

# **Module Manual**

# Joint Master of Science **Global Innovation Management**

Winter Term 2014

# **Table of Contents**

Table of Contents	2
Program description	3
Core qualification	4
Module: Nontechnical Elective Complementary Courses for Master	4
Module: Quantitative Methods - Statistics and Operations Research	14
Module: Technology Management	17
Module: Product Planning	18
Module: International Business	20
Module: Project Seminar IWI	24
Thesis	26
Module: Master Thesis	26

Proc	ram	des	cri	pti	on

Content:

# **Core qualification**

The MSc. in Global Innovation Management (GIM) is a unique 2-year programme offered jointly by the **University of Strathclyde** (Scotland), **Aalborg University** (Denmark) and **Hamburg University of Technology** (Germany) which enables graduates of first degrees in engineering, science and technology to successfully manage the innovation process across international boundaries.

Students have the opportunity to study at two European Universities, with the programme's delivery over two years providing a greater depth of learning, more industrial engagement and a rich cultural experience.

The course equips students with skills to transform research outputs into innovative products and services. Learning the tools and techniques for working globally, students apply this knowledge practically by working on projects with industry contacts in different countries, further enhancing their understanding of international business. GIM addresses new challenges in innovative global enterprise and provides:

- · A practical and global perspective of Innovation Management, through industry based modules
- · Skills applicable for larger multinational organisations to smaller enterprises
- Expanded perspectives of Innovation Management including Technology Management, R&D, and Product/Service Development with focus on the interface between disciplines involved in the process;
- Increased research capability focused on activities at the periphery of the innovation process.

Module: Nontechnical Elective Complementary Courses for Master

#### Courses:

<u>Title</u>	Тур	Hrs/wk
Sociology of Work	Seminar	2
Blue Engineering – Aspects of social and ecological responsibility II	Seminar	1
German as a Foreign Language for International Master Programs	Seminar	4
European Culture: Architectural and Cultural History Course A	Seminar	2
European Culture: Architectural and Cultural History Course B	Seminar	2
European Culture: History II.	Seminar	2
European Culture: Art	Seminar	2
Engineering Education Research and Applications	Seminar	2
Human Factors in Aviation and Maritime Systems	Vorlesung	2
Foreign Language Course	Seminar	2
Management and Communication	Seminar	2
Humanities and Engineering: Intercultural Communication	Seminar	2
Humanities and Engineering: Politics	Seminar	2
Theory of Communication	Seminar	2
Creative Processes in Technology, Music and the Arts	Seminar	2
Power plays in organizations: Micro-political competence and gender competence for professional practice	Seminar	2
Socio-economic and ecological Responsability in Engineering Profession	Seminar	2
Sociology and Social Critism	Seminar	2
World Literature: Meaning and Interpretation in the Interculture Dialogue	Seminar	2
Economic Sociology	Seminar	2
Academic Writing for Engineers	Seminar	2

# Module Responsibility:

Dagmar Richter

# **Admission Requirements:**

# **Recommended Previous Knowledge:**

# **Educational Objectives:**

After taking part successfully, students have reached the following learning results:

# **Professional Competence:**

Theoretical Knowledge:

Capabilities:

#### **Personal Competence:**

Social Competence:

Autonomy:

# **ECTS-Credit points:**

6 LP

#### **Examination:**

#### Workload in Hours:

Indipendent Study Time: 96, Study Time in Lecture: 84

#### Assignment for the Following Curricula:

Civil Engineering: Kernqualifikation: Compulsory

Bioprocess Engineering: Kernqualifikation: Compulsory

Computer Science: Kernqualifikation: Compulsory Electrical Engineering: Kernqualifikation: Compulsory

Energy and Environmental Engineering: Kernqualifikation: Compulsory

Chemical and Bioprocess Engineering: Kernqualifikation: Compulsory

Energy Systems: Kernqualifikation: Compulsory Environmental Engineering: Kernqualifikation: Compulsory

Aircraft Systems Engineering: Kernqualifikation: Compulsory

Global Innovation Management: Kernqualifikation: Compulsory suffrage Computational Science and Engineering: Kernqualifikation: Compulsory Information and Communication Systems: Kernqualifikation: Compulsory International Management and Engineering: Kernqualifikation: Compulsory

Logistics, Infrastructure and Mobility: Kernqualifikation: Compulsory

Mechatronics: Kernqualifikation: Compulsory

Microelectronics and Microsystems: Kernqualifikation: Compulsory

Product Development, Materials and Production: Kernqualifikation: Compulsory

Renewable Energies: Kernqualifikation: Compulsory

Naval Architecture and Ocean Engineering: Kernqualifikation: Compulsory Theoretical Mechanical Engineering: Kernqualifikation: Compulsory

Process Engineering: Kernqualifikation: Compulsory

Water and Environmental Engineering: Kernqualifikation: Compulsory

Course: Sociology of Work (Seminar)

#### Lecturer:

Prof. Gabriele Winker

# Language:

DE

# Cycle:

WS

# Content:

Work is a central sociological category that mediates between individual and society. Currently, it is subject to radical and diverse processes of change. In the seminar course, we will present and discuss recent findings in the field of work research. Topics include, among others, subjectivation and precarisation of labor as well as reproductive and care work.

# Literature:

Fuchs, Tatjana (2006): Kurzfassung Was ist gute Arbeit? Anforderungen aus der Sicht von

Erwerbstätigen In: INIFES (Hg.): Forschungsbericht an die Bundesanstalt für Arbeitsschutz und

Arbeitsmedizin. Stadtbergen, 13-38

Hochschild, Arlie Russell, 2003. Love and Gold. In: femina politica, Zeitschrift für feministische Politik-

Wissenschaft, 12.Jg. Heft 1/2003. S.77-9

Kratzer, Nick u.a. (2011): Leistungspolitik und Work-Life-Balance. Eine Trendanalyse des Projekts

 $Lanceo.\ Institut\ f\"ur\ Sozialwissenschaftliche\ Forschung\ e.\ V.\ \ ISF\ M\"unchen$ 

Lehndorff, Steffen (2003): Marktsteuerung von Dienstleistungsarbeit. In: Dörre, Klaus; Röttger, Bernd

(Hg.): Das neue Marktregime. Konturen eines nachfordistischen Produktionsmodells. Hamburg: VSAVerl.,

S. 153 171

Marrs, Kira (2010): Herrschaft und Kontrolle in der Arbeit. In: Böhle, Fritz/Voß, Günter/ Wachtler,

Günther (Hg.): Handbuch Arbeitssoziologie. Wiesbaden, 331-358

Bourdieu, Pierre (1998): Prekariat ist überall. In: Ders.: Gegenfeuer. Konstanz, 96-102

Course: Blue Engineering – Aspects of social and ecological responsibility II (Seminar)

#### Lecturer:

Robinson Peric

# Language:

DĒ

# Cycle:

ws

#### Content:

The seminar broaches the issue of both the connections and disparities between ecological and social responsibility in the context of

engineering sciences. The underlying vision consists in a socially and ecologically sustainable development of technology, following a holistic approach in solving problems of mankind and nature. In this venue, the seminar provokes a creative immersion with questions regarding sustainable development and tries to evoke answers both on a small scale, as well as from a broader view.

#### Literature:

Literatur wird zu Beginn des Seminars bekanntgegeben.

References will be announced on the seminar's first appointment.

Course: German as a Foreign Language for International Master Programs (Seminar)

#### Lecturer:

Dagmar Richter

#### Language:

DE

# Cycle:

WS/SS

#### Content:

Master's German course in cooperation with IBH e.V. - Master's German courses at different levels

In the international studies program these are obligatory for non-native speakers of German and for students without a DSH certificate or equivalent TEST-DAF result. Grading after an aptitude test. All other students must sign up for a total of 4 ECTS from the catalog of non-technical supplementary courses.

