Amtliche Bekanntmachungen der TU Bergakademie Freiberg

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Modulhandbuch

für den

Masterstudiengang

International Management of Resources and Environment

Anpassung von Modulbeschreibungen

Zur Anpassung an geänderte Bedingungen können folgende Bestandteile der Modulbeschreibungen vom Modulverantwortlichen mit Zustimmung des Dekans geändert werden:

1. „Code/Daten“
2. „Verantwortlich“
3. „Dozent(en)“
4. „Institut(e)“
5. „Qualifikationsziele/Kompetenzen“
6. „Inhalte“, sofern sie über die notwendige Beschreibung des Prüfungsgegenstandes hinausgehen
7. „Typische Fachliteratur“
8. „Voraussetzungen für die Teilnahme“, sofern hier nur Empfehlungen enthalten sind (also nicht zwingend erfüllt sein müssen)
9. „Verwendbarkeit des Moduls“
10. „Arbeitsaufwand“

Die geänderten Modulbeschreibungen sind zu Semesterbeginn durch Aushang bekannt zu machen.

Code/ Dates	EMA .MA.Nr. 2909	Version: 10.08.09	Start: WT 2009/2010
Name	Applied Environmental Management		
Responsible	**Surname** Bongaerts **First name** Jan C. **Academic Title** Prof. Dr.		
Lecturer(s)	**Surname** Bongaerts **First name** Jan C. **Academic Title** Prof. Dr.		
Institute(s)	Chair of Environmental & Resource Management		
Duration	One Semester		
Competencies	The purpose of the cluster is to introduce the concept of sustainability and its practical implementation and to give students the competences to understand practical problems associated with the management of resources from certain ecological viewpoints, such as waste, and the environmental (and health) risks.		
Content	(1) Sustainability and Environmental Management (SEM): Definitions, principles of sustainable management, applications of principles by industrial companies, case studies. (2) Management of Residuals (MOR): what is waste?, characteristics of waste legislation, waste legislation put to practice in management structures, case studies on waste management, environmental costing and waste, waste management and recycling, waste to energy. (3) Assessment and management of environmental risks with special attention to chemicals (ERA): environmental risk modelling, environmental risk management, instruments of environmental risk management, environmental risk and costing, case studies.		
Literature	Turner, R. K.[editor] (1993): Sustainable environmental economics and management – principles and practice, London [et al.], Belhaven Pr. Asian Development Bank (1997/2003): Guidelines for the Economic Analysis of Projects, ADB, Manila. Behrens, W.; Hawranek, P.M. (1991): The Manual for the Preparation of Industrial Feasibility Studies, Unido Publication, Vienna. Fletcher, C. D.; Paleologos, E. K. (2000): Environmental risk and liability management for corporation and consultants, AIPG, Westminster (CO). SWA General Secretariat (2001): International Directory of Solid Waste Management 2000/2001 – The ISWA Yearbook, Earthscan.		
Types of Teaching	Teaching, seminars, individual course work and self-study, compilation of materials for presentations		
Pre-requisites	Cluster PREMAN.		
Applicability	The cluster and parts of it are not only accessible to the MBA IMRE students but also to interested students of other programmes, such an engineering, geo-ecology.		
Frequency	Every course within the cluster is taught once within an academic year.		
Requirements for Credit Points	For the first (SEM) a written test of 90 minutes length will have to be taken. For the other two courses within the cluster (MOR, ERA), papers of 15 pages length will have to be written.		
Credit Points	Within this cluster, 9 Credits can be awarded		
Grade	The overall grade for the cluster is calculated as the arithmetic average of the grades of the individual tests.		
Workload	The total time normally budgeted for the cluster is 270 hours, of which 90 hours are spent in class and the remaining 180 hours are spent on preparation and self-study.		

Code/ Dates	BUSMAN .MA.Nr. 2905	Version: 28.04.2010	Start: ST 2011
Name	Aspects of Business Management		
Responsible	**Surname** Nippa **First Name** Michael **Academic Title** Prof. Dr.		
Lecturer(s)	**Surname** Geigenmüller **First Name** Anja **Academic Title** Dr. **Surname** Nippa **First Name** Michael **Academic Title** Prof. Dr. **Surname** Horsch **First Name** Andreas **Academic Title** Prof. Dr.		
Institute(s)	Lehrstuhl für Marketing und Internationalen Handel Lehrstuhl für ABWL, insbesondere Unternehmensführung und Personalwesen Lehrstuhl für ABWL, insbesondere Investition und Finanzierung		
Duration	One Semester		
Competencies	Theoretical and practical knowledge about key issues of business management in organizations such as the nature of marketing as market-oriented management, aspects of human resources and organizational behaviour, as well as investment analysis and financial policy.		
Content	Within the MBA IMRE Programme this cluster comprises three main courses. The grouping of these courses into one cluster can be justified by the interdependencies among them in reference to their functionality within Business Administration: (1) Marketing (marketing definition and marketing concept, customers of a company, competitors of a company, the company, instruments of a company). (2) Human Resources Management and Organisational Behaviour (OB) at the individual level: e.g., foundations of individual behavior; impacts of individual characteristics; impact of situational factors; at the group level: e.g., foundations of group behavior, understanding work teams; group processes e.g. communication, power, conflict); and leadership. (HRM): Changing Nature of HRM; HRM Planning; HR Adjustments; Training and Developing HR; Compensating HR. (3) Investment and Finance (Basic principles of Corporate Investments (Net Present Values, Internal Rates of Return), fundamentals of Corporate Finance (equity, credit, mezzanine capital)).		
Literature	Homburg, Ch., Kuester, S., & Krohmer, H. (2009): Marketing Management: A Contemporary Perspective, Berkshire, McGraw-Hill. Kotler, Ph. & Armstrong, G. (2009): Principles of Marketing, 13th ed., Prentice Hall, Pearson. Robbins, S.P., Judge, T.A. (2007), Organizational Behavior, Pearson Prentice Hall, Upper Saddle River, New Jersey. Mathis, R.L., Jackson, J.H. (2006), Human Resource Management, 11th Edition, South Western, Thomson. Brealey, R. A.; Myers, S. C.; Allen, F. (2006): Principles of Corporate Finance, 8th ed., Boston et al. Van Horne, J.C./Wachowicz jr., J.M. (2005): Fundamentals of Financial Management, 12th ed., Harlow et al.		
Types of Teaching	Lectures, practical exercises and assignments		
Pre-requisites	No previous knowledge of business administration is required. Good command of mathematics is desirable for Investment & Finance.		
Applicability	The cluster is particularly appropriate for the MBA IMRE Programme.		
Frequency	All courses are taught once per academic year.		
Requirements for credit points	For HRMOB, students must deliver individual and team assignments along with sitting in a Mid-Term test and a final written exam. The details		

	are communicated to students in advance and during the first session of the course. The overall grade for HRMOB is calculated based upon weighted factors published and distributed to students in advance, too. For the other two courses within the cluster, final tests in written form (Marketing: 90 minutes – Investment & Finance: 90 minutes duration) will have to be taken.
Credit points	Students can earn 9 credit points.
Grades	The overall grade for the cluster is computed as the arithmetic average of the marks for the three courses within the cluster. The mark for HRMOB must be at least 4 (=pass)
Workload	The total time budgeted for the cluster is set at 270 hours, of which 90 hours are spent in class and the remaining 180 hours are spent on self-study.

