Valid from 2025.HS

Module description: Natural Sciences

Module Code	t.BA.MIP.NS.23HS
ECTS Credits	4
Language of Instruction/Examination	German
Organizational Unit	ICP
Module Coordinator	Andreas Witzig
Legal Framework	The module description is part of the legal basis in addition to the general academic regulations. It is binding. During the first week of the semester a written and communicated supplement can specify the module description in more detail.
Module Characteristic	Type 3a 2 lecture lessons per semester week and class+ 2 lab bi-weekly lessons per semester and half-class
Module Description	The focus is on three practical courses: 1) analysis of body movements, 2) functioning of muscles and 3) measurement of brain waves. In the lectures the necessary physical basics are worked out and in the post-processing of the practical courses the measurement data are evaluated.
Module Content	• Practical courses with IMU (=Inertia Movement Unit), EMG (= Electromyography) and EEG (= Electroencephalogram). Matching physical basics: mechanics, current and voltage.
Prerequisite Knowledge	Learning objectives from MIM.MA1

Learning Objectives (Competences)

Students...	Competencies	Taxonomies
Students will know the basic physical relationships necessary to understand IMU, EMG, EEG.	F, SE, SO, M	K3, K4, K5
Students will know the basic physical relationships necessary to understand IMU, EMG, EEG.	F, M	K1, K2, K3

Performance Assessment

End-of-module exam	Assessment	Length (min.)	Weighting	Form
written exam		90	100	acc. to module agreement

Performance assessment during the semester	Assessment	Length (min.)	Weighting	Form
-	-	-	-	-

Classroom Attendance Requirement	None Laboratory
Learning material	
Comments	