#### Literature:

- Will be announced in lectures -

Course: European Culture: Architectural and Cultural History Course A (Seminar)

#### Lecturer:

Dr. Marlis Bussacker

# Language:

DE

# Cycle:

WS

# Content:

#### Literature:

- Wilfried Koch, Baustilkunde, Bertelsmann Lexikon Verlag, Gütersloh 1993
- Jacques Tullier, Geschichte der Kunst, Architektur, Skulptur, Malerei, Paris 2002
- Silvio Vietta, Europäische Kulturgeschichte eine Einführung, München 2005

Course: European Culture: Architectural and Cultural History Course B (Seminar)

# Lecturer:

Dr. Imke Hofmeister

# Language:

DE

# Cycle:

WS

# Content:

# Literature:

- Wilfried Koch, Baustilkunde, Bertelsmann Lexikon Verlag, Gütersloh 1993
- Jacques Tullier, Geschichte der Kunst, Architektur, Skulptur, Malerei, Paris 2002
- Silvio Vietta, Europäische Kulturgeschichte eine Einführung, München 2005

Course: European Culture: History II. (Seminar)

#### Lecturer:

Prof. Margarete Jarchow, Dr. Martin Doerry

# Language:

DĒ

# Cycle:

WS

#### Content:

No event has left such deep traces on the political consciousness of the Federal Republic of Germany as the murder of millions of European Jews. With five autobiographical texts by survivors and victims of the holocaust the former historical events at that time are reconstructed. Their impact on current standards of political thought and action will be analyzed. The concentration of the individual stories facilitates the understanding of the historical context.

All titles are also available in English translation. Selected reviews as well as documentary footage are presented.

#### Literature:

Der Publizist Sebastian Haffner erzählt vom Entstehen des Nationalsozialismus und von seiner wachsenden Distanz zum NS-Regime ("Geschichte eines Deutschen. Die Erinnerungen 1914 – 1933").

Der Historiker Saul Friedländer berichtet vom Überleben mit falscher Identität in einem französischen Internat ("Wenn die Erinnerung kommt")

Der Kritiker Marcel Reich-Ranicki schreibt über seine Flucht aus dem Warschauer Ghetto und seine Liebe zur deutschen Kultur ("Mein Leben").

Die Literaturwissenschaftlerin Ruth Klüger hat das KZ Auschwitz-Birkenau überlebt und wird bis heute von der eigenen Erinnerung an das Vernichtungslager verfolgt ("weiter leben").

Die Ärztin Lilli Jahn schließlich wurde in Auschwitz von den Nazis umgebracht, ihr Schicksal ist in einem Briefwechsel mit ihren fünf Kindern dokumentiert (Martin Doerry: "Mein verwundetes Herz. Das Leben der Lilli Jahn. 1900 – 1944").

Course: European Culture: Art (Seminar)

#### Lecturer:

Dr. Gabriele Himmelmann

#### Language:

DE

# Cycle:

WS/SS

# Content:

The seminar focuses on works of painting, sculpture, arts and crafts, and design in a specific epoch of art and cultural history. By means of examples students acquire in-depth knowledge about works of art, their origins, their production conditions, their production techniques, and the societal framework conditions in their stylistic epoch. Ability to discuss and to communicate is trained by analyzing the works of art that are dealt with and eyes are opened for one's own and other cultures. The course includes excursions to museums and art museums to gain access to the customary ways in which museums present their exhibits.

# Literature:

- Geschichte der Kunst in 12 Bänden, Beck'sche Reihe, München 2011
- Geschichte der bildenden Kunst in Deutschland, 8 Bände, München: Prestel 2006-
- Kunst-Epochen, Reclam-Universalbibliothek, Stuttgart 2002-
- Hans Belting / Heinrich Dilly / Wolfgang Kemp / Willibald Sauerländer / Martin Warnke, Kunstgeschichte Eine Einführung, 7. Aufl. Berlin 2008
- Jutta Held / Norbert Schneider, Grundzüge der Kunstwissenschaft, Köln 2007
- Michael J. Gelb, How to think like Leonardo da Vinci, New York 1998
- E.H. Gombrich, The Story of Art, Phaidon Press Limited, London 1995
- Wilfried Koch, Baustilkunde, Bertelsmann Lexikon Verlag, Gütersloh 1993
- Jacques Tullier, Geschichte der Kunst, Architektur, Skulptur, Malerei, Paris 2002
- Silvio Vietta, Europäische Kulturgeschichte eine Einführung, München 2005

Course: Engineering Education Research and Applications (Seminar)

# Lecturer:

Prof. Christian Hans Gerhard Kautz

# Language:

DE

# Cycle:

WS/SS

# Content:

Learning scenarios, active learning methods

Methods, results and implications of engineering education research

Conceptual understanding and misconceptions in introductory engineering courses

Research on learning behaviour, motivation, and beliefs

Preparation of Tutorials for selected lecture courses

Problem-Based Learning

Learning styles in engineering education

Assessment

#### Literature:

ausgewählte Artikel aus Fachzeitschriften werden an die Seminarteilnehmer verteilt, weiterführende Literatur wird zum jeweiligen Thema angegeben

Course: Human Factors in Aviation and Maritime Systems (Vorlesung)

#### Lecturer:

Dr. Peter Maschke

#### Language:

DE

#### Cycle:

WS/SS

#### Content:

Title: Human Factor in Aviation and Maritime Systems

The human operator is both the strong and weak element within the aviation and maritime system. On the one hand, the operator increases the reliability of the technical system by a factor of ten. On the other hand, the operator him/herself induces a high error rate which is the most critical risk in these man-machine systems: The main cause for more than 70% of accidents in aviation and maritime systems is due to human error. In this context the human operator (pilot, air traffic controller, astronaut or nautical officer) always interacts with machines or in a team of other operators.

To improve safety and efficiency, focus should be put both on designing a human oriented machine and on the operator: What are the important job requirements, how to find people who fulfil these requirements, and what can be reached by technical and non-technical training. For these options it has to be taken into account that human behavior is limited due to physiological and psychological aspects, e.g. human perception is biased due to subjectivity, and human decision making is not rational. The diversity of team situations is complicating these aspects.

#### Literature:

Badke-Schaub, Hofinger & Lauche (2008). Human Factors - Psychologie sicheren Handelns in Risikobranchen. Heidelberg: Springer. Bauch, A. (2001). Ergonomie in der Flugzeugkabine - Passagierprozesse und manuelle Arbeitsablaufe. DGLR BERICHT (S. 49-56), ISSN 3932182154. Link: http://www.mp.haw-hamburg.de/pers/Scholz/dglr/bericht0101/Bauch.pdf

Goeters, K.-M. (Ed.) (2004). Aviation Psychology: Practice and Research. Aldershot: Ashgate.

Johnston, N., Fuller R., McDonald, N. (Eds.) (1994). Aviation Psychology: Training and Selection. Aldershot Hampshire: Avebury Aviation. Sackett, P.R. & Lievens, F. (2008). Personnel Selection. Annual Review of Psychology, 59, 419-450.

Schuler, H. (2006). Lehrbuch der Personalpsychologie (2. Auflage). Göttingen: Hogrefe.

Schuler, H. (2007). Lehrbuch der Organisationpsychologie (4. Auflage). Huber: Bern.

Course: Foreign Language Course (Seminar)

# Lecturer:

Dagmar Richter

# Language:

# Cycle:

WS/SS

#### Content:

In the Field of the Nontechnical Complementary Courses students are able to chose foreign language courses. Therefore the Hamburger Volkshochschule offers a special language programm on TUHH campus for TUHH Students. It includes courses in english, chinese, french, japanese, portuguese, russia, swedish, spanisch and german as a foreign language. All lectures impart common language knowledge, english courses although english for technical purposes.

