# Programme overview Applied Geophysics

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In the programme we distinguish four categories, for each category you can find the details in the figure below:

### TU Delft
- **Core Modules (3 out of 3 must be passed)**
  - Electromagnetic Exploration Methods
  - Advanced Reflection Seismology and Seismic Imaging
  - Field Geophysics and Signal Analysis (Matlab/Python)

- **Courses**
  - Geophysics Special Subjects
  - Seismic Acquisition to Data Information Content
  - Geodesy and Remote Sensing
  - Geology for Geo-Energy

- **MSc Thesis**
  - The MSc thesis can be written at one of the three partner universities.

### ETH Zurich
- **Core Modules (3 out of 3 must be passed)**
  - 1 Numerical Modelling for Applied Geophysics I
  - 1 Inverse Theory for Applied Geophysics I: Basics
  - 2 Geophysical Fieldwork & Processing: Methods
  - 2 Geophysical Fieldwork & Processing: Prep & Fieldwork
  - 3 Reflection Seismology Processing

- **Courses**
  - Geofluids
  - Case studies in Exploration and Environmental Geophysics
  - Numerical Modelling for Applied Geophysics I
  - Inverse Theory for Applied Geophysics II
  - Inverse Theory for Applied Geophysics II: Applications
  - Geothermal Energy
  - Mathematik V: Angewandte Vertiefung vor Mathematik I-III

### RWTH Aachen
- **Core Modules (2 out of 6 must be passed)**
  - 1 Geophysics Special Methods: NMR
  - 1 Geophysics Special Methods: Spectral IP
  - 2 Geophysical Logging and Log Interpretation
  - 3 Geothermics
  - 4 Hydrogeophysics
  - 4 Data Analysis in Geoscience
  - 5 Numerical Reservoir Engineering
  - 6 Numerical Methods for Geophysical Flow

- **Courses**
  - Sedimentary Basin Dynamics
  - Petroleum System Modelling
  - Portfolio Management
  - Prospect Evaluation and Risk Analysis
  - Introduction to Languages for Scientific Computing
  - Finite Elements in Fluids
  - Mining Waste, Emission and Environment
  - Economics of Technological Diffusion