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b UNIVERSITÄT BERN

Department of Business Administration

February 24



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Erasmus Coordination

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Organization of the Department of Business Administration (BWL)

https://www.bwl.unibe.ch



Institute of Financial Management

https://www.ifm.unibe.ch

Institute of Marketing and Management

https://www.imu.unibe.ch

Institute of Organization and Human Resource Management

https://www.iop.unibe.ch

Institute of Financial Accounting and Controlling

https://www.iuc.unibe.ch

Institute of Information Systems

https://www.iwi.unibe.ch

Organization of the Department of Economics (VWL)

https://www.vwi.unibe.ch

Center for Regional Economic Development (CRED)

https://www.cred.unibe.ch

Research Unit for Tourism

https://www.cred-t.unibe.ch

Centre for Research in Economics of Education

https://www.ffb.unibe.ch

Oeschger Centre for Climate Change Research (OCCR)

https://www.oeschger.unibe.ch

World Trade Institute (WTI)

https://www.wti.unibe.ch



HS = Herbstsemester (fall semester). FS = Frühjahrssemester (spring semester). The number indicated next to the title of a course is the number by which courses can be found on CTS. This listing is subject to modifications. For the most recent information about the courses please check CTS directly.

Finance and Accounting

Data Visualization and Machine Learning – 420844

Prof. Dr. P. Baumann

In the first part of the course, the students will develop the skills to analyze, understand, and communicate data using effective visualization techniques. In the second part of the course, the students will learn the fundamental concepts and techniques of machine learning, including supervised and unsupervised learning, and how to apply these techniques to real-world problems. A previous attendance of the courses "Programming for data scientists I" and "Programming for data scientists II" is recommended but not mandatory. Note: The course software is Python, and the students will need to bring their own device to class.

Business Analytics using Excel – 3111

Prof. Dr. N. Trautmann Dr. M. Gnägi

In this course, we discuss the design, the development and the implementation of Excel-based systems which apply business analytics for decision support. The course comprises an introduction to programming in Visual Basic for Applications.

Performance Measurement, Evaluation, and Incentives – 102850 4.5 ECTS, MSc, HS

Prof. Dr. M. Arnold

The course treats the basic management coordination and control systems like, e.g., budgeting and target setting, as well as the design of incentive contracts. The course addresses the principles of a "good" design of these systems both from a theoretical and an empirical perspective. Specific objectives of this course are: To point out how coordination and control instruments work in theory and practice, to help students understand how incentive contracts are and should be designed, to help students become intelligent users of management control systems.

Advanced Performance Measurement: Concepts & Cases – 415880 3 ECTS, MSc, HS

Prof. Dr. M. Artz

The course covers several aspects of performance measurement in modern firms with an emphasis on applied empirical methods to measure and evaluate performance of individuals (e.g., managers), functions (e.g., departments), and firms. A particular emphasis is put on the linkages of actions (valuedrivers) on nonfinancial performance measures and how these translate into short- and long-term financial performance. Content is taught by the discussion of academic papers in this area and the discussion of case studies in class.

An Integrated Perspective on Corporate Risk Management — 447543 4.5 ECTS, MSc, HS Prof. Dr. A. Posch

What makes the topic of risk management especially challenging and fascinating are its close interdependencies with management accounting and corporate governance. By explicitly incorporating these overlaps this course seeks to provide a more holistic perspective on risk management. The topics covered in this course among others include:

4.5 ECTS, BSc, HS

3 ECTS, BSc, HS

- Theoretical foundations of risk management (definitions, statistical background, biases, etc.)
- Cybernetic risk management approach (risk identification, risk assessment, risk response, control activities, information and communication, monitoring)
- · Weaknesses of traditional cybernetic risk management approaches
- Enterprise risk management and its components
- · Organizing risk management within the firm
- Risk management and corporate governance
- · The role of management accounting and control for risk management
- Tools for risk identification, risk analysis, risk evaluation, risk treatment, and monitoring and review (e.g., risk matrices, scenario analysis, sensitivity analysis, TARA-framework, etc.)
- New concepts in risk management (e.g., risk appetite, risk culture, tone from the top, etc.)

Seminar in Managerial Accounting - 6353

6 ECTS, MSc, HS

Prof. Dr. M. Arnold

Students know that individuals regularly exhibit social preferences like, e.g., preferences for honesty, fairness, social comparison or reciprocal treatments besides pure standard economic preferences. Students can explain the most relevant economic criteria when designing incentive contracts, budgeting systems, relative performance evaluation and subjective performance evaluation systems. Students understand how social preferences of individuals can affect the implementation and outcome of important management control instruments like Budgeting, Incentive Contracts, Relative Performance Evaluation and Subjective Performance Evaluation. Students understand how to develop their own research questions and a proposal for a master thesis and to write a seminar paper on this research proposal. Students are able to search for further literature and understand the current state of the art, its limitations and gaps in the field when developing their own research question.

Using Simulation Analysis for Enhanced Managerial – 407338 3 ECTS, MSc, HS Decision-Making and Cost Control

Prof. Dr. M. Burkert

The principal objective of this course is to teach students how to use Monte Carlo simulations to derive more accurate predictions about future costs and revenues. Monte Carlo simulations allow for better handling of uncertainty and overcome the limitations of traditional scenario analyses. Monte Carlo simulations complement/can be linked with classical cost accounting methods, enabling management accountants to provide managers with even more useful information. This is important because it may substantially enhance managerial decision-making, as well as cost control and risk management.

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Audit: need, justification and limits - 478216

Prof. Dr. T. Nösberger

The course covers among other aspects of the audit function the following:

- The need for trusted information and the role of the auditor in corporate governance (including the corporate governance model in Switzerland)
- · Drivers for developments in the audit business
- Expectation gap and related developments in the field of audit, standard setting and standard setters
- Auditors and audit firms as market participants, their behavior and the consequences of it
- · Audit as regulated product and the importance of the Code of Ethics
- · The collapse of Worldcom and the Sarbanes Oxley Act
- · Consequences of the Sarbanes Oxley Act: example Switzerland
- Latest developments in the EU

Big Data Analytics – 424621

Prof. Dr. P. Baumann Students are able to:

- understand the benefits and challenges involved in big data-driven decision making
- preprocess and visualize data using the software Python
- apply methods for clustering and dimensionality reduction
- select and fine tune methods for regression and classification problems in Finance, Marketing, and Operations
- evaluate the performance of methods and identify opportunities to improve their predictive power
- build highly-scalable learning systems using stochastic gradient descent and map reduce
- use big data to build product recommender systems, discover communities in social networks, analyze text, and forecast time series

Seminar Applied Business Analytics - 456481

Prof. Dr. P. Baumann

The aim of this seminar is to give students hands-on experience in applying machine learning algorithms to real-world business problems. Students will work in groups and will use Python to implement their machine learning system.

Combinatorial Optimization – 11144

Prof. Dr. N. Trautmann The students are able to ...

6 ECTS, MSc, HS

6 ECTS, MSc, HS

4.5 ECTS, MSc, HS

3 ECTS, MSc, HS

- efficiently model complex decision problems in finance, marketing, and management as linear programs (LP) or mixed-integer linear programs (MILP)
- implement and solve the respective programs with commercially available solvers, and analyze the results obtained
- describe the structural properties of LP and of MILP
- analyze the solution procedures applied by the solvers (i.e., the simplex algorithm for LP and the branch-and-bound and the branch-and-cut-algorithm for MILP)
- select and apply basic heuristic algorithms to solve combinatorial optimization problems (CO)
- · develop and implement MILP-based heuristics for solving CO
- explain basic meta-heuristic algorithms for solving CO

Financing and Capital Structure – 5279

Prof. Dr. P. Valta

This course introduces students to a number of advanced topics in corporate finance, such as the capital structure of firms, the design of corporate securities, the issuing process of these securities, and the implications of financial structuring for the value of firms. It presents a market oriented-framework for analyzing firms' financing and capital structure choices. Throughout the course, students will solve exercises and a case study to enhance the understanding of the covered topics.

Advanced Valuation – 41

Prof. Dr. P. Valta

The goal of this course is to develop and apply tools and methods for the valuation of firms and other assets. In addition, the course analyzes mergers and acquisitions as an important corporate event, and provides techniques to value firms that are subject to changes in corporate control. Students will do a comprehensive valuation exercise that allows them to apply the methods and tools in a real setting.

Company Valuation (CFA Institute Research Challenge) –478628 6 ECTS, MSc, HS

Prof. Dr. P. Valta

Students work in teams and perform a financial analysis and valuation of a publicly listed Swiss company and present their results according to professional standards. The course develops and reviews the main company valuation methods and is supported by the CFA society in the context of the CFA Institute Research Challenge. The CFA society provides contact to the subject company and a mentor from the financial sector. The output are a research report and a presentation of an investment case (buy, sell, hold). The teams then compete against teams from other Swiss universities.

