

## Interdisciplinary Program in Polymer Engineering

### List of Core and Complementary Courses

**MSc:** At least 12 pts from Lists A and B, at least 6 pts from List A

**ME:** At least 20 pts from Lists A and B, at least 10 pts from List A

**ME:** Up to 16 pts in Management, Economics, Quality Assurance and Reliability

Interdisciplinary  
Program in Polymer  
Engineering

התוכנית  
הבין-יחידתית  
להנדסת פולימרים



#### List A: Core Courses

- 0190149 – Mechanics of Soft Materials (2 pts)
- 0360093 – Mechanics of Composite Materials 1 (3 pts)
- 0460012 – Introduction Flexible Organic Electronics (2 pts)
- 0560120 – Electron Microscopy of Soft Matter (2 pts)
- 0560386 – Fundamentals of Polymer Processing (2 pts)
- 0560407 – Polymers and Additives: Processes and Applications (2 pts)
- 0580129 – Structure and Properties of Polymers (2 pts)
- 0580162 – Polymer Processing (2 pts)
- 0580172 – Polymer Thermodynamics (2 pts)
- 0580173 – Physical Methods for Polymer Characterization (2 pts)
- 0580181 – Structure Determination by Scattering (2 pts)
- 0580183 – Polymers in Biotechnology 2 (2 pts)
- 0580187 – Self Assembly in Polymer Systems (2 pts)
- 0580187 – Self Assembly in Polymer Systems (2 pts)
- 0660217 – Packaging for Food, Medicine and Biological Products (3 pts)
- 0660247 – Advanced Materials for Food and Biotechnology (2 pts)
- 0660255 – Mechanics of Soft Matter for Biotechnology and Food (2.5 pts)
- 1180113 – Statistical Mechanics of Polymers (2 pts)
- 1270724 – Introduction to Polymer Chemistry (2 pts)
- 1270740 – Polymers: From Synthesis to Architecture (2 pts)
- 3160000 – Structure and Behavior of Polymers (2.5 pts)
- 3180101 – Porous Polymers (2 pts)
- 3180422 – Advanced Composite Materials (2 pts)
- 3180520 – \*Materials Engineering for Organic Electronics (2 pts) \*only with lecturer's permission
- 3180621 – Selected Topics in Plastic Materials (2 pts)
- 3180721 – Polymer Surfaces and Interfaces (2 pts)
- 3180722 – Structure and Properties of Crystalline Polymers (2 pts)
- 3180724 – Polymer Blends: Structure and Properties (2 pts)
- 3180530 – Thermodynamics and Mechanics of Polymers (2 pts)
- 3380401 – Biomaterials (2 pts)
- 8580121 – Polymer Rheology (2 pts)

#### List B: Complementary Courses

- 0190516 – Plastics in Building (2 pts)
- 0360104 – Non-Newtonian Fluid Mechanics (3 pts)
- 0380802 – Experimental Methods in Micro Flows (3 pts)
- 0380805 – Computational Micromechanics of Composite Materials (3 pts)
- 0560140 – Colloidal Systems (2 pts)
- 0560166 – Surface Phenomena (2 pts)
- 0560383 – Complex Fluids (2 pts)
- 0560396 – Particulate Fluids (2.5 pts)
- 0560397 – Membrane Separations: Physical Principles and Advanced Materials (2.5 pts)
- 0560409 – Smart Drug Delivery Systems: From Engineering to Applications (2.5 pts)
- 0660521 – Tissue Engineering (2pts)
- 0860522 – Mechanics of Nonlinear Composites (3 pts)
- 1270730 – Structure Determination by Physical Methods
- 3180529 – Analytical Electron Microscopy (2 pts)
- 3180127 – Fabrication and 3D-Printing of Biomaterials (2 pts)
- 3360528 – Controlled Drug Release (2.5 pts)