

**CURRICULUM PLAN (ODD SEMESTER 2025-26)****Teacher Name: Dr. Anjali Sehrawat****Course: BSc. Life Science, III year (Semester V)****Paper Name: (DSE) Chemistry of Polymers, dyes and Natural products (NEP) (2 periods per week)**

| <b>Contents</b>  | <b>Allocation of lectures</b> | <b>Month wise schedule to be followed</b>                               | <b>Tutorial/Assignments/ Presentations etc.</b>   |
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| <b>Unit 1: Polymers</b><br>Introduction and Classification, di-block, tri-block and amphiphilic polymers, Mn, Mw and Tg of polymers, polymerisation reactions, Preparation and applications of different plastics, Introduction to Speciality polymers   | <b>12</b>                     | <b>1<sup>st</sup> week of August – 2<sup>nd</sup> week of September</b> | <ul style="list-style-type: none"><li>● Syllabus Overview</li><li>● Reference Books</li><li>● Lectures</li><li>● Class discussion</li></ul>               |
| <b>Unit 2: Dyes</b><br>Classification, Colour and constitution, chemistry of dyeing, mordant and Vat dyes, synthesis and application of Azo dyes, Phthalein dyes, Triphenylmethane dyes, Natural dyes and edible dyes.   | <b>8</b>                      | <b>3rd week of September– 2<sup>nd</sup> week of October</b>            | <ul style="list-style-type: none"><li>● Lectures</li><li>● Problem solving</li><li>● Class discussion</li></ul>   |
| <b>Unit 3: Natural product Chemistry</b><br><b>Terpenes:</b> Introduction, Occurrence, classification, uses, isoprene rule, structure elucidation, synthesis and application of citral.<br><b>Alkaloids:</b> Introduction, Occurrence, classification, uses, structural features, Hoffman's exhaustive methylation, Emde's method, Structure elucidation and synthesis of Nicotine | <b>10</b>                     | <b>3rd week of October– 3<sup>rd</sup> week of November</b>             | <ul style="list-style-type: none"><li>● Lectures</li><li>● Class test</li><li>● Problem solving</li><li>● Assignment</li><li>● Class discussion</li></ul> |

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