6 ECTS, MSc, HS

6 ECTS, MSc, HS

Derivatives - 446149

Prof. Dr. J. Cujean

In 2017, a monthly average of 195 Wall Street Journal articles related to derivatives. Derivatives sometimes make headlines, AIG's losses on credit default swaps being one example among many. Not only does the use of derivatives represent a major part of financial markets' daily activity, but the pricing theory of derivatives is also a cornerstone of modern finance. Back in 1969, three researchers - Fisher Black, Myron Scholes, and Robert Merton - started working on option-pricing problems. Their work would change the way we think about risk and valuation. Thirty years later, Robert Merton and Myron Scholes won the Nobel Prize in Economics for their contribution to option pricing theory. The huge theoretical impact of option pricing theory and its practical significance make it one of the most exciting areas in finance. This course helps to develop the relevant knowledge and understanding of derivatives for students aiming for a career in the investment field. The main thread running through this course is the use and pricing of derivatives contracts. The course focuses on three main types of such contracts: i) forwards and futures, ii) swaps, and iii) options. While the theoretical treatment of futures and swaps only involves Net Present Value computations, the pricing of options additionally calls for an underlying model; the course covers two such models, the Binomial model and its close relative, the Black-Scholes model. Several important applications will be discussed, such as financial and commodity forwards and futures, interest rates derivatives, swaps, and risk management.

Principles of Auditing – 468886

Prof Dr. Y. Yang

Auditing is an inseparable part of the modern business world. For students who want to work for a company or start their own business, this course helps them understand the function of auditing and how to communicate with auditors in practice. For students who are interested in a career as an auditor or accounting researcher, the course builds the foundation for future studies.

ESG Investing and Sustainable Finance – 480334

Prof. Dr. K. Fabisik

This course is aimed at students who would like to learn more about the world of environmental, social and governance (ESG) investing and sustainable finance. In 2020, 1 in 3 dollars of the total US assets under professional management was being managed according to ESG principles (US-SIF, 2020). This course provides an overview of the most relevant aspects of ESG and sustainable investing which are presented in a way that should nurture critical thinking.

Strategic Management Accounting - 103181

Prof. Dr. M. Arnold

The course treats management accounting instruments designed to develop, implement and control strategies. The course addresses the design of these instruments from a theoretical and an empirical perspective. Specific objectives of this course are: To enable students to understand which factors of the firm environment determine strategies, how firms react to these factors and how they can use managerial accounting instruments to develop and control strategies.

6 ECTS, MSc, HS

4.5 ECTS, BSc, FS

3 ECTS, BSc, FS

4.5 ECTS, MSc, FS

Management Control Systems to Support – 452395 Corporate Innovation Activities

4.5 ECTS, MSc, FS

Prof. Dr. A. Posch

The topics covered in this course among others include:

- Theoretical foundations of innovation management (definitions, different types, innovation process, etc.)
- Role of management control systems in different phases of innovation process (i.e., intelligence gathering, idea recognition, idea selection, execution, transition to manufacturing, commercial-ization, value capture)
- Making corporate innovation activities measurable
- Rewarding innovation
- Tools for innovation management (e.g., stage-gate process, portfolio management tools, design thinking, project management, etc.)
- Organizing for innovation
- · Fit between management control systems and corporate innovation activities
- Innovation culture

Advanced Group Accounting – 26532

4.5 ECTS, MSc, FS

Prof. Dr. A. H. Kunz

This course covers accounting issues related to takeovers, mergers and acquisitions, spin-offs, affiliated businesses, special purpose entities, and the preparation of consolidated financial statements according to IFRS and Swiss GAAP FER/RPC. The primary course objectives are the following:

- 1. Expand the technical proficiency in accounting for transactions involving mergers and acquisitions, affiliated businesses, and in the preparation of consolidated financial statements.
- 2. Improve the ability to interpret and use financial statements describing the financial condition and operating result of affiliated business entities, including multinational organizations.
- 3. Develop a thorough understanding of different national and international accounting regulations with respect to group accounting, in particular to Swiss GAAP FER, IFRS and US-GAAP.
- 4. An important supplementary objective is to develop students' ability to research accounting pronouncements and to use their judgmental skills to provide opinions on the appropriate treatment for unfamiliar accounting problems.

International Financial Reporting Standards – 26670

4.5 ECTS, MSc, FS

Dr. D. Wasna

The objective of this course is to enable students to read, understand, and prepare financial statements of a single legal entity according to the International Financial Reporting Standards (IFRS). An important supplementary objective is to develop students' ability to research IFRS pronouncements and to use their judgmental skills to provide opinions on the appropriate treatment for unfamiliar accounting problems.

Financial Statement Analysis and Valuation – 26646

Prof. Dr. Y. Yang

This course is designed to develop students' capabilities to efficiently and effectively read, interpret, and analyse financial statements. The fundamental analysis is taught from a practical perspective, where listed companies are used for in-class cases and exercises. Although the primary focus is on equity valuation, lending and other investment decisions are also discussed.

Seminar in Financial Accounting – 6436

Prof. Dr. A. Y. Yang

Judgement and Decision Making (JDM) in Accounting Contexts: The course provides a critical review of the current state-of-the-art in research on judgment and decision making in accounting and auditing contexts. The objective of the seminar is twofold: First, students will gain a critical review of the state-of-the-art research on judgment and decision making (JDM) on selected accounting topics. Second, students will discuss an assigned research article. They will learn to identify research gaps, to deduce new research questions, and to discuss and review different research strategies to tackle these questions. The seminar format requires students to work autonomously and to acquire critical knowledge by themselves.

Portfolio Optimization – 104460

Prof. Dr. P. Baumann

The emphasis of this course will be on the use of mathematical models for financial portfolio optimization. We will review classical and more recent portfolio selection models and discuss their strengths and limitations. Moreover, we show how these models can be implemented and how input parameters can be derived from stock-market data. We will also consider recently developed methods that are used to replicate the movements of indices.

4.5 ECTS, MSc, FS

6 ECTS, MSc, FS

4.5 ECTS, MSc, FS

Risk Management – 40

6 ECTS, MSc, FS

Prof. Dr. K. Fabisik

After completing the course, students will be able to thoroughly assess and pragmatically handle various types of financial risk typical for financial markets, such as market risk and credit risk. Students will acquire a deeper understanding of financial instruments available to risk managers and learn to contemplate them as effective means to hedge and diversify financial risk. Specifically, students will gain knowledge in the following areas:

- Incentives and risks in financial institutions
- · Risk management and firm value
- Credit risk and counterparty risk (estimating default probabilities, structure of credit ratings, credit ratings transition matrices, Credit Value at Risk (CVaR))
- Trading in financial markets (types of markets, clearing, long and short positions in assets, derivatives markets, the risk profile of options, futures, forwards, swaps and other derivatives)
- Hedging Foreign Exchange (FX) exposure
- Market risk (delta, gamma, vega, theta, and rho exposures, Value at Risk (VaR) models, model risk)
- Origins of the Financial crisis of 2007–2008 (role of credit rating agencies and analysis of their incentives)
- Operational risk
- Regulation: scenario analysis and stress testing in the context of current regulatory frameworks
- · ESG from the risk management perspective
- Case studies in risk management (Bankers Trust, Barings, Fannie Mae and Freddie Mac, Long Term Capital Management (LTCM), Metallgesellschaft, Northern Rock, Orange County, Washington Mutual)

Fixed Income – 12023

Prof. Dr. J. Cujean

The market for fixed income products is huge and ever growing. Throughout the 2007---2009 financial crisis, the 2008---2009 recession and the crisis in the Eurozone, debt markets have been in the spot light. Central banks have been trying to fight the crisis with aggressive expansionary monetary policy and by greatly expanding their balance sheets. Public debt is mounting at a staggering rate and US government debt is projected to reach possibly 80% of GDP by 2019.

In this environment, it is indispensable to have a thorough understanding of the functions and objectives of the major players in debt markets, of the various fixed income instruments and the risks associated with them, and of the models and methods used to value fixed income securities and their derivatives. This course helps to develop the relevant knowledge and understanding of fixed income instruments and interest rate models for students aiming for a career in the fixed income field. The course will provide an overview of the major institutions, organisations and investors, and the recent developments in fixed income, covering both theoretical background and practical implementation. We will discuss traditional debt instruments (namely government and corporate bonds) and fixed income derivatives (including mortgage-backed securities), develop the theories for valuing them and study the determinants of risk and return of fixed-income securities. To this end, we will cover the most important state-of- the-art interest rate models such as the Vasicek, Ho and Lee, or Black-Derman-Toy models; we also develop their theoretical underpinnings and provide examples for the practical implementation. Furthermore, we will take a closer look at the interdependencies and the roles of the different players in the debt markets. In particular, we will examine the role of and the instruments available to the central bank in setting interest rates. The major focus of the course will be on economic intuition and on understanding the products and interrelationships in the fixed income markets. We will relate the course topics to the credit crisis of 2007–2009 and discuss implications for the future of debt markets.

Investments - 439570

Prof. Dr. J. Cujean

This course is designed to provide a sound foundation for the fundamental concepts in investments. Students who master the course material will acquire the analytical tools and financial theory necessary for making good investment decisions and understanding the paradigms by which the asset allocation industry operates. This course is highly quantitative and relies heavily on analytical tools and economic theory developed throughout the course. Students should be comfortable with basic probability, statistics and regression analysis. Use of a spreadsheet package such as Excel will be vital for the homework assignments, saving time and aiding in understanding the material.