#### Literature:

Kursspezifische Literatur / selected bibliography depending on special lecture programm.

Course: Management and Communication (Seminar)

#### Lecturer:

Prof. Gabriele Winker

# Language:

DĒ

# Cycle:

้รร

# Content:

The seminar will present basic elements of personality-promoting work organisation, motivation theories, different management concepts, communication theories and approaches to conflict and knowledge management. These subjects are applied to specific practical examples. Participants are given the opportunity to reflect on their own communicative and social behaviour.

#### Literature:

Große Boes, Stefanie; Kaseric, Tanja (2010): Trainer-Kit. Die wichtigsten Trainings-Theorien, ihre Anwendung im Seminar und Übungen für den Praxistransfer. 4. Aufl. Bonn: managerSeminare

Klutmann, Beate (2004): Führung: Theorie und Praxis. Hamburg: Windmühle

Laufer, Hartmut (2011): Grundlagen erfolgreicher Mitarbeiterführung. Führungspersönlichkeit,

Führungsmethoden, Führungsinstrumente. 11. Auflage. Offenbach: GABAL

Neuberger, Oswald (2002): Führen und führen lassen. 6. überarb. und erw. Aufl. Stuttgart: Lucius und Lucius

Schulz von Thun, Friedemann; Ruppel, Johannes; Stratmann, Roswitha (2002): Miteinander reden:

Kommunikationspsychologie für Führungskräfte. 4. Aufl. Reinbek bei Hamburg

Course: Humanities and Engineering: Intercultural Communication (Seminar)

#### Lecturer:

Prof. Margarete Jarchow, Dr. Matthias Mayer

# Language:

ΕN

#### Cycle:

WS/SS

#### Content:

As young professionals with technical background you may often tend to focus on communicating numbers and statistics in your presentations. However, facts are only one aspect of convincing others. Often, your personality, personal experience, cultural background and emotions are more important. You have to convince as a person in order to get your content across.

In this workshop you will learn how to increase and express your cultural competence. You will apply cultural knowledge and images in order to positively influence communicative situations. You will learn how to add character and interest to your talks, papers and publications by referring to your own and European Cultural background. You will find out the basics of communicating professionally and convincingly by showing personality and by referring to your own cultural knowledge. You will get hands-on experience both in preparing and in conducting such communicative situations. This course is not focussing on delivering new knowledge about European culture but helps you using existing knowledge or such that you can gain e.g. in other Humanities courses.

- How to enrich the personal character of your presentations by referring to European and your own culture.
- How to properly arrange content and structure.
- How to use PowerPoint for visualization (you will use computers in an NIT room).
- How to be well-prepared and convincing when delivering your thoughts to your audience.

# Literature:

Literaturhinweise werden zu Beginn des Seminars bekanntgegeben. Literature will be announced at the beginning of the seminar.

Course: Humanities and Engineering: Politics (Seminar)

#### Lecturer:

Dr. Stephan Albrecht, Anne Katrin Finger, Gunnar Jeremias

# Language:

ΕN

# Cvcle:

WS/SS

# Content:

Scientists and engineers neither just strive for truths and scientific laws, nor are they working in a space far from politics. Science and engineering have contributed to what we now call the Anthropocene, the first time in the history of mankind when essential cycles of the earth system, e.g. carbon cycle, climate system, are heavily influenced or even shattered. Furthermore, Peak oil is indicating the end of cheap fossil energy thus triggering the search for alternatives such as biomass.

Systems of knowledge, science and technology in the OECD countries have since roughly 30 years increasingly become divided. On the one hand new technologies such as modern biotechnology, IT or nanotechnology are developing rapidly, bringing about many innovations for industry, agriculture, and consumers. On the other hand scientific studies from earth, environmental, climate change, agricultural and social sciences deliver increasingly robust evidence on more or less severe impacts on society, environment, global equity, and economy resulting from innovations during the last 50 years. Technological innovation thus is no longer an uncontested concept. And many protest movements demonstrate that the introduction of new or the enlargement of existing technologies (e.g. airports, railway stations, highways, high-voltage power lines surveillance) isn't at all a matter of course.

It is important to bear in mind the fact that all processes of technological innovation are made by humans, individually and collectively. Industrial, social, and political organizations as actors from the local to global level of communication, deliberation, and decision making

interact in diverse arenas, struggling to promote their respective corporate and/or political agenda. So innovations are as well a problem of technology as a problem of politics. Innovation and technology policies aren't the same in all countries. We can observe conceptual and practical variations.

Since the 1992 Earth Summit in Rio de Janeiro Agenda 21 constitutes a normative umbrella, indicating Sustainable Development (SD) as core cluster of earth politics on all levels from local to global. Meanwhile other documents such as the Millennium Development Goals (MDG) have complemented the SD agenda. SD can be interpreted as operationalization of the Universal Declaration of Human Rights, adopted in 1948 by the General Assembly of the United Nations and since amended many times.

Engineers and scientists as professionals can't avoid to become confronted with many non-technical and non-disciplinary items, challenges, and dilemmas. So they have to choose between alternative options for action, as individuals and as members of organizations or employees. Therefore the seminar will address core elements of the complex interrelations between science, society and politics. Reflections on experiences of participants – e.g. from other countries as Germany – during the seminar are very welcome. The goals of the seminar include:

- · Raising awareness and increasing knowledge about the political implications of scientific work and institutions;
- Improving the understanding of different concepts and designs of innovation and technology policies;
- Increasing knowledge about the status and perspectives of sustainable development as framework concept for technological and scientific progress;
- Understanding core elements of recent arguments, conflicts, and crises on technological innovations, e.g. geo-engineering or bioeconomy;
- Improving the understanding of scientists' responsibility for impacts of their professional activities;
- Embedding individual professional responsibility in social and political contexts.

The seminar will deal with current problems from areas such as innovation policy, energy, food systems, and raw materials. Issues will include the future of energy, food security and electronics. Historical issues will also be addressed.

The seminar will start with a profound overarching introduction. Issues will be introduced by a short presentation and a Q & A session, followed by group work on selected problems. All participants will have to prepare a presentation during the weekend seminar. The seminar will use inter alia interactive tools of teaching such as focus groups, simulations and presentations by students. Regular and active participation is required at all stages.

#### Literature:

Literatur wird zu Beginn des Seminars abgesprochen.

Course: Theory of Communication (Seminar)

#### Lecturer:

Dr. Michael Florian

# Language:

DĚ

# Cycle:

SS

#### Content:

The seminar focuses on sociological theories of communication and selected problems of practical application in the area of crisis communication. The issue of crisis communication will be analyzed on the basis of case studies.

# Literature:

Habermas, Jürgen (1981): Theorie des kommunikativen Handelns. 2 Bände. Frankfurt/Main: Suhrkamp.

Luhmann, Niklas (1984): Soziale Systeme. Grundriß einer allgemeinen Theorie. Frankfurt/Main: Suhrkamp.

Malsch, Thomas (2005): Kommunikationsanschlüsse. Zur soziologischen Differenz von realer und künstlicher Sozialität. Wiesbaden: VS Verlag für Sozialwissenschaften.

Malsch, Thomas; Schmitt, Marco (Hg.) (2014): Neue Impulse für die soziologische Kommunikationstheorie. Empirische Widerstände und theoretische Verknüpfungen. Springer Fachmedien: Wiesbaden.

Meckel, Miriam; Schmid, Beat F. (Hg.) (2008): Unternehmenskommunikation. Kommunikationsmanagement aus Sicht der

Unternehmensführung. 2., überarbeitete und erweiterte

Auflage. Gabler GWV Fachverlage: Wiesbaden.

