PHD COURSE OUTLINES

AC8801 Seminar in Accounting Research  [1.5 AUs]
In this seminar series, we explore various psychological theories/phenomena and identify how these can be applied in accounting settings. One new psychological phenomenon is examined each week, and related readings are discussed. At the same time, students identify an accounting issue where the theory/phenomenon applies.

AC9101 Seminar in Capital Market Research in Accounting  [3 AUs]
The purpose of the course is to introduce various areas of accounting research so that students can broaden their horizon, understand popular concepts and commonly-used measures in accounting literature, and potentially develop an interest in one particular area. In addition, discussing the selected papers helps to illustrate the following crucial skills required for all successful researchers in the area of capital market research: a) How to judge the quality of a research idea; b) How to develop a research hypothesis; c) How to design an experiment to test a research hypothesis; d) How to interpret the results.

Pre-Requisite: Basic knowledge of microeconomics and econometrics (esp. cross sectional panel regression analysis).

AC9102 Seminar in Behavioural Research in Accounting  [3 AUs]
This seminar introduces students to judgment and decision making research in accounting. The readings cover domains related to auditing, financial reporting, and managerial decision-making. It is restricted to papers using the experimental method. The intention is that by the end of the course, students will be informed consumers of this literature, and acquire the skills to critically assess a piece of research, in terms of its contribution to theory, implications for practice, and methodology.

FN9101 Seminar in Theory of Finance I (Investment)  [3 AUs]
This course provides a rigorous training of the theoretical foundations of modern financial economics. This course will cover the major theoretical results concerning individuals' consumption/investment and portfolio decisions under uncertainty and their implications for the valuations of securities, i.e., consumption-based asset pricing models and theories of capital market equilibrium. The course will also explore derivatives, asymmetric information models, and production-based asset pricing models.

Pre-Requisite: Ph.D. level microeconomics, matrix algebra, calculus, probability and stochastic process.

FN9102 Seminar in Theory of Finance II (Corporate Finance)  [3 AUs]
This course examines the theoretical foundation of corporate finance. The purpose of this course is to ensure that students have a good understanding about issues and often-used methods in this field. So in the future, students can use what they have learned to identify good research topics, motivate the research and interpret test results, and even build their own theories based on existing literature.

FN9103 Empirical Research I (Investment)  [3 AUs]
This course offers an introduction to empirical research in investment as exemplified by publications in peer-reviewed journals. Topics include asset pricing and anomalies. The objective of this course is to prepare students for doing empirical research in finance by giving them the necessary cultural background about the literature and by teaching them the techniques that they will need to use.

FN9104 Empirical Research II (Corporate)  [3 AUs]
The course is designed to provide Ph.D. students with a framework for the analysis of corporate financial policy and to expose students to the empirical methodologies and evidence on the various topics.

GN7103 Writing for Research and Publication  [3 AUs]
In this course, participants will engage in opportunities to write and/or refine their research proposals (or papers). Issues to be discussed include the research process, refining the research questions and topic as well as the global structure of the thesis or paper. Discussion will focus on the organizational and linguistic features, which provide clarity, coherence, logic and persuasiveness to academic writing.
**HE9001 Mathematical Economics [3 AUs]**
The aim of this course is to provide the graduate students with advanced mathematical background needed in economic research. Topics covered will be a balance between the conventional mathematical economics and the new developments in the frontier of computational economics, which include the advanced matrix analysis and qualitative analysis, optimization with or without constraints, discrete and continuous dynamic optimization, continuous and the discrete dynamic processes, nonlinear analysis and chaos, delayed-differential systems. Introductions to Singular and nonsingular perturbation theory, Wavelet analysis, Genetic algorithm, Neural network and their applications in economic analysis will be also provided.

Pre-Requisite: Principles of Economics

**course is offered by other schools/programme and is subject to availability and acceptance of registration request by respective school/programme office.**

**HE9002 Econometrics I [3 AUs]**
This course provides an extensive discussion of estimation and inference issues. It covers classical linear and structural equation models, maximum likelihood and minimum distance (generalized method of moments) estimation and testing of hypothesis for a variety of applications. The course also devotes substantial attention to attaining competence in using EViews to examine properties of methods by simulation and to analyze and interpret empirical relationships. Students are expected to take part in regular in-class quizzes, to complete problem sets and do a project involving the analysis of data by alternative methods.

