

Overview

The M.Sc. Battery Science and Technology in Engineering is an English-taught program at RWTH Aachen, designed for the dynamic field of battery engineering.

120

ECTS
credits

4

Semesters
standard period

M.Sc.

Degree
Master of Science

Study format: Master's degree program

Start: Winter semester

Language: English

Admission: Bachelor grade + Aptitude test

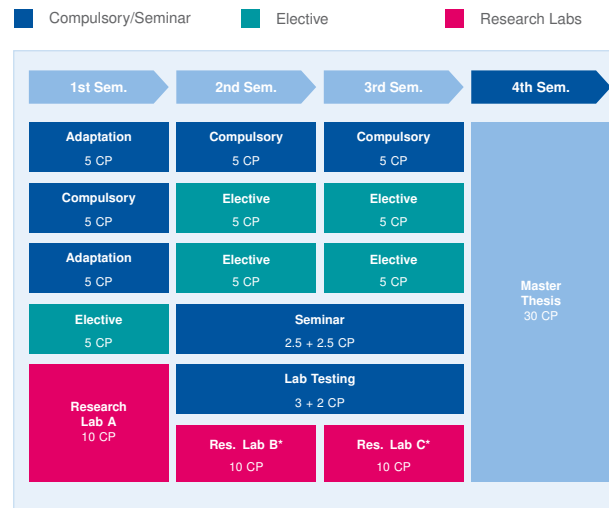
Selection: dMAT or GRE

Unique Aspects of the Program

- **Interdisciplinary:** Engineering and natural sciences
- **Research-oriented:** Direct integration into projects
- **Digital didactics:** Modern digital learning material
- **Flexible progression:** Highly individual curriculum

Curriculum

Students complete between 29.5 and 30.5 CP per semester. The curriculum balances essential foundation courses with customizable choices.



* Research Lab B/C may be conducted at an international partner institution.

Program Structure

Research Labs: In our program, you will have access to three closely supervised research labs, designed to complement theoretical knowledge with hands-on experience in laboratory work and in the development of electronics, models, and diagnostic algorithms.

Seminar & Lab Testing: Focuses on academic literature research, presentation of scientific findings, and invaluable hands-on experience evaluating long-term battery aging tests.

Master Thesis: Independent 6-month scientific project concluded by a final oral presentation and defense of the results.

Excellent Cooperations & Equipment

As one of Europe's leading technical universities, RWTH Aachen and numerous organizations have established a multidisciplinary scientific environment. Students have the unique possibility to co-operate directly with the **Research Center Jülich**, the **E.ON Energy Research Center**, the **Helmholtz-Institute Münster (HI MS)**, the **Fraunhofer Institutes**, and the **Center for Ageing, Reliability and Lifetime Prediction (CARL)**.

Research and Elective Areas



- Production
- Recycling & Life Cycle
- Diagnostics
- Sensors & Electronics
- Modelling
- Pack Design & BMS
- Chem. & Phys. Cell Analysis
- Lab & Field Operation

Career Prospects

Graduates are highly qualified for diverse careers in **battery production** (e.g., cell/pack manufacturers), **battery applications** (e.g., vehicle, ship, or railway manufacturers), and **storage systems** (e.g., grid operators, energy suppliers). Furthermore, the program provides an excellent foundation for pursuing a **doctorate**.

How to Apply

Admission is highly competitive. Due to higher education law NRW, only **7% of 30 spots** can be allocated to non-EEA applicants. Follow this walkthrough:

1 Check Degree Requirements

First university degree equivalent to 180 ECTS in the natural sciences, engineering or technical sciences.

2 Take the Aptitude Test

EEA Applicants

Study Aptitude Test (dMAT)
Weight: 80% dMAT | 20% B.Sc. Grade.
Fee: 100€. Missing test equates to 0 points.
Important: Register by end of May/June!



Scan for
dMAT Info

Non-EEA Applicants

GRE General Test (Minimums)
Verbal Reasoning: 145
Quantitative Reasoning: 160
Analytical Writing: 3.0

3 Prove English Proficiency

Level B2 Required: TOEFL iBT 90, IELTS 6.0, Cambridge B2+, Pearson PTE 60, or equivalent.

! Application Deadline: 15.07.

Apply online via the official RWTHonline portal.

Further Information

Program Coordinator Office

batteryengineering@isea.rwth-aachen.de

Official Web Portal

www.BatteryEngineering.rwth-aachen.de

Registrar's Office (Studierendensekretariat)

Formal application process, entry and enrolment updates
www.rwth-aachen.de/registrarsoffice
studsek@zhv.rwth-aachen.de

Postal Address

Campus-Boulevard 89
52074 Aachen, Germany



Scan for Direct Access

Get instant access to module handbooks, precise entry evaluation criteria and interactive FAQs.



M.Sc. Battery Science and Technology in Engineering

English-Taught · Research-Oriented · Interdisciplinary