Merten, Klaus (1999): Einführung in die Kommunikationswissenschaft. Bd 1/1: Grundlagen der Kommunikationswissenschaft. Münster: Lit Verlag.

Nolting, Tobias; Thießen, Ansgar (Hg.) (2008): Krisenmanagement in der Mediengesellschaft. Potenziale und Perspektiven der Krisenkommunikation. Wiesbaden: VS Verlag für Sozialwissenschaften.

Schützeichel, Rainer (2004): Soziologische Kommunikationstheorien. Konstanz: UVK Verlagsgesellschaft.

Thießen, Ansgar (2011): Organisationskommunikation in Krisen. Reputationsmanagement durch situative, integrierte und strategische Krisenkommunikation. VS Verlag für Sozialwissenschaften/Springer Fachmedien: Wiesbaden.

Thießen, Ansgar (Hg.) (2013): Handbuch Krisenmanagement. Springer Fachmedien: Wiesbaden.

Course: Creative Processes in Technology, Music and the Arts (Seminar)

#### Lecturer:

Prof. Hans-Joachim Braun

# Language:

ΕN

# Cycle:

WS

#### Content:

Creativity, which involves the generation of useful ideas and products, is an elusive term. "Inspirationalists", who point out spontaneous insights and "aha effects", have increasingly come under pressure from "structuralists", who emphasize hard work and expertise in creative processes, divesting creative people from supernatural gifts. In this light, a musical composition can be regarded as a piece of "cognitive engineering". In this seminar we will deal with the different concepts of creativity in their historical and cultural context. The main focus will be on investigating creative processes in invention, engineering design, architecture, the fine arts (for example Picasso's Guernica), and in musical composition and improvisation. Do creative processes follow a similar logic or are there vital domain-dependent differences? Two what extent have recent, particularly psychometric, studies been able to obtain empirically relevant and satisfying answers to the issue of creativity?

#### Literature:

H.-J. Braun, Engineering Design and Musical Composition: An Exploratory Inquiry; ICON vol.8, 2002, 1-24.

J. Kaufman &R.J. Steinberg; The Cambridge Handbook of Creativity, Cambridge U.P. 2010.

R.K. Sawyer, Explaining Creativity. The Science of Human Innovation, Oxford U.P. 2012,

R.W. Weisberg, Creativity: Understanding Innovation in Problem Solving, Science, Invention and the Arts, New York, John Wiley, 2006.

Course: Power plays in organizations: Micro-political competence and gender competence for professional practice (Seminar)

#### Lecturer:

**Doris Cornils** 

#### Language:

DE

# Cycle:

WS

# Content:

folgt

#### Literature:

Cornils, D.; Mucha, A.; Rastetter, D. (2014): Mikropolitisches

Kompetenzmodell: Erkennen, verstehen und bewerten mikropolitischer

Kompetenz. In: OSC, Organisationberatung – Supervision – Coaching,

1/2014, S. 3-19

Cornils, Doris (2012): Mikropolitik und Aufstiegskompetenz von Frauen,

in: CEWS-Journal, Center of Excellence Women and Science,

14.6.2012, Nr. 84, S. 23-34

Course: Socio-economic and ecological Responsability in Engineering Profession (Seminar)

#### Lecturer:

Dr. Wolfgang Neef

# Language:

DE

# Cycle:

ws

# Content:

- technical science,economics and society
- sociologic and economic models of engineering in future
- engineering and technology without growth- and profit-compulsion

# Literature:

Reader für die Lehrveranstaltung zu den Themen "Technik und Gesellschaft" und "Studium und Berufseinstieg" Reader zu the topics "Technology and Society" and "Studying and Starting in Profession"

Course: Sociology and Social Critism (Seminar)

# Lecturer:

Prof. Gabriele Winker

# Language:

DE

# Cycle:

WS

# Content:

The seminar course focuses on the question of the significance and extent of social inequality. It will provide an overview of central sociological terms of analysis and findings of inequality studies.

#### Literature:

- Burzan, Nicole. Soziale Ungleichheit. Eine Einführung in die zentralen Theorien. 3. überarb. Aufl.

Wiesbaden: VS Verlag für Sozialwissenschaften, 2007

- Hradil, Stefan: Soziale Ungleichheit in Deutschland. 8. Aufl., Nachdruck, Wiesbaden: VS Verlag für Sozialwissenschaften, 2005
- Kreckel, Reinhard: Politische Soziologie der sozialen Ungleichheit, 3., überarbeitete und erweiterte Auflage. Frankfurt/New York: Campus, 2004
- Winker, Gabriele; Nina Degele: Intersektionalität. Zur Analyse sozialer Ungleichheiten. Bielefeld: transcript Verlag, 2009

Course: World Literature: Meaning and Interpretation in the Interculture Dialogue (Seminar)

#### Lecturer:

Bertrand Schütz

# Language:

DE

# Cycle:

ws/ss

#### Content:

The seminar 'literature and culture' investigates the scope and possible meaning of what is commonly called European and especially German culture.

The practice of hermeneutics as basic discipline of the humanities comprises the approach to literary texts and their broader cultural context as well.

Subject matters are chosen according to their relevance for contemporary issues, particularly with regard to an intercultural dialogue. Culture is thereby to be understood as the creative response to a given situation and the capacity to integrate inputs and influences, therefore as an ongoing process of permanent readjustment and learning, and by no means as a fixed identity in terms of an "essence".

# Literature:

Außer den unten angegebenen Referenzwerken wird je nach Thematik des Semesters eine spezifische Bibliographie erstellt.

**Ernst Cassirer** 

Philosophie der symbolischen Formen

Hamburg 2010

Hans-Jörg Rheinberg

Experiment - Differenz - Schrift

Zur Geschichte epistemischer Dinge

Marburg 1992

Werner Heisenberg

Ordnung der Wirklichkeit

München 1989

Thomas S. Kuhn

The structure of scientific revolutions

The University of Chicago Press 1962

Course: Economic Sociology (Seminar)

#### Lecturer:

Dr. Michael Florian

# Language:

DĒ

# Cycle:

WS

# Content:

Economic sociology means the application of sociological theories, methods, and perspectives in the analysis of economic issues. The seminar is concerned with new developments in economic sociology. Using case studies, the course will offer insights into the strengths and weaknesses of different sociological approaches.

# Literature:

Baecker, Dirk: Wirtschaftssoziologie. Transcript: Bielefeld, 2006.

Bourdieu, Pierre et al.: Der Einzige und sein Eigenheim. Erweiterte Neuausgabe. Hamburg: VSA, 2002.

Beckert, Jens: Was ist soziologisch an der Wirtschaftssoziologie? Ungewißheit und die Einbettung wirtschaftlichen Handelns. In: Zeitschrift für Soziologie 25, 1996, S. 125–146.

Beckert, Jens: Grenzen des Marktes. Die sozialen Grundlagen wirtschaftlicher Effizienz. Campus: Frankfurt/New York, 1997

Beckert, Jens; Diaz-Bone, Rainer; Ganßmann, Heiner (Hg.) (2007): Märkte als soziale Strukturen. Frankfurt am Main/New York: Campus-Verlag.

Beckert, Jens; Deutschmann, Christoph (Hg.) (2010): Wirtschaftssoziologie. Sonderheft 49 der Kölner Zeitschrift für Soziologie und

Sozialpsychologie: Wiesbaden: VS Verlag für Sozialwissenschaften.

Fligstein, Neil (2011): Die Architektur der Märkte. Wiesbaden: VS Verlag für Sozialwissenschaften.

Florian, Michael; Hillebrandt, Frank (Hg.): Pierre Bourdieu: Neue Perspektiven für die Soziologie der Wirtschaft. VS Verlag für

Sozialwissenschaften: Wiesbaden, 2006.