Pre-Requisite: Intermediate Econometrics

**course is offered by other schools/programme and is subject to availability and acceptance of registration request by respective school/programme office.**

**HE9003 Econometrics II [3 AUs]**
This course provides a detailed treatment of models for analyzing micro-level data on economic behavior of individuals and firms. Specifically, regression methods on cross-section and panel data are investigated. The course emphasizes application rather than theory; hence, the models introduced are illustrated with examples using real-life data. In general, theoretical developments are often carried to the extent that they enhance understanding of the model.

Pre-Requisite: HE9002 (Econometrics I) or approved equivalent

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**HE9101 Seminar in Microeconomics** [3 AUs]
This course provides a solid foundation in microeconomics at the graduate level. The unifying theme of the course is the theory of optimization behavior, with emphasis on how basic principles of modern microeconomics theory play a role in economic decision-making. Utility theory, general equilibrium theory, and game theory, together with their practical applications, will be discussed in classes.

Pre-Requisite: Intermediate Microeconomics

**course is offered by other schools/programme and is subject to availability and acceptance of registration request by respective school/programme office.**

**HP7001 Advanced Research Design and Data Analysis [3 AUs]**
The course is designed to acquaint researchers with the principles of experimental design, basic experimental designs used in social science research including between-subjects, within-subjects/repeated-measures, mixed (split-plot) and nested designs. The core statistical tool to be discussed is General Linear Models with emphasis on model comparison approach to analyze data collected from various experimental designs.

**course is offered by other schools/programme and is subject to availability and acceptance of registration request by respective school/programme office.**
IS9101 Seminar in Information Systems Research [3 AUs]
The course introduces the PhD participants to major topics in the field of Information Systems and Technology and Innovation management. It begins with having participants acquire an overview of the IS discipline and understanding theoretical contribution in IS research. Participants are then introduced to information systems in organizations, in particular its relationship to organizational strategy, the execution of IT-enabled strategy through transformational projects, and the impact of IT on organizations. In the second half of the course, we will cover topics related social media, knowledge networks and innovation, recent topics that are of interest to IS researchers.

IS9201 Contemporary Issues in Information Systems [3 AUs]
The course introduces the PhD participants to major topics in the field of Information Systems. The lessons will be taught by Information Systems Faculty who will expose students to topics in their areas of research.

IS9202 Information Systems – Theories and Methods [3 AUs]
The purpose of this course is to introduce students to the fundamentals in theory building and latest methodologies in Information Systems. This course supplements students’ current set of courses, which introduces them to key topics of information systems, by discussing key approaches towards theory building and key methodological approaches towards testing theory.

MG9001 Research Methods [3 AUs]
This course covers fundamental theory and skills required to conduct empirical research in the social sciences. It focuses on applying such knowledge within the context of business administration (e.g. organizational behavior, corporate strategy, marketing, international business, operations management, behavioral accounting) and related disciplines (e.g., psychology, sociology, communications). This course is designed for doctoral students who intend to conduct empirical research to be published in scholarly journals. It is structured to follow the systematic hypothetico-deductive method, beginning with understanding the philosophy of science and progressing to cover issues of research design, measurement, data collection, data analyses, and the publication of such research. As a course that focuses on empirical research, particular focus is placed on conducting data analyses using foundational methods based on correlational and regression approaches to statistical analyses.

MG9003 Theory Construction and Experimental Methods in Behavioural Research [3 AUs]
Aim of the course is to provide the students with the conceptual tools, methodology and critical thinking skills to evaluate, prepare and conduct research that satisfies the highest scientific standards. Key topics include epistemological concepts; validity and reliability; theory construction; questionnaire design and scale construction (general). The course will cover ethical research and students will be required to obtain the related on-line certification. The main focus will be on lab-based experimental approaches, including research / experimental designs, hypothesis construction, inference considerations, the concept of control groups.

MG9101 Seminar in Organizational Behaviour [3 AUs]
This seminar focuses on the study of individuals within the context of an organization. The seminar centers on research in micro and meso levels of organizational behavior (OB) and covers less of macro organizational behavior. This seminar accomplishes these objectives: (1) understands contemporary theories and methods associated with the study of individual behaviors in organizations, including multi-level and cross-level OB theorizing; (2) develops competencies in constructive critiques of OB research; & (3) conducts empirical studies in the field.

