Module Manual

Master of Science (M.Sc.)

Global Innovation Management

Joint Master

Cohort: Winter Term 2020

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Program description

Content

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.

Career prospects

Graduates, supported by a network of valuable contacts, enter the international employment market working:

- with enterprises dealing with high end technological products and services
- as consultants making technology assessment and innovation /change management
- with governmental institutes dealing with innovation policy and strategy
- with relevant research and higher education institutions.

Learning target

The program 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.

Program structure

The programme is fulltime over 24 months and divided into 4 semesters of study. All students take a common first year at the University of Strathclyde, then either deepen through further seminar based study at Hamburg, or through a Problem Based Learning approach to an innovation problem within a company in Aalborg.

Semesters 1 and 2 at **The University of Strathclyde** provide a strong foundation in the Innovation Management process, and essential practical experience of working within globally distributed teams and with industrial clients on product/service development briefs.

Semester 3 (Year 2) at **Hamburg University of Technology** looks at early and late phases of the innovation management process. It concentrates on market research for (radical) innovation, cross functional cooperation at the front end of the innovation process, managing innovation projects over geographical and functional/divisional boarders and preparing the market introduction of new products and services.

In semester 3 (Year 2) at **Aalborg University**, students undertake an industrial internship at a Danish company to gain relevant global innovation management work experience, and to consolidate the taught content delivered at the University of Strathclyde. Each internship will be designated to best reflect student’s interests within the available placements from a secured list of Danish companies.

In semester 4 all students undertake a thesis project at the institution where they spent the 3rd semester.

Core qualification

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Module M0524: Non-technical Courses for Master

Module Responsible	Dagmar Richter
Admission Requirements	None
Recommended Previous Knowledge	None
Educational Objectives	After taking part successfully, students have reached the following learning results
Professional Competence	
Knowledge	**The Nontechnical Academic Programms (NTA)** imparts skills that, in view of the TUHH's training profile, professional engineering studies require but are not able to cover fully. Self-reliance, self-management, collaboration and professional and personnel management competences. The department implements these training objectives in its **teaching architecture**, in its **teaching and learning arrangements**, in **teaching areas** and by means of teaching offerings in which students can qualify by opting for **specific competences** and a **competence level** at the Bachelor's or Master's level. The teaching offerings are pooled in two different catalogues for nontechnical complementary courses. **The Learning Architecture** consists of a cross-disciplinarily study offering. The centrally designed teaching offering ensures that courses in the nontechnical academic programms follow the specific profiling of TUHH degree courses. The learning architecture demands and trains independent educational planning as regards the individual development of competences. It also provides orientation knowledge in the form of "profiles". The subjects that can be studied in parallel throughout the student's entire study program - if need be, it can be studied in one to two semesters. In view of the adaptation problems that individuals commonly face in their first semesters after making the transition from school to university and in order to encourage individually planned semesters abroad, there is no obligation to study these subjects in one or two specific semesters during the course of studies. **Teaching and Learning Arrangements** provide for students, separated into B.Sc. and M.Sc., to learn with and from each other across semesters. The challenge of dealing with interdisciplinarity and a variety of stages of learning in courses are part of the learning architecture and are deliberately encouraged in specific courses. **Fields of Teaching** are based on research findings from the academic disciplines cultural studies, social studies, arts, historical studies, communication studies, migration studies and sustainability research, and from engineering didactics. In addition, from the winter semester 2014/15 students on all Bachelor's courses will have the opportunity to learn about business management and start-ups in a goal-oriented way. The fields of teaching are augmented by soft skills offers and a foreign language offer. Here, the focus is on encouraging goal-oriented communication skills, e.g. the skills required by outgoing engineers in international and intercultural situations. **The Competence Level** of the courses offered in this area is different as regards the basic training objective in the Bachelor's and Master's fields. These differences are reflected in the practical examples used, in content topics that refer to different professional application contexts, and in the higher scientific and theoretical level of abstraction in the B.Sc. This is also reflected in the different quality of soft skills, which relate to the different team positions and different group leadership functions of Bachelor's and Master's graduates in their future working life. **Specialized Competence (Knowledge)** Students can • explain specialized areas in context of the relevant non-technical disciplines, • outline basic theories, categories, terminology, models, concepts or artistic techniques in the disciplines represented in the