Seminar: Empirical Finance - 416461

Dr. M. Brunner

Dr. S. Jakob

This seminar provides students with a toolbox and working knowledge of the main methods used in empirical finance research. The goal of this class is that students learn how to apply the various methods to analyze data sets in finance and to prepare them for the write up of the Master thesis. The seminar reviews some econometric theory, but the focus is on the application of the methods in a finance setting. Econometric topics include linear regression (OLS and Panel) and how to address endogeneity problems. While the first part focuses on corporate finance topics such as capital structure, payout policy, or liquidity management, the second part looks into asset pricing and time series models.

4.5 ECTS, MSc, FS

6 ECTS, MSc, FS

6 ECTS, MSc, FS

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Information Systems

Information Resource Management – 11436

Prof. Dr. J. Dibbern

Todays, globalized competition forces organizations to constantly develop new products and services and to improve their business processes. Information technology (IT) has become a key enabler for addressing these challenges and for achieving competitive advantage. Reaping of the benefits of IT requires the efficient and effective management of information resources, which often include a combination of IT and non-IT resources. The management task includes strategic planning, organization of internal and external resources as well as governing and controlling the respective work processes and outcomes.

This lecture aims at students that seek for an overview of concepts and methods in the area of information systems management and especially in information resource management. By successfully completing this course, students obtain consolidated knowledge about frameworks and concepts that help to guide the planning, organizing, governing, and controlling of information resources. An important emphasis of the lecture is placed on the topics IT Outsourcing and IT Offshoring.

Cases in Information Resource Management – 11437

Prof. Dr. J. Dibbern

This course complements the lecture Information Resource Management (IRM) with a practical component. Selected information management issues are illustrated by means of hands-on case study exercises and the opportunity to write an own teaching case. For this purpose, students are grouped into teams. The main objective is to better understand as well as to apply the concepts taught in the lecture IRM. Therefore, we require all students of this course to attend IRM in the same semester or to have attended IRM in a prior semester.

Data Science for Organizations – 484794

Prof. Dr. P. Sachin

Today, as data flows abundantly in and out of firms, the ability to generate actionable insights from such data is a valuable competitive advantage for businesses. Data Science, the emergent and evolving profession that makes generating such insights possible, has been described by Harvard Business Review as the sexiest profession of the 21st century. As such, the demand for data scientists has been booming in many organizations. However, much of what data scientists do has been shrouded in mystery. Therefore, this course aims at familiarizing students with what is being a data scientist in the business environment and how one can identify themselves as a data scientist. Students can attain the required knowledge on different aspects of data science and its implications for business. As part of the course, students will acquire skillsets that will help them understand what is exactly that a data scientist does and how their work helps organizations in making more effective decisions.

4.5 ECTS, MSc, HS

6 ECTS, MSc, HS

6 ECTS, MSc, HS

Seminar: Digital Ecosystems and Individuals – 467501

Prof. Dr. C. Matt

Thanks to increasingly powerful and intelligent IT, a large number of digital technologies have become more widespread in the context of private IT use in recent years. The exemplary application domains are manifold and include, for example, intelligent decision support systems and wearables on a small scale, as well as connected cars and smart cities in the broader sense. In connection with this, entire digital ecosystems are increasingly developing, consisting of different (in some cases also private) service providers and new (often multi-sided) market structures that form the basis for novel digital products and services. In some cases, entire ecosystems emerge and enable the interaction of different technologies with one another, which can lead to advantages for users but also pose new challenges, especially in the form of increasing complexity or more difficult privacy protection. At the same time, such digital ecosystems are also increasingly linking more and more private and professional worlds with one another. Arising opportunities and challenges emerge individually but also for society as a whole and require appropriate, sustainable technology design and use. The seminar is dedicated to digitization in the individual field and analyzes its opportunities but also challenges for users as well as for service providers in this area.

Data Management for Businesses – 481711

Prof. Dr. C. Matt, Prof. Dr. T. Myrach

Nowadays, companies can profit from more data sources, larger amounts of data, as well as new types of data, that often cross corporate boarders, leading to an overall higher importance of data for modern data-driven businesses. At the same time, companies face challenges, because more interfaces to the outside world are necessary and companies also operate frequently on external markets with only limited control over data and corresponding actions (e.g., on external data platforms). The course deals with the opportunities and challenges that data-driven businesses face today and explores technological, economic, as well as organizational aspects of this development. It presents both theoretically grounded as well as directly practically applicable knowledge on data management for businesses and thus lays the foundation for further courses in this area.

Introduction to Data Science – 487103

Prof. Dr. P. Sachin

Data is the new oil! Or so goes the popular adage. Indeed, data today forms the backbone of decisionmaking in sectors ranging from healthcare, hospitality, defense, government, education etc. In this course students will be introduced to the basics of data science and what a career in data science entails. Students will understand how the work of a data scientist helps organizations in making more effective decisions.

Enterprise-Software-as-a-Service Lab – 400666

Prof. Dr. O. Krancher

According to some observers, software-as-a-service (SaaS) will make traditional ways of using software obsolete. Businesses will access software services such as Salesforce.com, Workday, or Gmail through the internet, and they will flexibly combine these services to support or change their business instead of developing their own applications or purchasing standard software packages. Whether such visions will become true or not, there is little doubt that SaaS allows organizations to significantly change how they use information technology. This course aims at preparing students for the effective, critical use of enterprise software and SaaS in their professional lives. The students will gain immediate insight into the design, configuration, use of SaaS through hands-on experience, and they will reflect on these experiences by applying fundamental theories of enterprise software implementations. While SaaS thus provides the context and while the specifics of SaaS will be discussed, we will use SaaS as an opportunity to better understand more fundamental ideas of technology implementations and enterprise software.

6 ECTS, MSc, HS

6 ECTS, MSc, FS

6 ECTS, BSc, FS

3 ECTS, BSc, FS

Digital Business Transformation – 469629

Prof. Dr. J. Dibbern

More and more companies integrate and develop artificial intelligence (AI) tools. The areas of application are numerous – new applications that include algorithms as a core element like ChatGPT, recommendation systems, smart contracts, chatbots, or smart homes are emerging on a daily basis. Consequently, the many new applications are not yet fully established, they have different opportunities, but also pitfalls. This research seminar aims to enable students to learn more about the impact as well as the challenges of AI-enabled and algorithmic-supported systems – How are they managed and lead to success on organizational as well as individual levels?

Seminar Information Systems – 446288

Prof. Dr. C. Matt

The digital transformation of their businesses remains a challenge for many firms, also because it often requires not only technological but also organizational and value creation related changes. Guided by these three pillars of a digital transformation strategy, the main goal of the course is to understand the requirements, means, and procedures that companies can employ during digital transformation. Exemplary topics include but are not limited to digital transformation frameworks, digital business models, agile management procedures, and Chief Digital Officers. The course seeks to combine recent scientific insights with practical applications in the field. Therefore, students will be working on scientific papers and business cases to apply the concepts and models from the course. Grading will be based both on a written exam as well as on in-class presentations.

Management

International Management – 3409

Prof. Dr. O. Rank

This course introduces you to the basic concepts in management theory for creating world-class learning organizations which are characterized by continuous improvement, creative human resource management techniques, flexible arrangements, and an egalitarian work climate, all within a global context. The essential concepts and methods of international management will be discussed using a decisionoriented approach. Through lectures and class participation we will approach problems being characteristic for international management.

Organizational Behavior – 419601

Prof. Dr. S. Berger

This course will aim to answer one simple question: How can we get an organization to work effectively and sustainably? The answer - as it turns out - is not as simple. Using a multi-method approach (including, but not limited to experimental economics, game theory, organizational psychology, sociology), the course will cover various topics relevant to organizational decision making. Among them are: assessment and development of talent, team work and cooperative decision making, stress and worker well-being, performance measurement, fairness and diversity, and leadership. Occassionally, the course will cover some methodological aspects relevant to the topics (e.g., why is an experiment suited for this particular research questions, why do we need statistics to draw inferences about our organizational effectiveness, etc.).

6 ECTS, MSc, FS

6 ECTS, MSc, FS

3 ECTS, BSc, HS

4.5 ECTS, BSc, HS

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Corporate Strategy – 32

Prof. Dr. A. Baldauf At the end of the course students are able to answer the following questions:

- How does a corporation create economic value through its multimarket activity?
- How must the corporation be structured and managed to realize the benefits of its multimarket activity?
- Why should these activities be undertaken inside the corporation, rather than ac-cessed through contracts, joint ventures or other institutional arrangements?

Being an Entrepreneur – 425627

Prof. Dr. P. Sieger

What does it mean to be an entrepreneur?

This course takes a fresh and comprehensive look at the entrepreneurial career path as a whole. It covers new venture creation but goes way beyond that by discussing selected important topics along the entrepreneurial life cycle. The course also illustrates the related challenges that different types of entrepreneurs and their firms face and how long-term entrepreneurial success can be achieved.

Seminar Management and Entrepreneurship-51

Prof. Dr. A. Baldauf

The abilities of strategic thinking and behaviour are central characteristics to evaluate leaders. These management competences may lead to competitive advantages and superior corporate profits. However, managers should be aware of the consequences of their actions and understand the effects that their beliefs and behaviour might induce.

In this course students will be:

- confronted with challenging (strategic management) literature,
- motivated to thoroughly study models, concepts and methods,
- · confronted with the peculiarities of scientific work,
- assisted in composing a systematic literature review and prepared for writing a potential master thesis at the Department of Management.

