



**Ecole Supérieure de Physique et Chimie Industrielles
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**ATHENS PROGRAM 2019
18-22 march 2019
Module ESPCI # 2:
“Innovative Polymer Materials”**

Module Main Location:

ESPCI Paris, 10, rue Vauquelin, 75005 Paris

Teaching Team:

RIEGER Jutta, Chargée de Recherche, CNRS

NICOLAY Renaud, Professeur, ESPCI Paris.

MARCELLAN Alba, Maître de Conférences, Sorbonne Université

CORTE Laurent, Chargé de Recherche, Ecole des Mines.

MIQUELARD-GARNIER Guillaume, Maître de Conférences, CNAM.

LHOST Olivier, Research staff scientist, Total Polyolefins

CRETON Costantino, Directeur de Recherche, CNRS.

Pre requisites:

This course is suitable for master's students in chemical or materials engineering. An introduction to Polymer science (Polymer Physics and Polymer Chemistry) is required and some knowledge of solid mechanics, materials characterization and of polymer rheology will be very useful.

Agenda:

Monday, March 18

9:00 am – 12:00 am: Jutta RIEGER (Innovative Eco-Friendly Coatings by Emulsion Polymerization)

2:00 pm – 5:00 pm: Renaud NICOLAY (Dynamic Networks: Chemistry and Applications)

Tuesday, March 19

9:00 am – 12:00 am: Alba MARCELLAN (Some strategies for Gel toughening)

2:00 pm – 5:00 pm: Laurent CORTE (Artificial ligaments from fibrous hydrogels)

Wednesday, March 20

9:00 am – 12:00am: Guillaume MIQUELARD-GARNIER (Processing and physical properties of multilayer polymeric structures)

2:00 pm – 5:00 pm: Olivier LHOST (Industrial perspective of innovation in polymer materials).

Thursday, March 21

9:00 am – 11:30 am: Costantino CRETON (How elastomers break and how to make them tough)

12:30 pm: Departure in bus for the Visit

2:30 pm – 5:00 pm: (Visit of Industrial Research Center)

Ca 7-7:30 pm : Arrival in Paris

Friday, March 22

9:00 am – 10:00 am: Final examination session in the form of quizzes on the sessions

10:00 am – 11:00 am: Answers to the quizzes and concluding remarks