	learning area, • different specialist disciplines relate to their own discipline and differentiate it as well as make connections, • sketch the basic outlines of how scientific disciplines, paradigms, models, instruments, methods and forms of representation in the specialized sciences are subject to individual and socio-cultural interpretation and historicity, • Can communicate in a foreign language in a manner appropriate to the subject.
Skills	**Professional Competence (Skills)** In selected sub-areas students can • apply basic and specific methods of the said scientific disciplines, • aquestion a specific technical phenomena, models, theories from the viewpoint of another, aforementioned specialist discipline, • to handle simple and advanced questions in aforementioned scientific disciplines in a sucsessful manner, • justify their decisions on forms of organization and application in practical questions in contexts that go beyond the technical relationship to the subject.
Personal Competence	
Social Competence	**Personal Competences (Social Skills)** Students will be able • to learn to collaborate in different manner, • to present and analyze problems in the abovementioned fields in a partner or group situation in a manner appropriate to the addressees, • to express themselves competently, in a culturally appropriate and gender-sensitive manner in the language of the country (as far as this study-focus would be chosen), • to explain nontechnical items to auditorium with technical background knowledge.
Autonomy	**Personal Competences (Self-reliance)** Students are able in selected areas • to reflect on their own profession and professionalism in the context of real-life fields of application • to organize themselves and their own learning processes • to reflect and decide questions in front of a broad education background • to communicate a nontechnical item in a competent way in writen form or verbaly • to organize themselves as an entrepreneurial subject country (as far as this study-focus would be chosen)
Workload in Hours	Depends on choice of courses
Credit points	6

Courses
Information regarding lectures and courses can be found in the corresponding module handbook published separately.

Module M0815: Product Planning

Courses

Title	Typ	Hrs/wk	CP
Product Planning (L0851)	Lecture	3	3
Product Planning Seminar (L0853)	Project-/problem-based Learning	2	3

Module Responsible: Prof. Cornelius Herstatt

Admission Requirements: None

Recommended Previous Knowledge: Good basic-knowledge of Business Administration

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

Professional Competence

Knowledge

Students will gain insights into:

- Product Planning
  - Process
  - Methods
- Design thinking
  - Process
  - Methods
  - User integration

Skills

Students will gain deep insights into:

- Product Planning
  - Process-related aspects
  - Organisational-related aspects
  - Human-Ressource related aspects
  - Working-tools, methods and instruments
  -

Personal Competence

Social Competence

- Interact within a team
- Raise awareness for globabl issues

Autonomy

- Gain access to knowledge sources
- Interpret complex cases
- Develop presentation skills

Workload in Hours: Independent Study Time 110, Study Time in Lecture 70

Credit points: 6

Course achievement

Compulsory	Bonus	Form	Description
Yes	20 %	Subject theoretical and practical work	

Examination: Written exam

Examination duration and scale: 90 minutes

Assignment for the Following Curricula

Global Innovation Management: Core qualification: Compulsory
International Management and Engineering: Specialisation I. Electives Management: Elective Compulsory
Mechanical Engineering and Management: Specialisation Management: Elective Compulsory
Product Development, Materials and Production: Specialisation Product Development: Elective Compulsory
Product Development, Materials and Production: Specialisation Production: Elective Compulsory
Product Development, Materials and Production: Specialisation Materials: Elective Compulsory
Theoretical Mechanical Engineering: Specialisation Product Development and Production: Elective Compulsory
Theoretical Mechanical Engineering: Technical Complementary Course: Elective Compulsory

Course L0851: Product Planning	
Typ	Lecture
Hrs/wk	3
CP	3
Workload in Hours	Independent Study Time 48, Study Time in Lecture 42
Lecturer	Prof. Cornelius Herstatt
Language	EN
Cycle	WiSe
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 Voluntary presentations in the third hour (articles / case studies) - Guest lectures by researchers - Lecture on Sustainability with frequent reference to current research - Permanent reference to current research Examination: In addition to the written exam at the end of the module, students have to attend the PBL-exercises and prepare presentations in groups in order to pass the module. Additionally, students have the opportunity to present research papers on a voluntary base. With these presentations it is possible to gain a bonus of max. 20% for the exam. However, the bonus is only valid if the exam is passed without the bonus.
Literature	Ulrich, K./Eppinger, S.: Product Design and Development, 2nd. Edition, McGraw-Hill 2010

Course L0853: Product Planning Seminar	
Typ	Project-/problem-based Learning
Hrs/wk	2
CP	3
Workload in Hours	Independent Study Time 62, Study Time in Lecture 28
Lecturer	Prof. Cornelius Herstatt
Language	EN
Cycle	WiSe
Content	Seminar is integrative part of the Module Product Planning (for content see lecture) and can not be choosen independantly.
Literature	See lecture information "Product Planning".