Granovetter, Mark: Ökonomisches Handeln und soziale Struktur: Das Problem der Einbettung. In: Hans-Peter Müller und Steffen Sigmund (Hrsg.): Zeitgenössische amerikanische Soziologie. Leske + Budrich, Opladen 2000, S. 175-207.

Heinemann, Klaus (Hg.): Soziologie wirtschaftlichen Handelns. Sonderheft 28 der Kölner Zeitschrift für Soziologie und Sozialpsychologie. Opladen: Westdeutscher Verlag, 1987

Hirsch-Kreinsen, Hartmut: Wirtschafts- und Industriesoziologie. Grundlagen, Fragestellungen, Themenbereiche. Weinheim/München: Juventa, 2005.

Smelser, Neil J.; Swedberg, Richard (HG.): The Handbook of Economic Sociology. 2nd edition. Princeton/Oxford: Princeton University Press and New York: Russell Sage Foundation: New York, 2005.

Course: Academic Writing for Engineers (Seminar)

#### Lecturer:

Dr. Janina Lenger

# Language:

DE

#### Cycle:

WS/SS

#### Content:

Writing is not a talent but a craft. It can only be improved if it is explicitly practiced. Students will acquire the necessary tools and knowledge to successfully write scientific texts in this seminar. Main components are brief inputs, practical exercises and knowledge sharing. Contents are:

- the basics of writing theory
- components of scientific writing
- methods and exercises for problem solving within the writing process
- dealing with supervisors
- time management

#### Literature:

- M. Cargill, P. O'Connor, Writing Scientific Research Articles, Wiley-Blackwell, Chichester, UK, 2009.
- O. Kruse, Keine Angst vor dem leeren Blatt, Campus Verlag, Frankfurt/New York, 2000.
- J. Wolfsberger, Frei Geschrieben, Mut Freiheit und Strategie für wissenschaftliche Abschlussarbeiten, UTB, Stuttgart, 2010.
- W. Schneider, Deutsch für junge Profis, Rowohlt Taschenbuch Verlag, Reinbek bei Hamburg, 2011.
- H.-J. Ortheil, Schreiben dicht am Leben, Dudenverlag, Mannheim Zürich, 2012.

Module: Quantitative Methods - Statistics and Operations Research

#### Courses:

<u>Title</u>	<u>Тур</u>	Hrs/wk
Quantitative Methods - Statistics and Operations Research	Problemorientierte Lehrveranstaltung	3
Quantitative Methods - Statistics and Operations Research	Vorlesung	2

# Module Responsibility:

Prof. Kathrin Fischer

#### **Admission Requirements:**

None

#### Recommended Previous Knowledge:

Knowledge of Mathematics on the Bachelor Level. Relevant previous knowledge is tested by an online module

# **Educational Objectives:**

After taking part successfully, students have reached the following learning results:

#### **Professional Competence:**

Theoretical Knowledge:

The students know

- different methods from the field of descriptive statistics and can explain them and their importance for Business Analysis;
- different discrete and continuous distribution functions and can explain their meaning and their areas of application
- the laws of probability theory as, e.g. the Bayes rule, and can explain them;
- different methods of oinferential statistics e.g. confidence intervals, hypothesis testing and regression analysis and can explain their theoretical background;
- the history and relevance of Operations Research;
- linear programming methods for solving planning problems and can explain them;
- selected methods of transportation and network optimization amd can explain them;
- integer programming models and methods, e.g. for location planning;
- appropriate software for solving these problems.

#### Capabilities:

Students are able to

- collect empirical data by appropriate methods, to aggregate, classify and analyze the data and to draw conclusions from them also in complex and realistic situations;
- recognize different distribution functions and to apply them in the solution of Business problems;
- apply laws of probability, as e.g. the Bayes rule, to construct solutions for Business problems;
- select appropriate methods of inferential statistics, apply them to Business problems and evaluate the results of their analysis;
- construct appropriate quantitative linear or integer models for Business planning situations;
- apply methods from linear and integer programming and interpret and evaluate the results;
- apply methods from transport and network planning and interpret and evaluate the results;
- solve the problems with appropriate software, carry out sensitivity analyses and evaluate the results;
  develop a critical judgement of the different methods and their applicability;
- use models and methods from Statistics and OR to analyse problems from the areas of business and engineering and to evaluate the
  results:
- apply their theoretical knowledge of the different methods to practical problems.

# **Personal Competence:**

Social Competence:

Students are able to

- engage in scientific discussions on topics from the fields of Statistics and OR;
- present the results of their work to specialists;
- work successfully and respectfully in a team.

#### Autonomy:

Students are able to

- carry out complex data analyses independently, individually or in a team;
- solve complex Business planning problems independently or in a team, selecting and using appropriate software;
- gather knowledge in the area independently and to apply their knowledge also in new and unknown situations;
- critically evaluate the results of their work and the consequences.

#### **ECTS-Credit points:**

6 LP

# **Examination:**

Klausur

#### Workload in Hours:

Indipendent Study Time: 110, Study Time in Lecture: 70

# Assignment for the Following Curricula:

Computer Science: Kernqualifikation: Compulsory suffrage

Global Innovation Management: Kernqualifikation: Compulsory suffrage International Management and Engineering: Kernqualifikation: Compulsory

Course: Quantitative Methods - Statistics and Operations Research (Problemorientierte Lehrveranstaltung)

#### Lecturer:

Prof. Kathrin Fischer

# Language:

ΕN

#### Cycle:

WS

#### Content:

#### **Statistics**

- Descriptive Statistics: Graphical representations, calculation of relevant measures of central tendency etc., also by using a computer; application of methods for large data sets, analysis and comparison of results, critical discussion and evaluation of methods;
- Probability theory: important laws, dependent probabilities, Bayes Rule; application to practical problems;
- Use and application of probability distributions, as e.g. Binomial and Normal distribution to Management and Engineering problems;
- Methods of inferential statistics: confidence intervals: theoretical background and applications; hypothesis testing: theoretical background and application to business problems; regression analysis: theoretical background and application.

# **Operations Research**

- Linear Programming: Modelling business decision situations, solving problems by Simplex method and by using software, theoretical background of Simplex procedure, Dual Simplex procedure and blocked variables, special cases (degeneracy etc.); sensitivity analysis
- Transportation planning: Modellung transportation and transshipment problems in global networks; Solving transportation problems using software
- · Network Optimization problems: modelling production and transportation networks, solving planning problems in networks
- Integer Programming: Models using integer variables, e.g. in location decisions, branch and bound procedure

# Literature:

Ausgewählte Bücher:

D.R. Anderson / D.J. Sweeney / T.A. Williams / Martin: Quantitative Methods for Business. 11th Edition, Thomson, South Western 2008.

Bluman, Alan G.: Elementary Statistics – A brief version. Third Edition, McGrawHill 2006.

Bowerman, Bruce L. and O'Connell, Richard T.: Business Statistics in Practice, 4th edition, McGraw-Hill 2007.

Domschke, W., Drexl, A.: Einführung in Operations Research, 7. Auflage, Springer, Berlin et al. 2007.

Domschke, W. / A. Drexl / R. Klein / A. Scholl / S. Voß: Übungen und Fallbeispiele zum Operations Research, 6. Auflage, Springer, Berlin et al. 2007

Hillier, F.S., Lieberman, G.J.: Introduction to Operations Research. 8th Edition, McGraw-Hill, 2005.

Schira, J.: Statistische Methoden der VWL und BWL – Theorie und Praxis. 2. Auflage, Pearson Verlag 2005.

Zudem: Skript und Unterlagen, die zur Vorlesung herausgegeben werden.

