

	Implementation schedule	Physically/ Remotely	Contact hours	Autonomous work for students (max hours)	Learning outcomes
Activity 1 07/09/2026	Introduction to Smart Polymeric Biomaterials and Biomedical Applications	remotely	3	6	Understand the principles and biomedical applications of polymeric biomaterials
Activity 2 14/09/2026	Fundamentals of Polymer Synthesis and Functionalization	physically	3	6	Explain polymer synthesis approaches and structure–property relationships
Activity 3 15/09/2026	Laboratory Workshop: Hydrogel Preparation and Polymeric Networks	physically	3	6	Develop practical skills in hydrogel fabrication and biomaterial preparation
Activity 4 16/09/2026	Laboratory Workshop: Polymeric Nanoparticle Formulation for Drug Delivery	physically	3	6	Understand formulation techniques for controlled drug delivery systems
Activity 5 17/09/2026	Laboratory Workshop: Characterization Techniques (FTIR, UV-Vis, Swelling Studies)	physically	3	6	Analyze physicochemical properties of polymeric biomaterials
Activity 6 18/09/2026	Experimental Data Analysis and Interpretation in Biomaterials Research	physically	3	6	Interpret experimental findings and evaluate biomaterial performance
Activity 7 05/10/2026	Final Student Presentations	remotely	3	10	Develop scientific communication and presentation skills
Total Hours			21	46	67