Module M1035: Entrepreneurial Finance

Courses

Title	Typ	Hrs/wk	CP
Entrepreneurial Finance: Case Studies (L1282)	Seminar	3	4
Entrepreneurial Finance: Lecture (L1281)	Lecture	2	2

Module Responsible	Prof. Christoph Ihl
Admission Requirements	None
Recommended Previous Knowledge	Basic knowledge in business economics and finance obtained in the compulsory modules and participation in the module "Technology Entrepreneurship" is highly recommended.
Educational Objectives	After taking part successfully, students have reached the following learning results
Professional Competence	
Knowledge	Wissen (subject-related knowledge and understanding): • understand the structure of a financial plan for a new venture • understand the procedures, pros and cons of different valuation methods • understand the design of financial contracts and term sheets • understand the interests of venture capital funds • understand the pros and cons of different growth and exit options
Skills	Fertigkeiten (subject-related skills): • prepare a financial plan for a new venture • value a new venture in financial terms • apply different valuation methods • evaluate the attractiveness of financial contracts • design VC term sheets • design employee contracts in terms of financial compensation • design financial contracts and conduct financial negotiations • assess and justify possible growth and exit options
Personal Competence	
Social Competence	Sozialkompetenz (Social Competence): • team work • communication and presentation • give and take critical comments • engaging in fruitful discussions
Autonomy	Selbständigkeit (Autonomy): • autonomous work and time management • project management • analytical skills
Workload in Hours	Independent Study Time 110, Study Time in Lecture 70
Credit points	6
Course achievement	**Compulsory** Yes; **Bonus** 20 %; **Form** Group discussion; **Description**
Examination	Subject theoretical and practical work
Examination duration and scale	Presentations and case study work
Assignment for the Following Curricula	Global Innovation Management: Core qualification: Elective Compulsory Global Technology and Innovation Management & Entrepreneurship: Core qualification: Elective Compulsory International Management and Engineering: Specialisation I. Electives Management: Elective Compulsory Mechanical Engineering and Management: Specialisation Management: Elective Compulsory

Course L1282: Entrepreneurial Finance: Case Studies	
Typ	Seminar
Hrs/wk	3
CP	4
Workload in Hours	Independent Study Time 78, Study Time in Lecture 42
Lecturer	Prof. Christoph Ihl
Language	EN
Cycle	WiSe
Content	Entrepreneurial finance is at the center of a clash of two very distant worlds: that of entrepreneurship and that of finance. Finance is disciplined, based on numbers and logical thinking and looking for proven track records. Entrepreneurship is messy, based on intuition and experimentation and treading off the beaten track. Entrepreneurial finance is the provision of funding to young, innovative, growth-oriented companies. Entrepreneurial companies are young, typically less than ten years old, and introduce innovative products or business models. The younger are called “startups,” and are typically less than five years old. There is a variety of investors who can finance entrepreneurial companies: family and friends, business angels, accelerators and incubators, crowdfunding platforms, venture capital firms, corporate investors, etc. The course provides a thorough understanding of what motivates them, of the way they invest, and of what support they can provide to a company at what stage in the fundraising cycle. The course addresses the following key questions: How much money can and should be raised? When should it be raised and from whom? What is a reasonable valuation of the company? How should funding, employment contracts and exit decisions be structured? Thus, the course provides an understanding of the whole fundraising cycle, from the moment the entrepreneur conceived her idea to the moment investors exit the company and move on. We examine the entrepreneur's signalling to investors of the qualities of the venture, the investors' evaluation of the venture, the various dimensions of contracting (cash flow rights, control rights, compensation, and other clauses), the negotiation of a deal and the provision of corporate governance, the process of staged financing, the financing through debt, and the exit process though liquidity events such as initial public offering, sale or merger. The following topics will be covered with specific case studies: 1. Introduction: Evaluating Venture Opportunities 2. Financial Planning 3. Ownership and Returns 4. Valuation Methods 5. Term Sheets 6. Structuring Deals 7. Corporate Governance 8. Staged Financing 9. Debt Financing 10. Exits 11. Early Stage & Venture Capital Investors 12. Ecosystems
Literature	Da Rin, Marco, and Thomas Hellmann. Fundamentals of Entrepreneurial Finance. Oxford University Press, 2020.