Code/ Dates	INTLAW1.MA.Nr.2902	Version: 28.04.2010	Start: WT 10/11
Name	Aspects of the International Law of Resources & Environment 1		
Responsible	**Surname** Wolf **First name** Rainer **Academic Title** Prof. Dr.		
Lecturer(s)	**Surname** Ilius **First Name** Carsten **Academic Title**		
Institute(s)	Institut für Öffentliches Recht		
Duration	One Semester		
Competencies	The purpose of the cluster is to give an introduction to the basic terms of law and to legal problems related to resources and environment in international law. Students without a law background will be enabled to understand the characteristics of these fields as such, before turning to a range of more specific questions. After completion of the cluster, students should be able to identify the legal issues of simple cases in the fields of law discussed and to decide on them using the established legal methods.		
Contents	Subject of the course are three topics. 1. General Introduction to Law and Legal Terms This part will comprise the teaching of basic legal terms and an introduction to the different fields and the interpretation of law. 2. Sovereignty, Resources and Environment By discussing different cases, problems of allocation of resources (e.g. water, oil, gas) between states and related environmental and transport issues will be demonstrated. 3. WTO: Conflicts Between Trade and Environment Decisions of the WTO panel regarding conflicts of national environmental protection measures and free trade will be presented. In case of sufficient time and interest a moot court will be offered for the students. There is an appropriate elective dedicated to international law that is recommended to be taken by students with a special interest in legal issues as it completes this cluster.		
Literature	Shaw, M. N. (2003): International Law, 5th ed. Sands, P. (2003): Principles of International Environmental Law, 2nd ed. Goyal, A. (2006): The WTO and International Environmental Law.		
Types of Teaching	Combination of lecture (1 SWS) and seminar (1 SWS).		
Pre-requisites	No previous knowledge of law is required.		
Applicability	The cluster is primarily intended for students of the MBA IMRE Programme, but it is also open to all other students.		
Frequency	The course is taught once per academic year in winter term.		
Requirements for Credit Points	A written test of 90 minutes length will have to be taken.		
Credit Points	Students can earn 3 credit points.		
Grade	The mark for the cluster is equivalent to the mark of the examination in the mandatory part.		
Workload	The total time budgeted for the mandatory part of the cluster is set at 90 hours, of which 60 hours are spent in class and the remaining 30 hours are spent on self-study. Self-studies include assignments, preparation and wrapping up of lectures as well as preparation of examinations.		

Code/ Dates	INTLAW2 .MA.Nr. 2921	Version: 28.04.2010	Start: ST 2011
Name	Aspects of the International Law of Resources & Environment 2		
Responsible	**Surname** Wolf **First Name** Rainer **Academic Title** Prof. Dr.		
Lecturer(s)	**Surname** Ilius **First Name** Carsten **Academic Title**		
Institute(s)	Institut für Öffentliches Recht		
Duration	One Semester		
Competencies	The purpose of the cluster is to give an introduction to the basic terms of law and to legal problems related to resources and environment in international law. Students without a law background will be enabled to understand the characteristics of these fields as such, before turning to a range of more specific questions. After completion of the cluster, students should be able to identify the legal issues of simple cases in the fields of law discussed and to decide on them using the established legal methods.		
Contents	Subject of the course are two topics. 1. EU and Its Environmental Policy Students should gain a basic knowledge of the law-making process in the EU and the characteristics of different types of legal measures. This knowledge shall than be applied to the EU environment policy and some of its fields as waste management and environmental impact assessment. 2. Individuals and Companies The principles of the law of contract and the law of torts will be explained, and specific areas of importance for the management of resources and environment like codes of conduct will be dealt with.		
Literature	Folsom, R. H. (2005): European Union Law, 5th ed. Clarkson, C.M.V.; Hill, J. (2006): Conflict of Laws, 3rd ed. Gordley, J. (2006): Foundations of Private Law: Property, Tort, Contract, Unjust Enrichment.		
Types of Teaching	Combination of lecture (1 SWS) and seminar (1 SWS).		
Pre-requisites	Successful participation of the mandatory cluster Aspects of International Law of Resources & Environment 1.		
Applicability	The cluster is primarily intended for students of the MBA IMRE Programme, but it is also open to all other students.		
Frequency	The course is taught once per academic year in summer term.		
Requirements for Credit Points	A written test of 90 minutes length will have to be taken.		
Credit Points	Students can earn 3 credit points.		
Grad	The grade derives from the grade for the written test.		
Workload	The total time budgeted for the cluster is set at 90 hours, of which 60 hours are spent in class and the remaining 30 hours are spent on self-study. Self-studies include assignments, preparation and wrapping up of lectures as well as preparation of examinations.		

Code/ Dates	CASEMAN.MA.Nr.2910	Version: 28.04.2010	Start: WT 2009/2010
Name	Cases & Strategies in Environmental Management		
Responsible	**Surname** Bongaerts **First Name** Jan C. **Academic Title** Prof. Dr.		
Lecturer(s)	**Surname** Liu **First Name** Jiangxue **Academic Title** Dipl.-Kffrau		
Institute(s)	Chair for Environmental & Resource Management		
Duration	1 Semester		
Competencies	The cluster intends to give students the knowledge and the ability to understand the business and the strategic choices and decision making processes of corporations in the environmental sectors. Moreover, they will have to work themselves through case studies in order to be able to gain practical knowledge of these issues.		
Content	Definitions, structure size and trends of the international environmental industry, frameworks of business in the sector, in particular within the string regulatory arrangement and the high environmental standards, globalisation of companies and local delivery of services.		
Literature	- Mario Cogoy and Karl W. Steininger (2007): The Economics of Global Environmental Change – International Cooperation for Sustainability - International Energy Agency. (2009): World Energy Outlook - United Nations Development Programme; et al. [editor] (2008): World Resources 2008 – Growing the Wealth of the Poor, World Resources Institute, New York. Labatt S. & White R.R. (2007): Carbon finance – The financial implications of climate change		
Types of Teaching	Lectures (1 SWS), seminars (2 SWS) and tutorials (1 SWS)		
Pre-requisites	Admission to a graduate programme of the university (MBA IMRE or other Master's Programmes) or admission through Exchange programmes (e.g. ERASMUS)		
Applicability	The cluster and parts of it are not only accessible to the MBA IMRE students but also to interested students of other programmes, such an engineering, geo-ecology.		
Frequency	The cluster is offered once within an academic year.		
Requirements for Credit Points	For completion of the cluster an oral exam of 20 minutes will have to be taken, and a presentation of 10 minutes and a paper of 10 pages will have to be prepared.		
Credit points	6		
Grades	The overall grade for the cluster is composed by taking the arithmetic average of the grades of the individual tests.		
Workload	The total calculated time effort for the Cluster is set at 180 hours, of which 60 hours are dedicated to class attendance and 120 hours are budgeted for self-study.		

Code/ Dates	COSTAC .BA.Nr.	Version: 28.04.2010	Start: WT 2010/2011
Name	Cost Accounting & Controlling		
Responsible	**Name** Rogler **Vorname** Silvia **Titel** Prof. Dr.		
Lecturer(s)	**Name** Müller **Vorname** Anna-Maria **Academic Title** Dipl.-Kffrau		
Institute(s)	Professur für ABWL, insbesondere für Rechnungswesen und Controlling		
Duration	1 Semester		
Competencies	Students will be enabled to apply different methods of cost accounting and controlling to provide the management with guidance for operational and strategic decisions.		
Content	Within the MBA IMRE Programme this cluster comprises one main course dealing with financial management in organizations: Cost Accounting and Controlling (First part: Basics of Cost Accounting, Cost Category Accounting, Cost Center Accounting, Cost Unit Accounting, Operating Income Statement. Second part: Basics of Controlling, Operations Management, Strategic Management)		
Literature	Horngren, C.; Bhimani; A., et al. (2007): Management and Cost Accounting, New Jersey. Horngren, C.; Foster, G.; et al. (2008): Cost Accounting, New Jersey.		
Types of Teaching	Combined lecture and tutorial.		
Pre-requisites	No previous knowledge of is required.		
Applicability	The cluster is particularly appropriate for the MBA IMRE Programme.		
Frequency	The course is taught once per academic year.		
Requirements for Credit Points	A final test in written form of 90 minutes will have to be taken.		
Credit Points	Students can earn 3 credit points.		
Grade	The grade derives from the grade for the written test.		
Workload	The total time budgeted for the cluster is set at 90 hours, of which 30 hours are spent in class and the remaining 60 hours are spent on self-study.		

