



**Steinbeis Transfer Institute
Advanced Risk Technologies (R-Tech)**

Steinbeis University Berlin, Germany



INTERNATIONAL. EUROPEAN. GERMAN.

European Master and Certification Program in
**Business Administration
(MBA)**



Steinbeis Transfer Institute Advanced Risk Technologies

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Steinbeis University Berlin SHB

Founded in 1998, Steinbeis University Berlin (SHB) is a state-approved private university that offers students and companies practice-oriented, extra-occupational higher education based on the project competence concept, leading to nationally recognized qualifications. The research carried out by SHB focuses on issues with practical applications. The SHB portfolio of courses ranges from certification courses to degrees and doctoral programs. During the competence developing Steinbeis degrees students manage and implement projects in the company sponsoring their studies.

SHB is an enterprise in the Steinbeis Network, an international service provider in entrepreneurial knowledge and technology transfer. Specialized in chosen areas, Steinbeis Enterprises' portfolio of services covers consulting; research and development; training and employee development as well as evaluation and expert reports for every sector of technology and management.

www.steinbeis-hochschule.de



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WHY SHOULD YOU RELY ON STEINBEIS ?

The Steinbeis University Berlin (SHB) is the largest state-approved private university in Germany. Built on the ground-breaking intuition of Ferdinand von Steinbeis who invented in the 19th century a dual education combining academic study and practical work, the SHB has implemented its business-oriented technology transfer "Project Competence Concept". From the Bachelor study up to doctoral degree, more than 11,500 graduates have benefitted from the SHB's practice oriented higher education.

The Steinbeis Transfer Institute Advanced Risk Technologies is part of the Steinbeis University Berlin and dedicated for risk management activities. Building upon the success of the Group and its network of European, national and large-scale industry projects, the Institute is committed to transfer its know-how and holistic understanding to new generations of experts and leaders. The integrative approach and application-oriented study linked to industry and research projects are the cornerstones of the study programs offered by the Institute.

- **Founded in 1998** • **State-approved**
- **+7000 Students** • **+11 500 graduates** • **Accredited**
- **Specialized in practice-oriented, extra-occupational higher education**



PHD PROGRAM

See the results of your doctorate work applied

In 2003, the SHB is bestowed the right to offer PhD programs. The Project Competence PhD also adheres to dual education principles in parallel to work. PhD students must work on a research project within a company or organization sponsoring them. The project must be approved and supervised by the SHB while the research forms the basis of the dissertation, underpinned by optional seminars on related subjects and compulsory colloquia to monitor progress.

Same as for the masters' degrees, the Institute for Advanced Risk Technologies might support you to find a 3-5 years projects which will finance your PhD and set the framework for your researches.

- **Financed**
- **3 to 5 years**
- **International network**
- **Mentored by field experts**
- **Focus on real world challenges**

The costs for the research project will be determined in the contract between the Institute of Advanced Risk Technologies and the sponsoring organization. The research project costs can be paid by the sponsoring organization.



3 MASTERS' DEGREES

- **Master of Risk Engineering and Management**
M.Eng | 2 years | 120 ECTS
- **Master of International Business and Risk Engineering**
M.Eng. | 2 years | 120 ECTS
- **Master of Business Administration**
MBA | 2 years | 90 ECTS

Being paid to study: an admission requirement

The Project Competence Concept, based on the German dual education system, is implemented in every degree offered by the SHB. In concrete terms, students willing to enroll must have a sponsoring company or organization. They work for two years on a project in their companies and gather every 4 months for 1 month courses.

Through the real world projects mentored by industry experts and providing tangible outcomes, the two year project in the sponsoring company gives students the tools, competencies, network and confidence they need to boost their career as well as the support to finance their study.

PROFESSIONAL CERTIFICATION PROGRAM

8 Titles to be obtained

The certification program offers the opportunity to develop specific knowledge and skills for assessment and analysis of risks in their respective actual or future professional field. The specialization is obtained in parallel with full employment

The completed certification courses can be aligned with those of the Master program. If the candidates wish to enroll as Master students, the completed certification courses will be transferred into the structure of the Master.

For additional information, please visit our website or contact us directly.

1. **Risk Professional** - any module of the curriculum
[5 ECTS – 13 Days]
2. **Risk Examiner** – Health, Safety, Security and Environment (HSSE) specialization
[13 ECTS – 34 Days]
3. **Risk Examiner** – Plant, asset and equipment oriented risk management specialization
[13 ECTS – 30 Days]
4. **Senior Risk Assessor** – Health, Safety, Security and Environment (HSSE) specialization
[18 ECTS – 43 Days]
5. **Senior Risk Assessor** – Plant, asset and equipment oriented risk management specialization
[18 ECTS – 39 Days]
6. **Risk Professional in Risk Based Inspection** – basics concepts of RBI
[5 ECTS – 8 Days]
7. **Risk Examiner in Risk Based Inspection** – advanced methods and tools of RBI
[9 ECTS – 21 Days]
8. **Risk Governance Specialist**
[24 ECTS – 30 Days]

EUROPEAN MASTER IN BUSINESS ADMINISTRATION (MBA)

Degree: **Master of Business Administration (MBA)**
 Field: **Business Administration**
 Specialization: **Financial Risk Modelling and Engineering**

The Concept

The Master Program in Business administration of the Steinbeis University Berlin is designed for graduates and young professionals who wish to develop their knowledge, skills and competences in the fields of Economics, Accounting, Finance, Strategic Management, Leadership, Communication and to understand how business works, allowing them to successfully assume management positions. Students may take the Master as a distinctive step in their professional career or in preparation for a Ph.D. degree.