Advanced Organization I – 27284

Prof. Dr. F. von Bieberstein

In recent years, lab(oratory) experiments in economics have studied important organizational questions. What can we learn from these experiments for organizational practice? And what are the most important aspects to design and conduct a successful lab experiment? This course introduces organizational lab experiments as an empirical research method and discusses the major findings. Topics include:

- Coordination
- Teamwork
- Cooperation

6 ECTS, MSc, HS

6 ECTS, MSc, HS

6 ECTS, MSc, HS

6 ECTS, MSc, HS

- Reciprocity
- Intrinsic motivation versus extrinsic incentives.

Students will design and conduct their own lab experiment in groups. Each group writes a short paper on their experimental findings. The course includes a variety of didactic elements such as classic lectures, open discussions, group work, and writing a short paper.

Business Model Creation – 469839

4.5 ECTS, BSc, FS

6 ECTS, MSc, FS

4.5 ECTS, MSc, FS

Prof. Dr. P. Sieger

Have you ever thought about starting your own business? Do you have a business idea that you would like to develop further? Or do you want to learn more about these topics in general? The course "Business Model Creation" introduces the foundations of entrepreneurship and new venture creation and then focuses on two very powerful tools for potential entrepreneurs: the "Business Model Canvas" (BMC; Osterwalder & Pigneur, 2010) and the "Value Proposition Canvas" (VPC; Osterwalder et al., 2014). In the course, the participants will learn the conceptual basics of entrepreneurship in general and the BMC and VPC in particular and will apply this knowledge to an own business idea. As such, the course combines academic rigor and practical relevance.

Corporate Entrepreneurship – 429711

Prof. Dr. P. Sieger

Corporate Entrepreneurship: How to make companies entrepreneurial and successful? To be successful in the long run, companies need to establish and maintain an entrepreneurial spirit within the firm. But how to introduce and foster firm-level entrepreneurship? This course takes a fresh and comprehensive look at different important elements of entrepreneurship within organizations. First, it introduces the main underlying concepts and themes of corporate entrepreneurship, such as "entrepreneurial orientation", "corporate venturing", or "strategic entrepreneurship". Second, it addresses the most important ways how to actually foster corporate entrepreneurship, particularly how to encourage employees' entrepreneurial behavior.

Corporate Development and Mergers and Acquisitions- 430833

Dr. P. Binder

In this applications oriented course current state-of-the-art knowledge on corporate development together with real world case studies will be presented. The course builds on the prior courses in strategic management and corporate strategy and will introduce you to business (finance) principles and analytical techniques. The course participants should be able to apply basic business principles and analytical techniques to actual problems likely to be encountered by senior management of major corporations or those who are the advisors to such management in the context of an M&A transaction. In this course you will explore modes of corporate development with a focus on mergers and acquisitions. Strategic and operational aspects of corporate development strategies are at the core of this course covering deals from a variety of industries.

Seminar in Management and Entrepreneurship – 51

6 ECTS, MSc, FS

Prof. Dr. A. Baldauf

The abilities of strategic thinking and behaviour are central characteristics to evaluate leaders. These management competences may lead to competitive advantages and superior corporate profits. However, managers should be aware of the consequences of their actions and understand the effects that their beliefs and behaviour might induce.

In this course students will be:

- confronted with challenging (strategic management) literature,
- motivated to thoroughly study models, concepts and methods,
- · confronted with the peculiarities of scientific work,
- assisted in composing a systematic literature review and prepared for writing a potential master thesis at the Department of Management.

Advanced Organization II – 410793

4.5 ECTS, MSc, FS

Prof. Dr. F. von Bieberstein

In recent years, companies have started to conduct experiments to answer important organizational questions. Why do we see this trend? And what are the most important aspects to design and conduct a successful field experiment? This course introduces organizational field experiments as an empirical research method and discusses the major findings. Topics include:

- Lab and field experiments
- Power analysis
- Monetary incentives
- Nonmonetary incentives
- Organizational culture
- Health management

Students will design their own hypothetical field experiment in groups (i.e., the experiment will not be conducted). Each group gives a short poster presentation of their ideas. The course includes a variety of didactic elements such as classic lectures, open discussions, group work, and poster presentations. Students who successfully completed the course "Advanced Organization I" can build on this knowledge, however, it is possible to follow the course "Advanced Organization II" without prior knowledge on experiments.

Advanced Family Business Management – 480188

4.5 ECTS, MSc, FS

Prof. Dr. F. Riar

Nearly 90 percent of all firms worldwide are family firms and outnumber nonfamily firms in terms of their contribution to global economic activity and employment. However, managing family firms can be challenging as family considerations add further levels of complexity to a business. This course uses the case study method to study family business management. Students will dive deep into the challenges of family firms as well as the decision-making concepts of family managers and nonfamily managers. Management methods and tools provide the theoretical basis for solving the case studies. Some methods may have already been introduced to the students in other courses and this course will build and focus on their application. Other methods may be newly introduced. Overall, this course combines state-of-the-art family business theory and practice-oriented cases that delve into both operational and strategic topics relevant for family businesses and their stakeholders.

International Human Resource Management – 6235

4.5 ECTS, MSc, FS

Dr. T. Köllen

The aim of the course is to look into and understand the peculiarities of human resource management in intercultural contexts and to become able to take them into account in own behaviour. The main topics include: IHRM & culture, globalization & organization, personnel selection and development, international assignments, intercultural communication, leadership & Collaboration, diversity management, multicultural and dispersed teams. The learning outcomes include that students can give an overview of the focal concepts in the field of international human resource management. This encompasses (beside others) the concepts of culture, communication, different form of organisation of multi national organizations, as well as specificities of working in an intercultural context. The students critically deal with state-of-the-art scientific literature in the field. Students are enabled to identify and understand problems that might arise from working in an intercultural context in business practice and can critically discuss these problems and suggest measures to address them.

Marketing

Communications and Sales Management – 9481

Prof. Dr. H. Krohmer

This course covers the instrumental perspective of marketing. The course is structured as follows:

- Communications Management: a) Basic Terms, Concepts, and Overview b) Objectives and Target Groups of Communications c) Budgeting and Media Planning d) Design of Communication Measures e) Implementation of Communication Measures f) Monitoring of Communication Impact.
- Sales Management: a) Basic Terms, Concepts, and Overview b) Design and Structure of the Sales System c) Design and Structure of the Relationships to Sales Partners and Key Accounts d) Design of Selling Activities e) Sales Logistics.

Product and Price Management – 9486

4.5 ECTS, MSc, HS

Prof. Dr. H. Krohmer

The main subjects of product management are: Defining the product, innovation management, management of established products and brand management. The main subjects of price management are: The key aspects of determining prices in a complex setting, the theoretical foundations of pricing decisions and understanding customers, costs and competition: Approaches to pricing.

Strategic Digital Marketing – 458419

4.5 ECTS, MSc, FS

Prof. Dr. H. Krohmer

This course will combine theoretical and practical insights on strategic digital marketing. Developing a digital marketing strategy lies at the core of business success. Companies that are good in developing and managing their presence along various digital channels have a strategic advantage over their less "digitally savvy" rivals. Starting with the situation analysis, the course will cover the topics of online targeting and positioning and digital communication strategy development along the RACE communication framework. The course will be offered as a weekly lectutre. At the end of the course, the students will write an exam. This course will combine theoretical and practical insights on strategic digital marketing. Developing a digital marketing strategy lies at the core of business success. Companies that are good in developing and managing their presence along various digital channels have a strategic advantage over their less "digitally savvy" rivals. Starting with the situation analysis, the course will cover the topics of online targeting and positioning and digital combine theoretical and practical insights on strategic digital marketing. Developing a digital marketing strategy lies at the core of business success. Companies that are good in developing and managing their presence along various digital channels have a strategic advantage over their less "digitally savvy" rivals. Starting with the situation analysis, the course will cover the topics of online targeting and positioning and digital communication strategy development along the RACE communication framework.

4.5 ECTS, MSc, HS

International Marketing – 305

4.5 ECTS, MSc, FS

Prof. Dr. H. Krohmer This course covers international marketing out of an institutional perspective. The course is structured as follows:

- 1. Understanding the International Marketing Environment
- 2. International Market Coverage Strategies
- 3. Managing International Products, Brands and Communications
- 4. Managing International Prices
- 5. Managing International Customer Relationships
- 6. Organizational Issues in International Marketing

Macroeconomics

International Macroeconomics – 101681

Prof. Dr. P. Benigno

The objective of this course is to introduce students to the key issues in open economy macroeconomics. The following topics are covered: theories of exchange rate determination, the operation of the foreign exchange market, the study of the current account, the comparison of the properties of alternative exchange rate systems, the international monetary system from an historical perspective, the study of blockchains, the challenges provided by cryptocurrencies and the evolution of financial markets through decentralized digital finance.

Economics and Politics – 543

Prof. Dr. V. Koubi

The international system is characterized by the absence of central authority. Within this anarchic world, states must pursue the goals of security (autonomy and military superiority) and economic prosperity. The objective of this course is to explore the underlying tension between nationalistic conceptions of security and the globalization of economic activity. Some of the topics that will be covered in this course include the determinants of defense spending and the impact of defense expenditures on economic performance, the dynamics of the development of new military technologies, the relationship between arms races and war, the impact of economic performance on conflict initiation and the effects of conflict on economic growth, the relation between trade and war, and the economics of disarmament.

