### Module title

**Density Functional Theory and the Physics of Oxide Heterostructure**

**Abbreviation**

11-DFT-142-m01

### Module coordinator

Chairperson of examination committee

### 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>4</td>
<td>numerical grade</td>
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</table>

### Duration

1 semester

### Module level

Graduate

### Other prerequisites

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### Contents

The students are familiar with the physical values of oxide heterostructures and with the principles and methods of density functional theory. They are able to model problems of Theoretical Physics with the help of important programmes such as Wien2k or VASP. They can make simple calculations with the help of density functional theory.

### Intended learning outcomes

The students are familiar with the physical values of oxide heterostructures and with the principles and methods of density functional theory. They are able to model problems of Theoretical Physics with the help of important programmes such as Wien2k or VASP. They can make simple calculations with the help of density functional theory.

### Courses

(V + D (no information on SWS (weekly contact hours) and course language available)

### Method of assessment

(a) written examination (90 minutes) or b) oral examination of one candidate each or oral examination in groups (approx. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx. 8 to 10 pages, time to complete: approx. 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 ASPO (general academic and examination regulations) 2009.

Language of assessment: German, English

### Allocation of places

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### Additional information

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### Referred to in LPO I

(examination regulations for teaching-degree programmes)

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### 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)
- Master's degree (1 major) FOKUS Physics (2011)

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