Free and Forced Convection Heat Transfer

COLLEGE OF ENGINEERING

DO NOT use this equipment unless an instructor has instructed you in its safe use/operation and has given permission.



Safety glasses must be worn at all times in work areas.



Long and loose hair must be contained or constrained.



Appropriate footwear with closed-toe must be worn.



Long-sleeve or protective clothing is required.



Rings and jewellery must not be worn.



Protective gloves may be required.

PRE-OPERATIONAL SAFETY CHECKS

- 1. Check workspaces and walkways to ensure no slip/trip-hazards are present.
- 2. Check that all equipment components are in position and are operational.
- 3. Ensure you are familiar with the operation of the equipment.
- 4. Keep table and work area clear of all tools and debris.
- 5. Faulty equipment must not be used. Immediately report suspect equipment.
- 6. Be aware of any other students or personnel in the immediate vicinity and ensure the area is clear before using this equipment.
- 7. Familiarize yourself with all mechanical operations, switches and controls, including potential chemicals that may be used.
- 8. If you have any questions or concerns, ask the laboratory technician or instructor first.

OPERATIONAL PROCEDURES

NO FOOD OR DRINK PERMITTED NEAR EXPERIMENTS.

- 1. Connect power cord from controller box to hot plate.
- 2. Connect temperature probe from controller box to take sample reading.
- 3. Take probe and take samples from the different open ports on the side.

Noise

- 4. Check data/values from meter.
- 5. Wattage dial on controller box can be used to adjust temperature.

HOUSEKEEPING

1. Turn off all equipment and dispose of chemicals in proper receptacles on completion. Leave equipment and working area in a safe, clean and tidy state.

Fve injuries

POTENTIAL HAZARDS Chemical exposure on skin

Electrical shock	Manual handling	Broken glass	
Date of loot review		Signatura	
Date of last review		Signature	