Course L1281: Entrepreneurial Finance: Lecture	
Typ	Lecture
Hrs/wk	2
CP	2
Workload in Hours	Independent Study Time 32, Study Time in Lecture 28
Lecturer	Prof. Christoph Ihl
Language	EN
Cycle	WiSe
Content	Entrepreneurial finance is at the center of a clash of two very distant worlds: that of entrepreneurship and that of finance. Finance is disciplined, based on numbers and logical thinking and looking for proven track records. Entrepreneurship is messy, based on intuition and experimentation and treading off the beaten track. Entrepreneurial finance is the provision of funding to young, innovative, growth-oriented companies. Entrepreneurial companies are young, typically less than ten years old, and introduce innovative products or business models. The younger are called “startups,” and are typically less than five years old. There is a variety of investors who can finance entrepreneurial companies: family and friends, business angels, accelerators and incubators, crowdfunding platforms, venture capital firms, corporate investors, etc. The course provides a thorough understanding of what motivates them, of the way they invest, and of what support they can provide to a company at what stage in the fundraising cycle. The course addresses the following key questions: How much money can and should be raised? When should it be raised and from whom? What is a reasonable valuation of the company? How should funding, employment contracts and exit decisions be structured? Thus, the course provides an understanding of the whole fundraising cycle, from the moment the entrepreneur conceived her idea to the moment investors exit the company and move on. We examine the entrepreneur's signalling to investors of the qualities of the venture, the investors' evaluation of the venture, the various dimensions of contracting (cash flow rights, control rights, compensation, and other clauses), the negotiation of a deal and the provision of corporate governance, the process of staged financing, the financing through debt, and the exit process though liquidity events such as initial public offering, sale or merger. The following topics will be covered in lectures: 1. Introduction: Evaluating Venture Opportunities 2. Financial Planning 3. Ownership and Returns 4. Valuation Methods 5. Term Sheets 6. Structuring Deals 7. Corporate Governance 8. Staged Financing 9. Debt Financing 10. Exits 11. Early Stage & Venture Capital Investors 12. Ecosystems
Literature	Da Rin, Marco, and Thomas Hellmann. Fundamentals of Entrepreneurial Finance. Oxford University Press, 2020.

Module M1260: Project Seminar Innovation Marketing

Courses

Title	Typ	Hrs/wk	CP
Seminar Innovation Marketing (L0759)	Project Seminar	4	6

Module Responsible	Prof. Christian Lüthje
Admission Requirements	None
Recommended Previous Knowledge	None
Educational Objectives	After taking part successfully, students have reached the following learning results
Professional Competence	
Knowledge	Students can... • understand the process and the tools of market analysis for innovations (e.g. market potential, market growth, market segmentation) • explain the concepts of target customers, market definition and market growth • select the appropriate approach for leading a competitive analysis • explain the key market-related issues (strengths and weaknesses) of technology-based business opportunities
Skills	Students are capable of... • analyzing the market potential of inventions and innovative business ideas by using appropriate methods. • investigating whether a market is still open for a given innovation and develop a first concept for the market entry strategy and the marketing mix. • searching for relevant information (primary and secondary market data). • analyzing, aggregating, and interpreting the gathered data and giving well founded recommendations based on the findings. • writing a scientific report that includes the literature background as well as the development of their methods, their results, conclusions and recommendations.
Personal Competence	
Social Competence	Students are able to... • assess possible consequences of their own decisions. • define required tasks to find a solution for a given problem. • make elaborated decisions in an real-world innovation context. • assess their own performance in a team.
Autonomy	The work in teams over an entire semester and the interaction with professionals, experts and project partners outside the unviersity will support the students in their competenece to access the required information that is needed for making well-founded decisions with a high level of trust in the own capabilties.
Workload in Hours	Independent Study Time 124, Study Time in Lecture 56
Credit points	6
Course achievement	None
Examination	Subject theoretical and practical work
Examination duration and scale	approx. 40 pages written elaboration, presentation, oral participation
Assignment for the Following Curricula	Global Innovation Management: Core qualification: Compulsory