Code/ Dates	CULSTU.MA.Nr. 2912	Version: 12.10.2010	Start: WT 2010/2011
Name	Cultural Studies		
Responsible	**Surname** Hinner **First Name** Michael B. **AcademicTitle** Prof. Dr.		
Lecturers	**Surname** Hinner **First name** Michael B. **AcademicTitle** Prof. Dr. **Surname** Pohl **First Name** Norman **Academic Title** Dr.		
Institutes	Program of Business and Intercultural Communication, Institute for Industrial Archaeology and History of Science and Technology		
Duration	2 semesters		
Competencies	The module seeks to transmit how scientific papers are researched, written, and presented in academic English. It also demonstrates how culture influences human communication and behavior. And it illustrates historical developments in the field of technology and ecology. Hence, providing the cultural and historic background of contemporary society.		
Content	The module consists of three courses and is structured as follows: 1. Scholarly Rhetoric: The participants learn how to research, write, present, and discuss a scientific paper. To that end, the following topics will be addressed: Academic style and ethics; formulating research questions and hypotheses; quantitative, qualitative, experimental research, field studies, and content analysis methods; measurement in communication research; paper content, style and layout; documenting sources; writing abstracts and summaries; editing; presentations; discussions. 2. Intercultural Communication: The lecture focuses on the following topics: Culture, supraculture, macro-culture, microculture; the perceptual process, description, interpretation, and evaluation; ethnocentrism, stereotypes, and prejudice; belief systems, values, and attitudes; culture and communication; culture and identity; culture shock; intercultural competence. 3. History of the Environment The course offers an introduction to the development of environmental protection and technology.		
Literature	Scripts for part 1 and 2 will be sold at the beginning of each course; Hinner, M.E., Ed. (2007, 2010). *Freiberger Beiträge zur interkulturellen und Wirtschaftskommunikation,* Volume 4 and 7. Frankfurt am Main: Peter Lang. Worster, Donald (1997): Nature's economy. Cambridge; Worster, Donald (1993): The wealth of nature. New York, Oxford; Merchant, Carolyn (2001): The death of nature. San Francisco. Schama, Simon (1995): Landscape and memory. London; Mason, S. F. (1953): A history of the sciences. London.		
Types of Teaching	Lectures (6 SWS)		
Pre-requisites	Abitur-level English or equivalent knowledge of English.		
Applicability	IMRE MBA program, but also applicable to other master's level programs at the university. Master program Industriearchäologie and Master program Industriearchäologie/Industriekultur.		
Frequency	The module runs for two consecutive semesters starting in the winter semester (Scholarly Rhetoric) and ending in the subsequent summer semester (Intercultural Communication and History of the Environment).		
Requirements for	Conducting research, submitting a written assignment, preparing and holding a		

Credit Points	formal presentation in English (Scholarly Rhetoric), a written exam, i.e. “Klausurarbeit,” (90 minutes) in English (Intercultural Communication), and a 20 minute presentation as well as a 12 page paper (History of the Environment).
Credit Points	9
Grade	The final grade is derived from the written assignment (AP 1, 26%) and the formal presentation (AP 2, 7%) in Scholarly Rhetoric, the written exam, i.e. “Klausurarbeit” (KA, 33%) in Intercultural Communication, the 20 minute presentation (AP 3, 17%), and the 12 page paper (AP 4, 17%) in History of the Environment. Each of these five tasks (i.e. AP 1, AP 2, AP 3, AP 4, KA) must be passed with at least the German grade of 4.0 (“sufficient”) or better.
Workload	The total time budgeted for the module is 270 hours of which 90 hours are spent in class and the remaining 180 hours on self-study. Self-study includes preparation and follow-up work for in-class instruction as well as preparation for and completion of the 12 page paper, the written assignment, the two presentations, and the written exam.

Code/ Dates	ECOTHE .MA.Nr. 2900	Version: 12.10.10	Start: WT 2009/2010
Name	Economic Theory		
Responsible	**Surname** Schönfelder **First name** Bruno **Academic Title** Prof. Dr.		
Lecturer(s)	**Surname** Schönfelder **First name** Bruno **Academic Title** Prof. Dr.		
Institute(s)	Faculty of Business Administration, Chair of economics		
Duration	1 semester		
Competencies	Students learn to analyze economic problems from the micro-economic and macro-economic perspective.		
Content	The course consists of a microeconomics and a macroeconomics section. The micro section covers topics such as the firm, supply and demand, competition and monopoly, labor markets. The macro section covers topics such as theory of interest, economic growth and business cycles, money, general equilibrium.		
Literature	Barro, R. (2008): Macroeconomics: A Modern Approach. Mason, Ohio: Thomson Higher Education. Friedman, D. (1996): Hidden Order, New York: Harper.		
Types of Teaching	Lectures (2 SWS) and tutorials (2 SWS)		
Pre-requisites	No previous knowledge of economics is required.		
Applicability	MBA IMRE Programme and the Master Programme in International Business in Emerging and Developing Markets (IBDEM).		
Frequency	The module runs every winter semester in the academic year.		
Requirements for Credit Points	A midterm test will be offered, this is a prelim. At the end of the course there will be a written exam of 90 minutes. Successful participation in the prelim and the fulfilment of up to three assignments are prerequisites for participating in the exam. Further details are announced in class.		
Credit Points	6		
Grade	The grade earned in the written exam determines the overall grade for the cluster.		
Workload	The total time budgeted for the cluster is set at 180 hours, of which 60 hours are spent in class and the remaining 120 hours are spent on self-study.		

Code/Dates	ECOSYS .MA.Nr. 2918	Version: 10.08.2009	Start: WT 2009/2010
Name	Ecosystems		
Responsible	**Name** Heilmeier **Vorname** Hermann **Titel** Prof. Dr.		
Lecturer(s)	**Name** Heilmeier **Vorname** Hermann **Titel** Prof. Dr.		
Institute(s)	Institut für Biowissenschaften/Institute for Biosciences		
Duration	One Semester		
Competencies	The aims of the lecture are: - understanding of major processes in ecosystems on physical, chemical and biological basics; - competence for ad hoc evaluation of fundamental anthropogenic disturbances of ecosystem components, processes and services; - Ability for stimulating management practices orientated towards a sustainable utilization of (semi-) natural and human-dominated ecosystems.		
Contents	The lecture "Ecosystems" gives an overview on principles of ecosystem structures and functions, based on fundamental scientific knowledge from physics, chemistry and biology. Following the description of energy flows and nutrient cycles and ecosystem services, major human impacts on ecosystems and different management practices are introduced.		
Literature	Beeby: Applying Ecology (Chapman & Hall) Newman: Applied Ecology & Environmental Management (Blackwell) Odum: Ecology - A Bridge between Science and Society (Sinauer) Vogt et al.: Ecosystems (Springer) Aber & Melillo: Terrestrial Ecosystems (Academic Press)		
Types of Teaching	Lectures (1 SWS) and tutorials (2 SWS).		
Pre-requisites	No requirements.		
Applicability	The cluster is particularly appropriate for the MBA IMRE Programme, but also for MSc. in Geoecology, Chemistry and Applied Natural Science.		
Frequency	The course is taught once per academic year (Winter term).		
Requirements for Credit Points	For completion of the cluster a paper of 15 pages will have to be written.		
Credit Points	4		
Grade	The grade earned for the paper determines the overall grade for the cluster.		
Workload	The total time budgeted for the cluster is set at 120 hours, of which 45 hours are spent in class and the remaining 75 hours are spent on self-study.		

