

**Maulana Abul Kalam Azad University of Technology, West Bengal**  
*(Formerly West Bengal University of Technology)*  
**1<sup>st</sup> Year Curriculum Structure for B.Tech courses in Engineering & Technology**  
 (Applicable from the academic session 2018-2019)

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| <b>Course Code :</b> BS-CH191/ BS-CH291      | <b>Category :</b> Basic Science Courses |
| <b>Course Title :</b> Chemistry-I Laboratory | <b>Semester :</b> First/ Second         |
| <b>L-T-P : 0-0-3</b>                         | <b>Credit:1.5</b>                       |
| <b>Pre-Requisites:</b>                       |   |

**Choose 10 experiments from the following:**

1. Conductometric titration for determination of the strength of a given HCl solution by titration against a standard NaOH solution.
2. pH- metric titration for determination of strength of a given HCl solution against a standard NaOH solution.
3. Determination of dissolved oxygen present in a given water sample.
4. To determine chloride ion in a given water sample by Argentometric method (using chromate indicator solution)
5. Determination of surface tension and viscosity
6. Thin layer chromatography
7. Ion exchange column for removal of hardness of water
8. Determination of the rate constant of a reaction
9. Determination of cell constant and conductance of solutions
10. Potentiometry - determination of redox potentials and emfs
11. Saponification/acid value of an oil
12. Chemical analysis of a salt
13. Determination of the partition coefficient of a substance between two immiscible liquids
14. Adsorption of acetic acid by charcoal
15. Use of the capillary viscosimeters to demonstrate of the isoelectric point as the pH of minimum viscosity for gelatin sols and/or coagulation of the white part of egg .