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Факультет Санкт-Петербургская школа экономики и менеджмента

основная образовательная программа «Менеджмент и аналитика для бизнеса»

направление подготовки 38.04.02 «Менеджмент»

магистратура, очная

Аннотации к рабочим программам дисциплин

СОГЛАСОВАНО:

Академический руководитель образовательной программы:

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General Management

Type of the course: Core

Prerequisites: No prerequisites. Basic knowledge in Management, Law, Economic Theory would be helpful

ECTS workload: 5

Course Overview: Course Objectives

- To provide theoretical foundations of modern management;
- to develop students' capacity to think strategically about company, its business position in the modern turbulent environment;
- to build students' skills in strategic management

The Course introduces the students to all essential areas of management fundamentals with emphasis on strategic management essentials. As one of the title modules of the programme it covers key aspects of strategic management both from conceptual and practical perspective. Students are provided with opportunity to observe and assess the management activities. This course, moreover, provides concrete framework for implementing the strategic management tools and methods.

The Course addresses management issues caused by complexity of the modern turbulent business world. The intention is to provide deep glance for better understanding of interconnectedness in the modern world.

The Course has emphasis on developing students' analytical, critical and problem solving skills through assignments, problem discussions, interactive lectures and case studies. The successful completion of the course will increase students' capacity to think globally about a company, its business position on the markets and possible sustainable competitive advantage in rapidly changing modern environment.

Business Research Methods

Type of the course: Compulsory

Prerequisites: An intermediate undergraduate course in topics with an analytical and/or quantitative emphasis microeconomics, macroeconomics and econometrics

ECTS workload: 6

Course Overview: The course aims to understand the nature of business research, to explain which kind of business problems might need research study and what are the key issues in research methods that we want to understand.

The course is divided in to modules. One is more oriented to know the use of Digital Marketing tool introducing the main topics for business research and its development. The other is more related to the application of research techniques for business using market-based research design, forecasting tool, evaluating risk and return in business and considering multiple perspective for effective decision making in business.

Both modules are going to be oriented to practical implications and to be useful.

Economic Foundations of Management

Type of the course: Mandatory **Prerequisites:** no prerequisites **ECTS workload:** 6 **Course Overview**: The purpose of the course is to teach the students how to apply the principles and models of economic theory for making managerial decisions: 1) estimating and analyzing demand, 2) cost analysis, 3) smart pricing (price discrimination, tying, bundling, non-linear pricing), 3) competing in various market structures, 4) making decisions about product quality and differentiation, 5) using network effects, 6) spending on advertising, 7) investing in R&D. We assume that students already know the basics of microeconomics but require deep and diverse practice in application of economic principles to real life issues. The students will be need to analyze many practical mini-cases based on real experience of various companies and will need to apply economic theory for better understanding of the economic reality and making better managerial decisions.

Practical Machine Learning Methods for Data Mining

Type of the course: Compulsory

Prerequisites: Basic knowledge of statistics and R programming language.

ECTS workload: 3

Course Overview: During this practically oriented data science module students will learn how machine learning uses computers to run predictive models. The main principal is to explore existing data to build new knowledge, forecast future behaviour, anticipate outcomes and trends. Explore theory and practice, and work with tools like R and Python to solve advanced data science problems.

Statistical methods of analysis

Type of the course: Compulsory

Prerequisites: Introductory Statistics/Probability theory, Calculus, Prior training in R or other statistical software

ECTS workload: 6

Course Overview: The course covers a wide range of statistical methods and some important machine learning techniques used in today's business analytics for exploratory and segmentation analysis, as well as for the estimation of relationships and predictive modeling. Students will get ready for data management and the analysis of survey, sales and other types of data commonly used in marketing and management. Students will learn how to use the R language – the most popular language for statistical computing, modeling and data management thanks to the fact that 50% of the course is dedicated to hands-on R coding.

Knowledge and Information Management

Type of the course: Compulsory

Prerequisites: General Management

ECTS workload: 4

Course Overview: The course "Knowledge and Information Management" introduces basic concepts and ideas on knowledge acquisition, creation and externalization in modern organization. The main aim of the module is to enable students to acquire a critical understanding of knowledge as a driver of organization inimitable strategic capabilities; to learn how to measure knowledge resources; to develop analytical thinking when doing investments in knowledge resources; to apply econometrics for better understanding performance effect of company knowledge. This course addresses different aspect of knowledge management: knowledge taxonomies, SECI model and its applications, knowledge driven value creation, polarity management and learning organization. The course contains three group projects. The first project is based on a particular company, the second presents research case using the database of international companies, the third one is organized as a computer simulation of managerial decisions with regard to human resources.

