# Module description

<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
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<tbody>
<tr>
<td>Data and Error Analysis</td>
<td>11-P-FR1-152-m01</td>
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</table>

## Module coordinator
Managing Director of the Institute of Applied Physics

## Module offered by
Faculty of Physics and Astronomy

### ECTS

<table>
<thead>
<tr>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
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</thead>
<tbody>
<tr>
<td>2</td>
<td>(not) successfully completed</td>
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## Duration
1 semester

## Module level
undergraduate

## Other prerequisites
Admission prerequisite to assessment: completion of exercises (approx. 13 exercise sheets per semester). Students who successfully completed approx. 50% of exercises will qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the semester.

## Contents
Types of errors, error approximation and propagation, graphic representations, linear regression, mean values and standard deviation.

## Intended learning outcomes
The students are able to evaluate measuring results on the basis of error propagation and of the principles of statistics and to draw, present and discuss the conclusions.

## Courses
V (1) + Ü (1)
Module taught in: Ü: German or English

## Method of assessment
written examination (approx. 120 minutes)
Language of assessment: German and/or English

## Allocation of places
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## Additional information
Registration: If a student registers for the exercises and obtains the qualification for admission to assessment, this will be considered a declaration of will to seek admission to assessment pursuant to Section 20 Subsection 3 Sentence 4 ASPO (general academic and examination regulations). If the module coordinators subsequently find that the student has obtained the qualification for admission to assessment, they will put the student’s registration for assessment into effect. Only those students that meet the respective prerequisites can successfully register for an assessment. Students who did not register for an assessment or whose registration for an assessment was not put into effect will not be admitted to the respective assessment. If a student takes an assessment to which he/she has not been admitted, the grade achieved in this assessment will not be considered.

## Referred to in LPO I
§ 53 I Nr. 1 c)
§ 77 I Nr. 1 d)

## Module appears in
- Bachelor’ degree (1 major) Mathematics (2015)
- Bachelor’ degree (1 major) Physics (2015)
- Bachelor’ degree (1 major) Nanostructure Technology (2015)
- Bachelor’ degree (1 major) Mathematical Physics (2015)
- Bachelor’ degree (1 major) Computational Mathematics (2015)
- Bachelor’ degree (1 major) Aerospace Computer Science (2015)
- Bachelor’ degree (1 major) Functional Materials (2015)
- Bachelor’s degree (1 major, 1 minor) Physics (Minor, 2015)
| First state examination for the teaching degree Grundschule Physics (2015) |
| First state examination for the teaching degree Realschule Physics (2015) |
| First state examination for the teaching degree Gymnasium Physics (2015) |
| First state examination for the teaching degree Mittelschule Physics (2015) |
| Bachelor’ degree (1 major) Mathematical Physics (2016) |
| Bachelor’ degree (1 major) Aerospace Computer Science (2017) |
| First state examination for the teaching degree Grundschule Physics (2018) |
| First state examination for the teaching degree Realschule Physics (2018) |
| First state examination for the teaching degree Gymnasium Physics (2018) |
| First state examination for the teaching degree Mittelschule Physics (2018) |