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

Modulverantwortliche/r: Aruna Prakash, Erdmann Spiecker, Doris Segets

Lehrende: Erik Bitzek, Erdmann Spiecker, Wolfgang Peukert, Aruna Prakash, Doris Segets

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Startsemester: WS 2018/2019

Dauer: 2 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 (04.10 and 05.10.2018)

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

summer term, 1L/1T, Material Properties I (MPI), Lecturer: A. Prakash

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

D. Segets, W. Peukert

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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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### Verwendbarkeit des Moduls / Einpassung in den Musterstudienplan:

Das Modul ist im Kontext der folgenden Studienfächer/Vertiefungsrichtungen verwendbar:

[1] **Computational Engineering (Rechnergestütztes Ingenieurwesen) (Master of Science)**

(Po-Vers. 2013 | TechFak | Computational Engineering (Rechnergestütztes Ingenieurwesen) (Master of Science) |

Wahlpflichtbereich Technisches Anwendungsfach | Computational Material Sciences)

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