Code/Dates	GERBA1A .MA.Nr. 094	Version. 28.04.2010	Start: WT 2010/11
Name	German Basic Level I A		
Responsible	**Surname** Keßler **First name** Gisela **Academic Title** Diplom-Lehrerin		
Lecturer(s)	**Surname** Paul **First name** Sandra **Academic Title** Diplom-Lehrerin		
Institute(s)	Fachsprachenzentrum		
Duration	1 Semester		
Competencies	Students are imparted the basics of phonetics, orthography, grammar and vocabulary. They acquire basic knowledge of the German language and listening, speaking, reading and writing skills in general language as well as regional and cultural studies.		
Contents	Communication in everyday life situations (get to know each other, shopping, restaurant, the course of the day, time expressions); grammar: e.g. question asking, numbers, conjugation of verbs, present and past tenses, amounts, plural forms of nouns, compositions		
Literature	Berliner Platz, volume 1 Langenscheidt		
Types of Teaching	Exercise (60 hours)		
Pre-requisites	No previous proficiency in German is required.		
Applicability	The course is particularly appropriate for exchange students and for international students. Prerequisite for the module German Basic Level 1 B		
Frequency	The course is taught in the winter term.		
Requirements for Credit Points	Successful participation in class (attendance of at least 80%) Passed written exam (90 minutes) at the end of the term.		
Credit Points	4		
Grade	The grade earned in the written exam determines the overall grade.		
Workload	The total time budgeted for the course is set at 120 hours, of which 60 hours (4 SWS) are spent in class and the remaining 60 hours are spent on self-studies. Self-studies include preparing before and after the lessons as well as preparing for examination.		

Code/Dates	GERBA1B .MA.Nr. 095	Version: 28.04.2010	Start: ST 2011
Name	German Basic Level I B		
Responsible	**Surname** Keßler **First name** Gisela **Academic Title** Diplom-Lehrerin		
Lecturer(s)	**Surname** Paul **First name** Sandra **Academic Title** Diplom-Lehrerin		
Institute(s)	Fachsprachenzentrum		
Duration	1 Semester		
Competencies	Students are imparted the basics of phonetics, orthography, grammar and vocabulary. Students acquire basic knowledge of the German language and listening, speaking, reading and writing skills in general language as well as regional and cultural studies		
Contents	Orientation in a city, a company; public transport; describing directions; jobs and working day, health and sports, accommodation, curriculum vitae/rèsumè; clothing; grammar: e.g. prepositions, questions, modals, possessive article, the perfect, conjunctions/linkers, comparisons		
Literature	Berliner Platz, volume 1, Langenscheidt		
Types of Teaching	Exercise (60 hours)		
Pre-requisites	Successful completion of the course German Basic Level 1 A or proof of equivalent proficiency in German.		
Applicability	The course is particularly appropriate for exchange students and for international students. Prerequisite for the module German Basic Level 2 A		
Frequency	The course is taught in the summer term.		
Requirements for Credit Points	Successful participation in class (attendance of at least 80%) Passed written exam (90 minutes) at the end of the term.		
Credit Points	4		
Grade	The grade earned in the written exam determines the overall grade.		
Workload	The total time budgeted for the course is set at 120 hours, of which 60 hours (4 SWS) are spent in class and the remaining 60 hours are spent on self-studies. Self-studies include preparing before and after lessons as well as preparation for examination.		

Code/Dates	DEUG2A .MA.Nr. 096	Version: 28.04.2010	Start: WT 2010/2011
Name	German Basic Level II A		
Responsible	**Surname** Keßler **First name** Gisela **Academic Title** Diplom-Lehrerin		
Lecturer(s)	**Surname** Paul **First name** Sandra **Academic Title** Diplom-Lehrerin		
Institute(s)	Fachsprachenzentrum		
Duration	1 Semester		
Competencies	Students expand their knowledge of basic German grammar and broaden their general vocabulary. The conversation part covers various everyday topics.		
Contents	Family and relations, German festivals, home and furniture, education and training, looks and fashion, seasons, weather and holiday, aspects of history (Germany, Austria, Switzerland); Grammar e.g. subordinate clauses, government of verbs; ordinal numbers, prepositions, reflexive pronouns, future, adjective declination		
Literature	Berliner Platz, volume 2, Langenscheidt		
Types of Teaching	Language classes (4 SWS)		
Pre-requisites	Successful completion of the course German Basic Level 1 B or proof of equivalent proficiency in German.		
Applicability	The course is particularly suitable for international exchange students, for students of degree courses in English and for PhD students.		
Frequency	The course is taught in the winter term.		
Requirements for Credit Points	Successful participation in class (attendance of at least 80%), Passed written exam (90 min.) at the end of the term.		
Credit Points	4		
Grade	The grade earned in the written exam determines the overall grade.		
Workload	The total time budgeted for the course is set at 90 hours, of which 60 hours (4SWS) are spent in class and the remaining 30 hours are spent on self-studies. Self-studies include preparing before and after the lessons as well as preparing for examination.		

Code/Dates	DEUG2B .MA.Nr. 097	Version: 28.04.2010	Start: ST 2011
Name	German Basic Level II B		
Responsible	**Surname** Keßler **First name** Gisela **Academic Title** Diplom-Lehrerin		
Lecturer(s)	**Surname** Paul **First name** Sandra **Academic Title** Diplom-Lehrerin		
Institute(s)	Fachsprachenzentrum		
Duration	1 Semester		
Competencies	Students expand their knowledge of basic German grammar and broaden their general vocabulary. The conversation part covers various everyday topics.		
Contents	Spare-time activities (sports, clubs), work and job-seeking, German politics, German cities (Leipzig, Berlin), transport, media and broadcasting in Germany, cultural differences; Grammar e.g. indefinite pronouns, relative clauses, conditional		
Literature	Berliner Platz, volume 2, Langenscheidt		
Types of Teaching	Language classes (4 SWS)		
Pre-requisites	Successful completion of the course German Basic Level 2 A or proof of equivalent proficiency in German		
Applicability	The course is particularly suitable for international exchange students, for students of degree courses in English and for PhD students.		
Frequency	The course is taught in the summer term.		
Requirements for Credit Points	Successful participation in class (attendance of at least 80%), Passed written exam (90 min.) at the end of the term.		
Credit Points	4		
Grade	The grade earned in the written exam determines the overall grade.		
Workload	The total time budgeted for the course is set at 90 hours, of which 60 hours (4SWS) are spent in class and the remaining 30 hours are spent on self-studies. Self-studies include preparing before and after the lessons as well as preparing for examination.		

