

**JSS COLLEGE FOR WOMEN (AUTOMOUS), MYSORE-09**

**PROGRAMME SPECIFIC OUTCOME (NEP- 2020)**

**Combination: Microbiology, Biochemistry**

**Upon completion of the program, students should be able to:**

PSO1. Knowledge and understanding of concepts of microbiology and its application in pharma, food, agriculture, beverages, nutraceuticals industries.

PSO2. Understand the distribution, morphology and physiology of microorganisms and demonstrate the skills in aseptic handling of microbes including isolation, identification and maintenance

PSO3. Competent to apply the knowledge gained for conserving the environment and resolving the environmental related issues.

PSO4. Learning and practicing professional skills in handling microbes and contaminants in laboratories and production sectors.

PSO5. Exploring the microbial world and analyzing the specific benefits and challenges.

PSO6. Applying the knowledge acquired to undertake studies and identify specific remedial measures for the challenges in health, agriculture, and food sectors.

PSO7. Thorough knowledge and application of good laboratory and good manufacturing practices in microbial quality control.

PSO8. Understanding biochemical and physiological aspects of microbes and developing broader perspective to identify innovative solutions for present and future challenges posed by microbes.

PSO9. Understanding and application of microbial principles in forensic and working knowledge about clinical microbiology.

PSO10. Demonstrate the ability to identify ethical issues related to recombinant DNA technology, GMOs, intellectual property rights, biosafety and biohazards.

PSO11. Demonstrate the ability to identify key questions in microbiological research, optimize research methods, and analyze outcomes by adopting scientific methods, thereby improving the employability.

PSO12. Enhance and demonstrate analytical skills and apply basic computational and statistical techniques in the field of microbiology.

PSO13. Demonstrate an understanding of the fundamental principles and concepts of biochemistry, Including the structure and function of biomolecules such as proteins, nucleic acids, and Carbohydrates.

PSO14. Analyze and interpret experimental data using biochemical techniques such as Chromatography, electrophoresis, and spectrophotometry.

PSO15. Apply biochemistry principles and techniques to solve problems related to human health, Food science and biotechnology.

PSO16. Demonstrate effective communication and teamwork skills in the context of scientific Research.

PSO17. Demonstrate ethical behavior and awareness of the societal and environmental impact of Biochemistry research and technology.

PSO18. Pursue advanced studies in biochemistry or related fields, or pursue careers in academia, Industry or government.

PSO19. Overall, the program aims to equip students with a strong foundation in biochemistry and related fields, as well as the skills and knowledge necessary for success in further studies