Course L0759: Seminar Innovation Marketing

Typ	Project Seminar
Hrs/wk	4
CP	6
Workload in Hours	Independent Study Time 124, Study Time in Lecture 56
Lecturer	Prof. Christian Lüthje
Language	EN
Cycle	WiSe
Content	**General description of course content and course goals** The aim of the course is to give students an insight into the practice of technology exploitation and innovation marketing. The technologies and product concepts are provided by so called idea providers. These idea providers may be, among others, researchers at universities and project teams working in research institutions with a technical invention or (prospective) entrepreneurs with a business idea. Within the course the student teams will analyze the market potential of technology-based inventions or business ideas. They will define potential target customers in the market. Another important question to answer is, whether the market is still receptive for a given invention, or whether competitors have already exploited the full market potential. Finally, the student teams will also develop first ideas for the design of the marketing mix and write a report that is also handed to the idea providers. **Summarizing the most important contents**

	The students will find answers to the following fundamental questions: • What are the key features of the invention? • What is the unique selling point? • What is the most attractive application field? • Who are the target customers? • What are their needs and how can they be met? • What is the market potential of innovations? • What resources are necessary to exploit this market potential? • How can/should they enter the market? **Professional Competence** **Knowledge** Students can... • understand the process and the tools of market analysis for innovations (e.g. market potential, market growth, market segmentation) • explain the concepts of target customers, market definition and market growth • select the appropriate approach for leading a competitive analysis • explain the key market-related issues (strengths and weaknesses) of technology-based business opportunities **Skills** Students are capable of... • analyzing the market potential of inventions and innovative business ideas by using appropriate methods. • investigating whether a market is still open for a given innovation and develop a first concept for the market entry strategy and the marketing mix. • searching for relevant information (primary and secondary market data). • analyzing, aggregating, and interpreting the gathered data and giving well founded recommendations based on the findings. • writing a scientific report that includes the literature background as well as the development of their methods, their results, conclusions and recommendations. **Personal Competence** **Social Competence** Students can... • provide appropriate feedback and handle feedback on their own performance constructively. • enter into a dialogue with formerly unknown fellow students, participate in discussions, and present well-grounded arguments. • constructively interact with their team members and lead team sessions and group work processes. • develop joint solutions and come to decisions in mixed teams and present the results to others. **Self-Reliance** Students are able to... • assess possible consequences of their own decisions. • define required tasks to find a solution for a given problem. • make elaborated decisions in an real-world innovation context. • assess their own performance in a team.
Literature	Gruber, Marc, Ian C. MacMillan, and James D. Thompson (2008), “Look Before You Leap: Market Opportunity Identification in Emerging Technology Firms,” Management Science, 54 (September), 1652-1665. Danneels, Erwin (2007), “The Process of Technological Competence Leveraging,” Strategic Management Journal, 28 (February), 511-533

Module M1601: Foundations of Corporate Management (GTIME)

Courses

Title	Typ	Hrs/wk	CP
Foundations of Business Management (GTIME) (L2417)	Lecture	2	2
Foundations of Business Management (GTIME) - Seminar (L2825)	Seminar	2	1
Foundations of International Management (GTIME) (L2419)	Lecture	2	2
Foundations of International Management (GTIME) - Seminar (L2826)	Seminar	2	1

Module Responsible	Dr. Stephan Buse
Admission Requirements	None
Recommended Previous Knowledge	
Educational Objectives	After taking part successfully, students have reached the following learning results
Professional Competence *Knowledge* *Skills* **Personal Competence** *Social Competence* *Autonomy*	
Workload in Hours	Independent Study Time 68, Study Time in Lecture 112
Credit points	6
Course achievement	None
Examination	Written elaboration
Examination duration and scale	90 Minuten
Assignment for the Following Curricula	Global Innovation Management: Core qualification: Elective Compulsory Global Technology and Innovation Management & Entrepreneurship: Core qualification: Compulsory

Course L2417: Foundations of Business Management (GTIME)