Code/Dates	DEUMITA .MA.Nr. 093	Version: 28.04.2010	Start: WT 2010/2011
Name	German Medium Level A		
Responsible	**Surname** Keßler **First name** Gisela **Academic Title** Diplom-Lehrerin		
Lecturer(s)	**Surname** Keßler **First name** Gisela **Academic Title** Diplom-Lehrerin		
Institute(s)	Fachsprachenzentrum		
Duration	1 Semester		
Competencies	The participants expand their skills and knowledge acquired in the modules German Basic Levels 1 and 2, especially the verbal communication. They revise and broaden their vocabulary. Participants learn about Germany from current and historical texts.		
Contents	Living in Germany (ways of life and living together, prospects of professional career and spare-time, consumerism, environment and nature)		
Literature	Aspekte, Mittelstufe Deutsch, Langenscheidt Verlag		
Types of Teaching	Language classes (4 SWS)		
Pre-requisites	Successful completion of the course German Basic Level 2 B or proof of equivalent proficiency in German		
Applicability	The course is particularly suitable for international exchange students, for students of degree courses in English and for PhD students.		
Frequency	The course is taught in the winter term.		
Requirements for Credit Points	Successful participation in class (attendance of at least 80%), Passed written exam (90 min.) at the end of the term.		
Credit Points	4		
Grade	The grade earned in the written exam determines the overall grade.		
Workload	The total time budgeted for the course is set at 90 hours, of which 60 hours (4SWS) are spent in class and the remaining 30 hours are spent on self-studies. Self-studies include preparing before and after the lessons as well as preparing for examination.		

Code/Dates	DEUMITB .MA.Nr. 099	Version: 28.04.2010	Start: ST 2011
Name	German Medium Level B		
Responsible	**Name** Keßler **Vorname** Gisela **Titel** Diplom-Lehrerin		
Lecturer(s)	**Name** Keßler **Vorname** Gisela **Titel** Diplom-Lehrerin		
Institute(s)	Fachsprachenzentrum		
Duration	1 Semester		
Competencies	The participants expand their skills and knowledge acquired in the modules German Basic Levels 1 and 2, especially the verbal communication. They revise and broaden their vocabulary. Participants learn about Germany from current and historical texts.		
Contents	Living in Germany (ways of life and living together, prospects of professional career and spare-time, consumerism, environment and nature)		
Literature	Aspekte, Mittelstufe Deutsch, Langenscheidt Verlag		
Types of Teaching	Language classes (4 SWS)		
Pre-requisites	Successful completion of the course German Intermediate Level B or proof of equivalent proficiency in German		
Applicability	The course is particularly suitable for international exchange students, for students of degree courses in English and for PhD students.		
Frequency	The course is taught in the summer term.		
Requirements for Credit Points	Successful participation in class (attendance of at least 80%), Passed written exam (90 min.) at the end of the term.		
Credit Points	4		
Grade	The grade earned in the written exam determines the overall grade.		
Workload	The total time budgeted for the course is set at 90 hours, of which 60 hours (4SWS) are spent in class and the remaining 30 hours are spent on self-studies. Self-studies include preparing before and after the lessons as well as preparing for examination.		

Code/ Dates	ECODEV .MA.Nr. 2901	Version: 02.09.09	Start: ST 2010
Name	International Economics and Development		
Responsible	**Surname** Brezinski **First name** Horst **Academic Title** Prof. Dr.		
Lecturer(s)	**Surname** Brezinski **First name** Horst **Academic Title** Prof. Dr.		
Institute(s)	Chair of International Economics		
Duration	One Semester		
Competencies	Students will be able to understand the specific economic problems arising from international activities and to analyse the issues of trade policy, of international monetary aspects, such as exchange rate policy and indebtedness, and development.		
Content	The cluster is composed of two courses: International economic relations (trade theory and policy) and Economic Development		
Literature	Krugman, P. R. ; Obstfeld, M. (2005): International Economics – Theory and Practice. 7 th edition, Addison-Wesley, New York. Todaro, M. P. (2006): Economic Development, 9th edition, Addison Wesley, New York.		
Types of Teaching	Lectures, presentations, tutorials and assignments (4 SWS)		
Pre-requisites	Basic knowledge in micro and macroeconomics is required, hence successful completion of the cluster “Economic Theory” is recommended.		
Applicability	The cluster is particularly appropriate for the MBA IMRE Programme, as well as for the Master Programme in International Business in Emerging and Developing Markets		
Frequency	The module runs every summer semester in the academic year.		
Requirements for Credit Points	For each of the courses within the cluster a presentation has to be done as well as a final written test of 60 minutes will have to be taken.		
Credit Points	Students can earn 6 credit points.		
Grade	The overall mark for the cluster is computed as the weighted average of the marks for the presentation (20%) and the written test (80%).		
Workload	The total time budget for the cluster is set at 180 hours, of which 60 hours are spent in class and the remaining 120 hours are spent on self-study. Self-studies include assignments, preparation and wrapping up of lectures as well as preparation of presentations and of examinations.		

Code	INTSHIP .MA.Nr. 2922	Version: 28.04.2010	Start: WT 2010/2011
Name	Internship		
Responsible	**Surname** Bongaerts **First Name** Jan C. **Academic Title** Prof. Dr.		
Lecturer(s)	–		
Institute(s)	–		
Duration	1 Semester		
Competencies	The objective of internship that is offered as an elective is to allow students applying the knowledge acquired during their studies in practice.		
Content	Not applicable.		
Literature	Not applicable.		
Types of Teaching	Partical training		
Pre-requisites	No requirements.		
Applicability	The cluster is particularly appropriate for the “free” electives part of the MBA IMRE Programme.		
Frequency	Not applicable.		
Requirements for credit points	Approval of the examination committee of IMRE that the internship is sufficient to substitute for two elective courses, a written scientific report on the internship with a length of 15 pages, and an internship certificate issued by the company/organization. Prior to the beginning of the internship, the student must find a professor who is willing to grade the scientific report after its completion in ordert o be able to earn credits.		
Credit points	Students can earn 6 credit points.		
Grades	The grade derives from the grade for the internship report.		
Workload	The total time budgeted for the cluster is set at 180 hours, all of which are spent as an intern in a company or organization.		

Code/Dates	MINING .MA.Nr. 2914	Version: 28.04.2010	Start: WT 10/11
Name	Introduction to Mining		
Responsible	**Surname** Drebenstedt **First name** Carsten **Academic Title** Prof. Dr.		
Lecturer(s)	**Surname** Drebenstedt **First name** Carsten **Academic Title** Prof. Dr.		
Institute(s)	Bergbau und Spezialtiefbau		
Duration	One Semester		
Competencies	Basic knowledge in role of mining and mining engineering processes and relationship to other disciplines; Understanding of sustainable development in mining industry: balance between mining production, social development and environment protection		
Contents	Mining is one of the oldest and most important sectors in our civilisation building the backbone of many further industries. Developed economies highly dependent on mineral and energy imports. The world knows many wars about reserves and resources. Mining production employs million of workers worldwide and is especially in developing countries an important source of income. On other side mining has a great influence to the environment and social sphere. Mining is today a modern industry with high standard in working safety and environment protection. The largest machines the world knows are operating in open pit mines. The lecture introduces this interesting and important world of mining and gives an understanding for economic, social and technical processes. Case studies will illustrate the practical side of knowledge application.		
Literature	Hartmann et al: SME Mining Engineering Handbook, Vol. 1 and 2, Society of Mining, Metallurgy and Exploration, Littleton, Colorado, actual edition Hustrulid, Kuchta: Open pit mine planning and design, Balkema, latest edition		
Types of Teaching	Lectures (1 SWS) and tutorials (1 SWS)		
Pre-requesites	No requirements.		
Applicability	The cluster is particularly appropriate for the MBA IMRE Programme and for the master programme Geophysik.		
Frequency	The course is taught once per academic year.		
Requirements for Credits Points	A final test in written form of 90 minutes will have to be taken.		
Credit Points	3		
Grade	The grade earned in the exam determines the overall grade for the cluster.		
Workload	The total time budgeted for the cluster is set at 90 hours, of which 30 hours are spent in class and the remaining 60 hours are spent on self-study.		