Seminar: International Political Economy I – 5355

Prof. Dr. V. Koubi

The principal goal of this seminar is to learn – hands-on – how to carry out research and write a good research paper. The seminar covers topics such as international trade, environmental policy, sustainable development, international finance and foreign direct investment, defense economics, and welfare state policy.

Seminar: Economics of European Integration – 2092

Prof. Dr. A. Philippopoulos

The seminar covers the main issues in European economic integration and the current situation in the European Union.

Seminar outline and topics studied The current situation; postwar history and the main institutions in Europe; international interdependence and cooperation; international unions; architecture and design of European integration; trade policy and the Single Market; monetary policy and the euro zone; fiscal policy and fiscal unions; the 2008 global financial crisis, the European debt crisis and the role of EU institutions; the 2020 pandemic crisis and the role of EU institutions; what is next.

Empirical Macroeconomics II – 26496

Prof. Dr. L. Benati

The main focus of the course will be on structural VAR (henceforth, SVAR) analysis and its applications, but I will also discuss several issues which are either conceptually related, or instrumental to specific uses of VARs (e.g., bootstrapping, in order to get confidence intervals with the correct coverage; break tests, in order to ascertain whether specific VAR features have changed over time; etc. etc.). The lectures will systematically integrate theory and empirical applications: each theoretical/conceptual issue will be implemented in MATLAB in class, thus allowing students to progressively develop their skills in pursuing empirical macroeconomic research.

4.5 ECTS, BSc, HS

3 ECTS, BSc, HS

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6 ECTS, BSc, HS
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4 ECTS, BSc/MSc, HS

6 ECTS, MSc, HS

Regional and Urban Economics – 405449

Prof. Dr. M. von Ehrlich

Economic theory often abstracts from the spatial dimension or as Paul Samuelson put it "Spatial problems have been so neglected in economic theory that the field is of interest for its own sake." This course studies how economic mechanisms shape cities and regions. It will be a mixture of lectures, student-led presentations on readings, and open discussion. We address among others the following questions: Why do cities exist? Why do firms cluster? Why have some cities and regions prospered in recent decades while others have declined? What are the determinants of house price variations? How can/should the public sector intervene in the spatial distribution of economic activity? Key concepts of the course will be the theory of spatial equilibrium and the economies of agglomeration and dispersion. There will be a mix of economic theory and empirical analysis.

Mathematical Methods in Economics - 7126

Dr. A.Bachmann

This course introduces the students to advanced mathematical methods in economics. The following topics are covered: expectational difference equation and dynamic programming. Both topics are discussed in the deterministic as well as in the stochastic setting. Also an introduction to probability theorey is given. The course includes exercise sessions.

Macroeconomics II – 7196

Prof. Dr. D. Niepelt

This course introduces Master students to modern macroeconomic theory. Building on the analysis of the consumption-savings trade off in dynamic economies and on concepts from general equilibrium theory, the course covers workhorse general equilibrium models of modern macroeconomics: the representative agent framework, the overlapping generations model, and the Lucas tree model.

International Trade - 1579

Prof. Dr. J. Francois

The course develops a general framework for understanding why countries trade, what goods they import and export, how trade affects the allocation of resources and the distribution of income, the benefits from international trade, and the implications of trade policy. We also cover topics that are at the center stage of current policy debates, such as the effects of international trade on unemployment and on economic growth, the role of globalization and so on.

Economic Growth – 26490

Prof. Dr. G. Baldi

What are the forces driving the growth process in the world economy? What are the sources of economic growth? What do the data tell us about the long-run growth? Will poor countries remain poor? This course studies these questions and investigates the proximate determinants of income per capita across time and space. We will cover the Solow-Swan growth model, endogenous growth, the twosector model, and some applications pertaining to the role of technology, innovation policy, institutions, and the agricultural sector. Throughout this course, a particular emphasis is set on the interplay between theory and data so that students learn how economic theory can be used to understand the data, and how data can be used to test a theory.

3 ECTS, MSc, HS

4.5 ECTS, MSc, HS

4.5 ECTS, MSc, HS

6 ECTS, BSc, FS

3 ECTS, BSc, FS

Monetary and Financial Economics – 419664

Prof. Dr. C. Monnet

The objective of this course is to study the workings of the financial system, as constituted by financial contracts, securities and markets as well as financial intermediaries. We will analyze the reasons why and how money and credit flows from savers to entrepreneurs to create value. Through a good understanding of the micro-structure of credit flows, students should get a better grasp of the macroeconomic consequences of regulation, monetary and central bank balance sheet policies. The approach is resolutely analytical and a few mathematical models will be covered in class. Finally, the class is based on the book "Contemporary Financial Intermediation" (Elsevier/Academic Press Third Edition) by Stuart Greenbaum, Anjan Thakor and Arnoud Boot.

Topics in Macroeconomics – 475103

Prof. Dr. D. Niepelt

The course targets students who have completed their mandatory training in microeconomics, macroeconomics and mathematics and who are interested to make use of macroeconomic theory in order to analyze questions related to asset prices, bubbles, government debt, or the link between fiscal and monetary policy. The grade may depend on participation in class; small group projects; and/or a written exam.

Seminar: Empirical Macroeconomics I – 27349

Prof. Dr. L. Benati

The course is a basic introduction to empirical work, mainly based on VARs (vector autoregressions). Students will be taught all of the basic aspects of empirical analysis, from the simplest (e.g., performing tests on the order of integration of the series), to the relatively more sophisticated (e.g., using VARs in order to compute forecasts of the future evolution of the economy, and measures of uncertainty around that). Particular attention will be paid to techniques and applications which are relevant for policy institutions (such as central banks).

International Monetary Economics – 10108

Prof. Dr. P. Benigno

The course focuses on exchange-rate markets starting with relationships as covered interest parity and uncovered interest parity and studying speculative positions through carry-trade strategies. It presents models for the exchange rate determination as the monetary model, the balance-of-payment currency crisis model. The course also develops a framework to think about the effects of monetary policy in an international context. Topics also include the determination of the current account and international risk sharing. The last part of the course focuses on the global consequences of cryptocurrencies.

Monetary Policy – 11985

Prof. Dr. L. Benati

This course is designed as a presentation of the main theories in monetary economics that are commonly used in central banks. It starts with a survey of the key empirical results pertaining macroeconomic fluctuations over the last several decades, and it then discusses how alternative macro models can - or cannot - explain the facts. We then investigate the design of monetary policy, starting with Taylor rules and moving to the optimal design of these rules.

4 ECTS, BSc, FS

6 ECTS, MSc, FS

6 ECTS, MSc, FS

4.5 ECTS, BSc, FS

3 ECTS, BSc, FS

Monetary Theory – 10109

Prof. Dr. P. Benigno

This course provides an introduction to monetary theories as used in a macroeconomic setting. We will discuss the role of money in the business cycle both from an empirical and a theoretical point of view, and see how to introduce money in standard Classical models (with flexible prices) and New Keynesian models (with nominal rigidities and information frictions). We will finally discuss monetary policy design, including optimal policies.

International Financial Regulation – 103558

Prof. Dr. S. Emmenegger

Prof. Dr. F. Contratto

This course will give an overview of the international regulatory framework for the financial services industry. In essence, it will deal with three issues: (1) The reasons for regulation (why are banks special)? (2) The main regulatory actors (e.g. IMF, Basel Committee, European Financial Authorities) (3) Current regulatory issues (e.g., Facebook IPO, Libor scandal, UBS trader losses).

Political Economy of Climate Change – 8294

Prof. Dr. V. Koubi

This course provides an introduction to the study of the political economy of climate change. It focuses primarily on concepts and perspectives which one may employ in understanding and describing the behavior of nations with regard to the impacts of climate change. Topics covered include realist and liberal paradigms, hegemony and regimes, theories of public choice (public goods, externalities, interest groups), international institutions and agreements, and the relationship between climate change and economic growth, trade, political system (democracy), and conflict.

Energy Economy – 458655

Prof. Dr. D. M. Radulescui

This course explores the theoretical and empirical perspectives on individual and industrial demand for energy, market failures, energy supply and demand, energy markets and public policies affecting energy markets. It discusses aspects of the oil, natural gas, electricity, nuclear power sectors, and renewable energy and examines energy tax, price regulation, deregulation, energy efficiency and policies for controlling emission. In addition, we will also consider individual behavioral failures and the implications for policy instruments and their effectiveness.

Seminar: Macroeconomics and International Economics – 103492

Prof. Dr. H. Dellas

The aim of this seminar is to provide students with a rigorous survey of the traditional real business cycle literature, with a focus both on monetary and fiscal issues, as well as open economy and labor market questions. The Seminar in Macroeconomics and International Economics is a very demanding course of the MSc in Economics at University of Bern because it requires both theoretical and applied work. The students select one paper out of a broad list of influential papers in macroeconomics. They are required to read and understand the paper, solve the model, and replicate the main findings with Dynare, an extension to Matlab for simulating dynamic stochastic general equilibrium (DSGE) models.