Typ	Lecture
Hrs/wk	2
CP	2
Workload in Hours	Independent Study Time 32, Study Time in Lecture 28
Lecturer	Dr. Stephan Buse
Language	EN
Cycle	WiSe
Content	In addition to the classical lecture approach, case study analyses and the implementation of a business simulation are used. This course teaches the relevant elements of strategic business management. It covers various areas of business administration (e.g. strategic management and aspects of marketing). Upon completion of the course, students should understand different perspectives on the topics and know in which situations which tools can be used and what the limitations of these models/concepts are. Students will be able to integrate future strategy and business model concepts into the taxonomy of approaches. The course thus provides an introduction to the most important principles and concepts necessary to understand how companies operate in today's business world. This includes the analysis of an extremely dynamic, increasingly globalizing competitive environment as well as the analysis of the required internal (core) competencies. It also aims to develop analytical skills that facilitate problem-solving and strategic decision-making activities in companies. In addition to the classical lecture approach, case study analyses and the execution of a business simulation are used.
Literature	Johnson et al.: Strategisches Management - Eine Einführung: Analyse, Entscheidung und Umsetzung, Pearson Studium, 12. Auflage Michael E. Porter: Wettbewerbsstrategie: Methoden zur Analyse von Branchen und Konkurrenten, Campus Verlag, 12. Auflage Prahalad, C.K./ Hamel, G.: The Core Competence of the Corporation, in: Business Review, 68/3 1990 Kim, W.C./ Mauborgne, R.: Blue Ocean Strategy, in: Harvard Business Review, October 2004

Course L2825: Foundations of Business Management (GTIME) - Seminar

Typ	Seminar
Hrs/wk	2
CP	1
Workload in Hours	Independent Study Time 2, Study Time in Lecture 28
Lecturer	Dr. Stephan Buse
Language	EN
Cycle	WiSe
Content	
Literature	

Course L2419: Foundations of International Management (GTIME)	
Typ	Lecture
Hrs/wk	2
CP	2
Workload in Hours	Independent Study Time 32, Study Time in Lecture 28
Lecturer	Dr. Stephan Buse
Language	EN
Cycle	SoSe
Content	This course covers the basics of international management. Among other things, students learn about various forms of market selection and market entry strategies as well as methods for determining the optimal time to enter foreign markets. In addition to the classical lecture approach, case study analyses and the execution of a business simulation are used.
Literature	

Course L2826: Foundations of International Management (GTIME) - Seminar	
Typ	Seminar
Hrs/wk	2
CP	1
Workload in Hours	Independent Study Time 2, Study Time in Lecture 28
Lecturer	Dr. Stephan Buse
Language	EN
Cycle	WiSe
Content	
Literature	

Module M1292: Marketing and Communication

Courses

Title	Typ	Hrs/wk	CP
Business-to-Business Marketing (L0762)	Lecture	2	2
Case Studies of Marketing and Communication (L1760)	Recitation Section (small)	2	2
Intercultural Management and Communication (L0846)	Lecture	2	2

Module Responsible	Prof. Christian Lüthje
Admission Requirements	None
Recommended Previous Knowledge	No specific knowledge required. Bachelor-level knowledge in business administration with some insights into markting and international management is helpful.
Educational Objectives	After taking part successfully, students have reached the following learning results
Professional Competence	
Knowledge	he students will develop a thorough understanding of the following: • Selling to organizations and industrail buyers • Overview of basic strategic decisions in B2B markets • Relevant theories, methods and tools for operational B2B marketing (Marketing Mix) • Relevant theories for intercultural communication • Communication theories (verbal, non-verbal communication, role of formality, interpretation of cues such as symbols) • The nature of "culture" is and its impact on human interaction • Approaches for managing cultural diversity
Skills	The students will be able to apply this knowledge to: • chosing appropriate cooperation forms when selling to business organizations; • decide about different target markets, ways of market entry, and timingstrategies; • develop appropriate value-propositions to customers; • place, price and communicate industrial products with the help state-of-the-art B2B marketing tools; • interpret symbols, rituals and gestures appropriately in an intercultural contex • managing cultural diversity across the employees of a company • communicating appropriately with customers in different regional markets • apply the theoretical knowledge to business cases or real examples • apply the theoretical knowledge to interpret resarch studies
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 of marketing and intercultural communication. This will enable them to make independent and well-founded decisions and to leverage this knowledge to solve new complex problems.
Workload in Hours	Independent Study Time 96, Study Time in Lecture 84
Credit points	6
Course achievement	None
Examination	Subject theoretical and practical work
Examination duration and scale	Written elaboration, excercises, presentation, oral participation
Assignment for the Following Curricula	Global Innovation Management: Core qualification: Compulsory Mechanical Engineering and Management: Core qualification: Elective Compulsory