Lecturers of courses are selected from leading experts in corresponding fields. They possess both academic and practical background which provides the genuineness of the study program. This combination allows students to absorb working theory fast and to gain skills for practical implementation. During the project work selected coaches and a supervisor will guide the student in order to transfer methodological knowledge acquired from courses to solve practical challenges in the company.

This inter-disciplinary program is envisaged to match the current needs of large organizations as well as small & medium sized companies. By covering a broad scope of general & specific management & administrative techniques, this program aims to provide students with the analytical skills which will allow them to identify and assess developments within an organization, make sound strategic decisions and act accordingly by developing and implementing policies to attain defined goals.










Part of our commitment to the highest quality standards goes through the external assessment of our study programs. Furthermore, the accreditation ensures the international recognition of the earned degrees.

- The study programs have been accredited by ZEvA (Central Evaluation and Accreditation Agency) for the period 2016–2020
- The Institute is ISO 9001:2008 certified by ZDH-ZERT
- The Steinbeis University Berlin is state-approved



In terms of curriculum and organization, the Project Competence model – based on the dual-study system – goes way beyond conventional degrees. The concept of integrated work on projects companies is set to facilitate integrated knowledge transfer, whereby the students gain new skills and create a professional network as part of their studies and apply their gained knowledge to practical everyday corporate management and administration issues by supplying deliberate, pertinent and theoretically sound solutions to business problems. The program draws on the extensive knowledge and skills of lecturers who are leading experts in their corresponding fields. The strength of their academic and practical background contributes to the high quality of the study program.

As a result, career prospect for graduates of Master in Business Administration are above the average because of the great and increasing need on the market for professionals with technical and managerial skills, combined with past working experience and a strong network.

 Degree Master Business Administration (MBA)	 Field - Specialization Business Administration - Financial Risk Modeling and Engineering		
 90 ECTS	 Program form Extra-occupational (Study & Work)	 Duration 4 Semesters - 71 days seminar	
 25 places	 Fees / Semester € 3000	 Location Stuttgart, Germany	 Applications All year round



Courses and CPs

The modular structure of the study enables the student to schedule her/his timetable according to obligations at work. The 2-year program includes 45 CPs for foundation modules covering the basics of Business Administration. 15 CPs, divided into three modules, are foreseen for the specialization in Financial Risk Modeling and Engineering. The remaining CPs are earned through the project work. The project study paper and the Master Thesis are the final and tangible product of the project work carried out in the sponsoring company. After the admission to the program each student receives a personalized study schedule where the courses are defined. The whole program of the courses as well as the thesis and project work are aligned with the project and the student's academic and company supervisors.

Admission requirements

- A successfully completed Master program (≥ 240 Credit Points) or Bachelor program (with a minimum of 210 Credit Points) Missing CPs can be acquired through additional modules.
- Professional Experience of 2 years
- Good knowledge of English certified (B2 level or equivalent)
- Successfully passing the aptitude test

Degree

On a successful completion of the program, Steinbeis University Berlin will award the degree Master of Business Administration (MBA) with the specialization in Financial Risk Modeling and Engineering. The degree is issued by Steinbeis University Berlin which is approved and acknowledged by the state since 1998.

Examinations

The examinations may involve:

1. Written examination: up to 120 minutes written paper with 4 kinds of questions (true/false, multiple/single choice, short answers, essay/calculation, examples)
2. Oral examination: up to 60 minutes verbal discussion, optional presentation included
3. Presentation: up to 20 minutes with visuals
4. Publishable papers
5. Case studies
6. Project Study Paper: up to 20 pages, topic specified by the project and student's supervisors
7. Transfer Paper: 1 page, applying theory studied in a course onto the company's situation, to be written after each completed module

Admission

The admission process involves 5 steps:

- Step 1:** Expression of interest by the student
- Step 2:** Preliminary eligibility check
- Step 3:** Full application
- Step 4:** Aptitude test (e-based) and/or approval test (oral)
- Step 5:** Enrollment

Fees

The tuition fee covers the full study period of 4 semesters, is paid per semester and covers the costs of all courses, course materials, consultations and individual coaching. Travel and lodging costs are not included in this tuition fee (full tuition fee 2015 was 12,000 €). For further information, please contact us directly.

CURRICULUM

Description of the modules and their respective courses

Module PK: Project

Credit Points: 60 | Module type: compulsory

Throughout the course of the program, the students work on an admitted project (basis: project specification, project criteria, project work,) in their companies or organizations (project sponsor), which is supervised by certified project coaches.

