

Module title		Abbreviation
Spatial Modeling and Prediction		04-GEO-MET1-162-m01
Module coordinator		Module offered by
holder of the Professorship of Remote Sensing		Institute of Geography and Geology
ECTS	Method of grading	Only after succ. compl. of module(s)
5	numerical grade	--
Duration	Module level	Other prerequisites
1 semester	graduate	--
Contents		
Different statistical methods will be applied for analysing spatial point patterns, such as vegetation samples or biodiversity related information. These results will be statistically predicted using methods such as GLM, GAM, Random Forest or MaxEnt. Implications of spatial point patterns as well as chosen environmental parameters will be discussed. All methods will be practically applied during the course using the programming language R		
Intended learning outcomes		
Within this course different methods to analyse point pattern statistically and conduct a spatial prediction are covered. Students will learn how to design such analysis, how to avoid caveats, troubleshoot errors and interpret the results.		
Courses (type, number of weekly contact hours, language – if other than German)		
S (1) + Ü (1) Module taught in: English		
Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus)		
a) presentation (approx. 30 minutes) or b) preparing a poster (approx. 10 hours total) or c) term paper (approx. 15 pages) Assessment offered: Once a year, summer semester Language of assessment: English or German (assessment will be held in English; in addition, the examiner may, where possible, decide to hold assessment in German) creditable for bonus		
Allocation of places		
--		
Additional information		
--		
Workload		
150 h		
Referred to in LPO I (examination regulations for teaching-degree programmes)		
--		
Module appears in		
Master's degree (1 major) Applied Earth Observation and Geoanalysis (EAGLE) (2016) Master's degree (1 major) Applied Earth Observation and Geoanalysis (EAGLE) (2018) Master's degree (1 major) Applied Earth Observation and Geoanalysis (EAGLE) (2021)		