Code/Dates	MAO .MA.Nr. 2906	Version: 10.07.2009	Start: WT 2009/2010
Name	Management of Organizations		
Responsible	**Surname** Grosse **First Name** Diana **Academic Title** Prof. Dr.		
Lecturer(s)	**Surname** Kausch **First Name** Peter **Academic Title** Prof. Dr. **Surname** Grosse **First Name** Diana **Academic Title** Prof. Dr.		
Institute(s)	Chair for the Management of Research and Development Chair for Environmental and Resource Management		
Duration	One Semester		
Competencies	The cluster is dedicated to the management of organizations. Students are imparted principles and basic concepts of strategic management within corporations. Additionally, the theme of corporate ethics, the need to develop corporate ethics policies for a variety of reasons is part of this cluster.		
Content	Within the MBA IMRE Programme this Cluster comprises two courses both dealing with matters of organizational management: (1) Strategic Management (composition of a strategy, strategic base elements, examples for strategy development, company strategies (Rio Tinto, Billiton, Anglo American, Barrick Gold, Glencore), new developments, summary) (2) Corporate Ethics (overview of philosophical concepts: utilitarianism, Kant and discourse ethics, transfer of these individual concepts to institutions, business ethic principals and guidelines for decision-making, moral dimensions of strategy, structure, leadership, culture and self-regulation).		
Literature	David, F.R. (2006): Strategic Management, Concepts and Cases, Upper Saddle River, Pearson Prentice Hall. De George, Richard T. (1999): Business Ethics, Upper Saddle River, New Jersey.		
Types of Teaching	Lectures, practical exercises and assignments		
Pre-requisites	No previous knowledge of business administration is required.		
Applicability	The cluster is particularly appropriate for the MBA IMRE Programme.		
Frequency	Both courses are taught once per academic year.		
Requirements for Credit Points	For each of the two courses within the cluster, final tests in written form (Strategic Management: 120 minutes – Corporate Ethics: 90 minutes duration) will have to be taken.		
Credit points	Students can earn 6 credit points.		
Grade	Each course counts for three credits points. The overall mark for the cluster is computed as the average of the marks for each course.		
Workload	The total time budgeted for the cluster is set at 180 hours, of which 60 hours are spent in class, the remaining 120 hours being spent on seminar sessions and the seminar paper.		

Code/Dates	MTHESIS.MA.Nr. 2913	Version: 28.04.2010	Start: WT 2010/2011
Name	Master Thesis IMRE including colloquium		
Responsible	**Surname** Bongaerts **First name** Jan C. **Academic Title** Professor		
Lecturer(s)	–		
Institute(s)	–		
Duration	1 Semester		
Competencies	The student is supposed to elaborate a master thesis within a period of four months in order to prove that he/she is able to conduct research on a defined complex problem from a relevant area within a certain period of time. The problem shall be dealt with using and applying adequate scientific methods, and the whole research work including the results shall be described and illustrated in written and oral form.		
Contents	The topic of the master thesis can be chosen from the whole spectrum of research dealt with at TU Bergakademie Freiberg. The thesis work involves the elaboration of a concept for the project, the search for relevant literature, the acquirement and application of appropriate methods to fulfil the tasks of the thesis project, the conducting and assessing of practical and/or theoretical research, the discussion of results, the elaboration of the thesis, the public defending of the thesis in a colloquium of 20 minutes plus subsequent discussion.		
Literature			
Types of Teaching	Self-study, guidance through supervisor(s).		
Pre-requisites	Completion of six clusters of required courses and one cluster of core electives.		
Applicability	The cluster is particularly appropriate for MBA IMRE students.		
Frequency	Not applicable.		
Requirement for Credit Points	Positive evaluation through the supervisor(s), and successful defending of the thesis in a colloquium of 20 minutes.		
Credit Points	Within this cluster, 18 Credits can be awarded.		
Grade	The overall grade for the cluster is computed of the grade for the thesis (weighting 75%) and the grade for the colloquium (weighting 25%).		
Workload	The total calculated time effort for the Cluster is set at 400 hours, all of which are spent for self-study and discussion with the supervisor.		

Code/ Dates	MATSCI .MA.Nr. 2919	Version: 28.04.2010	Start: ST 2011
Name	Material Sciences		
Responsible	**Surname** Seifert **First Name** Hans **Academic Title** Prof. Dr.		
Lecturer(s)	**Surname** Seifert **First Name** Hans **Academic Title** Prof. Dr.		
Institute(s)	Institut für Werkstoffwissenschaft		
Duration	One Semester		
Competencies	Qualification for cooperation with engineers.		
Contents	The lectures deal with the basics of materials science (structure, classes of materials), the main properties and the application of materials.		
Literature	Askeland, D.R., The Science and Engineering of Materials, Chapman and Hall, London etc. Schatt, W.; Worch, H., Werkstoffwissenschaft, Deutscher Verlag für Grundstoffindustrie. W. D. Callister, jr. Materials Science and Engineering – An Introduction, New York etc.: John Wiley & Sons. Inc.		
Types of Teaching	Lectures (1 SWS) and tutorials (1 SWS)		
Pre-requisites	No requirements.		
Applicability	The cluster is particularly appropriate for the MBA IMRE Programme.		
Frequency	The course is taught once per academic year.		
Requirements for Credit Points	A final test in written form of 90 minutes will have to be taken.		
Credit Points	3		
Grade	The grade earned in the exam determines the overall grade for the cluster.		
Workload	The total time budgeted for the cluster is set at 90 hours, of which 30 hours are spent in class and the remaining 60 hours are spent on self-study.		

Code/Dates	OIGACO .MA.Nr. 2916	Version: 10.09.2009	Start: ST 2010
Name	Oil, Gas & Coal		
Responsible	**Surname** Volkmann **First name** Norbert **Academic Title** Prof. Dr.		
Lecturer(s)	**Surname** Volkmann **First name** Norbert **Academic Title** Prof. Dr.		
Institute(s)	Institut für Geologie		
Duration	One Semester		
Competencies	The course provides an introduction into the formation of fossil fuels. In particular, it imparts an understanding of the fundamentals of the process, i.e. sedimentation of organic material, formation of peat, and oil-/gas source rocks, the maturity of organic material and possibilities of investigation, the burial history of oil, gas, and coal, a basic knowledge of oil, gas, and coal deposits, its characterization and exploration.		
Contents	Basic course in coal, natural gas, and oil geology.		
Literature	Stach, E. et al. (o.J.). STACH`S Textbook of coal petrology, Berlin / Stuttgart: Gebr. Borntraeger. Taylor, G.H. (1998). Organic petrology, Berlin / Stuttgart: Gebr. Borntraeger. Thomas, L. (1992). Handbook of practical coal geology, Chichester: John Wiley & Sons. Welte, D.H. (1997). Petroleum and basin evolution: insights from petroleum geochemistry, geology and basin modelling, Berlin [et al.]: Springer.		
Types of Teaching	Lectures (1 SWS) and tutorials (1 SWS)		
Pre-requisites	No requirements.		
Applicability	The cluster is particularly appropriate for the MBA IMRE Programme and also for the Master programme Geophysik		
Frequency	The course is taught once per academic year.		
Requirement for Credit Points	A final test in written form of 90 minutes will have to be taken.		
Credit Points	3		
Grade	The grade earned in the exam determines the overall grade for the cluster.		
Workload	The total time budgeted for the cluster is set at 90 hours, of which 30 hours are spent in class and the remaining 60 hours are spent on self-study.		

