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| <b>Module title</b>  |                          | <b>Abbreviation</b>                                |
| Polymer Materials 2: Technology of Filler Modification for Polymer Materials   |                          | o8-FU-PW2-161-mo1                                  |
| <b>Module coordinator</b>  |                          | <b>Module offered by</b>                           |
| degree programme coordinator Funktionswerkstoffe (Functional Materials)  |                          | Chair of Chemical Technology of Material Synthesis |
| <b>ECTS</b>  | <b>Method of grading</b> | <b>Only after succ. compl. of module(s)</b>        |
| 5  | numerical grade          | --   |
| <b>Duration</b>  | <b>Module level</b>      | <b>Other prerequisites</b>                         |
| 1 semester   | graduate                 | --   |
| <b>Contents</b>  |                          |  |
| Principles of and technologies for the functionalisation of filler materials in order to modify polymers, interactions between filler materials and polymers, determination of the special properties of functionalised polymers (e.g. electrical behaviour, bactericidal behaviour) and influence of functionalisation on other properties (e.g. rheology, mechanical behaviour, colour, surface).  |                          |  |
| <b>Intended learning outcomes</b>  |                          |  |
| Students have become familiar with technologies for the functionalisation of filler materials. They have developed an awareness of the possibilities and problems associated with the modification of polymers as well as the interactions between filler materials and polymers. They know how to determine the special properties of functionalised polymers (e.g. electrical behaviour, bactericidal behaviour) and understand how other properties are influenced by functionalisation (e.g. rheology, mechanical behaviour, colour, surface). |                          |  |
| <b>Courses</b> (type, number of weekly contact hours, language – if other than German)   |                          |  |
| V (2) + P (2)  |                          |  |
| <b>Method of assessment</b> (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 (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate)<br>Assessment offered: Once a year, summer semester<br>Language of assessment: German and/or English<br>P: creditable for bonus   |                          |  |
| <b>Allocation of places</b>  |                          |  |
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| <b>Additional information</b>  |                          |  |
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| <b>Workload</b>  |                          |  |
| 150 h  |                          |  |
| <b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)   |                          |  |
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| <b>Module appears in</b>   |                          |  |
| Master's degree (1 major) Functional Materials (2016)<br>Master's degree (1 major) Functional Materials (2022)   |                          |  |