Call for Application - Erasmus + program "Staff Training"
Modules offered for participants at the Eberswalde University for Sustainable Development (EUSD) during winter term 2018*

Module	Module Component	Aim	LoI**	Study programme	Term	expected calendar week/ time***	Mandatory or elective module	Teaching Form	Workload in credits
European IFITT Masterclass on e-Tourism		See the program: http://www.ifitt.org/european-ifitt-masterclass/	English	MA Nachhaltiges Tourismusmanagement	1.	17.09.-21.09.18	not mandatory	Lecture, Practical exercise	**3**
Data Analysis & Management I	Programming I	Students understand the theoretical fundamentals of computer programming and are able to create application programs of limited extent and function in a systematic way using an object-oriented programming language.	English	MA Forest Information Technology	1.	expected calendar week 43	mandatory	Lecture, Practical exercise	3
Data Analysis & Management I	Statistics I	Students know selected descriptive and analytical statistical methods and are enabled to accomplish environmental data analyses.	English	MA Forest Information Technology	1.	15.01.-19.01.18	mandatory	Lecture, Practical exercise	3
Geomatics I	Geographic Information Systems I (Fundamentals of Geographic Information Systems)	Students know theoretical fundamentals of Geographic Information Systems (GIS) and are enabled to use GIS for various purposes of natural resources management.	English	MA Forest Information Technology	1.	expected calendar week 45	mandatory	Lecture, Seminar, Practical exercise	3
Geomatics I	Database Management	Students know theoretical fundamentals of databases and are able to plan and to implement databases and to retrieve especially spatial data from databases in client-server environments.	English	MA Forest Information Technology	1.	expected calendar week 44	mandatory	Lecture, Seminar, Practical exercise	3
Geomatics II	Geographic Information Systems II (Digital Cartography)	Students are familiar with basic of digital cartography and are enabled to store, edit and present spatial data using standard GIS software	English	MA Forest Information Technology	1.	expected calendar week 46	mandatory	Lecture, Seminar, Practical exercise	3

*The list also includes a small selection of modules in German language.
 You can select any other modules in German language at EUSD if your language skills are sufficient.

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*** expected dates

			LoI						
Data Analysis & Management I	Programming I	Students understand the theoretical fundamentals of computer programming and are able to create application programs of limited extent and function in a systematic way using an object-oriented programming language.	English	MA Forest Information Technology	1.	expected calendar week 43	mandatory	Lecture, Practical exercise	3
Geomatics II	Remote Sensing	Students know theoretical fundamentals and are enabled to use remote sensing as one of forest and environment monitoring tools.	English	MA Forest Information Technology	1.	expected calendar week 47	mandatory	Lecture, Seminar, Practical exercise	3
Technological Fundamentals	Computer Science & Technology	Students know topical fundamentals of computer science and technology including current computer hardware and possess practical skills using different computer environments and operating systems.	English	MA Forest Information Technology	1.	expected calendar week 41	elective	Lecture, Practical exercise	3
	Automated Data Collection	Students know principles and technological solutions of automated data collection, have an overview of devices applied in forestry and environment, and have practical experience with selected devices	English	MA Forest Information Technology	1.	expected calendar week 42	elective	Lecture, Seminar, Practical exercise	3
Landscape Analysis & Prediction	Landscape Systems Analysis	Students are enabled to understand concepts, principles and methods of landscape systems analysis and are trained to select and to apply different quantitative methods of landscape systems analysis for varying targets.	English	MA Forest Information Technology	1.	expected calendar week 44	elective	Lecture, Practical exercise	3
Landscape Analysis & Prediction	Ecosystem Modelling	Students have a principal understanding of notion and approaches of ecosystem modelling and have basic practical skills to plan, develop and apply models of ecosystem related target areas.	English	MA Forest Information Technology	1.	expected calendar week 51	elective	Lecture, Practical exercise	3
Advanced Remote Sensing & Forest Change Detection	Advanced Remote Sensing & Forest Change Detection	Students are enabled to use remote sensing and geographic information system in different applications related to forest protection and forest change detection.	English	MA Forest Information Technology	3.	expected calendar week 43	elective	Lecture, Seminar	4

Data Analysis & Management I	Programming I	Students understand the theoretical fundamentals of computer programming and are able to create application programs of limited extent and function in a systematic way using an object-oriented programming language.	English	MA Forest Information Technology	1.	expected calendar week 43	mandatory	Lecture, Practical exercise	3
Collection and Analysis of LiDAR data	Collection & Analysis of LiDAR data	Goal: Students are familiar with the technological principles of LiDAR approaches and are able to pre-process and analyze LiDAR data and to display and communicate related results.	English	MA Forest Information Technology	3.	expected calendar week 40	elective	Lecture, Seminar, Practical exercise	4
Scientific Research & Organization	Scientific writing and presenting	Students know the fundamentals of effective scientific writing and oral presenting.	English	MA Global Change Management & MA Forest Information Technology	1.	expected calendar week 49	elective	Lecture, Seminar, Practical exercise	3
Human wellbeing and development as result of ecological and social processes and services	Students are enabled to understand and analyse dimensions of and factors contributing to human wellbeing. They elaborate a framework for the analysis of development goals and challenges going beyond a strict dichotomy between factual and value judgements.		English	MA Global Change Management	1.	expected calendar week 41-43	mandatory	Lecture, Seminar, Practical exercise	8

