves, masks, and safety glasses used to protect users from physical or chemical hazards in the laboratory.
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4. RESPONSIBILITIES

4.1. Head of Pattern Construction Laboratory

- Manages and supervises laboratory operations, including overseeing activities, approving equipment use, and maintaining facilities.
- Coordinates equipment maintenance and repair with technicians.
- Ensures all safety protocols are followed by users.

4.2. Laboratory Technician

- Prepares all equipment, materials, and machines used in pattern construction research and practical activities.
- Conducts regular maintenance, calibration, and repair of pattern-making tools and machines.
- Ensures the safety of users and supervises laboratory activities.

4.3. Laboratory Users

- Responsible for maintaining cleanliness and order in the laboratory.
- Must report any damage or accidents to the technician or head of the laboratory.

SOP Table for Pattern Construction Laboratory of Family Welfare Study Program

No	Process	Responsibility	Description
1	Head of Laboratory	Head of Laboratory	Manages and supervises the laboratory operations, including approval for usage and maintenance of facilities and equipment.
2	Laboratory Preparation	Laboratory Technician	Prepares equipment, materials, and laboratory facilities for practical or research activities. Checks the condition of the laboratory and ensures equipment is ready for use.
3	Activity Supervision	Laboratory Technician	Supervises the activities in the laboratory and ensures that users follow safety procedures.
4	Laboratory Usage	Supervising Lecturer / Users	Laboratory users follow instructions from the technician and supervising lecturer for

			using the equipment. Any damages must be reported and logged in the logbook.
5	Equipment and Material Usage	Users (Students/Lecturers)	Students or lecturers use the equipment according to the instructions. Users are responsible for cleaning the equipment and work area after use.
6	Waste Disposal	Users (Students/Technicians)	Separate waste (organic, inorganic, chemical) according to the procedures.
7	Equipment Maintenance	Laboratory Technician	Technicians conduct regular maintenance of the equipment and facilities, perform calibration, and report if any equipment needs repair or replacement.
8	Emergency Response	All Parties	In case of emergency, such as fire or accidents, all parties must follow the established evacuation procedures. Fire extinguishers and first aid kits are available for use.

5. OPERATIONAL PROCEDURES

5.1. Preparation for Laboratory Use

1. Reservation for Use

- Users must reserve the Pattern Construction Laboratory at least 2 business days before the scheduled use via the administration system or by contacting the technician.
- Users must provide a detailed project plan, including the equipment needed and the number of participants.

2. Initial Inspection

- Before starting, the technician must inspect and prepare all equipment and machines to ensure readiness.
- Any issues or damages must be reported immediately and recorded in the **Laboratory Logbook**.

3. Personal Protective Equipment (PPE)

- PPE is mandatory when using tools or handling materials that could cause harm. Users without PPE will not be allowed to continue laboratory activities.

5.2. Pattern Construction Laboratory Usage Procedure

1. Instructions and Supervision

- The supervising lecturer or technician will provide instructions on how to properly use the tools and machines, along with safety precautions.
- Users must follow these instructions to prevent accidents or equipment damage.

2. Equipment Usage

- Users must inspect equipment both before and after use. Any damage must be reported and logged in the **Damage Report Form**.
- All tools and machines must be returned to their proper place, cleaned, and in good working order.

3. Material and Waste Management

- All materials used in pattern construction must be handled carefully and stored properly. Waste must be disposed of according to laboratory waste protocols.

5.3. Exit Procedures from the Pattern Construction Laboratory

1. Cleaning the Work Area

- After completing activities, users must clean their workspace, ensuring machines, tools, and materials are returned to their designated places.
- Waste materials and unused resources must be disposed of according to laboratory waste disposal guidelines.

2. Shutting Down Equipment

- Turn off all equipment and electrical devices after use.
- Inform the laboratory technician once all activities are completed for final inspection.

3. Activity Log

- All users must record their use of equipment, duration of activities, and condition of equipment in the **Laboratory Logbook** before leaving the laboratory.

5.4. Equipment Maintenance

1. Routine Checks

- The laboratory technician will conduct weekly checks on all machines, tools, and equipment to ensure everything is functioning properly.
- Machines requiring calibration (e.g., pattern cutting machines) must be checked every six months.

2. Repairs and Replacement

- Any malfunctioning equipment must be reported to the technician for immediate repair or replacement.
 - Machines or tools that cannot be repaired must be documented using the **Replacement Form**.
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6. WORK SAFETY

6.1. Emergency Procedures

1. Fire

- In case of fire, users must activate the fire alarm and follow the evacuation route.
- Fire extinguishers are available in the laboratory and should only be used by trained personnel.

2. Workplace Injuries

- Any injuries must be reported to the technician immediately. First aid should be administered using the **First Aid Kit**.
- For severe injuries, the campus health unit or emergency services should be contacted.

7. PENALTIES

Users who violate the rules outlined in this SOP will face disciplinary action, depending on the severity of the infraction, which may include:

- Verbal or written warnings.
- Temporary or permanent suspension from laboratory access.
- Financial responsibility for damage caused to equipment due to negligence.

8. CLOSING

This SOP takes effect from the date of issuance. It will be reviewed every two years or as needed to ensure smooth laboratory operations.