Course: Quantitative Methods - Statistics and Operations Research (Vorlesung)

# Lecturer:

Prof. Kathrin Fischer

#### Language:

ΕN

# Cycle:

WS

# Content:

#### Statistics

- Descriptive Statistics: Graphical representations, calculation of relevant measures of central tendency etc., also by using a computer; application of methods for large data sets, analysis and comparison of results, critical discussion and evaluation of methods;
- Probability theory: important laws, dependent probabilities, Bayes Rule; application to practical problems;
- Use and application of probability distributions, as e.g. Binomial and Normal distribution to Management and Engineering problems;
- Methods of inferential statistics: confidence intervals: theoretical background and applications; hypothesis testing: theoretical background and application to business problems; regression analysis: theoretical background and application.

# **Operations Research**

• Linear Programming: Modelling business decision situations, solving problems by Simplex method and by using software, theoretical background of Simplex procedure, Dual Simplex procedure and blocked variables, special cases (degeneracy etc.); sensitivity

analysis

- Transportation planning: Modellung transportation and transshipment problems in global networks; Solving transportation problems using software
- · Network Optimization problems: modelling production and transportation networks, solving planning problems in networks
- Integer Programming: Models using integer variables, e.g. in location decisions, branch and bound procedure

#### Literature:

Ausgewählte Bücher:

D.R. Anderson / D.J. Sweeney / T.A. Williams / Martin: Quantitative Methods for Business. 11th Edition, Thomson, South Western 2008.

Bluman, Alan G.: Elementary Statistics - A brief version. Third Edition, McGrawHill 2006.

Bowerman, Bruce L. and O'Connell, Richard T.: Business Statistics in Practice, 4th edition, McGraw-Hill 2007.

Domschke, W., Drexl, A.: Einführung in Operations Research, 7. Auflage, Springer, Berlin et al. 2007.

Domschke, W. / A. Drexl / R. Klein / A. Scholl / S. Voß: Übungen und Fallbeispiele zum Operations Research, 6. Auflage, Springer, Berlin et al. 2007

Hillier, F.S., Lieberman, G.J.: Introduction to Operations Research. 8th Edition, McGraw-Hill, 2005.

Schira, J.: Statistische Methoden der VWL und BWL - Theorie und Praxis. 2. Auflage, Pearson Verlag 2005.

Zudem: Skript und Unterlagen, die zur Vorlesung herausgegeben werden.

Module: Technology Management

#### Courses:

 Title
 Typ
 Hrs/wk

 Technology Management
 Problemorientierte Lehrveranstaltung
 3

 Technology Management Seminar
 Problemorientierte Lehrveranstaltung
 2

#### Module Responsibility:

Prof. Cornelius Herstatt

#### **Admission Requirements:**

#### **Recommended Previous Knowledge:**

# **Educational Objectives:**

After taking part successfully, students have reached the following learning results:

## **Professional Competence:**

Theoretical Knowledge:

Capabilities:

# **Personal Competence:**

Social Competence:

Autonomy:

# **ECTS-Credit points:**

6 LP

# **Examination:**

Klausur

## Workload in Hours:

Indipendent Study Time: 110, Study Time in Lecture: 70

# Assignment for the Following Curricula:

Global Innovation Management: Kernqualifikation: Compulsory

International Management and Engineering: Vertiefung I. Electives Management: Compulsory suffrage

Course: Technology Management (Problemorientierte Lehrveranstaltung)

# Lecturer:

Prof. Cornelius Herstatt

# Language:

ΕN

# Cycle:

WS

# Content:

The role of technology for the competitive advantage of the firm and industries; Basic concepts, models and tools for the management of technology; managerial decision making regarding the identification, selection and protection of technology (make or buy, keep or sell, current and future technologies). Theories, practical examples (cases), lectures, interactive sessions and group study. This lecture is part of the Module Technology Management and can not separately choosen.

#### Literature:

Leiblein, M./Ziedonis, A.: Technology Strategy and Incovation Management, Elgar Research Collection, Northhampton (MA) 2011

Course: Technology Management Seminar (Problemorientierte Lehrveranstaltung)

#### Lecturer:

Prof. Cornelius Herstatt

# Language:

ΕN

# Cycle:

, WS

# Content:

Aspects of and Cases in combination with the content of the lecture.

# Literature:

see lecture Technology Management.

Module: Product Planning

#### Courses:

 Title
 Typ
 Hrs/wkl

 Product Planning
 Problemorientierte Lehrveranstaltung
 3

 Product Planning Seminar
 Problemorientierte Lehrveranstaltung
 2

#### Module Responsibility:

Prof. Cornelius Herstatt

#### **Admission Requirements:**

#### **Recommended Previous Knowledge:**

# **Educational Objectives:**

After taking part successfully, students have reached the following learning results:

## **Professional Competence:**

Theoretical Knowledge:

Capabilities:

# **Personal Competence:**

Social Competence:

Autonomy:

# **ECTS-Credit points:**

6 LP

# **Examination:**

Klausur

## Workload in Hours:

Indipendent Study Time: 110, Study Time in Lecture: 70

#### Assignment for the Following Curricula:

Global Innovation Management: Kernqualifikation: Compulsory

International Management and Engineering: Vertiefung I. Electives Management: Compulsory suffrage

Product Development, Materials and Production: Vertiefung Product Development: Compulsory suffrage

Product Development, Materials and Production: Vertiefung Production: Compulsory suffrage Product Development, Materials and Production: Vertiefung Materials: Compulsory suffrage

Theoretical Mechanical Engineering: Vertiefung Production and Product Development: Compulsory suffrage

Course: Product Planning (Problemorientierte Lehrveranstaltung)

# Lecturer:

Prof. Cornelius Herstatt

#### Language:

ΕN

# Cycle:

WS

# Content:

**Product Planning Process** 

This integrated lecture is designed to understand major issues, activities and tools in the context of systematic product planning, a key activity for managing the front-end of innovation, i.e.:

- · Systematic scanning of markets for innovation opportunities
- · Understanding strengths/weakness and specific core competences of a firm as platforms for innovation
- Exploring relevant sources for innovation (customers, suppliers, Lead Users, etc.)
- Developing ideas for radical innovation, relying on the creativeness of employees, using techniques to stimulate creativity and creating a stimulating environment
- · Transferring ideas for innovation into feasible concepts which have a high market attractively

#### Literature

Ulrich, K./Eppinger, S.: Product Design and Development, 2nd. Edition, McGraw-Hill 2010

Course: Product Planning Seminar (Problemorientierte Lehrveranstaltung)

# Lecturer:

Prof. Cornelius Herstatt

# Language:

ΕN

# Cycle:

WS

# Content:

Seminar is integrative part of the Module Product Planning (for content see lecture) and can not be choosen independantly

# Literature:

see/siehe Vorlesung Produktplanung/Produc Planning

#### Courses:

<u>Title</u>	Тур	Hrs/wk
Business-to-Business Marketing	Vorlesung	2
Intercultural Management and Communication	Vorlesung	2
International Management	Vorlesung	2

#### Module Responsibility:

Prof. Christian Lüthje

#### **Admission Requirements:**

None

# **Recommended Previous Knowledge:**

Bachelor-level knowledge in marketing and (international) strategic management; basic understanding of market segmentation, modes of market entry, strategic management, pricing theory and marketing instruments.

The previous knowledge which is required for this module is taught by e-learning modules. Students receive access data and former information regarding the online content after enrolment at TUHH.