Course L0762: Business-to-Business Marketing	
Typ	Lecture
Hrs/wk	2
CP	2
Workload in Hours	Independent Study Time 32, Study Time in Lecture 28
Lecturer	Prof. Christian Lüthje
Language	EN
Cycle	WiSe
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, 3rd 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 L1760: Case Studies of Marketing and Communication	
Typ	Recitation Section (small)
Hrs/wk	2
CP	2
Workload in Hours	Independent Study Time 32, Study Time in Lecture 28
Lecturer	Prof. Christian Lüthje, Dr. Elke Christiane Fismer
Language	EN
Cycle	WiSe
Content	This course aims at deepening and applying the subjects taught in the lectures "Business-to-Business Marketing" and "Intercultural Communication". Students work on case studies in teams comprising 2-3 people. The case will enable the student teams to analyze problems, to discuss theoretical framworks and scientific results, to evaluate decisions made in companies and/or to develop own ideas for solutions. Each of these cases is related to a specific topic that has been tackled in the other two lectures of this module. The cases can comprise scientific studies or specific company examples (e.g. how company X built up a new salesforce; how company Y designed a successful communication campaign for other countries, how research study Z contributes to the understanding of intercultural differences). The student teams receive material (e.g. scientific articles, press articles) and work with this material to complete presentation documents. The results will be illustrated and discussed in a short presentation.
Literature	Die Materialien werden jedes Semester neu zusammengestellt, um die ausgewählten Fälle aktuell zu halten. Will be newly compiled each semester to keep the cases up-to-date and fresh.

Course L0846: Intercultural Management and Communication	
Typ	Lecture
Hrs/wk	2
CP	2
Workload in Hours	Independent Study Time 32, Study Time in Lecture 28
Lecturer	Dr. Elke Christiane Fismer
Language	EN
Cycle	WiSe
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, 2nd edition, Boston • Deresky, H. (2006): International Management: Managing Across Borders and Cultures, 3rd edition, Upper Saddle River • French, R. (2010): Cross-cultural Management in Work Organisations, 2nd edition, London • Hofstede, G. (2003): Culture's Consequences : Comparing Values, Behaviors, Institutions and Organizations across Nations, 2nd edition, Thousand Oaks • Hofstede, G. / Hofstede, G.J. (2006): Cultures and Organizations: Software of the mind, 2nd edition, New York

Module M0814: Technology Management

Courses

Title	Typ	Hrs/wk	CP
Technology Management (L0849)	Lecture	3	3
Technology Management Seminar (L0850)	Project-/problem-based Learning	2	3

Module Responsible	Prof. Cornelius Herstatt
Admission Requirements	None
Recommended Previous Knowledge	Bachelor knowledge in business management
Educational Objectives	After taking part successfully, students have reached the following learning results
Professional Competence	

Knowledge	Students will gain deep insights into:
	• International R&D-Management
	• Technology Timing Strategies
	  ◦ Technology Strategies and Lifecycle Management (I/II)
	  ◦ Technology Intelligence and Planning
	• Technology Portfolio Management
	  ◦ Technology Portfolio Methodology
	  ◦ Technology Acquisition and Exploitation
	  ◦ IP Management
	• Organizing Technology Development
	  ◦ Technology Organization & Management
	  ◦ Technology Funding & Controlling