People Analytics: Prediction of Performance & Prescription of Policy

Type of the course: Elective **Prerequisites:** General management **ECTS workload:** 3

Course Overview: Human resource management (HRM) professionals recruit, assess, develop, advise, assess, retain and, when necessary, fire employees. They also promote employee health, safety, wellbeing, equity and involvement. Therefore, the course aims to equip students with relevant knowledge, skills, tools and techniques necessary to manage human resources at strategic and operational levels. Special attention is given to certain ethical and legal issues that modern business and HR managers face with, which are a "must know" for students regardless whether they will pursue career in HR or take role as a manager of any other function. Additionally, students will be taught how to avoid or minimize risks from those ethical and legal issues. A study of the most recent trends and ideas in HRM (both internationally and Russian) and their practical application is carried out. This course also introduces psychometrics, motivation theories, and ways of performance management measurement.

As a result of successful study, students will be equipped with certain analytical and practical skills and knowledge, necessary for modern HR professional and manager in any other field. Additional information about the outcomes can be found in "Intended Learning Outcomes" section of the syllabus.

Staffing Analytics Overview

Type of the course: Elective

Prerequisites: General Management, Statistical Methods of Analysis

ECTS workload: 3

Course Overview: Understand the basics of the staffing process including hiring the right persons, placing them in the right position and developing the strategies to keep the key employees. It also provides a strong framework to put into practice HRM statistical tools and methods.

Talent Analytics: Data and Tools

Type of the course: Compulsory

Prerequisites: General Management, Statistical Methods of Analysis, Staffing analytics

ECTS workload: 3

Course Overview: Use data on the talent to measure and improve ROI based on HR initiatives in companies. Analyze talent in the organization to drive business value through HR practices.

Consumer Behaviour

Type of the course: Elective

Prerequisites: Basic knowledge in Marketing and Statistics

ECTS workload: 4

Course Overview: The course explores the conceptual foundations of consumer behavior. It also gives an overview of a state-of-the-art consumer analysis and analytics and demonstrates its practical value.

Advanced Marketing Models

Type of the course: Optional

Prerequisites: Statistical Methods of Analysis, Practical Machine Learning

ECTS workload: 3

Course Overview: The primary focus of this course if on quantitative models that can be used by managers to support marketing decisions. In addition to having conceptual skills, modern managers must increasingly master techniques of data-driven decision modeling to do strategic planning based on information from corporate information systems as well as external data sources. This course teaches how to apply econometric, machine learning and optimization techniques to marketing problems.

Social media analytics

Type of the course: Elective

Prerequisites: Basic statistics, Marketing

ECTS workload: 3

Course Overview: This course focuses on various aspects related to web analytics - data collection, analysis of social media and text using specific software, and interpretation of obtained results.

Empirical Methods and Applications in Business

Type of the course: Elective Prerequisites: Calculus, Probability theory and mathematical statistics, Statistical approaches to data analysis, Econometrics ECTS workload: 3 **Course Overview**: This course introduces students to sources and analytical techniques of data commonly used in management and business studies. A conceptual part of the course is dedicated to the overview of appropriate data sources, indicators and statistical metrics, basic and advanced techniques for data analysis and econometrics Practical approach to learning is based on professional tools for data collection and processing and analysis – Stata and R.

Microeconometrics and Empirical Corporate Finance: Predictive and Prescriptive Analysis

Type of the course: Elective

Prerequisites: Basic knowledge of statistics.

ECTS workload:

Course Overview: The course learns the students skills of analyzing of economical and financial data. Course structure includes theoretical and practical microeconometrics. Tasks are made in one of the most popular program bases– Stata.

Dynamic Optimization for Business Research

Type of the course: Elective

Prerequisites: Business research methods, Statistical approaches to data analysis, Machine learning and data mining

ECTS workload: 3

Course Overview: This course covers topics in dynamic optimization methods which might be relevant for applied business research: investment decisions, pricing etc. It discovers and explores cases both in discrete and in continuous time. The methodological approaches address methods in dynamic programming and optimal solutions across infinite/finite time horizons. The course illustrates how dynamic optimization is useful for business strategies development on a rigorous analytical base.

Research Seminar "Data-driven Business Research"

Type of the course: Mandatory

Prerequisites: An intermediate undergraduate course in topics with an analytical and/or quantitative emphasis in business administration, economics.

An experience in conducting research projects within bachelor and/or master thesis

ECTS workload: 20

Course Overview: This module aims at providing students with knowledge, practical skills and experience to conduct both applied and fundamental research with a substantial emphasis on quantitative studies in business. The module aims to enable students to carry out their individual projects as well as contribute to collective research. The Research seminar covers the most relevant issues of a research process that might be valuable for students. The key idea of the course is to provide insights into philosophy and basics of pure academic as well as applied studies in management and economics. The module is designed to provide students with knowledge, skills, positive values and competencies to solve nontrivial problems and creative tasks in the frame of business studies.

As a result of a successful learning, students are to present their individual or group projects followed by the term papers after the first year of their master course and the dissertations at the end of the second year of their study. Along with the training on searching for relevant research question, problem statement, conceptualization and research design, this module equips students with relevant skills presented in Intended Learning Outcomes section.