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**Modulbezeichnung:** Basics of Materials (CE\_BasMater) 7.5 ECTS  
(Basics of Materials)

Modulverantwortliche/r: Erik Bitzek

Lehrende: Michael Engel, Erik Bitzek, Erdmann Spiecker

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Startsemester: WS 2019/2020

Dauer: 1 Semester

Turnus: jährlich (WS)

Präsenzzeit: 75 Std.

Eigenstudium: 150 Std.

Sprache: Englisch

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### Lehrveranstaltungen:

Attendance of the "Pre-course on Linux and MATLAB" by Prof. Bitzek is highly recommended.

Mandatory courses are: winter term, 1L/1T , Materials and Structure (MS), Lecturer: E. Spieker

summer term, 1L/1T, Thermodynamics and Mechanics of Materials (MPI), Lecturer: E Bitzek

winter term, 1L, Basics in Computational Materials Science and Process Simulation 1 (B<sub>Compu1</sub>), Lecturer: M. Engel

Thermodynamics and Mechanics of Materials (WS 2019/2020, Vorlesung, 2 SWS, Erik Bitzek et al.)

Basics in Computational Materials Science and Process Simulation 1 (WS 2019/2020, Vorlesung, 2 SWS, Michael Engel et al.)

Materials and Structure (Werkstoffe und ihre Struktur) (WS 2019/2020, Vorlesung, 2 SWS, Erdmann Spiecker et al.)

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### Inhalt:

Materials science and general materials properties, as well as computational introduction

### Lernziele und Kompetenzen:

The students will learn relevant materials scientific foundations, which are relevant for understanding all subsequently considered materials simulations. Furthermore, they will learn about basics in computational materials science, as well as in process simulation.

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