PK1: Transfer Papers (TA)

Transfer paper (TA) is an evidence of the students' ability to specifically transfer and utilize the knowledge obtained in a course attended in their projects or companies. The TA shall be prepared after the course and shall be presented in coordination with the responsible lecturer. The assessment of the TA is carried out by the responsible lecturer and further by a SHB examiner. It complements to the final grade.

PK2: Transfer Documentation Reports (TDR)

The TDR are important elements of the project and transfer oriented Project Competence Program at the SUB. They are a unique, didactic concept developed in the Steinbeis network which supports the students for the acquisition of knowledge and specific application. These TDR help the students to orientate themselves in the basic knowledge in the preparation and follow-up of the contact-time and transfer phases and to apply the acquired knowledge by transfer to the business/ project practice. In doing so, the students can flexibly determine their individual competence development pace.

PK3: Project Study Paper (PSA)

In the Project Study Paper (PSA) the students transfer and utilize the methods and knowledge acquired within the scope of the programs. PSA has to have at least 20 pages in writing and it is submitted by a student as a rule. The PSA is presented and defended by the student in front of examiners.

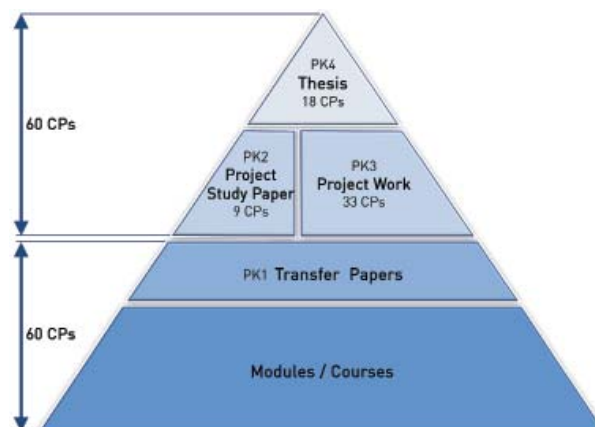
PK4: Project Work (PA)

During the study, a student works on a project (project work, PA) in his company or organization (project client). This work is a basis for master thesis which the student has to submit at the end of his study program.

PK5: Thesis

Credit Points: 15

The thesis is a practice-oriented, scientifically prepared document which reflects the knowledge and skills a student has acquired throughout the study program and applied to a project relevant for his occupational environment. The thesis shall prove the student's



ability to solve the specific problem in his/her company in an autonomous and methodical manner. As a rule, the project is defined and specified together with the student, the project client and the coach of the SHB upon the start of the study program (project specification).

Module I: Economics

Credit Points: 3 | Module type: compulsory

This module introduces the economic framework needed for managerial decision-making. Therefore, different basic concepts in economics are presented such as consumer behavior, production concepts and cost concepts. The module will further focus on the relation between input demands and output decisions in competitive markets. Macroeconomics as well as microeconomics will be presented and an insight will be given into alternative market structures and today's pricing practices.

F1-1: Macroeconomics

This course focuses on the financial impacts of globalization. The course analyses potential risks and the extent of change in the global business environment. The macro level will be discussed and important theories presented. Additionally, stock market, booms and bursts will be analyzed, as well as social aspects influencing the economy on a global level. The participants will be able to understand better how the financial crisis in 2008 started and how it impacted the global market.

F1-2: Microeconomics

The course in Microeconomics focuses on the micro-level of the economy (individuals, companies, industries). How are decisions made? Which motives are the basis for the decision? Which theories and models are the basis to describe the process of decision making? With this knowledge it will be understandable for the participants how to describe and calculate the optimal decision, the role of supply and demand, the rationale behind pricing, production and the influence of the market structure itself.

F1-3: Managerial Economics

This course in Managerial Economics focuses on the practical implementation of economic principles and theories and educates students how to apply them in decision-making situations within organizations. Those decisions are always made under conditions of risk and uncertainty but can be improved through a sound understanding of the external environment and the use of appropriate tools and techniques.

Module II: Law

Credit Points: 3 | Module type: compulsory

This module will examine the legal controls on government regulations, in areas such as business registration, trade mark registration, taxation, labor-management relations, and more. The topics covered will provide answers to the questions related to business registration and business running, as well as the protection of business process from competition. Also, the module will provide answer about best business structure and business ownership.

F2-1: Principles of Law

The course will provide necessary knowledge for understanding institutional surroundings influencing business processes. In order to start a business, the knowledge about different structures, taxes, trade agreements, contracts, export issues is needed.

F2-2: Legal Framework and Fields of Activity for Executives

The course will provide necessary tools and instruments for executives to understand labor-related issues. The managers will need to have knowledge about current labor force, its obligation and rights. The knowledge will be useful in negotiation and managing process..

Module III: Project Management & Organization

Credit Points: 6 | Module type: compulsory

This module will provide techniques and instruments required for understanding of the process of project development, management and organization. The entrepreneurship process starts with an idea that needs to be turned into a business. During the process of transforming an idea into a business, knowledge about project management and organization is needed. The module will provide knowledge about organizational, managing and strategic decision processes enabling the transformation of ideas into a commercial success.