3 ECTS, MSc, FS

4.5 ECTS, MSc, FS

4.5 ECTS, MSc, FS

6 ECTS, MSc, FS

Public Economics

Environmental Economics: Introduction – 1223

Dr. S. Spycher

The course provides a theoretical introduction to the field of environmental economics. The course is an elective course either attributable for a Bachelor's degree in Economics or a Master's degree in Climate Sciences. Teaching language is English. In the course, we first learn why externalities caused by the unintended joint outputs of production induce perfectly competitive markets to allocate the inputs of production inefficiently and explore the relationship between externalities and the absence of well defined property rights. We then discuss how price and quantity based regulations can overcome these inefficiencies. Finally, we explore the limitations of these instruments in particular regulatory environments, such as asymmetric information and international environmental cooperation. Theoretical insights are complemented by various case studies.

Economic Evaluation of Environmental Goods – 446228

Prof. Dr. E. Strobl Valuation of environment

Valuation of environmental goods for which markets do not naturally provide a price remains a major challenge environmental policy making. This course is an introduction to the econometric methods of non-market valuation in environmental economics, including cost-benefit analysis. As such it will cover the economic theory background, the statistical building blocks, and practical implementation of the methods involved.

In order to evaluate competing sustainable development policies, policymakers mustbe able to monetarize environmental goods for which there are no markets and hence no explicit prices. This course provides these tools. This event will address various issues of social and economic sustainability. In particular, it will be discussed whether the current technological change increases inequality and leads to a stronger polarization on the labor market.

Topics in Public Economics II– 424198

Prof. Dr. M. Gerfin

Prof. Dr. M. v. Ehrlich

Students will summarize and interpret recent research articles in the field of public economics. The topics include taxation, local public finance, labor economics, and health economics, among others.

Labour Economics – 454948

Prof. Dr. J. Tschopp

The aim of this course is to introduce students to a number of topics in labour economics, which relate to various current policy debates around the world. The topics will be covered from both theoretical and empirical perspectives. Students will learn about a range of stylized facts related to labour market outcomes such as employment, unemployment, wage growth, wage inequality, as well as trade, technological change and the labour market. We will discuss recent theoretical models and empirical strategies that have been developed to analyze these trends.

4.5 ECTS, MSc, HS

3 ECTS, MSc, HS

6 ECTS, BSc, HS

4.5 ECTS, BSc, HS

Real Estate Economics - 404268

Prof. Dr. C. A. L. Hilber

The course aims to provide students with a theoretical and empirical understanding of the functioning of real estate markets with a particular focus on the price determination in land and real property markets. Topics covered include: the role of the government in real estate markets; local public finance and house price capitalization; the economic impact of land and housing market regulations (land use planning) on housing market outcomes; housing demand and supply; real estate cycles and bubbles; price vs. rent dynamics; commercial vs. residential real estate cycles, determinants of homeownership; externalities of homeownership; the role of mortgage financing; housing policies to address affordability issues and sprawl problems; policy evaluations. The institutional frame of reference within which the course is taught relates mainly to Western Europe (including Switzerland) and the United States.

Seminar: Economics of Education – 478334

Prof. Dr. S. C. Wolter Dr. D. Goller Dr. M. Strazzeri

The seminar gives students a platform to discuss recent academic contributions in the field of economics of education (see topics below). The learning content is based on a range of high-quality research papers published in leading journals in the field of economics. Students are expected to investigate one of the research topics based on their own reading of one of the research papers and present the acquired knowledge to the other seminar participants.

Seminar: Topics in Public Economics I – 414649

Prof. Dr. M. von Ehrlich Prof. Dr. M. Gerfin Students summarize and interpret recent research articles in the field of public economics.

Applied Public Economics – 398931

Prof. Dr. M. von Ehrlich

Prof. Dr. M. Gerfin

This course covers research topics in public economics which are of high relevance for economic policy. The aim of the course is to teach students how to interpret economic analyses and how to use microeconomic tools and empirical analysis in order to investigate and evaluate the effects of public sector activities such as expenditures, regulation and taxation. The emphasis of the course will be to combine advanced theoretical models with sound empirical evidence. Among others we address the following topics: Cost benefit analysis, contingent valuation, sufficient statistics approach, impact assessment of regulation, capital income taxation, taxation of multinational firms, and issues in international taxation.

Topics in Health Economics - 424198

Prof. Dr. M. Gerfin Dr. C. P. Schmid

The aim of the course is to teach students how to use microeconomic tools and empirical analysis in order to understand health economics. The emphasis will be to combine advanced theoretical models with sound empirical evidence. Among others we address the following topics: demand and supply of health care, health insurance, pharmaceutical economics, and behavioral health economics.

Fiscal and Monetary Policies – 27355

Prof. Dr. D. Niepelt

This course covers theories of the macroeconomic effects of fiscal policy (including tax and debt policy) as well as the interaction between fiscal and monetary policy. Participants should be familiar with the material covered in the course Macroeconomics II.

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3 ECTS, MSc, HS

3 ECTS, MSc, FS

3 ECTS, MSc, FS

4.5 ECTS, MSc, FS

6 ECTS, BSc, FS

6 ECTS, MSc, HS

Courses in Economics

Climate Economics: Scientific and Economic Foundations – 101172 4.5 ECTS, MSc, FS Prof. Dr. R. Winkler

In this course we first learn the fundamental scientific principles which drive the long-run consequences of climate change. Then we explore how to trade off the long-run costs of these consequences against the immediate costs of greenhouse gas abatement, in order to derive optimal global mitigation policies. To this end, we briefly review Nordhaus' DICE model, the most prominent Integrated Assessment Model of climate change mitigation, and its connections to the neoclassical growth model. We then explore several shortcomings of the DICE model, namely the absence of non-market damages, its negligence of the intergenerational nature of climate change mitigation and its disregard for the high uncertainty of the damages of climate change, and discuss how incorporating these aspects impact on the optimal mitigation policy.

Seminar: Environmental and Resource Economics – 11181

Prof. Dr. R. Winkler

Despite the success of the Paris Agreement, anthropogenic climate change remains one of humanity's most pressing challenges. Like with previous agreements (e.g., the Kyoto Protocol), we observe little progress in climate change mitigation: in almost all countries, current greenhouse gas (GHG) emissions are above their agreed upon pledges and even complying with these pledges will not achieve the acknowledged policy goal of containing the increase of the average surface temperature below 2 °C compared to the pre-industrial levels. The main reasons are the public good characteristic of GHG emission reductions and the absence of a supranational authority that can enforce cooperation. In this seminar, we discuss the obstacles of international environmental cooperation, and explore whether, and to what extent, new architectures for international cooperation are able to overcome them.

Seminar: New Data Sources for Tourism Researchs – 399614

Dr. M. Roller

Especially in tourism, there is very few officially available data due to the fragmented customer value chains. Platforms like booking.com or Airbnb.com, however, gather a lot of valuable data which is available via an application programming interface (API). In this seminar, students learn how to connect to such data bases via API and analyse such data to answer empirical economic research questions related to tourism. Students write a seminar paper on one of the provided topics (or choose an own topic) and present it in the final session.

Seminar: Advanced Topics in International Economics – 436360 4 ECTS, MSc, FS

Prof. Dr. J. Francois

This seminar covers recent frontier research topics in international economics. This includes the impact of the global economy on the structure of production, labor market effects, trade and climate linkages, and international migration.

Seminar: Economic Analysis of Extreme Climate Events – 441355 6 ECTS, MSc, FS

Prof. Dr. E. Strobl

Extreme climate events have had played important roles in human history, with great economic implications potentially. In this seminar students will be introduced to how economists evaluate the economic impact of historical extreme climate events. To this end they will investigate a past important extreme climate event (drought, flood, tropical storm, heat wave, tornado, etc.) - of their either their choosing, or an assigned one - in terms of the role of the economic circumstances and the economic consequences.

6 ECTS, MSc, FS

6 ECTS, MSc, FS

Econometrics

Doing Economics with the Computer – 542

Prof. Dr. A. Burya, Dr. L. Kyriacou

Economists rely extensively on models in order to gain understanding of how the world works, to offer policy advise and to forecast the future. Most models can only be solved numerically on a computer. This course aims to introduce students to the basics of two popular, powerful, programming languages, Matlab and Python, that are commonly used to solve problems in economics (and elsewhere). This basic knowledge is applied to various subjects such as data analysis and financial economics (bank loans, investment portfolios).

Programming for Data Scientists I – 478568

Prof. Dr. B. Melly In this course, you will learn how to program in R and how to use R for effective data analysis. We will cover the following topics:

- Getting started with R and RStudio
- Data structures
- Getting data in and out of R
- Data transformations
- Control structures
- Writing functions
- Data visualization
- Exploratory data analysis
- Simple model building (linear regression)
- R Markdown
- Version control with Git (if time permits)
- Efficient programming: debugging, profiling and parallel computing (if time permits)

Econometrics II – 11179

Prof. Dr. B. Melly

This course is designed to give the students a firm understanding of the theoretical aspects behind the commonly used techniques of inference in economics. It presents the econometric approach to causal analysis: definition of the model, identification of the parameters, estimation of and inference about the identified values. It provides the fundamental tools required for more specialized courses such as micro, time series and panel econometrics. The following estimators will be examined: ordinary least squares, instrumental variables, maximum likelihood, and the generalized method of moments.

