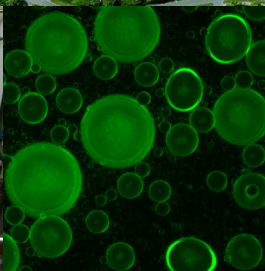


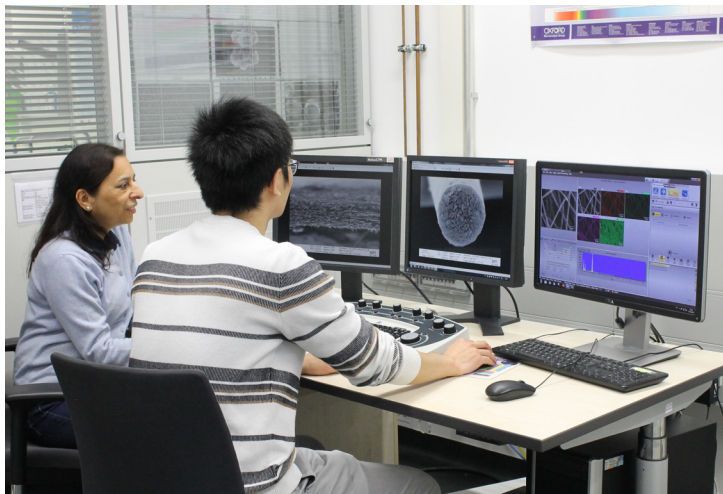


UNIVERSITÄT
BAYREUTH

Cutting-edge polymer science

*Master's program in Polymer Science
at the University of Bayreuth, Germany*





Polymer analysis

Program outline

The Master's program starts with fundamental principles and progresses to current developments in polymer science, including applications in polymer materials and biomaterials. The program is designed for up to 30 students, with entry possible in the winter semester (recommended) or the summer semester. The standard duration of the program is four semesters.

- **1st Semester:** Students choose 4 out of 8 basic modules, each combining theoretical and practical courses.
- **2nd Semester:** Students select 3 modules, which include lectures and hands-on research training within a research team.
- **3rd Semester:** Intensive practical research courses, with an option to complete one abroad or in industry.
- **4th Semester:** Students finalize their training by completing a Master's Thesis on a current high-level research topic.

Upon successful completion of the program, students will be awarded the degree "Master of Science (M.Sc.)."

Winter semester –

Basic modules P 101 – P 108

Choice: 4 out of 8 modules (each module 7 CP)

- P 101 **Polymer Synthesis**
- P 102 **Physical Chemistry of Polymers**
- P 103 **Colloids and Interfaces**
- P 104 **Polymer Materials and Technology**
- P 105 **Polymer Physics I**
- P 106 **Organometallic Chemistry and Polymerization Catalysts**
- P 107 **Catalysis and Sustainable Synthesis**
- P 108 **Biomaterials**

Summer semester –

Advanced modules P 201 – P 210

Choice: 3 out of 8 modules (each module 9 CP)

- P 201 **Polymer Architectures and Functionality**
- P 202 **High-performance and Speciality Polymers**
- P 203 **Advanced Methods in the Physical Chemistry of Polymers**
- P 204 **Current Topics in Colloid, Polymer, and Interface Science**
- P 205 **Polymer Engineering**
- P 206 **Polymer Physics II**
- P 207 **Catalyst Design**
- P 208 **Sustainable Polymer Chemistry and Polymer Materials**
- P 210 **Research Proposal** 5 CP

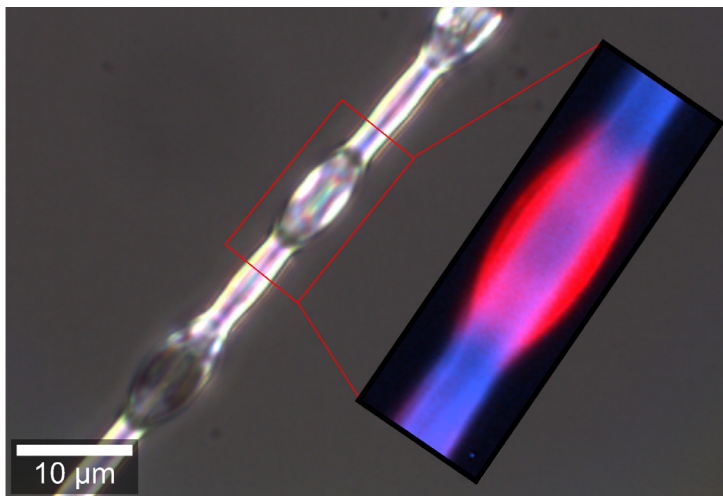
One of the P 20x modules can be replaced by a module from the master programs of chemistry, biological chemistry, physics, or engineering.