Skills	The course aims to: • Develop an understanding of the importance of Technology Management - on a national as well as international level • Equip students with an understanding of important elements of Technology Management (strategic, operational, organizational and process-related aspects) • Foster a strategic orientation to problem-solving within the innovation process as well as Technology Management and its importance for corporate strategy • Clarify activities of Technology Management (e.g. technology sourcing, maintenance and exploitation) • Strengthen essential communication skills and a basic understanding of managerial, organizational and financial issues concerning Technology-, Innovation- and R&D-management. Further topics to be discussed include: • Basic concepts, models and tools, relevant to the management of technology, R&D and innovation • Innovation as a process (steps, activities and results)
Personal Competence	
Social Competence	• Interact within a team • Raise awareness for globabl issues
Autonomy	• Gain access to knowledge sources • Discuss recent research debates in the context of Technology and Innovation Management • Develop presentation skills • Discussion of international cases in R&D-Management
Workload in Hours	Independent Study Time 110, Study Time in Lecture 70
Credit points	6
Course achievement	None
Examination	Written exam
Examination duration and scale	90 minutes
Assignment for the Following Curricula	Global Innovation Management: Core qualification: Compulsory International Management and Engineering: Specialisation I. Electives Management: Elective Compulsory Mechanical Engineering and Management: Specialisation Management: Elective Compulsory Biomedical Engineering: Specialisation Artificial Organs and Regenerative Medicine: Elective Compulsory Biomedical Engineering: Specialisation Implants and Endoprostheses: Elective Compulsory Biomedical Engineering: Specialisation Medical Technology and Control Theory: Elective Compulsory Biomedical Engineering: Specialisation Management and Business Administration: Compulsory

Course L0849: Technology Management	
Typ	Lecture
Hrs/wk	3
CP	3
Workload in Hours	Independent Study Time 48, Study Time in Lecture 42
Lecturer	Prof. Cornelius Herstatt
Language	EN
Cycle	WiSe
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 Inoovation Management, Elgar Research Collection, Northhampton (MA) 2011

Course L0850: Technology Management Seminar	
Typ	Project-/problem-based Learning
Hrs/wk	2
CP	3
Workload in Hours	Independent Study Time 62, Study Time in Lecture 28
Lecturer	Prof. Cornelius Herstatt
Language	EN
Cycle	WiSe
Content	Beside the written exam at the end of the module, students have to give one presentation (RE) on a research paper and two presentations as part of a group discussion (GD) in the seminar in order to pass. With these presentations it is possible to gain a bonus of max. 20% for the exam. However, the bonus is only valid if the exam is passed without the bonus.
Literature	see lecture Technology Management.

Thesis

Master-Thesis

Module M-002: Master Thesis

Courses

Title	Typ	Hrs/wk	CP

Module Responsible	Professoren der TUHH
Admission Requirements	• According to General Regulations §21 (1): At least 60 credit points have to be achieved in study programme. The examinations board decides on exceptions.
Recommended Previous Knowledge	
Educational Objectives	After taking part successfully, students have reached the following learning results
Professional Competence	
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.
Skills	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.
Workload in Hours	Independent Study Time 900, Study Time in Lecture 0
Credit points	30
Course achievement	None
Examination	Thesis
Examination duration and scale	According to General Regulations
Assignment for the Following Curricula	Civil Engineering: Thesis: Compulsory Bioprocess Engineering: Thesis: Compulsory Chemical and Bioprocess Engineering: Thesis: Compulsory Computer Science: Thesis: Compulsory Electrical Engineering: Thesis: Compulsory Energy and Environmental Engineering: Thesis: Compulsory Energy Systems: Thesis: Compulsory Environmental Engineering: Thesis: Compulsory Aircraft Systems Engineering: Thesis: Compulsory Global Innovation Management: Thesis: Compulsory Computational Science and Engineering: Thesis: Compulsory Information and Communication Systems: Thesis: Compulsory Interdisciplinary Mathematics: Thesis: Compulsory International Management and Engineering: Thesis: Compulsory Joint European Master in Environmental Studies - Cities and Sustainability: Thesis: Compulsory Logistics, Infrastructure and Mobility: Thesis: Compulsory Materials Science: Thesis: Compulsory

	Mechanical Engineering and Management: Thesis: Compulsory Mechatronics: Thesis: Compulsory Biomedical Engineering: Thesis: Compulsory Microelectronics and Microsystems: Thesis: Compulsory Product Development, Materials and Production: Thesis: Compulsory Renewable Energies: Thesis: Compulsory Naval Architecture and Ocean Engineering: Thesis: Compulsory Ship and Offshore Technology: Thesis: Compulsory Teilstudiengang Lehramt Metalltechnik: Thesis: Compulsory Theoretical Mechanical Engineering: Thesis: Compulsory Process Engineering: Thesis: Compulsory Water and Environmental Engineering: Thesis: Compulsory Certification in Engineering & Advisory in Aviation: Thesis: Compulsory