

Science & Engineering of Polymers & Colloids

Polymers and Colloids are essential building blocks for fundamentally new materials with exciting mechanical, optical, thermal, or electrical properties. This course will begin with an introduction to both types of materials and cover aspects of synthesis and characterization. We will then progress towards functional aspects of polymers, colloids, structured and composite materials derived from them. Finally, this course will also provide you with insights into polymer engineering, the polymer industry, applications, and current topics concerning future trends for polymers.

Polymers and Colloids play an ever-increasing role as materials in our everyday life. They are the constitutive parts of many new functional devices covering a wide range of emerging applications. Functional textiles, sensors, gas barrier coatings, electrical and thermal insulators are just a few examples. At the same time, emulsions, foams, and coatings are widely used in everyday life. Polymers and Colloids are essential building blocks for fundamentally new materials with exciting mechanical, optical, thermal, or electrical properties. This course will begin with an introduction to both types of materials and cover aspects of synthesis and characterization. We will then progress towards functional aspects of polymers, colloids, structured and composite materials derived from them. Finally, this course will also provide you with insights into polymer engineering, the polymer industry, applications, and current topics concerning future trends for polymers.

This course is particularly suitable for advanced undergraduate students and early-stage master students interested in specializing in the fascinating fields of polymers and colloids. Ph.D. students from related disciplines such as physics or engineering will appreciate the basic and multidisciplinary contents of the lectures.



Course Coordinator

[Prof. Dr. Markus Retsch](#)

[Prof. Dr.-Ing. Holger Ruckdäschel](#)

Lecturer

[Prof. Dr. Seema Agarwal, University of Bayreuth \(Germany\).](#)

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[Prof. Dr. Mukundan Thelakkat, University of Bayreuth \(Germany\).](#)

[Prof. Dr. Paul Mulvaney, The University of Melbourne \(Australia\).](#)

More Information

Below you can find more details on the course coordinators, lecturers and additional information related to the course. If you have any questions on the course or your application, please do not hesitate to contact us!

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