Modul Name / Module name	**Data Analysis & Management**	Code: Fowi-
Studiengang / Study programme	Forest Information Technology (M.Sc.)	Semester: 1.
Modul Koordinator / Module Coordinator	Prof. Dr. Alfred Schultz (Email: aschultz@fh-eberswalde.de)	
Ziel / Goal	imparting basic knowledge of collecting, analyzing and storing environmental data	

Status:	mandatory	Prüfungsform / Examination form:	written exam (180 min)
Teilnahmevoraussetzungen / Entry requirements:	none	Max. Plätze / Max. study places:	25
ECTS-Credits:	6	Lehrsprache / Teaching language:	English
Arbeitsaufwand / Workload:	total: 150 h / semester (4 SWH Instruction + 6 SWH self-study))		

Teilmodul / Module component	**1. Database Management**					
Dozent / Lecturer	Prof. Dr. Alfred Schultz (Email: aschultz@fh-eberswalde.de)					
Ziel / Goal	imparting knowledge and practical skills of environmental data storage and management					
Inhalt / Content	mathematical and information technological basics of databases incl. elements of formal logic; data modelling; normalization; relational databases; query languages; SQL; stand-alone and client-server applications					
Schlüsselqualifikationen / Soft skills	analytical skills, problem solving competency, creativity, communication competency					
Weiterführende Module / Continuative modules	Lehrsprache / Teaching language	Lehrform / Teaching form	Prüfungsform / Examination form	Credits	Dauer / Duration	Arbeitsaufwand / Workload
Forest Information Systems, Web Databases, Environmental Data Mining	English	lecture (50%), computer laboratory practice (50%)	written exam (90 min)	3	continuously	total: 75 h / semester 2 SWH (l) + 3 SWH (S)

Teilmodul / Module component	**2. Statistics I**					
Dozent / Lecturer	Prof. Dr. Alfred Schultz (Email: aschultz@fh-eberswalde.de)					
Ziel / Goal	imparting basic knowledge and practical skills of environmental data collection and analysis					
Inhalt / Content	history of statistics and biometry; overview of statistical software; fundamentals of probability theory; probability distributions; confidence intervals; hypothesis testing; parametric and non-parametric tests; contingency table analysis; sampling approaches; classification and cluster analysis					
Schlüsselqualifikationen / Soft skills	analytical and logical thinking, problem solving competency					
Weiterführende Module / Continuative modules	Lehrsprache / Teaching language	Lehrform / Teaching form	Prüfungsform / Examination form	Credits	Dauer / Duration	Arbeitsaufwand / Workload
Statistics II, Environmental Data Mining, Forest Information Systems, Introduction to Ecosystem Modelling, Forest Ecosystem Modelling	English	lecture (60%), computer laboratory practice (40%)	written exam (90 min)	3	continuously	total: 75 h / semester 2 SWH (l) + 3 SWH (S)