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Integration between Post-Graduation in Polymer Science and Technology (IMA/UFRJ) and High School

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Abstract – The experience of the Institute of Macromolecules (IMA/UFRJ) in offering complementary information about Polymer Materials to High School students has been very important to implement a “Polymer Technician” course by the Rio de Janeiro State Government.

The Institute of Macromolecules (IMA) of Federal University of Rio de Janeiro (UFRJ) has been offering Post-Graduate Courses, Research and Extension Activities in Polymer Science and Technology for more than 40 years, including projects related directly to industries. The research development involves polymer synthesis, characterization and properties, besides polymer application in different fields (for example, plastics, rubbers and fibers).

As one of the Extension Activities, IMA has created a special course, related to Polymeric Materials, to complement the knowledge of the students in Technical High School. During 4 months, twice a week, Post-Graduate students spend 64 hours teaching (1) Introduction to Polymer Science, (2) Polymer Characterization, and (3) Introduction to Polymer Processing. Certificates are delivered to the students getting performance equal or higher than 60% and attendance of, at least, 75%. The course has had about 1,000 students since 1995.

It is also interesting to consider that such course has been promoting an important integration among technical students and post-graduate ones, and it is a good opportunity for the latter to get teaching experience. IMA decided to create the course because the Professors had observed, at that time, the industries necessities of such kind of professional.

Recently, the government of the Rio de Janeiro State has recognized the same necessity and created, in 2005, the specialty “Polymer Technician”, having 2,200 hours, so that, the students, after finishing this course, can get a job before going to the University. FAETEC is responsible by such course but, due to IMA experience in this area, by offering the course described above, we were invited to take part in the conception and coordination of the new course.