Code/Dates	OMIS .MA.Nr. 2903	Version: 28.04.2010	Start: WT 2010/2011
Name	Operations Management & Information Systems		
Responsible	**Surname** Felden **First Name** Carsten **Academic Title** Prof. Dr.		
Lecturer(s)	**Surname** Höck **First Name** Michael **Academic Title** Prof. Dr. **Surname** Felden **First Name** Carsten **Academic Title** Prof. Dr. **Surname** Winter **First Name** Christoph **Academic Title** Dr.		
Institute(s)	Chair of Information Systems and Computer Sciences		
Duration	1 Semester		
Competencies	Students become familiar with important tasks of management in organisations which relate to operations, information flows and the management of projects.		
Contents	Management includes a large and varied set of subjects, each of which have their respective meanings in Business Administration. This cluster groups together 3 courses, each with a dedicated profile, focussing on (1) Operations (materials, lot sizing, material resource planning, rolling schedule, assembly line balancing, etc.) (2) Project Management (Management and the Matrix Form, Responsibilities of Parties, Key Concepts of Project Management, Project Scheduling / Critical Path Method, Procurement / Realisation of Projects). (3) Planning, monitoring and controlling of the information infrastructure of an enterprise are taking the centre stage of this lecture. Management tasks and IT specific solutions are discussed on the strategic, tactical and operational levels inside an enterprise. The lecture is especially focused on enterprise modelling, decision support and knowledge management in enterprises. Selected methods, procedures and tools for the business process modelling are exemplarily presented and used in the exercise practically. The content of the lecture is shown on examples of the energy market.		
Literature	Stevenson, W. J. (2005): Operations Management, 8th ed., Boston u.a., McGraw-Hill Irwin; Gilbreath, R.D. (1986): Winning at Project Management, New York, Wiley; Oberlender, G.D. (2000): Project Management for Engineering and Construction, 2nd edition, Boston, McGraw-Hill; Walker, A. (1996): Project Management in Construction, 3rd edition, Oxford, Blackwell Science; Nahmias, S. (1977): Production and Operations Analysis. 3rd edition. Chicago, Irwin; Turban, E.; Aronson, J. E.; Liang, T. P. (2004): Decision Support Systems and Intelligent Systems, 7th ed. Upper Saddle River, N.J., Prentice Hall; Inmon, W. H.; Hackethorn, R. D. (1994): Using the Data Warehouse, New York, John Wiley & Sons; Shapiro, C.;Varian, H. A. (1999): Information Rules, Boston, Havard Business School Press; Silver, E.A.; Pyke, D.F.; Peterson, R. (1998): Inventory Management and Production Planning and Scheduling, 3rd edition, New York, Wiley.		
Types of Teaching	Lectures (3 SWS) and tutorials (3 SWS)		
Pre-requisites	No previous knowledge of economics is required. Good command of mathematics is desirable.		
Applicability	The cluster is particularly appropriate for the MBA IMRE Programme.		
Frequency	All courses are taught once per academic year. The cluster starts in winter term.		
Requirement for Credit Points	For each of the three courses within the cluster, final tests in written form each of 90 minutes length will have to be taken.		

Credit Points	9
Grade	The overall mark for the cluster is computed as the arithmetic average of the marks for the three courses within the cluster.
Workload	The total time budgeted is set at 270 h, of which 90 h are spent in class and the remaining 180 h are spent on self-study (including assignments, preparation, wrapping up of lectures and preparation of examinations).

Code/Dates	OREDEP.MA.Nr. 2915	Version: 28.04.2010	Start: ST 2011
Name	Ore Deposits & Economic Geology		
Responsible	**Surname** Seifert **First name** Thomas **Academic Title** PD Dr. habil.		
Lecturer(s)	**Surname** Seifert **First name** Thomas **Academic Title** PD Dr. habil.		
Institute(s)	Institut für Mineralogie		
Duration	1 Semester		
Competencies	Offering engineers and non-geoscientists the opportunity to get some background knowledge on the genesis of ore deposits and resulting implications for exploration and processing.		
Contents	An introduction to ore-forming environments. Major case studies of ore and industrial mineral deposits will also be discussed. An integral part of the course is the study of hand specimen.		
Literature	Evans, A. M. (1993). Ore Geology and Industrial Minerals, Oxford: Blackwell. Guilbert, J.M. and Park, C.F. (1986). The Geology of Ore Deposits, New York: Freeman. Kesler, E. (1994) Mineral Resources, Economics and the Environment, New York: Macmillan.		
Types of Teaching	Lectures (1 SWS) and exercises (1 SWS)		
Pre-requisites	No requirements.		
Applicability	The cluster is particularly appropriate for the MBA IMRE programme and also for the Master programme Geophysik.		
Frequency	The course is taught once per academic year.		
Requirement for Credit Points	A final test in written form of 90 minutes will have to be taken.		
Credit Points	3		
Grade	The grade derives from the grade for the written test.		
Workload	The total time budgeted for the cluster is set at 90 hours, of which 30 hours are spent in class and the remaining 60 hours are spent on self-study.		

Code/Dates	PREMAN .MA.Nr. 2907	Version: 28.04.2010	Start: WT 10/11
Name	Principles of Environmental Management		
Responsible	**Surname** Bongaerts **First name** Jan C. **Academic Title** Prof. Dr.		
Lecturer(s)	**Surname** Bongaerts **First name** Jan C. **Academic Title** Prof. Dr.		
Institute(s)	Chair of Environmental and Resource Management		
Duration	1 Semester		
Competencies	Students learn the basic knowledge about environmental management, in particular at the level of (industrial) organisations. Contemporary leading principles, such as sustainability, prudent handling of energy and resources will be introduced. Students will have to apply the theoretical principles to practical problems of decision-making and management.		
Content	The cluster gives an insight into the main and important issues of the management of environment such as: standards for management, ISO 14001, PDCA cycle, environmental aspects, environmental management manual, procedures, material safety data sheets, life cycle analysis.		
Literature	Kolk, A. (2000): Economics of Environmental Management, Harlow Essex, Prentice Hall – Financial Times, Pearson Education. Christopher Sheldon, Mark Yoxon; Installing Environmental Management Systems: A Step by Step Guide Earthscan Tom Tibor, Ira Fekdman: Implementing ISO 14000 (Hardcover) McGraw-Hill, 1996		
Types of Teaching	Lectures, practical exercises and assignments (1/1/0).		
Pre-requisites	No previous knowledge and skills required.		
Applicability	The cluster is particularly appropriate for the MBA IMRE Programme, for students of environmental engineering, geo-ecology, industrial engineering “Wirtschaftsingenieur” and technology management. Hence, the cluster is not only accessible to the MBA IMRE students but also to interested students of many other programmes.		
Frequency	The course is taught once within an academic year.		
Requirements for credit points	For the completion of the course a project will have to be completed in a team with other students. The details of the assignments of this project are posted on the Website of the Study Programme. The results of the project must be presented in a condensed form.		
Credit points	The cluster contains 3 Credit points.		
Grades	The grade for the cluster is composed by a weighted average of the project documents (80 %) and the presentation (20 %).		
Wordload	The total time normally budgeted for the cluster is 90 hours, of which 30 hours are spent in class and the remaining 60 hours are spent on preparation and self-study.		