3rd and 4th semester –

Modules P 301, P 302, P400

- P 301 **Advanced Laboratory I** 15 CP
- P 302 **Advanced Laboratory II** 15 CP
- P 400 **Master's Thesis** 30 CP

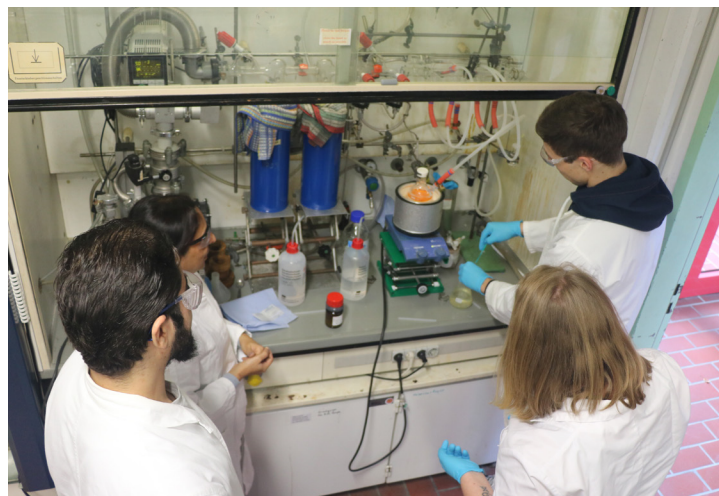
P 301 or P 302 can be replaced by a laboratory course at a university abroad and/or an industrial internship.



Electro spunfibres

What can you expect from the program?

- Comprehensive knowledge of polymer science
- Hands-on training in lectures and labs
- Courses taught in English
- Interdisciplinary education
- Integration into research teams
- Participation in groundbreaking research projects
- Strong focus on sustainability
- Access to state-of-the-art facilities and laboratories
- Close supervision by professors
- Excellent student-professor ratio
- Opportunities for industry placements or study abroad
- International environment
- Study on a green campus with a vibrant student community
- A welcoming university culture
- Commitment to fairness and family-friendly policies
- Wide variety of topics for your Master's Thesis
- Numerous Ph.D. opportunities



Labwork in teams

What are the requirements to apply?

- A Bachelor's degree in chemistry, polymer and colloid chemistry, or a related field
- Very good to excellent grades
- English language proficiency at B2 level
- German language skills at A1 level (can be acquired in Bayreuth by the end of the second semester)
- Strong motivation to study polymer science
- Interest in cutting-edge research at an international level
- Interest in synthetic, analytical, and sustainable aspects of polymer science
- Willingness to work in an interdisciplinary and international environment
- Eagerness to conduct independent research during their Master's Thesis
- Excitement to work on interdisciplinary projects

When can you start?

The recommended starting point is the winter semester (October), but the program also allows for a summer semester start (April).



Learning by discussions

Doctoral research and career prospects

The Master's program in Polymer Science is an excellent stepping stone into the doctoral program in Polymer Science, offered by the Bayreuth Graduate School of Mathematical and Natural Sciences (BayNAT). Other doctoral programs are also available. With the expertise gained during your Master's, you can become a valuable member of one of our research teams. In the doctoral program, you will have the opportunity to conduct cutting-edge research.

At the University of Bayreuth, you'll find numerous opportunities to pursue a Ph.D. in Polymer Science and related fields. You'll experience a rich interdisciplinary research environment, engage in public outreach, and gain international experience, preparing you for a successful career in academia or industry.



Modern infrastructure

The modern green campus

Our modern, green campus with short distances provides an ideal environment for learning and research. The University of Bayreuth is a young, high-ranking, internationally recognized university which provides numerous facilities for national and international students. More information:

<https://www.uni-bayreuth.de/en/profile>

All required infrastructure is nearby and student residences are available in the surrounding area. The campus is easily accessible on foot, by bike, bus and car. The train station is only 2 km from campus. Nuremberg International Airport is 95 km from Bayreuth. Bayreuth itself is a charming medium-sized city, that is world-famous for its culture and history. The city of Bayreuth and its surroundings offer plenty of opportunities for leisure, sports and entertainment.

More information:

<https://www.bayreuth-tourismus.de/en/>

Application

Application forms (online application) and further information about the Master's degree program:

<https://www.uni-bayreuth.de/en/master/polymer-science>



Application period

1st March – 15th June

for admission to the winter semester

1st September – 15th January

for admission to the summer semester

Contact us

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We hope to see you soon in Bayreuth, Germany