



## CHM1361 Introduction to polymer chemistry

[22.5h] 2 credits

This course is not taught in 2005-2006

Language: French

Level: First cycle

### Aims

The course is for chemistry student interested in an introduction to polymers. It forms a homogeneous entity giving sufficient bases for students that do not desire to specialize in this field. It does not constitute a necessary prerequisite to the more specialized courses of 4th year (although quite useful).

### Main themes

The following questions are examined (in parenthesis the number of hours for that point) :

1. Basic notions (6 hrs) : macromolecule notion : types of polymers, nomenclature notion, stereochemistry notion, molecular masses and their distribution - polymer material notion.
2. Main methods of synthesis (6 hrs) : general problems - chain polymers : introduction to radical, ionic and coordination polymers - polymerization by steps : main ideas and chosen examples - modification of polymers.
3. Methods of characterization ( 6 hrs) : brief presentation of characterization methods particularly used in polymer chemistry : techniques of characterization of molecular masses, characterization techniques of the main physical properties.
4. Typical applications (4 hrs) : brief description of some applications of polymer materials.