# **Educational Objectives:**

After taking part successfully, students have reached the following learning results:

#### **Professional Competence:**

Theoretical Knowledge:

The students will develop a thorough understanding of the following:

- · Selling to organizations and marketing strategies in B2B markets
- · Relevant theories, methods and tools for operational B2B marketing
- Relevant theories for intercultural communication
- · Theoretical knowledge of
  - the importance of globalization for firms and the challenges facing companies in the context of their international operations;
  - methods of measuring the internationalization degree of companies and the resulting practical implications;
  - target market strategies, market entry strategies and foreign operation modes and allocation strategies;
  - different types of international organizational structures (e.g. global organization, network organization, transnational organization);
  - "culture" and its impact on human interaction;
  - important aspects of (intercultural) communication issues.
  - methods of analysis and assessment of market entry risks by applying modern theories such as the "Innovator's Dilemma" framework;
  - modes of cooperation such as prime contractor and consortium models and their industrial cooperation related advantages and disadvantages;
  - special methods of assessment of specific country risks;

# Capabilities:

The students will be able to apply this knowledge to

- identify and systematically address relevant partners when selling to business organizations;
- place, price and communicate industrial products with the help state-of-the-art B2B marketing tools;
- define the specifics of global industries and respond to them deriving appropriate practical recommendations (global competitors, regional consumers, local and global suppliers, etc.);
- derive advantages and disadvantages of different target market, market entry, timing and allocation strategies;
- apply the theoretical knowledge to business cases or real examples (e.g. internationalization processes of well-known hotel chains or franchise companies, etc.);
- interpret symbols, rituals and gestures appropriately in an intercultural context.

# Based on these skills, the students will be able to

- analyze market-entry options and market positioning in B2B markets;
- systematically analyze, work up and present information needed for making the decision for or against internationalization of company's operations and regarding HOW, WHEN and WHAT;
- analyze and evaluate risks in the context of international business operations;
- decide which mode of market entry (e.g. franchising) yields most potential;
- make methodically based internationalization decisions as well as master the specifics of strategic management in an international context and apply concrete planning processes;
- develop strategies when approaching international client companies and manage relationships with complex client entities;
- develop sophisticated market-entry strategies and to position innovative industrial goods in global business-to-business markets;
- develop communication strategies in the domain of industrial goods, develop pricing plans by applying state-of-the-art tools like Vickrey-auctions to measure willingness-to-pay and methods such as tender-bidding models.
- · solve complex operating planning tasks independently or in a team applying appropriate methods and comprehensibly present the

results of their analysis;

- · identify problems and resolve cultural issues in multi-cultural teams and in intercultural collaborations
- · successfully manage cultural diversity.

# **Personal Competence:**

Social Competence:

The students will be able to

- · have fruitful professional discussions;
- present and defend the results of their work in a group of students;
- · work successfully in multi-cultural teams
- · communicate and collaborate successfully and respectfully with others, also on an intercultural basis.

#### Autonomy:

The students will be able to

• acquire knowledge in the specific context independently and to map this knowledge onto other new complex problem fields.

#### **ECTS-Credit points:**

6 LP

# **Examination:**

Klausur

#### Workload in Hours:

Indipendent Study Time: 96, Study Time in Lecture: 84

# Assignment for the Following Curricula:

Global Innovation Management: Kernqualifikation: Compulsory

International Management and Engineering: Kernqualifikation: Compulsory

Course: Business-to-Business Marketing (Vorlesung)

# Lecturer:

Prof. Christian Lüthje

# Language:

FΝ

# Cycle:

WS

# Content:

# Contents

Business-to-business (B2B) markets play an important role in most economies. At the same time, B2B markets differ strongly from consumer goods markets. For example, companies' buying decisions follow different rules than those of consuming individuals. Consequently, marketing mix decisions in B2B markets need to follow the specific circumstances in such markets.

The aim of this lecture is to enable students to understand the specifics of marketing in B2B markets. At the beginning, students learn which strategic marketing decisions may be most appropriate in industrial markets. Following that, the lecture will focus more on different options to design marketing mix elements – Pricing, Communication and Distribution – in B2B markets. We extend the student's basic knowhow in marketing and focus on the specific requirements in B2B markets.

Topics

- The importance, specific characteristics and developments of B2B markets today
- Organizational buying behavior and the corporate buying process
- · B2B marketing strategies regarding modes and time of market entry with focus on innovative industrial products
- Types of project-related cooperation in the B2B project business
- Specific operational marketing methods in communication (success factors of fares and exhibitions, importance of public relations for B2B markets); pricing (measuring willingness-to-pay via auctions; value-based pricing in industrial markets, bidding models and auctioning); distribution and channel strategies for B2B markets
- Marketing in complex value chains: Solving the problem of direct customers' unwillingness to adopt innovative products by directly
  addressing indirect customers

# Knowledge

The students will develop a thorough understanding of:

- · How organizations and firms buy
- How marketing can be performed in complex value chains
- Promising market and competitive strategies in B2B markets
- · Modes of cooperation in B2B markets
- Marketing-Mix decisions in B2B marketing (communication, pricing, distribution)

# Skills

- analyzing the advantages and disadvantages of different target market, market entry, timing and allocation strategies;
- identifying and systematically address relevant partners when selling to business organizations;
- developing context-specific market-entry and timing strategies;
- making appropriate decisions for the pricing and communication of industrial products;
- applying the theoretical knowledge to business cases or real examples

#### **Social Competence**

The students will be able to

- having fruitful professional discussions;
- · presenting and defending the results of their work in groupwork;

#### Self-reliance

• acquiring knowledge in the specific context independently and to map this knowledge onto other new complex problem fields.

#### **Assessment**

Written examination & Class participation in interactive elements (presentations, homework)

#### Literature:

Blythe, J., Zimmerman, A. (2005) Business-to-Business Marketing: A global perspective, London, Thomson

Monroe, K. B. (2002). Pricing: Making Profitable Decisions, 3<sup>rd</sup> Edition

Morris, M., Pitt, L., Honeycutt, E. (2001), Business-to-Business Marketing, New York, Sage Publishing, 3rd Edition

Nagle, T., Hogan, J., Zale, J. (2009), Strategy and Tactics of Pricing, New York, Prentice Hall, 5th Edition

Course: Intercultural Management and Communication (Vorlesung)

#### Lecturer:

Dr. Rajnish Tiwari

#### Language:

ΕN

# Cycle:

WS

#### Content:

Globalization of business processes and the revolution in information and communication technologies (ICT) have resulted in distributed workflows across geographic boundaries. These developments as well as increased immigration emanating, for example, as a consequence of a shortage of skilled labour in many industrialized nations, have led to the creation of (virtual) multi-cultural, multi-ethnic teams with diverse cultural backgrounds. Such diversity generally has a positive impact on creativity and innovativeness, as many empirical studies confirm. Nevertheless, varying cultural practices, communication styles, and contextual sensibilities have the potential to disturb or even disrupt collaborative work processes, if left unmanaged.

This course focuses on inter-cultural management

from both, theoretical as well as practical, points of view to provide a solid fundament to students enabling them to operate successfully in cross-cultural settings. Case studies and guest lecture(s) will be used to provide added practical relevance to the course. In addition, where practicable, student assignments will be used to foster autonomous learning.

