ME 322 MECHANICAL ENGINEEING LABORATORIES 1 DESCRIPTIONS

**BOOKS NAME(5th edition thermodynamics an engineering approach),(6 th edition fundamentals of heat and mass transfer)**

OBJECTIVE:

1. Review of important concepts in thermofluids.(5th edition thermodynamics an engineering approach)
2. Application of mechanical measurements skills.
3. Perform hands on experiments in fluid mechanics,thermodynamics,heat transfer(6 th edition fundamentals of heat and mass transfer),aerodynamics,air conditioning refrigeration.
4. Analyses and solution of practical thermo-fluid problem.
5. Using and learning about thermofluid equipment in a safe.

EXPERMENTALS:

* some experiments of Thermodynamics(vapor compression refrigeration 1st WEEK, air conditioning and refrigeration 2nd WEEK)
* some experiments of heat transfer ( measurement of thermal conductivity 3th WEEK,4th WEEK,newtons law of cooling -free convection 5th WEEK,6th WEEK,7th WEEK,forced convection heat transfer in pipes 8th WEEK,heat exchanger 9th WEEK)
* some experiments of fluid flow (flow development in pipe 10th WEEK,pressure losses in pipe  11th WEEK,and fittings,bernoulli equation experiments 12th WEEK,impact of a jet moment equation 13th WEEK,centrifugal compressor,flow over an aerofoil:aerodynamic lift and drag,performance of a centrifugal pump 14th WEEK)