

ME439 HEAT TRANSFER LAB**Course Description & Objectives:**

Through this course, students will study about the various heat transfer processes, so as to train the students practically to utilize this knowledge in industry.

Course Outcomes:

On completion of the course, the students would be able to perform experiments on heat conduction, convection and radiation. They will be able to identify the heat exchange properties of various metals.

List of experiments

1. Composite Slab Apparatus - Overall heat transfer coefficient.
2. Heat Transfer through lagged pipe.
3. Heat Transfer through a Concentric Sphere.
4. Thermal Conductivity of given metal rod.
5. Heat transfer through pin-fin
6. Experiment on Transient Heat Conduction.
7. Heat transfer in forced convection apparatus.
8. Heat transfer in natural convection.
9. Parallel and counter flow heat exchanger.
10. Emissivity apparatus.
11. Stefan Boltzman Apparatus.
12. Heat transfer in drop and film wise condensation.
13. Critical Heat flux apparatus.
14. Study of heat pipe and its demonstration.
15. Shell and tube heat exchanger.