## Module description

<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
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<tr>
<td>FOKUS Research Module High Energy Astrophysics</td>
<td>11-FM-HAS-111-m01</td>
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### Module coordinator
- chairperson of examination committee

### Module offered by
- Faculty of Physics and Astronomy

<table>
<thead>
<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
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<tbody>
<tr>
<td>10</td>
<td>numerical grade</td>
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### Duration
- 1 semester

### Module level
- graduate

### Other prerequisites
- 11-A4, 11-KET

### Contents
Specific and advanced knowledge for independent scientific work in the research area of High-Energy Astrophysics.

### Intended learning outcomes
The students have special and advanced knowledge of independent scientific work in the field of High-Energy Astrophysics. They have knowledge of cosmology and/or Plasma Astrophysics (cf. modules 11-AKM, 11-APL). They are able to reproduce and summarise the acquired knowledge in a seminar presentation.

### Courses
- **Plasma-Astrophysik** (Plasma-Astrophysics): V (3 weekly contact hours) + Ü/P (1 weekly contact hour), German or English, once a year (summer semester)
- **Kosmologie** (Cosmology): V (3 weekly contact hours) + Ü/P (1 weekly contact hour), German or English
- **Kompaktseminar Hochenergie-Astrophysik** (Block Taught Seminar High Energy Astrophysics): S (2 weekly contact hours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break)

### Method of assessment
This module has the following assessment components
1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages)
2. Seminar: talk (approx. 30 to 45 minutes)

Assessment components 1 and 2 will be offered in German or English.

Students must register for assessment components 1 and 2 online (details to be announced).

Details on when assessment component 2 will be offered to be announced.

Lectures and exercises will cover either plasma-astrophysics or cosmology (as announced by or agreed upon with the lecturer).

To pass this module, students must pass both assessment component 1 and assessment component 2.

### Allocation of places
- --

### Additional information
- --

### Referred to in LPO I (examination regulations for teaching-degree programmes)
- --

### Module appears in
- Master's degree (1 major) FOKUS Physics (2010)
- Master's degree (1 major) FOKUS Physics (2011)
- Master's degree (1 major) FOKUS Physics (2006)