F3-1: Interdisciplinary Scientific Work

The course will provide knowledge related to the development of the ability to plan, conduct and write scientific work such as transfer work and documentation, feasibility studies and different reports. Also, the course will provide knowledge about literature usage, acquisition of scientific argumentation, conclusion and making presentation of results.

F3-2: Methods of Project Planning and Management



The course will provide knowledge needed for the understanding of basic tools and instruments of project management. The processes of project management, monitoring and measuring project success are crucial in today's modern business environment. The course will present tools and processes used in modern project management, along with techniques used in project organization and management control.

F3-3: Information Systems Management

The course will provide knowledge about strategic, tactical and operational information system needed for project organization and management. Also, it will present the importance of information systems for project management, by simplifying processes of control and monitoring.

F3-4: Organizational Management

The course will provide basic tools and instruments for understanding the importance of organizational management in business establishment and successful business running. The organizational management helps in creating adequate organization for successful business development and earning profit in the market. The course will help participants to develop techniques needed for making organizational structures adjustable to dynamically changing environment by which an organization is able to react to market changes.

F3-5: Operations Management

The course will provide methodologies and techniques necessary for understanding of IT position in decision-making processes. The information technology is an important tool in creating successful structure that will influence business level of efficiency and profitability. Also, it will provide an adequate level of knowledge needed for understanding of e-business and modern IT surroundings.

Module IV: Entrepreneurship & Strategy

Credit Points: 6 | Module type: compulsory

The Module will provide adequate methods and instruments needed for the understanding of entrepreneurial process, from the idea gen-

eration stage to the marketable business. It will contribute to better understanding of the factors distinguishing successful from unsuccessful entrepreneurship projects. Also, it will provide corporative governance models useful in entrepreneurial process along with strategic management process.

F4-1: Principles of Practical Corporate Management

This course will provide necessary expertise in the field of project's challenge and project marketing. Also, it will develop skills needed for understanding of all phases of business development. The students will acquire necessary techniques needed for defining clear strategic goals and factors influencing business future.

F4-2: Principles of Entrepreneurship

The course will address theoretical and practical knowledge necessary for creating entrepreneurial activities. In order to do so, students need to understand differences between idea and business, steps to be taken and problems arising in the process of transforming an idea into a real business. Also, through case studies, different entrepreneurial challenges will be presented to understand how complicated it is to develop an entrepreneurial activity

F4-3: Innovation Management

The course will provide knowledge which will be useful in understanding innovation process and innovation management as a crucial tool in acquiring successful market position. In dynamic world, with constant changes, it is of the utmost importance to continually improve production process, product and services. The course will help in developing tools for creating innovative organization within business which will be oriented towards acquiring and developing new ideas and innovations.

F4-4: Management of Strategies

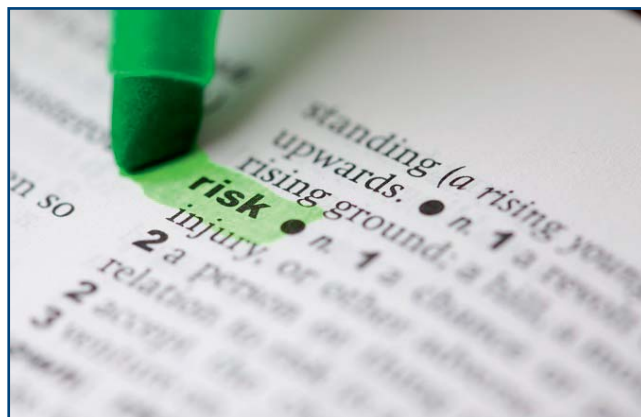
The course will provide tools and techniques necessary to understand different corporative and strategic analytical tools and methods needed for successful entrepreneurial activities. The participants will be able to make decisions based on different complex economic and strategic interrelations.

F4-5: Business Strategy

The course will provide techniques and instruments needed for defining adequate business strategy. The participants will be able to conduct analysis, collect information, make conclusions and create business strategy based on realistic information and true predictions. The course will help participants understand the complexity of surroundings needed to acquire adequate business development strategy.

F4-6: Corporate Strategy

The course will help participants in understanding enterprise strategies in earning profit in a competitive market. The participants will be



able to define different levels of strategies and different instruments used in obtaining defined goals and aims. The course will also provide methodology for defining strategies at different levels of decision-making in companies.

Module V: Marketing

Credit Points: 6 | Module type: compulsory

The Module will provide techniques and instruments related to defining critical marketing strategies. The participants will be introduced to the marketing tool helpful in defining market, customers and post-sales process. The course will present quantitative and qualitative techniques related to market research, competition, loyalty and expanding market.

F5-1: Principles of Marketing

The course will provide an overview of classical tools used in defining marketing strategy in a fast changing world. The participants will acquire methodology for practical use of the marketing mix. Also, it will help participants to better understand the purchasing process and customer decision-making process, which are presented through a number of case studies.

