

BS (4 Years) for Affiliated Colleges



| Code | Subject Title | Cr. Hrs | Semester |
|----------------|-----------------------------------|----------|-------------|
| PHY-434 | MATERIALS SCIENCE-IV (LAB) | 3 | VIII |
| Year | Discipline | | |
| 4 | Physics | | |

Course Outlines:

Note: The students are required to do at least ten experiments from the following list:

1. To find out the corrosion rate of given specimen by loss in weight method.
2. To protect metals from corrosion – electroplating & colouring
3. To fabricate fiber-glass reinforced composite material by using hand-lay-up technique.
4. To determine and compare the specific heats of metallic and non-metallic materials.
5. To determine the plasticity of the given of clay.
6. To determine the effect on plasticity of the given sample of clay by adding (non plastic) impurity SiO_2
7. To measure the green strength of the given ceramic substance.
8. To determine the viscosity of a given sample of glass by penetrating method.
9. To study the process of enameling.
10. To study the process of glazing.
11. To measure the thermal conductivity of the given sample of refractory material.
12. To determine the thermal expansion coefficient of the given sample.
13. To determine the crushing strength of the given material.
14. Determine the %age linear shrinkage in the given sample of clay.
15. Determine the green compression strength of sample of clay.
16. Determine the green compression strength of sample of clay with the addition of impurity.
17. To apply the raw glaze and frit glaze on a ceramics body.