Only the german version of the module description as part of the study regulations is legally binding.

Module name	**Mathematics Specialization - Algebra**
Module number	INF-25-Ma-NSP-MAT-ALG
Responsible lecturer	Prof. Dr. Manuel Bodirsky manuel.bodirsky@tu-dresden.de
Qualification objec-Tives	Students have in-depth knowledge of the methodology of the application area of mathematics and use the technical language and important working techniques in the field of algebra with confidence. They possess comprehensive skills in mathematical abstraction.
Content	Contents of the module are groups including subgroups, normal divisors, group effects, classes and properties of groups, rings including ideals, quotient rings, classes and properties of rings, modules including classification of modules over principal ideal rings as well as solids including algebraic solid extensions, degree of extension and applications and their structure-preserving mappings.
Teaching and learning methods	The module comprises lectures of 3 SWS, exercises of 1 SWS and the self bststudium. The language of instruction for the lectures and exercises is German.
Prerequisites for par-ticipation	In the Diploma degree program in Computer Science, the competencies to be acquired in the module INF-25-Ma-NVE-MAT Mathematics specialization are a prerequisite.
Applicability	The module is a compulsory module of the Non-Computer Science Supplement Mathematics in the Diploma program in Computer Science. The module creates the prerequisites for the modules listed under prerequisites for participation.
Requirements for earning credit points	The credit points are earned if the module examination is passed. The module examination consists of a written examination lasting 90 minutes. The examination language is German.
Credit points and grades	6 credit points can be earned through the module. The module grade corresponds to the grade of the examination.
Module frequency	The module is offered every winter semester.
Workload	The total workload is 180 hours.
Module duration	The module comprises one semester.