S.I.W.S.

N. R. SWAMY COLLEGE OF COMMERCE & ECONOMICS &
SMT. THIRUMALAI COLLEGE OF SCIENCE

Plot No. 337, Sewree - Wadala Estate,
Major R. Parameshwaran Marg, Wadala, Mumbai - 400 031

Department of Microbiology

B.Sc. (Microbiology) - Program Outcome

1. Students will have knowledge about the microbial world, their classification, habitats and their interactions

2. They will comprehend the beneficial and harmful role of microbes and their associations with plants, animals in various environments such as Symbiosis, Waste water treatment, Biogeochemical cycles, Bioremediation, Antagonistic interactions, etc.

3. They will become competitive to build and implement robust QA, QC practices in various establishments such as Food industry, Pharma industry etc.

4. They can integrate molecular level microbial information with other bio-systems to develop applications such as new bioprocesses, diagnostic kits etc.

5. Studying various biochemical catabolic and anabolic pathways, in different physiological groups of bacteria, will help students to apply this knowledge for future microbiological work such as strain improvement programmes in industry as well as Research and Development in this field

6. Analyzing the various classes of enzymes and enzyme kinetics will enhance their understanding of how a biological system behaves under different environmental conditions, its manipulation and the application of enzymes in the industry

7. Students will have a background about Nanoscience and will understand the synthesis of nanomaterials and their applications

8. Students get both theoretical and hands-on training to learn cultural methods (gold standard) to identify pathogens causing various infectious diseases so that they are able to work in a diagnostic laboratory

9. Students learn about antibiotic resistance among bacteria, the most important threat in therapy and how to tackle it. They also get in-depth knowledge of various components, reactions required for the development of immunity against diseases caused by microbial pathogens Students get in-depth knowledge of various components, reactions required for the development of immunity against diseases caused by microbial pathogens

10. Students learn to analyse the tenets of bioinformatics which will empower them within silico analytical techniques