

| | | |
|---|--------------------------|--|
| Module title | | Abbreviation |
| Imaging Methods at the Synchrotron | | 11-BMS-131-m01 |
| Module coordinator | | Module offered by |
| Managing Director of the Institute of Applied Physics | | Faculty of Physics and Astronomy |
| ECTS | Method of grading | Only after succ. compl. of module(s) |
| 4 | numerical grade | -- |
| Duration | Module level | Other prerequisites |
| 1 semester | graduate | Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semesters. |
| Contents | | |
| Overview of synchrotron radiation and its generation. - Principles of the interaction between radiation and matter. - Principles of X-ray optics, X-ray lens. - Synchrotron detector technique X-ray diffractometry (diffraction) of crystalline materials. | | |
| Intended learning outcomes | | |
| The students have advanced knowledge of synchrotron radiation and X-ray optics. They know the physical principles of imaging techniques at the synchrotron and their application for crystalline materials and other materials. They understand the principles of image generation and are able to explain different techniques and interpret simple images. | | |
| Courses (type, number of weekly contact hours, language – if other than German) | | |
| V + R (no information on SWS (weekly contact hours) and course language available) | | |
| Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus) | | |
| a) written examination (approx. 90 minutes) or b) oral examination of one candidate each or oral examination in groups (approx. 30 minutes per candidate) or c) project report (approx. 8 to 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes) Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be announced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations) 2009. Language of assessment: German, English | | |
| Allocation of places | | |
| -- | | |
| Additional information | | |
| -- | | |
| Referred to in LPO I (examination regulations for teaching-degree programmes) | | |
| -- | | |
| Module appears in | | |
| Master's degree (1 major) Physics (2010) Master's degree (1 major) Physics (2011) Master's degree (1 major) Nanostructure Technology (2011) Master's degree (1 major) Nanostructure Technology (2010) Master's degree (1 major) FOKUS Physics (2010) | | |

