



Polymer Materials Science

Master's study programme

General Information

Degree	Master of Science (M.Sc.)
Credit points	120 CP
Standard period of study	4 semesters
Start of studies	Winter semester only
Form of study	Classroom teaching, Full-time studies, International study programme
Medium of instruction	English
Admission	restricted (Uni-NC)
Specific admission requirements	yes (Details)
Faculty	Naturwissenschaftliche Fakultät II – Chemie, Physik und Mathematik
Institute	Institut für Chemie
Accreditation	accredited

Programme Objectives

MSc Polymer Materials Science is an interdisciplinary, international, consecutive master's programme, run as a collaboration between Martin Luther University Halle-Wittenberg and the University of Applied Sciences Merseburg. Nowadays, polymer research is performed as a multidisciplinary collaboration among physicists, chemists and engineers, seeking new knowledge on making, characterizing, processing and understanding the molecular basis of novel functional materials.

Studying this master you will obtain a multifaceted education in one of the central industrial growth sectors. The research-oriented programme offers specializations in polymer-synthetic or polymer-physical and engineering. Thus our master's graduates are qualified for jobs in chemical industry production as well as advanced training on PhD level.

Study in Halle!

About Halle and the University



With a population of almost 240,000, Halle offers a versatile mixture of art, culture, gastronomy and recreation. Numerous national institutions are also headquartered in Halle. The Leipzig-Halle international airport is only 15 minutes away by train or car. It takes just over an hour to get to Berlin.

Martin-Luther-Universität Halle-Wittenberg, founded in 1502, is one of the oldest universities in Germany and, with around 20,000 students, the largest in the federal state of Saxony-Anhalt. We rely on modern laboratory equipment as well as extensive support of our students. The Faculty of Natural Sciences II at Halle University, with its three Institutes of Chemistry, Physics and Mathematics, is prominently oriented towards research in the broad area of condensed matter and materials science. About one quarter of the 30 professorships and research groups work in the area of macromolecular science and soft matter.

Just a stone's throw away: Merseburg

The Department of Engineering and Natural Sciences at the University of Applied Sciences Merseburg is focused on engineering and application-oriented teaching and research. This covers the fields of polymer science and plastics engineering as well as machine construction/mechatronics and chemical/environmental engineering. The close connection with the Kunststoff-Kompetenzzentrum Halle-Merseburg (KKZ) and the proximity to industrial problems as well as practical applications of polymer materials offer the students application-oriented research topics, for example for their master thesis.

Career Opportunities

The programme qualifies for the following job opportunities:

- Basic polymer research in chemical industry,
- Applied research and development in plastics-producing and plastics-processing industry,
- Teaching at university,
- Leading positions in industry and administration

Accreditation

MSc Polymer Materials Science is accredited. You can find additional information at www.akkreditierungsrat.de.

Programme Structure

- Modules of the programme (90 CP)
- Master thesis (30 CP)

Modules

Module	CP	rec. sem.
--------	----	-----------



Compulsory modules (103 CP)

Basics of Materials and Polymer Physics	10	1
Polymer Chemistry	10	1
Polymer Engineering	10	1 and 2
Polymer Physical Chemistry	10	1 and 2
Polymer Physics	10	2
Introduction to Polymer Research	15	3
Polymer Engineering Science	8	3
Master Thesis (M.Sc.)	30	4

Elective modules (17 CP) (one field must be selected)

Polymer Engineering (17 CP)

Advanced Polymer Engineering	10	2
Polymer Engineering Focus	7	3

Polymer Science (17 CP)

Advanced Polymer Chemistry or Advanced Polymer Physics	10	2
Polymer Science Focus	7	3

Please note: Engineering modules take place at the University of Applied Sciences Merseburg.

The content, learning objectives, workload, requirements and prerequisites of specific modules are published in the module catalogue and [the study and examination regulations](#) (in German only).

Internship

An internship is recommended with regard to career entry and is an optional component of the module *Introduction to Polymer Research*.

Admission Requirements

Applicants for the *MSc Polymer Materials Science* must

- hold a bachelor's degree (minimum 180 ECTS (= credit points (CP)) or equivalent in Chemistry, Physics, or Engineering with focus on polymer technology and,
- prove language proficiency in English at **level B2** (according to the CEFR) via German Abitur or by means of an internationally recognised test result such as TOEFL, IELTS, Cambridge Certificate or UNiCert II.



- Furthermore, extensive technical knowledge in chemistry, physics, mathematics and polymer technology and processing is strongly recommended and will be considered in the selection procedure.

If the study programme is subject to admission restrictions and the number of applications exceeds the number of available study places, the available study places are allocated according to the Study Place Allocation Regulations of the Federal State of Saxony-Anhalt (Studienplatzvergabeverordnung Sachsen-Anhalt) and the regulations governing the selection procedure for the international master's degree programme *Polymer Materials Science* (selection regulations, i.e. Auswahlordnung) in the currently valid version. In this process, 70% of all study places are awarded to international applicants who do not have the same status as German applicants.

*This chapter consists of excerpts roughly translated into English. Only **the study and examination regulations** are legally binding.*

Application

The admission to the *MSc Polymer Materials Science* is currently **restricted** (Uni-NC).

- Applicants with a German bachelor's degree (or equivalent) please apply via www.uni-halle.de/bewerben by **15 July**.
- Applicants with a bachelor's degree (or equivalent) from abroad please apply via www.uni-assist.de by **15 June**. > **Information and Application procedure**

Required documents

The following documents must be submitted with the application for admission:

1. A hard copy of your bachelor's degree or equivalent (i.e., graduation certificate and transcripts). **Important note:** Applicants via uni-assist upload their certificates and transcripts (both in original language and official translations, unless the originals are in English or in German) with their online application. For those applicants it is not necessary to hand in any additional hard documents.
2. Halle University does accept provisional graduation certificates, if your degree is scheduled after the application deadline. Please submit your transcripts indicating minimum 2/3 of your total credits to be passed / your senior student stage, accordingly. The final graduation certificate shall be submitted with enrolment, respectively by no later than 31 January in the year following admission.
3. Recognised proof of the proficiency in English language (see admission requirements)
4. In addition, the institute requires the form "**Academic Overview**" to be completed and submitted with the other documents.
5. relevant knowledge acquired with former studies in the following areas (summary in table form) (*Please provide additional proof if it is not reflected in your graduation certificate and/or course and grade overview of the undergraduate degree programme*):



- Foundation courses in chemistry, physics, mathematics,
- Advanced courses in chemistry, physics, mathematics or polymer technology and processing,
- Laboratory experience in chemistry and physics,
- Thesis thematically related to polymer synthesis, characterisation, processing or application

Relevant knowledge will be considered and awarded with ranking points as part of the admission procedure. For detailed information on the selection procedure, please see the selection regulations.

Decisions on compliance with the admission requirements are taken by the selection committee.

Fulfilment of the admission requirements does not constitute a claim to a study place for this programme.

*This chapter consists of excerpts roughly translated into English. Only **the study and examination regulations** are legally binding.*

Information for international applicants

For any questions regarding application and admission - except eligibility - please see **website** or contact the **International Students Section** (Student Registration Office) via **international.students@uni-halle.de**.

Programme Advisor

For detailed information concerning the contents, objectives and structure of the programme, please contact the programme advisor.

Dr. rer. nat. Karsten Busse

Institut für Chemie

Von-Danckelmann-Platz 4

Room: E.16.0

06120 Halle (Saale)

Phone: 0345 55-25802

Email: polymat@natfak2.uni-halle.de