

Overview of the Degree Program

✓ Degree

Master of Science (M.Sc.)

✓ Regular Program Length

4 semester (full-time program)

✓ Credit Points (ECTS)

120 credit points

✓ Language of Instruction

English

✓ Admission Requirements

- » a completed bachelor's or equivalent degree in Geophysics or related discipline such as Physics, Mathematics, Geosciences, Mineralogy, Geology or another natural or engineering science
- » necessary minimum requirements completed in the bachelor's program in
 - ▶ Geophysics of 20 CP
 - ▶ Physics of 20 CP
 - ▶ Mathematics of 20 CP
- » in case of up to 20 CP in Geophysics missing, conditional admission possible
- » proof of sufficient knowledge of English of at least CEFR B2 level (TOEFL, IELTS, TOEIC, Cambridge Certificate)

Details can be found in the current admission regulations.

✓ Limited Capacity

no

✓ Application Deadline

September 30 / March 31 for the 1st semester
(for applicants with German or EU nationality)

July 15 / January 15 for the 1st semester
(for all other international applicants)

Questions?

If you have **general questions** about the degree program, studying at KIT or the **application process**:

Carmen Reck, your student advisor at ZSB:
carmen.reck@kit.edu

If you have **specific questions** concerning the curriculum of the degree program:

Your academic advisory services at the KIT-Department of Physics: lehre@gpi.kit.edu

Information in this flyer was accurate at the time of printing. Program structure, study plans or deadline could have changed since then.

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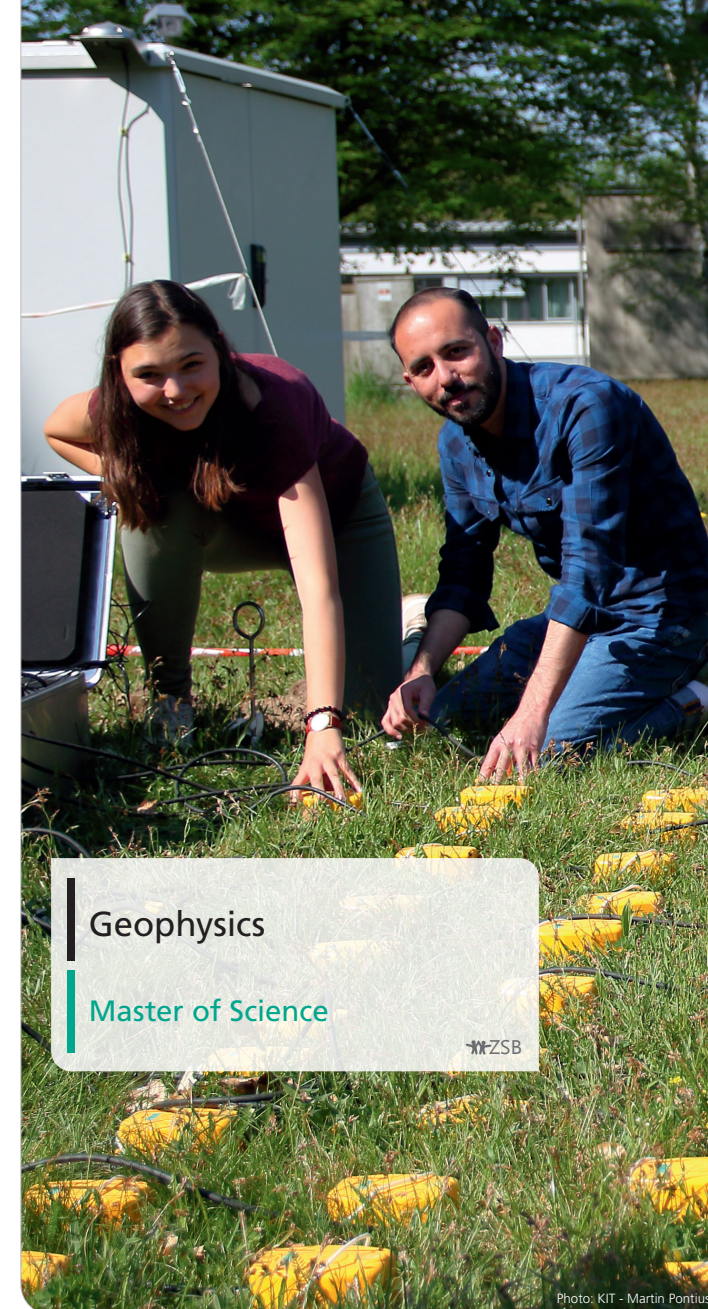
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Karlsruhe Institute of Technology

