

**Module description**

Module title	PSYCH-MA-PFM-16: Functional Magnetic Resonance Tomography
Subject	BION
Associated degree	Master of Science (M.Sc.)
Module coordinator	Prof. Dr. Rudolf Stark Rudolf.Stark@psychol.uni-giessen.de
Frequency and duration	Winter and summer (2 semester course, 1.5h per week)
Language of instruction	German
Examination	presentations, essay, report or test
ECTS	10 (for full 2 semester module; partial module = 5)
Prerequisites	none
Learning outcomes	<p>Students will</p> <ul style="list-style-type: none"> • gain knowledge of the fundamentals of functional magnetic resonance imaging (fMRI) • learn methods of evaluating fMRI data • receive an introduction to the practical execution of fMRI experiments • gain knowledge in the interpretation and evaluation of fMRI results
Module content	<p>Theory</p> <ul style="list-style-type: none"> • basic physical principles of magnetic resonance imaging • safety and important terms in magnetic resonance imaging • servicing scanner software • designing fMRI experiments and the fundamentals of evaluating fMRI data <p>Practice</p> <ul style="list-style-type: none"> • practical execution of an fMRI experiment • introduction to evaluating fMRI data using SPM (statistical parametric mapping)