4.5 ECTS, MSc, HS

4.5 ECTS, BSc, HS

6 ECTS, BSc, HS

Environmental Econometrics – 446339

Prof. Dr. E. Strobl

Environmental policy making intrinsically rests on accurate estimates of the impact of the environment (climate, pollution etc.) on economic outcomes (health, production etc.) and the impact of economic behaviour on the environment. The nature of data and contexts involved, however, make the approaches and challenges fairly unique to the field. This course will cover some of the common problems and methods used in many environmental applications of econometrics.

Time Series Analysis II - 8306

Prof. Dr. C. Naguib

In this course we generalize the concepts of univariate time series to the multivariate case. In particular, we study the estimation, interpretation and identification of VAR models. The analysis starts from a stationary context which is then extended to a non-stationary one including cointegration analysis. Finally, the course also examines volatility models, like GARCH models. Although this course is a follow-up to Time Series Analysis I (Zeitreihenanalyse I), it can be taken without prior knowledge in time series analysis.

Spatial methods for economists using Python – 472466

Prof. Dr. O. Schöni

In the last decade, the use of spatial data in empirical analyses has spread to a variety of economic fields, including urban and real estate economics, development and environmental economics, labor and public economics, economic history, and trade. The aim of the course is to provide students and researchers with an effective and systematic workflow allowing them to extract and structure information provided by spatial data. To this end, the course will primarily focus on the automation of tasks involving spatial data using Python and ArcGIS. Among others, these tasks include importing different formats of spatial data, projecting spatial data to a common reference system, defining a spatial structure, selecting areas according to specific rules, merging data according to their spatial relationship, computing spatial statistics, and exporting the results. Additionally, the course will show how to integrate these tasks into the workflow of standard statistical software, such as R and Stata. The programming part of the lecture is complemented with a discussion of papers published in leading economic journals that exploit spatial data in their econometric analyses.

Essential Mathematics for Economists I – 419659

Prof. Dr. J. Tschopp

This course brings forward the essential mathematical tools necessary for a successful Master study (and MA thesis!). The level will help you to feel comfortable with the mathematical rigor used in many of the master's program courses. In this course we will first treat the essentials real analysis, single and multivariable calculus, static optimization, linear algebra invluding matrix analysis and an introduction to probability theory. Some (but not all) of the topics covered are listed below:

- Real Analysis: (i) topology, (ii) convergence of sequences and series, (iii) properties of functions (continuity)
- · Calculus: (i) differentiation and derivatives (single and multivariate), (ii) implicit function theorem, (iii) vector space and linear transformations
- · Linear Algebra: (i) matrix operations, (ii) LU decomposition, (iii) eigevalues and eigenvecors, (iv) orthogonality
- Probability Theory: (i) foundations, (ii) random variables, (iii) integration, (iv) conditional expectations, (v) convergence concepts

4.5 ECTS, MSc, HS

3 ECTS, MSc, HS

4.5 ECTS, BSc, FS

6 ECTS, MSc, HS

Time Series Analysis I – 540

M. Schranz

This course provides an introduction to univariate time series analysis. The first part of the course introduces the core models, i.e. MA(p), AR(q) and ARMA(q,p). Basic time series concepts like stationarity and invertibility are defined and analysed, as well as the autocovariance function. The second part of the course is devoted to some complementary topics, such as forecasting, order selection for an ARMA(q,p) model, and unit-root testing. Finally, spectral analysis is tackled. Every second week, an exercise session takes place. During this session, exercises are presented and solved by the assistant.

Applied Data Analysis - 26489

Prof. Dr. B. Melly

This course provides an introduction to applied data analysis using Stata. We will cover several steps involved in doing empirical work, starting with data collection and data management issues, and then discuss linear regression, instrumental variables, and basic models for panel data and disc-rete dependent variables. The distinctive feature of the course is a learning-by-doing approach to teaching econometrics, with a strong emphasis on the application of methods to real data and the correct interpretion of results. The course is intended for Master students with a good knowledge of linear regression analysis who are currently attending or have completed the Econometrics II class.

Machine Learning in Economics – 458657

Prof. Dr. C. Naguib

The aim of this course is to provide students with an overview of the most common machine learning methods that are currently acquiring more and more importance in the economic analysis. Both the theoretical framework and implementation technique of the methods will be presented.

Causal Analysis – 11979

Prof. Dr. B. Melly Prof. Dr. M. Gerfin

In this course, we study econometric methods for identifying and estimating causal effects. We first present the potential outcomes approach as a general framework to examine such effects. We discuss randomized experiments as the predominant way for establishing causality, and then move on to observational studies and explore various types of assumptions that allow for credible causal inference. Examples from the literature and step-by-step tutorials offer hands-on experiences in utilizing the methods.

Seminar: Workshop in Econometrics II – 8299

Prof. Dr. B. Melly

The aim of this seminar is to learn the steps and methodology in carrying out econometric research projects. This involves choosing a research question (suggestions are available but own proposals are welcome), writing a short paper, presenting the results in class and providing constructive feedback on classmates' research projects.

4.5 ECTS, BSc, FS

3 ECTS, MSc, FS

6 ECTS, MSc, FS

3 ECTS, MSc, FS

6 ECTS, MSc, FS

Microeconomics

Digitalization of Societies - 478536

Prof. Dr. I. Letina Prof. Dr. S. Adam

The main question that this course will examine is: «What is digitalization and how does it affect societies?» We will approach this question from a multidisciplinary perspective and we will examine the impact of digitalization on both economic processes and on the political and social life.

Seminar: Advanced Topics in Microeconomics – 478112

Prof. Dr. Igor Letina

In this seminar, students will explore one advanced microeconomic topic in depth. Working in groups, the students will read and present a research paper, and will write a report summarizing the literature on the topic of the seminar.

Organizational Economics – 11992

Prof. Dr. M. Möller

The course can be divided into four part. Part A deals with the traditional problem of the nature of the firm by considering the choice between integration and outsourcing. We introduce the property-rights theory by Oliver Hart and John Moore and the incentive-systems approach by Paul Milgrom and Bengt Holmstrom. Part B deals with pay and compensation. We introduce Holmstrom's classic principal-agent framework and Edward Lazear's theory of labour-tournaments before studying the important concept of Relative Performance Evaluation. Part C considers the internal organization of the firm. We study the challenges faced by team production and consider the determinants of optimal hierarchies. We learn to distinguish formal and real authority using Phillipe Aghion and Jean Tirole's model of delegation, and learn how decision-making interacts with incentives. Finally, Part D summarizes the empirical findings about the determinant's of a firm's success with a special focus on the role of direction. Leadership and managerial vision turn out to be crucial factors and we use the seminal models by Benjamin Hermalin and Eric Van den Steen to understand the importance of these concepts.

Microeconomics II – 8504

Prof. Dr. I. Letina

In this course we first discuss the general equilibrium model. We establish existence of equilibria. Then we discuss the welfare properties of equilibria and their relationship with the core. Further topics include: externalities, public goods, and optimal taxation. The aim of this course is to give an overview of advanced topics in microeconomics.

Regional and Urban Economics – 405449

Prof. Dr. M. von Ehrlich

Economic theory often abstracts from the spatial dimension or as Paul Samuelson put it "Spatial problems have been so neglected in economic theory that the field is of interest for its own sake." This course studies how economic mechanisms shape cities and regions. It will be a mixture of lectures, student-led presentations on readings, and open discussion. We address among others the following questions: Why do cities exist? Why do firms cluster? Why have some cities and regions prospered in recent decades while others have declined? What are the determinants of house price variations? How can/should the public sector intervene in the spatial distribution of economic activity? Key concepts of the course will be the theory of spatial equilibrium and the economies of agglomeration and dispersion. There will be a mix of economic theory and empirical analysis.

4.5 ECTS, BSc/MSc, HS

4.5 ECTS, MSc, HS

3 ECTS, MSc, HS

3 ECTS, BSc, HS

6 ECTS, BSc, HS

Banking Theory – 101266

Prof. Dr. C. Monnet

- Students know the different theories for the role of banks.
- Students can discuss the main regulatory implications of the different theories.
- Students are able to formulate a basic banking model.
- Students can use their model to analyze the effect of regulation.

Seminar: Topics in Behavioral Economics – 484660

Prof. Dr. J. Benkert Prof. Dr. M. Möller

The aim of this seminar is to expand students' knowledge on behavioral economics by studying (recent) research articles on the topic. To do so, students will prepare reports (in groups of three), in which they summarize and discuss an article. Moreover, students will present their report, while another group of students will act as discussant. Students are expected to study all articles covered in the seminar in order to be able to contribute to the discussion. With regards to prior knowledge, students should have attended classes on Microeconomics, and, ideally, behavioral economics.

Behavioral Economics – 481518

Prof. Dr. J. Benkert

The neoclassical model constitutes the dominating paradigm within economics. One may say rightly so, as the model does a (surprisingly) good job at making qualitative predictions in a broad range of settings. And yet, quite often (and even predictably so) it fails to properly predict and explain human behavior. The field of behavioral economics addresses these systematic shortcomings of the neoclassical model, by "injecting good psychology and other social sciences", as Nobel Laureate Richard Thaler puts it.