F5-2: Market Research

The course will introduce techniques and methodology for acquiring information about market for developed production. In order to make adequate business decision, entrepreneur needs information related to market structure, competition, level of technology, number of customers, post-sale procedures, etc.

F5-3: Marketing and Sales Management

The course will provide participants with methodology related to consumer behavior and knowledge about how to influence it using different instruments. The marketing goal is to make a product or service visible and recognizable in the market. The participants will be able to use different techniques for assessing current marketing position and possibilities for positioning in the future.

Module VI: Accounting & Corporate Finance

Credit Points: 9 | Module type: compulsory

Successful businesses can be characterized by a comprehensive integration of the interrelation between money, information and operations. Every organization needs to find and manage resource today in order to produce added value for tomorrow. This module will present the financial scope from day to day operations in terms of accounting to the overall financial strategy of business development. It will be shown how financial information can be found, assessed, communicated and be used as a basis for forecasting and strategic decision-making.

F6-1: Principles of Accounting

This course aims to introduce attendees to the wonderful world of accounting. After gaining an overview of its principles, main methods and tools, a sheet full of numbers will not be able to hide any secret from them anymore. The understanding of balance sheets and profit and loss accounts will empower attendees to assess and appraise the financial situation of a company. Beyond the ability to find and understand this information, the course also aims to highlight how to produce it.

F6-2: Financial Analysis

This course aims to complement and deepen the knowledge of attendees concerning the practical application of accounting principles. By putting them into position to use cases, the course will show how the methodology and the tools can be implemented to forecast future financial results, assess a company's value and its impact on strategic decisions.

F6-3: Financial Reporting and Controlling

Financial reporting and controlling are seen as a practical implementation of the accounting and financial analysis principles learned in this module. This course puts emphasis on demonstrating how those principles and the related vocabulary can be used for communicating information and as a powerful tool to evaluate and monitor corporate performance.

F6-4: Principles of Corporate Finance

The purpose of this course is to make a bridge between financial principles and actual corporate business operations. Attendees will be introduced to investment calculation for specific projects as well as for overall business development. They will understand the ins and the outs of the different sources available for financing business and become able to assess the adequate capital structure for a given company.

F6-5: Models and Systems

This course focuses on the practical implementation of accounting and corporate finance concepts in an integrated system, taking into account the stakeholders using it. Attendees will be faced with actual tasks that controlling encompasses, they will learn the right processes of budget preparation and be able to use the obtained data to make sound decisions based on their forecast.



Module VII: International Management

Credit Points: 6 | Module type: compulsory

The module examines the international business environment and its impact on management strategies. It focuses on the organization, operation, and management of multinational business ventures. It emphasizes cross-cultural communications, and issues of control and staffing for business operations in foreign countries.

F7-1: Principles of Foreign Trade

▼ This course will present the specificities of cross-border economic activities. After providing attendees with the theoretical basis of international trade, it will present the evolution of the regulation and the current debates regarding trade agreements and international organizations. Macroeconomic aspects will be tackled as well as their practical consequences for companies engaged in foreign commitments.

F7-2: Principles of International Management

This course aims to introduce attendees to international business management. They will learn the driving forces that shape the international environment, with a special focus on the globalization of information and communications techniques, which increase the importance of the Internet and the e-business. The course will then highlight the regulations and techniques to enter a foreign market and present the tools needed to face their specific challenges.

F7-3: Cross-Cultural Management

In times of ever-increasing globalization, cultural differences and multilingual issues play an important role in the area of business communication which can easily fail on apparently banal issues. This could be of particular importance in collaborative international projects, as well. A cognitive approach toward cultural and national differences will be used throughout the training.

Module VIII: Leadership & Competencies I

Credit Points: 3 | Module type: compulsory

As an organizational environment is becoming more and more collaborative, future leaders have to rely on 'soft skills' to successfully

lead their team or organization. In this module, attendees themselves will become the central topic. They will get acquainted with their own impact on others and learn concepts and techniques to improve it.

F8-1: Personality

The course analyzes main theories and empirical findings related to social and emotional development. A significant part of topics will be covered including the self and social cognition, achievement, antisocial behavior, and differences in social and personality development. The impact of strong social contexts, such as business human environment, on individual development will be also reviewed.

F8-2: Development of Competencies

Being part of a holistic human resources approach, this competence management course will be relevant for attendees on two levels. On the one hand they will be introduced to a framework aiming to assess and develop their own skills and competencies. On the other hand, they will learn how to use the gained knowledge to strengthen the human capital in their companies by developing and retaining talents.

Module IX: Leadership & Competencies II

Credit Points: 5 | Module type: compulsory

The module will provide attendees with adequate methodologies and tools for understanding and developing leadership, organizational behavior and human resource management. These tools are useful in dynamic business surroundings for achieving profit and running successful market game..