Some of the main topics covered in this course include:

- Understanding "culture" and its impact on human interaction
- Verbal and non-verbal communication
- · High and low context communication
- Role of formality and non-formality in communication
- · Varying interpretations of symbols, rituals & gestures
- Managing diversity in domestic settings

#### Literature:

- Bartlett, C.A. / Ghoshal, S. (2002): Managing Across Borders: The Transnational Solution, 2<sup>nd</sup> edition, Boston
- Deresky, H. (2006): International Management: Managing Across Borders and Cultures, 3<sup>rd</sup> edition, Upper Saddle River
- French, R. (2010): Cross-cultural Management in Work Organisations, 2<sup>nd</sup> edition, London
- Hofstede, G. (2003): Culture's Consequences: Comparing Values, Behaviors, Institutions and Organizations across Nations, 2<sup>nd</sup> edition, Thousand Oaks
- Hofstede, G. / Hofstede, G.J. (2006): Cultures and Organizations: Software of the mind, 2<sup>nd</sup> edition, New York

Course: International Management (Vorlesung)

# Lecturer:

Prof. Thomas Wrona

# Language:

ΕN

# Cycle:

WS

#### Content:

Growing internationalization of companies and increased globalization require dealing with operations and specifics of international management as well as creating an understanding of intercultural differences. In order to help the students to understand these specifics and challenges accompanying international companies, the course will be divided in the following parts:

- Important Aspects in International Management
- Theories of Internationalization
- Specific characteristics of international companies and their strategies
- · Organizational Structure and Leadership in international companies

During the course, the content will be covered from a theoretical as well as a practical point of view by using examples of different companies. In order to provide practical relevance to the course, a guest speaker from a well-known international company will be invited or alternatively a company visit will be organized as well as an analysis of a case study will take place.

# Literature:

- 1. Course notes and materials provided before the lecture.
- 2. Selected books:
  - o Bartlett/Ghoshal (2002): Managing Across Borders, The Transnational Solution, 2nd edition, Boston
  - Buckley, P.J./Ghauri, P.N. (1998), The Internationalization of the Firm, 2nd edition
  - o Czinkota, Ronkainen, Moffett, Marinova, Marinov (2009), International Business, Hoboken
  - o Dunning, J.H. (1993), The Globalization of Business: The Challenge of the 1990s, London
  - Ghoshal, S. (1987), Global Strategy: An Organizing Framework, Strategic Management Journal, p. 425-440
  - Praveen Parboteeah, K., Cullen, J.B. (2011), Strategic International Management, International 5th Edition
  - o Rugman, A.M./Collinson, S. (2012): International Business, 6th Edition, Essex 2012

Module: Project Seminar IWI

#### Courses:

 Title
 Typ
 Hrs/wk

 Project Seminar IWI
 Projektseminar
 3

# Module Responsibility:

Prof. Matthias Meyer

# **Admission Requirements:**

None

#### **Recommended Previous Knowledge:**

Prior knowledge in the relevant area from the relevant Management modules.

#### **Educational Objectives:**

After taking part successfully, students have reached the following learning results:

# **Professional Competence:**

Theoretical Knowledge:

The knowledge and the skills which are gained in this module differ depending on the topic of the seminar. In all cases, in-depth knowledge of a certain scientific area and the respective skills are developed by the students, e.g. in-depth knowledge of complexity management in production, in-depth knowledge of the application of simulations in Controlling or in-depth knowledge of specific problems in Strategic Management or Marketing, and the respective skills, e.g. the ability to judge and select different approaches to certain strategic planning problems and to apply them successfully.

#### Capabilities:

Students are able to

- independently acquire the relevant knowledge to handle their project
- independently carry out a (pre-defined) complex research task and/or solve a complex problem
- · select and use the relevant literature and critically evaluate it
- · aggregate their knowledge and results and present it to others
- write a scientific report on the project / problem at hand, individually or in a team.

# **Personal Competence:**

Social Competence:

Students are able to

- work respectfully and successfully in a team, organize the team, and solve complex tasks in a team in a given timeframe
- analyse a problem in a team and develop a solution for the problem
- · present the results of their work to specialists.

# Autonomy:

Students are able to

- define the scope of their project
- independently acquire relevant scientific knowledge
- independently carry out a (pre-defined) complex research task
- independently prepare a presentation of the relevant aspects of the project.

# **ECTS-Credit points:**

6 LP

#### **Examination:**

Hausarbeit

# Workload in Hours:

Indipendent Study Time: 138, Study Time in Lecture: 42

# Assignment for the Following Curricula:

Global Innovation Management: Kernqualifikation: Compulsory

International Management and Engineering: Kernqualifikation: Compulsory

Course: Project Seminar IWI (Projektseminar)

#### Lecturer:

Prof. Matthias Meyer

# Language:

DE/EN

# Cycle:

WS/SS

# Content:

Contents differ, depending on the institute which organizes the respective seminar. Topics are always announced at the start of the term.

# Literature:

Wird je nach Thema angegeben; in der Regel handelt es sich um wissenschaftliche Fachartikel und Publikationen, vorwiegend in englischer Sprache.

#### **Thesis**

Master-Thesis

Module: Master Thesis

Courses:

<u>Title</u> <u>Typ</u> <u>Hrs/wk</u>

#### Module Responsibility:

Professoren der TUHH

#### **Admission Requirements:**

# **Recommended Previous Knowledge:**

#### **Educational Objectives:**

After taking part successfully, students have reached the following learning results:

#### **Professional Competence:**

Theoretical Knowledge:

- The students can use specialized knowledge (facts, theories, and methods) of their subject competently on specialized issues.
- The students can explain in depth the relevant approaches and terminologies in one or more areas of their subject, describing current developments and taking up a critical position on them.
- The students can place a research task in their subject area in its context and describe and critically assess the state of research.

# Capabilities:

The students are able:

- To select, apply and, if necessary, develop further methods that are suitable for solving the specialized problem in question.
- To apply knowledge they have acquired and methods they have learnt in the course of their studies to complex and/or incompletely
  defined problems in a solution-oriented way.
- To develop new scientific findings in their subject area and subject them to a critical assessment.

# **Personal Competence:**

Social Competence:

Students can

- . Both in writing and orally outline a scientific issue for an expert audience accurately, understandably and in a structured way.
- Deal with issues competently in an expert discussion and answer them in a manner that is appropriate to the addressees while
  upholding their own assessments and viewpoints convincingly.

#### Autonomy:

Students are able:

- To structure a project of their own in work packages and to work them off accordingly.
- To work their way in depth into a largely unknown subject and to access the information required for them to do so.
- To apply the techniques of scientific work comprehensively in research of their own.

# **ECTS-Credit points:**

30 LP

# **Examination:**

It. FSPO

#### Workload in Hours:

Indipendent Study Time: 900, Study Time in Lecture: 0

# Assignment for the Following Curricula:

Civil Engineering: Abschlussarbeit: Compulsory

Bioprocess Engineering: Abschlussarbeit: Compulsory

Chemical and Bioprocess Engineering: Abschlussarbeit: Compulsory

Computer Science: Abschlussarbeit: Compulsory

Electrical Engineering: Abschlussarbeit: Compulsory Energy and Environmental Engineering: Abschlussarbeit: Compulsory

Energy Systems: Abschlussarbeit: Compulsory

Environmental Engineering: Abschlussarbeit: Compulsory

Aircraft Systems Engineering: Abschlussarbeit: Compulsory

Global Innovation Management: Abschlussarbeit: Compulsory

Computational Science and Engineering: Abschlussarbeit: Compulsory Information and Communication Systems: Abschlussarbeit: Compulsory

International Management and Engineering: Abschlussarbeit: Compulsory

Joint European Master in Environmental Studies - Cities and Sustainability: Abschlussarbeit: Compulsory

Logistics, Infrastructure and Mobility: Abschlussarbeit: Compulsory

Mechatronics: Abschlussarbeit: Compulsory

Biomedical Engineering: Abschlussarbeit: Compulsory

Microelectronics and Microsystems: Abschlussarbeit: Compulsory

Product Development, Materials and Production: Abschlussarbeit: Compulsory

Renewable Energies: Abschlussarbeit: Compulsory

Naval Architecture and Ocean Engineering: Abschlussarbeit: Compulsory

Ship and Offshore Technology: Abschlussarbeit: Compulsory Theoretical Mechanical Engineering: Abschlussarbeit: Compulsory

Process Engineering: Abschlussarbeit: Compulsory

Water and Environmental Engineering: Abschlussarbeit: Compulsory