MG9103 Advanced Topics in Strategic Management [3 AUs]
This course involves a critical review of topical areas of strategic management research, including but not limited to the following domains: corporate strategy, international strategy, corporate governance, top executives, etc. We will also identify key research questions and trends in these topics. Each week we will discuss and examine in depth each topic and its related empirical works. The course is ideal for doctoral students whose primary research is in strategic management or related areas such as organizational behaviour, marketing, corporate finance and accounting.
MG9104 Theoretical Foundations of Strategic Management  [3 AUs]
This course is a graduate-level introductory seminar to strategy. The course is intended to provide an introduction to the field and a foundation for theoretical and empirical strategy research. Careful reading of articles and active in-class participation are keys to a successful trimester.

MG9105 Advanced Topics in Organizational Behaviour  [3 AUs]
The primary focus of the course is to provide the participants with the foundational understanding of the multilevel analytical methodology. Once equipped with the appropriate analytical tools, the students will be able to apply them to their own research that involves data from different levels of theory, constructs and analysis. The aim of this course is to equip participants with the conceptual understanding and application of the multilevel methodology to the team context. At the end of the course, the students should: (a.) know the conceptual foundations of multilevel methodology; (b.) be able to conduct data analysis for two-level and three-level models using SPSS mixed –effects program (MIXED); (c.) have a basic understanding of the team effectiveness literature; (d.) know the measurement issues in team research

Pre-Requisite: Regression or equivalent course (in the last 5 years).

MG9202 Organization Theory  [3 AUs]
This seminar introduces students to the foundational perspectives on organization theory. The main objective is to survey the major theoretical perspectives in organization theory research, including both classic and contemporary scholarship. By the end of the course, the students will be able to demonstrate knowledge of major perspectives in organization theory research, critically evaluate the merits of different perspectives, and develop research ideas to advance scholarship in organization theory.

(How to be advised) Seminar in Entrepreneurship [3 AUs]
This course introduces the key debates and perspectives in entrepreneurship research. The course will require critically evaluating, reviewing, and developing new ideas that advance entrepreneurship research. By the end of the course, students will apply what they have learnt and develop a research paper at a level that is adequate for submission to an international meeting.

MK9101 Seminar in Consumer Behaviour [3 AUs]
Consumer behaviour is one of the most interesting and important aspects of marketing. Virtually all decisions involved in product development, pricing, promotion and distribution rely on intimate knowledge of the target consumers. Understanding the behaviour of the consumer therefore helps marketers anticipate reactions to introductions of and changes in the marketing mix, or the adoption of new products. This is a participative graduate seminar. There will be assigned readings for each class where students will be set regular tasks of leading discussions, providing explanations and critiques of academic papers, and any other activities determined along the way.

MK9104 Advanced Seminar in Consumer Behaviour [3 AUs]
The purpose of this graduate seminar is to provide a research overview of the field of consumer judgment and decision making (JDM). The focus of this course is on understanding current theoretical and methodological approaches to various aspects of consumer judgment and decision making, as well as advancing this knowledge by developing testable hypotheses and theoretical perspectives that build on the current knowledge base. For each topic considered, a range of articles from “old classics” to recent research will be assigned.

MK9105 Advanced Seminar in Quantitative Marketing [3 AUs]
The main purpose of this seminar is to introduce doctoral students to advanced research topics in quantitative marketing. Specifically, it will cover the methodologies of game theory and Bayesian statistics as well as their marketing applications. Coming out of this seminar, a student should be well-equipped to (1) understand and critique “methodology-heavy” papers in these areas and (2) develop sophisticated quantitative models to implement his/her original research ideas.

MK9201 Seminar in Marketing Modelling [3 AUs]
The main purpose of this seminar is to introduce students to significant research in the major areas of marketing
modeling. Coming out of this seminar, a student should have (a) a sense of the current topics and issues being studied in marketing, and (b) an understanding of some theoretical frameworks and empirical tests used in marketing modeling research.