Industrial Organization – 9377

Prof. Dr. M. Möller

Industrial Organization is the study of firm behaviour and its implications for market outcomes. Firm behaviour is multi-dimensional. It includes pricing-policy, capacity choices, product positioning, marketing, as well as R&D and innovation. As many markets feature a small number of firms, their interaction is inherently strategic. The analysis of firm behaviour therefore relies heavily on the tools of Game Theory. The course has three parts. Part 1 deals with the concept of market power. Topics include multiproduct monopolies and price discrimination. Part 2 considers the standard models of oligopolistic competition in homogeneous product markets. We distinguish between price competition and quantity competition and discuss two major concerns of antitrust authorities; entry deterrence and collusion. Part 3 considers oligopolistic competition with differentiated products. Topics include product and quality choice and advertising.

Economics of Innovation – 103182

Prof. Dr. I. Letina

The course provides a theoretical introduction to the field of innovation economics. The course is an elective course either attributable for a Bachelor's degree or a Master's degree in Economics. Teaching language is English. In this course we learn why and how institutions provide incentives for innovative activity. We study basic models of ideas, and how market structure, globalization and intellectual property rights impact the innovative activity of competing firms. We will also examine innovation contests and study how they should be optimally designed.

4.5 ECTS, BSc/MSc, FS

4.5 ECTS, BSc/MSc, FS

4.5 ECTS, BSc/MSc, FS

6 ECTS, MSc, HS

4.5 ECTS, MSc, HS

Multinational Firms and Production – 430972

4.5 ECTS, MSc, FS

Dr. E. H. Bekkers

The goal of this course is to gain a basic understanding of the theory on multinational firms and foreign direct investment (FDI) and to become familiar with the main empirical findings from the literature. We cover the following themes, following first the book used for the course and then going into selected topics:

- · Facts and Issues
- · Overview of concepts, theory and empirical findings
- Theory on horizontal FDI
- Theory on vertical FDI
- Theory on the role of the firm in FDI
- Empirics: determinants of FDI
- Empirics: Host country effects
- Empirics: Home country effects
- Policy Implications
- Selected Topic: Offshorability
- Selected Topic: FDI and complexity
- Selected Topic: Networked FDI

Registering / de-registering for courses

You generally register for courses via the Core Teaching System (KSL). Some institutes do not adopt this procedure and use other systems and methods for course registration (e.g. ILIAS) and some institutes don't require a course registration. If in doubt, ask your institute how to register for their courses.

Via KSL: The course catalog is shown in the Core Teaching System (KSL). KSL can be used to search for a specific course and it shows all the courses at the University of Bern together with the relevant information: who organizes and supervises the course, time and place and much more. For most courses students can register and de-register via KSL. For some courses a registration in KSL is not possible/required. Read the information in the "Unsure?" tab to find out if registration in KSL is possible.

Course catalog: https://www.ksl-vv.unibe.ch/
CTS introduction video:
https://tube.switch.ch/embed/3f49ff03
CTS Support: support@vsl.unibe.ch

Step 1 Search for the course by the root number or its name and add the course to your planning view.

Root number	Semeste	¢ sn¢	Type 🛔	Subject 🛔	Title 🛔	ECT\$	Lecturer A	Time pattern	Language	Action	
11144	HS2018	0	Lecture	Business Administration	Combinatorial Optimization	4.5	Prof. Dr. Norbert Trautmann, Mario Gnägi	10:15-12:00, every Tu; 08:15-10:00, every We	EN	Short form Details ILIAS	Add to planning view

Step 2 Go to your planning view.

Core Teaching System
CTS-Homepage
My settings
Downloads
List of courses
Locations, buildings and rooms
Students
Planning view
Key
My studies
Open registration periods
Calendar
Printed matters
Search learning place
Doctorates
Doctorates
Support

Step 3 Click on the grey arrow in the purple space and choose sign in/off. Please note, that as soon as you are registered, the purple space turns yellow.



Step 4 Register for the course

Course	
Dates: Current registrations: Period of registration: Period of deregistration:	Tuesday 13:15-18:00 Weekly 9 1/7/2022 00:00:00 - 25/10/2022 1/7/2022 00:00:00 - 25/10/2022
Status: Info:	No registration Registrations are transmitted from CTS to (no admission in ILIAS possible). <u>ILIAS</u>
Request for a place y gn off Remove from plannin	g view

Via ILIAS: Students can join an ILIAS course to obtain the accompanying course materials. An ILIAS course also has a registration function that can be used to register for the course.

What do I do?

To register for an ILIAS course, you must

- 1. know where the ILIAS course is filed,
- 2. know if you require a course password to join the course and
- 3. whether you have to comply with a specific registration period.

You should obtain all information referring to this from the course coordinator or from the institute. Whenever possible, the procedure will be illustrated on the institute's website, made available shortly before the beginning of the course or communicated during the first course.

Joining an Ilias course:

In principle, four different admission procedures are possible in ILIAS:

1. "Direct registration" You can join an ILIAS course directly via Actions \rightarrow Join.

2. "Prior registration in KSL is required" Admission to the ILIAS course may be organized via registration in KSL. Read the information in the "Unsure?" tab on this matter.

3. "Admission with course password" You will be given the admission password for the ILIAS course in advance or at the beginning of the course by the course coordinator. You can enter the course password and gain access via Actions \rightarrow Join.

4. "Admission with application" You can complete and send a request form via Actions \rightarrow Join. The course administration then takes a decision concerning your admission.

ILIAS Login:https://ilias.unibe.ch ILIAS Support: www.ilub.unibe.ch **Unsure?** Are you are unsure whether you must register for your course via KSL (to participate in the course and to join ILIAS)?

Step 1 In the description of the course on KSL, you can see if ILIAS accompaniment is intended for this course. If yes, you will be shown an ILIAS link.

Step 2 The announcement also shows if you need to register in KSL or if you can join the ILIAS course directly.

Registration in KSL Step 2 has shown that you must register for the course in KSL (see section above): No direct admission in ILIAS is possible (see the picture below).

Areas of competence ILIAS-Link (Learning resource for course) Always use lowest sequence number for ILIAS-Link Link to another web site



Your registration in KSL is automatically transferred to ILIAS overnight and you only have access to the ILIAS course the day after. You can see if the course is already available online in the section "My Courses and Groups" in ILIAS.

No registration in KSL Step 3 revealed that you cannot register for the course via KSL. Registrations for the course are not managed via KSL. Direct admission is possible in ILIAS (see picture below).

Areas of competence LIAS-Link (Learning resource for course) Always use lowest sequence number for ILIAS-Link ...ink to another web site



Click on the ILIAS link in KSL and you will access the ILIAS system directly. Register using your campus account. Join the ILIAS course directly, with a password or with application. After you have successfully joined the ILIAS course, you can find it in "My Courses and Groups" in ILIAS.

This provides access to the ILIAS course and the course documents. The institute's course coordinator decides if admission in ILIAS also serves as registration for the course.

Registering/de-registering for performance checks

Steps 1 – 3 are already done if course registration in KSL was necessary.

Step 1 Search for the course by the root number or its name and add the course to your planning view.

Number of locat	ed co	ourses: 1										
Root number	÷ Se	Semeste¢	SN¢	Туре 🛔	Subject 🛔	Title 🛔	ECT\$	Lecturer 🛔	Time pattern	Language	Action	
11144	н	IS2018	0	Lecture	Business Administration	Combinatorial Optimization	4.5	Prof. Dr. Norbert Trautmann, Mario Gnägi	10:15-12:00, every Tu; 08:15-10:00, every We	EN	Short form Details ILIAS	Add to planning view

Step 2 Go to your planning view.

Core Teaching System
CTS-Homepage
My settings
Downloads
List of courses
Locations, buildings and rooms
Students
Planning view
Key
My studies
Open registration periods
Calendar
Printed matters
Search learning place
Doctorates
Doctorates
Support

Step 3 Click on the grey arrow in the purple space and choose sign in/off. Please note, that as soon as you are registered, the purple space turns yellow.



Step 4 Choose the date, on which you want to participate on your exam and click register.



Receiving the transcript of records

- 1. After the exam, your mark will be published in KSL.
- 2. The results of the exam will be published on the website of the corresponding institute or in Ilias.

3. At the end of the semester, as soon as all your grades are listed in KSL, report your name and home adress in your home country to the faculty office (Dekanat, sabine.herren@wisodek.unibe.ch). The faculty office will issue your transcript of records and send it to the home address you have indicated.

4. When you fail any exam (mark below 4), you are not automatically registered for the second examination date.

Learning Agreement

If the learning agreement is not signed yet, please contact Nina Ackermann (mobility.bwl@unibe.ch) for courses in Business Administration or Philipp Brunner (socrates@vwi.unibe.ch) for courses in Economics.

More questions...

- ... about the lectures?
- \rightarrow Contact the corresponding lecturer
- ... about the organization of your studies at the department of business administration?
- \rightarrow Nina Ackermann (mobility.bwl@unibe.ch)
- ... about the organization of your studies at the department of economics?
- → Marina Glaubs & Severin Wildhaber (socrates@vwi.unibe.ch)
- ... about the organization of your Erasmus stay?
- \rightarrow Martina Carolus (martina.carolus@int.unibe.ch)
- ... about the business administration mentoring program?
- \rightarrow Nina Ackermann (mobility.bwl@unibe.ch)