			LoI**			***			ECTS
Data Analysis & Management I	Programming I	Students understand the theoretical fundamentals of computer programming and are able to create application programs of limited extent and function in a systematic way using an object-oriented programming language.	English	MA Forest Information Technology	1.	expected calendar week 43	mandatory	Lecture, Practical exercise	3
Fundamentals of systems functionality and change		Students are enabled to understand emergent properties and unpredictable dynamics of complex systems (including both natural and social systems and their interactions) and the key attributes required for sustainable functioning. They can conduct exemplary analyses of selected systems' components and functionality and critically discuss analogies and homologies of social and ecological systems.	English	MA Global Change Management	1.	voraussichtlich Kalenderwochen 44	mandatory	Lecture, Seminar, Practical exercise	8
Threats & risks to systems functionality and contributing factors		Students are enabled to systemically inventory and analyse factors that lead to threats for the functionality of ecological and social systems and therefore for human wellbeing. These embrace, among others, factors from biophysical, socioeconomic and governance domains. The students apply basic knowledge about risk management to the development of future scenarios and identification of risks and blindspots related to the dynamics of the identified threats and their causal factors. They have practiced the assessment of criticality and strategic relevance of stresses, threats and their contributing factors, which make up global	English	MA Global Change Management	1.	08.01.-26.01.18	mandatory	Lecture, Seminar, Practical exercise	8
Carbon sequestration and accounting		Students understand the carbon cycle with special reference to forests, soils and forest products. They are qualified to develop and critically reflect forest growth scenarios and have acquired basic knowledge of the purpose and the implementation of life cycle analysis (LCA), product carbon footprints (PCF) and corporate carbon footprints (CCF).	English	MA Global Change Management	1.	expected calendar week 47 and 48	elective	Lecture, Practical exercise	6
Ecosystem models and concepts under global change	Remote sensing for global monitoring	Students are able to select main fields and apply possible practical application of remote sensing techniques with a landscape ecological approach.	English	MA Global Change Management	1.	expected calendar week 50	elective	Lecture, Seminar	3

			LoI**	Study programme	Semester	Date***			ECTS
Data Analysis & Management I	Programming I	Students understand the theoretical fundamentals of computer programming and are able to create application programs of limited extent and function in a systematic way using an object-oriented programming language.	English	MA Forest Information Technology	1.	expected calendar week 43	mandatory	Lecture, Practical exercise	3
Ecosystem models and concepts under global change	Ecosystem Modelling	Students have a principal understanding of notion and approach of ecosystem modelling and have basic practical skills to plan, develop and apply models of ecosystem related target areas.	English	MA Global Change Management & MA Forest Information Technology	1.	expected calendar week 51	elective	Lecture, Seminar, Practical exercise	3
Global change - research and scientific outreach	Scientific writing and presenting	Students are enabled to apply the fundamentals of effective scientific writing, visualisation of scienfitic results as well as oral presenting.	English	MA Global Change Management	1.	expected calendar week 49	mandatory	Lecture, Seminar, Practical exercise	3
Alternative Wald- und Holznutzungsformen	Nachhaltige Produktion von holzartiger Biomasse	Die Studierenden sind befähigt, wichtige Kenngrößen des Stoffhaushalts von Wäldern zu quantifizieren und die Nachhaltigkeit der Produktion von holzartiger Biomasse in der Land- und Forstwirtschaft zu beurteilen. Verwertungsmöglichkeiten für Biomasse unter Berücksichtigung der politischen Rahmenbedingungen sind bekannt und können beispielhaft auf Betriebe angewendet werden. Ertragsschätzungen können ebenso wie ökonomische Gesamtabschätzungen von Managementkonzepten entwickelt werden.	Deutsch	BA International Forest Ecosystem Management und BA Forstwirtschaft	3.	expected calendar week 49	elective	Lecture, Exercise	3
Master Class Course Conference Renewable Energies (MCCC)	see program: http://www.hnee.de/de/Forschung/Wissenschaftliche-Tagungen/MCCC-Renewable-Energies/13.-Master-Class-Course-Conference-Renewable-Energies-2020-Neue-Ziele-braucht-das-Klima-E9424.htm		Deutsch	for nearly all study programmes (MA and BA)	1./3.	expected calendar week 49	elective	Lectures	2-6 (depending on study programme)

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Globale Umweltsituation und Ressourcenschutz	Überblick zur Grundstruktur globaler MenschUmwelt-Beziehungen, Klassifikation globaler Umweltveränderungen, Haupttrends des globalen Wandels, Syndrom-Ansatz des WBGU; Umwelt und Entwicklung: Überblick zu internationalen Umweltkonventionen (CCD, CBD, CITES, Bonner Konvention etc.), Beispiele aus der Entwicklungszusammenarbeit (Erfahrungsberichte); Planspiel zu globalen Umweltabkommen	Deutsch	BA Landschaftsnutzung und Naturschutz (LaNu); BA International Forest Ecosystem Management (IFEM) and BA Forstwirtschaft	5. LaNu; 3. FoWi and IFEM	expected calendar week 49	elective	Seminar	4-6 (depending on study programme)
Existenzgründung in der Landwirtschaft	Existenzgründungen in der Landwirtschaft, Einstiegsmöglichkeiten, Finanzierungsformen, Rechtsformen, Formalitäten, Kommunikation mit Geschäftspartnern und im familiären Kontext, Fördermöglichkeiten und Beratung	Deutsch	MA Öko-Agrarmanagement	1. oder 2.	04.12.-08.12.17	elective	Seminar, Exkursion	6