F9-1: Leadership

The purpose of this course is to raise attendees' attention on their own leadership skills and give them a scientific basis as well as practical techniques. Based on state-of-the-art researches including social psychology, sociology, communication, neurosciences and philosophy, attendees are encouraged to think about their own behavior and its impact. Through the gained knowledge, they will increase their ability to lead, even without formal authority and in an international environment. The developed skills will improve their daily work and prepare them for extraordinary situations such as crisis or organizational changes

F9-2: Organizational Behavior

The 21st century has witnessed structural transformations of working places and overall work organization. From the nowadays classical open-space to the table football and tennis facilities provided by some companies for their employees, the issue of organizational behavior and the influence of the work environment became a central concern in a wide range of companies. This course aims to highlight this evolution, looking at those issues and present solutions. It will describe the individual or micro level but also present findings on the



organization or macro level.

F9-3: Human Resource Management

In the collective psyche Human Resource Management (HR) is often associated with the basic tasks of hiring and releasing staff. The impact of an efficient HR strategy on the daily business activities is repeatedly overseen. This course will highlight the broad scope covered by HR management, giving attendees the keys to integrate it into the overall organization's strategy and making them understand how it can be a source of sustainable competitive advantage.

Module XI: Business Continuity and Financial Risks

Credit Points: 10 | Module type: optional compulsory

Fundamental theories of actuarial science in life insurance, health insurance, liability insurance and reinsurance are presented. It shows how to make business decisions and generate 'reasonable' solutions by applying the presented models and theories to . The module enables participants to understand and use the mechanics and techniques of the assessment, quantification and management of credit risk in the banking, insurance, asset management and enterprise environment. The aim of the module is to understand and implement the basic concepts, methods, products and measurement techniques of financial risk. Practical examples with the state-of-the-art tools are applied by each student in terms of self-study and independent work.

FRME1-1: Business Continuity Risks & Insurance

The course complements other courses devoted to technical and engineering issues of risk management in industrial plants (petrochemical plants, process industry, power plants, etc.). Technical risks in the above plants can be a cause or a contributing factor of the business continuity. The final outcome of the technical/engineering activities is practically always seen on the background of business implications and implications/impacts on the business activities of a company. The insurance aspects are the most relevant practical aspects linking the engineering and business side of the company operation and asset management: therefore, these will be tackled, too.

FRME1-2: Principles of Actuarial Theory

This course aims to present fundamental theories of actuarial science

in life insurance, health insurance, liability insurance and reinsurance. It shows how to prepare business decisions applying the presented models and theories in order to generate 'reasonable' solutions.

FRME1-3: Measurement and Management of Credit Risk

After an introduction to credit assessment methods, the course will tackle several aspects of credit and credit risk by presenting the different approaches and their related concepts and tools. The course enables participants to understand and apply the mechanics and techniques of the assessment, quantification and management of credit risk in the banking, insurance, asset management and enterprise environment.

FRME1-4: Risk Management Strategies

This course will focus on the basic concepts, methods, products and measurement techniques of financial risk. The presentation of scenario analysis, simulation techniques, as well as the Value-at-Risk concept and calculation, will show the specificity of the financial field and the related risk management strategies.

FRME1-5: Practical Example: Workshop Business and Financial Risks

Practical examples with the state-of-art tools are applied by the student.

Module XII: Risk Management in Banking

Credit Points: 10 | Module type: optional compulsory

The course will first focus on identifying promising industries in a developing country and their interrelation with the banking sector. At the end of the courses students will have a basic understanding of hedging currency risk and interest rate exposures. Moreover, the students will understand the mechanics of global financial markets, the basic principles of risk management in banking, insurance, asset management and real estate. In this context we will focus on pricing for financial products (risk-return-relation), the role of rating agencies and the corresponding methods of a quantitative and qualitative risk management.

FRME2-1: Risk management and Fundamentals of Retail Banking

The course introduces the concepts of retail banking from a global perspective. We start with a description of traditional retail banks, card companies, social lending firms and microfinance banking firms. Then, an overview of the major retail banking products and differences of the retail banking practices in different regions around the world follows. The course closes with an introduction to rating techniques and quantitative risk measurement techniques.

FRME2-2: Ratings and Risk Management in Corporate Banking



Credit rating agencies play a critical role in capital markets, guiding the asset allocation of institutional investors as private capital moves freely around the world in search of the best trade-off between risk and return. This course aims to guide attendees through ratings, the ratings industry, mechanics and economics of obtaining a rating, as well as to ensure they are able to grab investment opportunities for corporations with regards to the consequences and risks.

FRME2-3: Tax Management

Whether for industry or for individuals, tax became a major direct or indirect expense which gave tax management an increasing and significant role; requiring skills to understand various exemptions and loopholes. This course aims to present the basics of tax management and the principles of tax strategy, but also to highlight the consequences for the success of business. This will enable the attendees to understand the basic administrative issues and at the same time be aware of the richness of the context in which tax factors operate.

FRME2-4: Risk Management in Real Estate

Applying conventional Risk Management procedures and techniques in Real Estate is not possible and adapting them to this industry can be quite challenging. Risk Management in the Real Estate industry does not solely concern the portfolio but also risks inherent to the structure and those embedded in the full investment value chain. In developing the Risk Management framework, best practice linked to the industry will need to be considered. This course will present those issues with a special attention to two pillars of Real Estate portfolio risk mitigation: a sound monitoring system and a rigorous investment policy.

