Module code (1.)	Module description (2.)		Category (3.)
MBI 1520 Stand: 06.10.2021	Pavement Maintenance		Int. Master
	Degree program (4.)	Sustainable Engineering of Infrastructure	
	Faculty (5.)	Civil Engineering and Conservation / Restoration	

Module supervisor	(6.)	Prof. Dr.-Ing. Steffen Riedl
Type of module	(7.)	P (obligatory)
Frequency	(8.)	Annually
Standard semester of study	(9.)	1st semester
Credits (ECTS)	(10.)	5 ETCS
Assessment	(11.)	Written examination (90 minutes)
Language of instruction	(12.)	English
Admission requirements	(13.)	-
Module is a requirement for	(14.)	-
Module duration	(15.)	1 semester
Mandatory registration	(16.)	No
Applicability of module	(17.)	Civil Engineering

Course (18.)		Lecturer (19.)	Type (20.)	No. of students (max.) (21.)	No. of courses per week (22.)	Contact hours per week (23.)	Workload	
							Face-to-face (24.)	Self-study (25.)
1	Pavement Maintenance	Prof. Dr. Riedl	Lecture / tutorial	25	1	4	60	60
2	Pavement Maintenance	Prof. Dr. Riedl	Home assignment / oral exam	25			15	15
					Total	**4**	**75**	**75**
					Workload for the module (26.)			**150**

Learning objectives	(27.)	After successful participation in the module, the students will understand and have mastered the basics and the tools to successfully record and assess the condition of roads and create targeted concepts for road maintenance strategies. The students will also be taught about the most important maintenance methods used in asphalt and concrete construction and the use of bituminous binders (in particular bitumen emulsions). Furthermore, particular emphasis will be placed on the rudiments of excavation work and the use of recycled building materials in conservation measures.
Course contents	(28.)	Road maintenance

	• recording and assessing the condition of roads (ZEB) • maintenance and repair methods in asphalt and concrete construction • bituminous binders • development of targeted maintenance strategies Recycling: • legal aspects • properties of recycled building materials and industrial by-products • technical integration of recycled building materials in systems engineering
Preliminary exam requirements and assessment (29.)	• Preliminary examination requirement: coursework • Final 90-minute examination • Assessment of the exam using grades 1-5 • Module grade is included in the overall grade in proportion to the number of credits earned
Literature (30.)	• National and international standards • Literature recommended during the lectures