## Module title

**Molecular Materials (Lecture)**

### Abbreviation

08-FU-MoMaV-152-m01

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### Module coordinator

degree programme coordinator Funktionswerkstoffe (Functional Materiaerials)

### Module offered by

Chair of Chemical Technology of Material Synthesis

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### ECTS

5

### Method of grading

Only after succ. compl. of module(s)

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### Duration

1 semester

### Module level

undergraduate

### Other prerequisites

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### Contents

Chemical bonds and molecular interactions, supramolecular chemistry, molecular materials, colloids, nano particles, thin films.

### Intended learning outcomes

The students gain fundamental knowlege in the relationships of physical, chemical and technological properties of materials and their structure. They understand the significance of various inter- and intramolecular interactions and how they determine the properties of molecular materials. They learn how to familiarize themselves with a scientific topic including a literature search, and how to give a presentation including discussion and feedback.

### Courses

(type, number of weekly contact hours, language — if other than German)

V (3) + S (1)

### 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 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes)] as well as talk (approx. 30 minutes), weighted 3:1

Language of assessment: German and/or English

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### 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

Bachelor' degree (1 major) Nanostructure Technology (2015)
Bachelor' degree (1 major) Functional Materials (2015)
Master's degree (1 major) Chemistry (2016)
Master's degree (1 major) Chemistry (2018)
Master's degree (1 major) Chemistry (2018)
Master's teaching degree Gymnasium MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2016)
Supplementary course MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2016)
Supplementary course MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2020)
Bachelor' degree (1 major) Nanostructure Technology (2020)
Bachelor' degree (1 major) Quantum Technology (2021)