Program in Polymers and Soft Matter

The Schools of Engineering and Science have established a graduate-level Program in Polymers and Soft Matter (PPSM). It is open to qualified students admitted to the graduate program(s) of one of the following five MIT departments: Biological Engineering, Chemical Engineering, Chemistry, Materials Science and Engineering, and/or Mechanical Engineering.

PPSM consists of an initial academic phase in which all students participate (regardless of previous background and research interest), followed by research in a selected area of specialization. The program leads to the doctoral degree; if desired, a master’s degree can be obtained through the student’s home department.

The core curriculum, taken by all students, provides a common base in the field of polymers and soft matter. It is broad, rigorous, and covers both elementary and advanced subjects spanning the entire range from the molecular level to the continuum. This curriculum takes up the first two terms in the graduate program.

The transition from the academic phase to research is marked by the qualifying exam, which consists of both oral and written sections. The exams are offered at the end of each spring term and are based on the PPSM core curriculum. Successful completion of the exam leads to selection of a research project and the preparation and defense of a thesis proposal.

Any participating faculty member at MIT can act as a research supervisor. The thesis supervisor(s) advises the graduate student on a continuing basis throughout the time of the research project. Completion and successful defense of the thesis before PPSM and departmental faculty fulfill the requirements for the doctoral degree.

For more information, including admission and financial aid procedures, contact the director, Professor Alfredo Alexander-Katz (aalexand@mit.edu), Room NE46-605, 617-452-2238, or visit the program website (http://polymerscience.mit.edu).