Code/Daten	PROCENG.MA.Nr.2917	Stand: 28.04.2010	Start: WT 2010/2011
Modulname	Process Engineering		
Verantwortlich	**Name** Wollenberg **Vorname** Ralph **Titel** Dr.		
Dozent(en)	**Name** Wollenberg **Vorname** Ralph **Titel** Dr.		
Institut(e)	Institut für Thermische Verfahrenstechnik, Umwelt- und Naturstoffverfahrenstechnik		
Dauer Modul	1 Semester		
Qualifikationsziele/ Kompetenzen	The students should ▪ acquire the ability to understand the meaning of process engineering for utilizing natural resources in an economically effective and ecologically compatible way, ▪ learn to use the mathematical method of balancing for designing and evaluating technical systems, ▪ be able to select suitable particulate control techniques depending on dust properties and to use balancing methods for determining the separation efficiency.		
Inhalte	The lecture offers an understanding of basics in the field of process engineering with special emphasis on air pollution control techniques. After dealing with some basic ideas, terms and definitions related to process engineering the subject of balancing is in focus. Balancing is a very important tool for developing, optimizing and evaluating technical processes. Due to its importance in the area of environmental protection the fundamentals of particulate control techniques as a special domain of process engineering is a further topic. The active principles of technical dust collection systems, the diverse dust collectors and the application of balancing methods for determining the separation efficiency are explained.		
Typische Fachliteratur	Luyben, William L. (1988): Chemical process analysis: mass and energy balances, Prentice Hall. Theodore, L. & Buonicore, A. (1994): Air pollution control equipment, Springer-Verlag.		
Lehrformen	Lectures (1 SWS) and tutorials (1 SWS)		
Voraussetzung für die Teilnahme	No requirements.		
Verwendbarkeit des Moduls	The cluster is particularly appropriate for the MBA IMRE Programme.		
Häufigkeit des Angebotes	The course is taught once per academic year.		
Voraussetzung für Vergabe von Leistungspunkten	A final test in written form of 90 minutes will have to be taken.		
Leistungspunkte	3		
Note	The grade earned in the exam determines the overall grade for the cluster.		
Arbeitsaufwand	The total time budgeted for the cluster is set at 90 hours, of which 30 hours are spent in class and the remaining 60 hours are spent on self-study.		

Code/Dates	RECONEV.MA.Nr.2911	Version: 28.04.2010	Start: WT 2010/11
Name	Resources Economics & Evaluation & Environmental Impact Studies		
Responsible	**Surname** Bongaerts **First Name** Jan C. **Academic Title** Prof. Dr.		
Lecturer(s)	**Surname** Bongaerts **First Name** Jan C. **Academic Title** Prof. Dr. **Surname** Kausch **First Name** Peter **Academic Title** Prof. Dr. **Surname** Florin **First Name** Jan Henrich **Academic Title** Prof. Dr. **Surname** Bartz **First Name** Stefan		
Institute(s)	Chair for Environmental & Resource Management		
Duration	One Semester		
Competencies	The cluster intends to give students the knowledge and the ability to understand the economic principles of resources and their usage as well as the methods and tools of an economic evaluation of natural resources. Moreover, the cluster is dedicated to the theme of assessing environmental impacts associated with the exploration, the extraction and the processing of natural resource		
Contents	Economics of Resources (ER): Optimal control theory and depletable and renewable resources, population growth and resources, resources in a globalized world the resource curse. Strategies of the International Resource Industry (SIR): Structure and size of the international resources industry, setting objectives and developing long-term planning instruments, assessing performance through controlling instruments, economic feasibility studies, in the mining and energy sectors, economic evaluation of environmental impacts, case studies. Environmental impact studies (EIS): purposes of environmental impact assessment, environmental impact study, phases of the environmental impact study, characteristics and elements of an environmental impact assessment, permitting process and procedures.		
Literature	Conrad, J. M. (1999): Resource Economics, New York (et al.), Cambridge University Press. United Nations Development Programme; et al. [editor] (2005): World Resources 2005 – The Wealth of the Poor, World Resources Institute, New York. United Nations Development Programme; et al. (2004): World Resources 2002-04 – Decision for the earth: Balance, Voice, Power, World Resources Institute, New York. Kausch, P.; Ruhrmann, G. (2002): Environmental Management, Environmental Impact Assessment of Mining Operations. Logabook. Lerche, I.; Paleologos, E. K. (2001): Environmental Risk Analysis, McGraw-Hill, New York [et al.]. Wellmer, F.-W., Dalheimer, M., Wagner, M. (2008): Economic Evaluations in Exploration, Springer Berlin Heidelberg New York. Rudenno, V. (2004): The Mining Valuation Handbook, 2nd ed., Wrightbooks, Melbourne.		
Types of Teaching	Teaching, seminars, individual course work and self-study, compilation of materials for presentations		
Pre-requisites	Admission to a graduate programme of the university (MBA IMRE or other Master's Programmes) or admission through Exchange programmes (e.g. ERASMUS)		
Applicability	The cluster and parts of it are not only accessible to the MBA IMRE students but also to interested students of other programmes, such an engineering, geo-ecology.		

Frequency	Every course within the cluster is taught once within an academic year.
Requirement for Credit Points	For completion of the cluster a paper of 15 pages length will have to be prepared and a written test of 120 minutes length and a test of 90 minutes length will have to be taken.
Credit Points	Within this cluster, 9 Credits can be awarded.
Grade	The overall grade for the cluster is composed by taking the arithmetic average of the grades of the individual tests.
Workload	The total calculated time effort for the cluster is set at 270 hours, of which 90 hours are dedicated to class attendance and 180 hours are budgeted for self-study.

Code	SUSENMP. MA.Nr. 2908	Version: 12.10.2010	Start: ST 2011
Name	Sustainability & Environmental Management & Policy		
Responsible	**Surname** Bongaerts **Name** Jan C. **Titel** Prof. Dr.		
Lecturers	**Surname** Bongaerts **Name** Jan C. **Titel** Prof. Dr. **Surname** Murillo **Name** Karen **Titel** MBA, Eng.		
Duration	One Semester		
Competencies	The aim of teaching of this cluster is that students get familiar with the concept of sustainability, its scope and the interrelation between the economic, social and ecological dimensions. It is intended that students will develop the ability to critically assess situations and make appropriate decisions as well as develop further their personal communication skills while working in teams and participating in lecture activities.		
Content	Since there are several angles to the theme of sustainable development the course starts with the fundamentals by providing a comprehensive theoretical overview of the concept of sustainable development. The course follows then with a more practical oriented approach using case studies. Throughout the course students will get good understanding of the implications of several approaches to sustainability for policy making, environmental management and inter-disciplinary research. Teaching is combined with assignments, group activities and guest lectures. The course is structured as follows: 1. The concept of sustainability, 2. Conceptual and theoretical foundations of sustainability (part I and II), 3. Sustainability indicators and Reporting Frameworks 4. Introduction to Sustainable Banking and Sustainable Asset Management, 5. Global Trends in Sustainability.		
Literature	- Environmental issues: an introduction to sustainability, McConnell, Robert L. (2008) - Sustainability: a systems approach, Clayton, Anthony M.H. (1996) - Natural Resource & Environmental Economics (3rd Ed.), Perman, Roger et al. (2003) - The clean development mechanism, sustainable development and its assessment, Burian, Martin (2006) Carbon Finance – The Financial Implications of Climate Change, Labatt S. & White R.R. (2007)		
Types of teaching	Lectures (1 SWS) and tutorials (1 SWS)		
Pre-requisites	No previous knowledge and skills is required.		
Applicability	The cluster is not only accessible to the MBA IMRE students but also to students of other programs such as engineering and geo-ecology.		
Frequency	The course is taught once within an academic year.		
Requirements for credit points	Writing of a term paper Presentation at the end of the semester		
Credit points	3		
Grades	The final grade is calculated according to the following weights: Term paper 60% Presentation 40%		
Amount of work	The total time normally budgeted for the course is 90 hours, of which 30 hours are spent in class and the remaining 60 hours are spent on preparation and self-study.		

Freiberg, den 11.11.2010

gez.:

Prof. Dr. Bernd Meyer

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