OM9101 Optimization [3 AUs]
Why is optimization important? The answer boils down to one word: tradeoffs. Many real-life problems involve tradeoffs (classic ones are e.g., profit maximization, cost minimization etc.). The tradeoffs imply that the “best solutions” for these problems are not trivial and hence mathematical modeling of such problems becomes important. Often, we want to find the best way, the most efficient way, to address these problems, and this is what operations management is mostly about. This course aims to make students proficient in both the important aspects of problems involving optimization: formulating those using mathematical models and solving those using mathematical and computational techniques.

OM9102 Inventory Theory [3 AUs]
This course is targeted at PhD students in operations and supply chain management and other related areas. The objective is two-fold: (i) to help students build a solid understanding of the basic issues and methodologies of supply chain inventory management and (ii) to bring them to the research frontier in this area. We focus on the fundamental issues of modeling and analysis. The students will be guided through a progressive process of model development, model analysis, and discussions on various inventory systems ranging from deterministic to stochastic demand, from periodic to continuous review, from stationary to dynamic control, and from single item to multiple items or locations.

OM9103 Stochastic Process [3 AUs]
This course focuses on basic techniques and applications of stochastic modeling in operations management/operations research. Study areas include Poisson processes, renewal processes, Markov processes, diffusion processes and various applications.

OM9201 Contemporary Issues in Operations Management [3 AUs]
The objective of this course is threefold. First, students can gain an initial understanding of a wide array of research areas and methodologies in the OM literature. Second, students are expected to develop critical thinking skills to identify gaps and opportunities, and synthesize ideas within and across different OM/OR areas. Third, students are expected to develop proper communication skills to engage in academic parlance, discussion, and presentation.

OM9203 Dynamic Programming [3 AUs]
The rationale for introducing this course is to model and solve problems of sequential decision making in the presence of uncertainty. Specifically, the goal of this course is: formalize a problem of sequential decision making in the presence of uncertainty; identify and prove the structural properties of the optimal policy for a DP problem; solve a DP problem using value iteration, policy iteration, and linear programming; understand the state-of-art approximate dynamic programming approaches for large-scale

OM9204 Game Theory and its Applications [3 AUs]
This course teaches the basic concepts of game theory and how they can be applied to research in operations management. It will cover all the basic concepts and results from game theory. The course will provide the basics: Nash equilibrium, the extensive form (which computer scientists call game trees), Bayesian games (modelling things like auctions), repeated and dynamic games, and more. We'll include a variety of examples including classic games and a few applications.

ST9003 Applied Regression Analysis [3 AUs]
Regression analysis is widely used today in business administration, economics, engineering, and the social sciences. Basic methods will be taught in the course including simple and multiple linear regression, model selection, residual analysis, diagnostics, detection of multi-collinearity, nonstandard conditions, transformations and non-linear regression models. Principal components analysis (PCA) and factor analysis (FA) may also be discussed.
**ST9005 Structural Equation Modelling [3 AUs]**

This post-graduate course provides the knowledge and hands-on application of Covariance Structure Modeling (CSM), which is more commonly known as Structural Equation Modeling (SEM). SEM has become the standard for testing models comprising observable and unobservable variables in business, social and organizational science research. This technique provides goodness of fit indices for the models and unbiased estimates of the relationships between the variables. It is a powerful and flexible tool, capable of running many types of statistical analyses. In particular, it is essential for confirmatory factor analysis, test of cross-cultural measurement invariance, and test of hybrid and mediated models. The aim of the course is to train participants to be competent users of SEM using the LISREL software.

Pre-Requisite: Knowledge of measurement errors, correlation, regression and exploratory factor analysis. Has attended a class on (or containing) regression in the last 5 years.

**ST9007 Advanced Research Methods : Meta-Analysis [1.5 AUs]**

This course equips participants with statistical methods for literature review and research synthesis. This course addresses the theoretical and methodological issues in the review and synthesis of results from multiple primary studies. As research synthesis is an integral part of the scientific process, it demands the same high standards of rigor that apply in all primary research. Rigorous literature reviews must attend to the same details of problem formulation, data collection and cleaning, data analysis and interpretation that are addressed in primary research. This course imparts the knowledge and skills required to implement such rigor using statistical methods specifically developed for research synthesis, i.e. meta-analysis.

**Notes:**

*The list does not include elective courses as required by divisions and supplemental courses as required by the University.*