

Module	<i>Quantum Sensing and Metrology</i>
Code	
Instruction language	German/English
ECTS credits	3/4
Attendance time	2 hours per week
Duration	1 semester
Cycle	Summer semester
Coordinator	Dean of Physics Studies
Lecturers	Prof. Dr. Fedor Jelezko, Prof. Dr. Peter Reineker
Allocation to study programmes	Physics M.Sc., elective module, 1 st or 2 nd semester Wirtschaftsphysik M.Sc., elective module, 1 st - 3 rd semester Lehramt Physik
Formal prerequisites	None
Recommended prerequisites	Fundamentals of classical mechanics, atomic physics
Learning objectives	Students who successfully passed this module should be able to start research in quantum sensing and have an overview over the actual SI unit system.
Content	<ul style="list-style-type: none"> • Quantum sensing, several methods • Metrology, several methods • Overview over basic quantum sensing methods • Overview over the SI unit system (update in May 2019)
Literature	Will be announced during the class
Teaching and learning methods	Seminar (2 hours per week)
Workload	30 hours seminar (attendance time) 60 hours self-study Total: 90 hours
Assessment	The credit points will be awarded once the seminar has been passed (i.e. presentation of the own talk and participation in the discussion of all talks, and submission of a written report – when required). No prerequisites are necessary for exam registration.
Basis for	Research in the field of quantum sensing, experiment and/or theory