

Polymer Materials Science (Master-Studiengang)

General Information

Degree	Master of Science (M.Sc.)
Characteristic	Master-Studiengang
Credits	120 CP
Standard Period of Study	4 semester
Start of Studies	nur Wintersemester
Form of Study	Direct Study, Full-time Study, International Study
Language	English
Tuition Fees	none
Admission Restriction	not restricted (no NC)
Study without Abitur	no
Specific Admission Requirements	yes (Details)
Faculty	Naturwissenschaftliche Fakultät II – Chemie, Physik und Mathematik
Institute	Institut für Chemie
Accreditation	accredited

Programme Goals

Polymer Materials Science is an interdisciplinary 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 University 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

The master 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

Module	CP	rec. sem.
Polymer Engineering Science	8	3
Master Thesis (M.Sc.)	30	4
Compulsory optional modules (17 CP) (one field must be selected)		
<i>Polymer Engineering (17 CP)</i>		
Advanced Polymer Engineering	10	2
Polymer Engineering Focus	7	3
<i>Polymer Science (17 CP)</i>		
Advanced Polymer Chemistry <i>or</i> 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).

Admission Requirements

Applicants for Polymer Materials Science 120 CP must

- hold a bachelor's degree or equivalent degree in Chemistry, Physics, Engineering or Materials Science (minimum 180 CP), or related fields with a final mark of 2.5 or better,
- prove very good knowledge in the following areas: higher mathematics for scientists/engineers; experimental physics (mechanics, magnetism and electricity, oscillations and waves, optics); organic chemistry, inorganic chemistry, physical chemistry,
- prove B2 level proficiency of English (according to the CEFR) via German Abitur, by means of an internationally recognized test result such as TOEFL, IELTS, Cambridge Certificate or UNiCert II and
- submit a motivation letter.

For detailed information on admission requirements, please consult the study and examination regulations (in German only). Decisions on compliance with the prerequisites are taken by the study and examination board of the programme.

Zulassungsvoraussetzungen (German version)

Voraussetzung für die Zulassung ist der Nachweis

- eines qualifizierten Abschlusses (mindestens entsprechend der Note gut, d. h. besser als 2,5) in einem Bachelor-Studiengang Chemie oder Physik mit mindestens 180 LP, eines naturwissenschaftlich ausgerichteten Bachelor-Studiengangs Ingenieurwissenschaften mit mindestens 180 LP oder eines anderen vergleichbaren Studienabschlusses;
- sehr guter fachlicher Kenntnisse dokumentiert durch entsprechende Abschlussnoten auf folgenden Gebieten:
 - Höhere Mathematik für Naturwissenschaftler / Ingenieure
 - Experimentalphysik (Mechanik, Magnetismus und Elektrizität, Schwingungen und Wellen, Optik)
 - Organische Chemie, Anorganische Chemie, Physikalische Chemie;
- ausreichende Englischkenntnisse auf Niveau Unicert II (B 2 nach dem Gemeinsamen europäischen Referenzrahmen für Sprachen), nachweisbar z.B. durch TOEFL, IELTS, Cambridge Certificate oder Englisch der Abiturstufe
- ein Motivationsschreiben.

Ausführliche Informationen zu den Zulassungsvoraussetzungen entnehmen Sie bitte der gültigen Studien- und Prüfungsordnung. Über die Erfüllung der Zulassungsvoraussetzungen entscheidet in Zweifelsfällen der Studien- und Prüfungsausschuss.

Application/Enrolment

The admission to Polymer Materials Science 120 CP is currently **not limited by numerus clausus** (Uni-NC).

- Applicants who obtained their bachelor's degree (or equivalent) in Germany must apply via www.uni-halle.de/bewerben. *Due to the coronavirus pandemic, the usual application deadline (end of August) has been postponed to **30 September 2020**.*
- Applicants who obtained their bachelor's degree (or equivalent) abroad must apply via www.uni-assist.de/en. *Due to the coronavirus pandemic, the usual application deadline (end of April) has been postponed to **15 July 2020**.*
(Handling fee for applications via Uni-Assist!)

Halle University evaluates the numerus clausus of its study programmes on an annual basis. Please check this page around May to check if the quota for your programme of choice has been lifted or maintained.

You might apply with a previous graduation certificate, respectively your recent transcripts. The final graduation certificate should be handed in with the enrolment at university, respectively max. 4 months later, i. e. **31 March 2021**.

Hinweis zur Bewerbung // Note on the application

Den üblichen Bewerbungsunterlagen ist ein Motivationsschreiben beizufügen. // A letter of motivation must be enclosed with the usual application documents.

Information for international applicants

For any questions regarding application and admission please contact:

Registration Office: International Students Section

Mrs. Kati Gaudig

e-mail: kati.gaudig@verwaltung.uni-halle.de

URL: www.uni-halle.de/international-students

Programme Advisor

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

Dr. rer. nat. Karsten Busse

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Links

- [Application and Enrolment \(https://www.ich-will-wissen.de\)](https://www.ich-will-wissen.de)
- [International Office \(https://www.uni-halle.de\)](https://www.uni-halle.de)