The Karlsruhe Institute of Technology (KIT), a fusion of a university and a large-scale research facility, represents one of the leading research and teaching institutions in Europe in natural science and engineering. Students who choose to study here opt for a scientific education that is predominately research-oriented. The wide range of offered subjects provides a high level of freedom of choice and individual specialization options in the master's degree programs. The particularly high qualification standards at KIT are known among employers and thus offer graduates a well-paved road into starting a professional career or continuing with a doctorate.

Geophysics (M.Sc.)

The two-year English-language master's program in Geophysics comprises 120 credit points (CP) and offers a specialization in the fields of seismics, seismology and natural hazards, research areas for which the Geophysical Institute has been known worldwide for more than 50 years. The courses are held entirely in English. The students come from various European and non-European countries. Our students can achieve optimal learning results through modern and innovative teaching methods in a stimulating international learning environment. The core of the master's program in year 1 are the modules Seismometry, Signal Processing and Seismogram Analysis (22 CP) and Theory and Inversion of Seismic Waves (18 CP). In order to specialize during the first year, students individually choose Compulsory Electives (16 CP) from the field of Geophysics or from neighboring disciplines. They also gain generic competences by choosing additional courses (4 CP) to improve presentation skills, time management or languages. All first-year modules are taught on an advanced level and consist of lectures, exercises and self-study.

In semester 3 the actual work on the master's thesis is preceded by the subjects Introduction to Scientific Practice (20 CP) and Scientific Focusing Phase (10 CP) where students get to know and practice basic working methods that are required for successful scientific research. With the completion of the master's thesis in semester 4, the graduates demonstrate that they are capable of applying scientific knowledge and methods in order to independently solve complex research problems.

We recommend to apply as soon as possible after the application portal opens. For international applicants we recommend to start in winter semester.

Career Prospects

At the GPI, students will receive a profound geophysical education at an internationally renowned research institute. Therefore, MSC graduates in Geophysics can choose from a wide spectrum of challenging jobs in academia and the industry.

Expeditions might take our graduates to sometimes inhospitable and remote places, and a large number of our graduates choose to work in labs and observatories, pursuing a scientific career. GPI students receive excellent training in computing, and often use supercomputers to process the large amounts of data obtained from field measurements to establish complex computer simulations for the data interpretation, which equally qualifies them for a career in computing and large companies in the industry.



Characteristic Features of the Degree Program at KIT

- » internationally renowned research institute
- » small number of students, thus very personal atmosphere
- » opportunity to take part in recent research activities at an early stage
- » numerous measuring expeditions and major international research projects every year
- » in situ lectures with hands-on experience
- » several lecturers at the GPI have received a number of awards for their outstanding, innovative teaching
- » for prospective doctoral candidates: Karlsruhe Young House of Scientists (KYHS)

Program Structure

| 1st semester | 2nd semester | 3rd semester | 4th semester |
|--|---|---|--|
| <ul style="list-style-type: none">• Geophysics<ul style="list-style-type: none">• Seismometry, Signal Processing and Seismogram Analysis (22 CP)• Compulsory Electives (6 CP)• Soft Skills I (2 CP) | <ul style="list-style-type: none">• Geophysics<ul style="list-style-type: none">• Theory and Inversion of Seismic Waves (18 CP)• Compulsory Electives (10 CP)• Soft Skills II (2 CP) | <ul style="list-style-type: none">• Geophysics<ul style="list-style-type: none">• Seismic/Seismology Seminar (10 CP)• Introduction to Scientific Practice<ul style="list-style-type: none">• Introduction to Research in Scientific Sub-Field including a Seminar paper (16 CP)• Scientific Seminars (4 CP) | <ul style="list-style-type: none">• Master's thesis (30 CP) |