Module XIII: Risk Management in Practice

Credit Points: 10 | Module type: optional compulsory

By the end of the courses, students will have developed an understanding of the dynamics and interdependence of financial markets. They will have understood to compute, to apply and to interpret different risk measures and to compute efficient portfolios with and without short sales. The computations will be performed by MS-Excel, using the statistical standard functions as the solver

FRME3-1: Valuation Techniques (Excel)

This course presents a number of tools in order to make the exercise more straightforward, since there is not a unique function in Excel to run a full discounted cash flow model.

FRME3-2: Scenario and Sensitivity Analysis

This course aims to present Scenario and Sensitivity analyses as a means to (incompletely) anticipate the future. It will show their strengths and weaknesses as well as provide guidelines for their sound implementation.

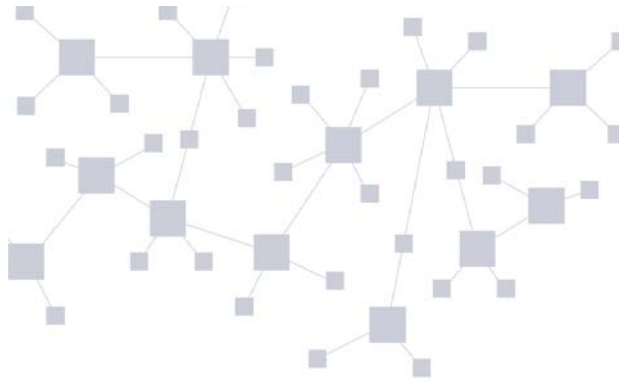
FRME3-3: Value at Risk (Excel)

This course will present the computation and interpretation of Value-at Risk and expected shortfall.

FRME3-4: Practical example: Risk Management in Practice

Computation of VaR, standard deviations, beta factors, and ES for a single asset, a portfolio and extension firms and countries will be performed by the students.





MAIN LECTURERS

Lecturers of the courses are leading experts in their corresponding fields. They possess both academic and practical background, which provides the genuineness of the study program. This combination allows students to absorb working knowledge fast and to gain skills for practical implementation and relevant problem-solving. Take a look to an excerpt from the lecturers list below.



Dr. Marco Gerbec

Professor at Jožef Stefan International Postgraduate School and senior researcher at Jožef Stefan Institute, Ljubljana, Slovenia. More than 15 years of experience in management of major accident hazards (process safety), risk assessments, expert reviews, as well as in consultations to the national competent authorities, and local industrial companies. Involved in a number of EU projects and actions. Lectured in Germany, PR of China, Serbia, Turkey and South Africa.



Prof. Dr. Aleksandar Jovanovic

Full professor at University of Novi Sad, Director of R-Tech, CEO of European Virtual Institute for Integrated Risk Management (EU-VRI) and EU Project Director at ZIRIUS (Center for Interdisciplinary Risk and Innovation Studies, University of Stuttgart). He has a long-year professional experience in the area of innovation management, new technologies, business risk management, structured project management, etc.



Prof. Dr. Dr. h.c. Dirk Linowski

Director of the Institute of International Business Studies and Full Professor at the Chair of Asset Management at Steinbeis University Berlin, Germany. In addition, permanent guest professor in Corporate Finance and Financial Economics at the Tongji University in Shanghai, in Financial Risk Management at the Shanghai Normal University, China, and in International Finance and Financial Risk Management at the Riga Graduate School of Law, Latvia. Among his expertise are topics such as applied mathematics, financial economics, accounting and financial risk management.



Prof. Dr.-Ing. habil. Karl Maile

Acting director of the Material Testing Institute and full professor of the University of Stuttgart, Germany. Visiting Professor at the North China Electric Power University. His main research fields are material science, testing and quality assurance, life assessment of industrial plants; surface technologies. He has more than 300 publications in those topics. Prof. Maile is member and panelist of several organizations such as DGM, VdEh, VGB, national standardization bodies.



Prof. Dr. Dr. h.c. Ortwin Renn

Full professor and Chair of Environmental Sociology and Technology Assessment at Stuttgart University in Germany. He directs the Stuttgart Research Center for Interdisciplinary Risk and Innovation Studies (ZIRIUS) and the non-profit company DIALOGIK, a research institute for the investigation of communication and participation processes in environmental policy making. His research interests are risk governance, political participation and technology assessment.



Dr. Reto Schneider

Head of Emerging Risk Management at Swiss Reinsurance Company (Swiss Re). In this function he is responsible for collecting early notions of Emerging Risks and horizon scanning. His expertise is in assessing General Liability and Product Liability risks in various industry segments ranging from Life Science to Oil and Petrochemical companies. He holds a diploma in cell biology and a PhD in natural sciences of the Swiss Federal Institute of Technology in Zurich.



Dr. Ing. Giovanni Ugucioni

Business Development Manager at D'Appolonia SpA in Italy, formerly head of the the Risk Analysis Unit in Snamprogetti SpA and HSE Technical Manager in D'Appolonia. His professional expertise covers risk analysis and risk assessment, including hazard identification methods, Fault Tree Analysis, modelling of accidents and development of Safety Reports under the "Seveso" Directive. He has participated in EU and Industry funded Projects for the development of Risk Analysis and consequence modeling.



Prof. Dr. Udo Weis

Professor for Business Administration and Engineering, director at Steinbeis Institute Advanced Risk Technologies, CEO of IFNEK GmbH and currently the Chairman of the National Standards Committee for Risk Management and a member of other international standardization bodies to risk management. For several years he acts as president of Germany's largest expert association VDSI, with more than 5,000 EHS professionals. He worked as head HSE department at ABB being responsible for 20 countries and is member in several advisory committees.

NETWORK & KNOW-HOW

The involvement of Steinbeis Advanced Risk Technologies in over 50 European, international and large-scaled industry projects is a key asset of the Institute. Today there are Steinbeis enterprises in 15 countries. In addition, project and co-operation partners in further 48 countries complement our network of experts.

- It allows us to strengthen our network of experts and lecturers.
- Projects results as well as know-how are often transferred in the courses' contents ensuring that they always remain state-of-the-art.
- If you can't find a sponsoring company, some of those projects can serve as a basis for the Project Competence Concept underlying every Master program.

Example: RBI in Power Plants in South Africa - Eskom

A certified Risk Based Inspection (RBI) programme as part of a plant life cycle management strategy.

www.eskomrbi.risk-technologies.com

Example: RBI in Petrochemical Industry - Gazprom

Risk management and use of risk-based approaches in inspection, maintenance and HSE analyses of petrochemical plants in Serbia.

<http://risknis.risk-technologies.com/>

Example: EU-project iNTeg-Risk

Early Recognition, Monitoring and Integrated Management of Emerging, New Technology related Risks

www.integrisk.eu-vri.eu

Example: DEG-project SafeChina

Promoting the EU and German standards and practices of Environmental Protection and Industrial Safety in China.

www.safechina.risk-technologies.com

Example: EU-project EDEN

Improve CBRNE resilience through the adaptation and integration in complex multi-national/agency CBRNE operations.

www.eden-security-fp7.eu

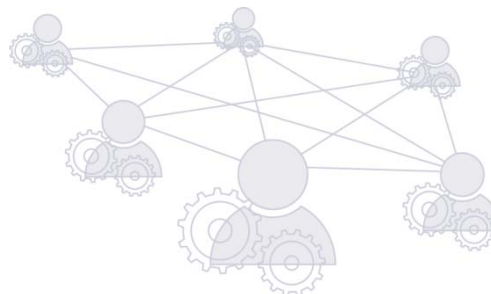
Example: EU-project EuropeAid Turkey

Strengthen the institutional capacity of central bodies that are responsible for future implementation of the Seveso II Directive in Turkey.

www.europeaidturkey.risk-technologies.com



The program welcomes students from all over the world, that creates a unique international atmosphere and benefits for the student



PROGRAM PARTNERS

The European Master and Certification Program was realized in close collaboration with universities, R&D institutions and industrial companies worldwide. Since its creation the Institute cooperated with the following organizations.

- **CNR** (Italy)
www.cnr.it
- **Eskom** (South Africa)
www.eskom.co.za
- **INERIS** (France)
www.ineris.fr
- **Josef Stefan Institute** (Slovenia)
www.ijs.si/ijsw/JSI
- **NIS Gazprom** (Serbia)
www.nis.eu
- **SINTEF** (Norway)
www.sintef.no
- **Swiss Re** (Switzerland)
www.swissre.com
- **Steinbeis Advanced Risk Technologies GmbH** (Germany)
www.risk-technologies.com
- **University of Bologna** (Italy), www.eng.unibo.it
- **University of Magdeburg** (Germany)
www.ovgu.de
- **University of Pisa** (Italy)
www.unipi.it
- **University of Stuttgart/ ZIRIUS** (Germany)
www.zirius.eu

HOW AND WHEN TO APPLY

Applications to the Master and Certification Program are open the whole year long.

Winter semester: October, 1th - March, 31th
Summer semester: April, 1th - September, 30th

Applications are handled via:
admissions@risk-technologies.com

Send us an email with:

- your CV in the EuroPass format
 - a letter of motivation
 - university diploma(s)
 - university grades transcript(s)
- English language certificate (if not native speaker)

COURSE VENUES

During the lecturing periods, courses are held in one of our venues in Stuttgart. All locations are best equipped and provide a motivating learning environment.

Steinbeis-Haus für
Management und
Technologie (SHMT)
Stuttgart



Haus der Wirtschaft
Stuttgart



Lange Straße 54
Stuttgart

CONTACT

For general enquiries

If you have questions, need information or would like to be supported to find a project in an organization, please contact

sti889@risk-technologies.com
+ 49 711 410041 33

For Partnerships & professional training

If you're interested in the professional training opportunities, Project Competence Concept, or if you have questions please contact

Prof. Dr. -Ing. Aleksandar Jovanovic
jovanovic@risk-technologies.com
+ 49 711 410041 29

