

**Санкт-Петербургский филиал федерального государственного  
автономного образовательного учреждения высшего образования  
«Национальный исследовательский университет  
"Высшая школа экономики"»**

Факультет Санкт-Петербургская школа  
экономики и менеджмента  
Департамент менеджмента

**Рабочая программа дисциплины**  
Методы работы с табличными данными/Methods of Working with Tabular Data

для образовательной программы «Маркетинговые технологии»

направления подготовки 38.04.02 «Менеджмент» - ?

уровень магистр

Разработчик: Вилло Н.Ю.

Согласована начальником ОСУП

« \_\_\_\_ » \_\_\_\_\_ 2018 г.

\_\_\_\_\_ [подпись]

Утверждена Академическим советом образовательной программы

« \_\_\_\_ » \_\_\_\_\_ 2018 г., № протокола \_\_\_\_\_

Академический руководитель образовательной программы

\_\_\_\_\_ [подпись]

Санкт-Петербург, 2018

*Настоящая программа не может быть использована другими подразделениями университета и другими вузами без разрешения кафедры-разработчика программы.*

Название дисциплины	Методы работы с табличными данными		
Образовательная программа	Магистерская программа «Маркетинговые технологии»		
Тип дисциплины	Обязательный		
Требования к уровню знаний студентов, необходимых для освоения дисциплины (пререквизиты)	Вводная статистика и / или эконометрика Математика Основы Microsoft Excel		
Объем з.е.	114		
Объем в часах	Аудиторная работа	Самостоятельная работа	Всего
	34	80	114
Краткое описание курса	Курс направлен на обучение управлению табличными данными и их анализу с использованием электронных таблиц. Студенты узнают, как Microsoft Excel может повысить качество принятия решений и как спроектировать системы поддержки принятия решений, чтобы помочь компаниям принимать наилучшие решения. Особое внимание уделяется методам оптимизации, моделирования и прогнозирования.		
Образовательные результаты по дисциплине	После успешного завершения курса студенты смогут: 1. Выявлять и решать оптимизационные задачи 2. Свободно использовать расширенные функции Excel 3. Эффективно решать специфические управленческие задачи 4. Успешно интерпретировать и создавать табличные данные, сводные таблицы и диаграммы.		
Краткое содержание дисциплины	<ul style="list-style-type: none"> <li>• Принятия решений в области маркетинга и менеджмента с использованием электронных таблиц</li> <li>• Расширенные функции и формулы Microsoft Excel</li> <li>• Регрессионный анализ и прогнозирование в Microsoft Excel</li> <li>• Использование сводных таблиц и диаграмм</li> </ul>		
Образовательные технологии	<ul style="list-style-type: none"> <li>• Лекция</li> <li>• Тематические задания</li> </ul>		
Формы контроля	<p>Методы оценки:</p> <ul style="list-style-type: none"> <li>• Задачи, решаемые в классе</li> </ul>		

	<ul style="list-style-type: none"> <li>• Домашнее задание</li> <li>• Тест</li> <li>• Экзамен: итоговый тест</li> </ul> <p>Стратегия оценки:</p> <ul style="list-style-type: none"> <li>• Суммарный балл (до экзамена) = <math>0,8 * \text{средний балл по всем наборам задач в классе (с округлением до ближайшего целого числа)} + 0,1 * \text{Домашнее задание} + 0,1 * \text{Тест}</math></li> <li>• Итоговая оценка = <math>0,7 * \text{Накопительная оценка} + 0,3 * \text{Экзамен}</math></li> </ul>
Литература	<p><u>Основная</u></p> <p>Quirk T. J. Excel 2016 for Business Statistics. – Springer International Publishing Switzerland, 2016. The book is available through HSE’s electronic resources (Springer Books)</p>
Преподаватель	Вилло Н. Ю.

Title of the course	Methods of Working with Tabular Data				
Title of the Academic Programme	Master Program “Marketing technologies”				
Type of the course	Mandatory				
Prerequisites	Introductory Statistics and/or Econometrics At least one undergraduate course in Mathematics Microsoft Excel basics: developing and copying formulas with relative and absolute cell addresses, and using the function and chart wizards				
ECTS workload	114				
Total indicative study hours	Directed Study	Self-directed study	Total		
	34	80	114		
Course Overview	Given the importance for marketing professionals to be able to work efficiently with tabular data, this course aims at teaching tabular data management and analysis using spreadsheets. Students will learn how Microsoft Excel can add value to professional decision-making and how to design decision support systems to help businesses make better decisions. Not only reporting, but also optimization, simulation and forecasting techniques are studied				
Intended Learning Outcomes (ILO)	Upon successful completion of the course students will be able to: 1. Carry out analysis and investigation using advanced technical models such as optimization and simulation 2. Use advanced Excel functions (such as SUMIFS, OFFSET, VLOOKUP, etc.) fluently 3. Apply advanced techniques and tools to a variety of specialized Management Science questions 4. Create actionable dashboards from tabular data using Pivot Tables and Charts				
Teaching and Learning Methods	Every week a lecture is given to introduce students to the topic A set of case studies is solved in class every week				
<b>Content and Structure of the Course</b>					
№	Topic / Course Chapter	Total	Directed Study		Self-directed Study
			Lectures	Tutorials	
1	Decision support using spreadsheets for marketing and management	20	4	6	20
2	Advanced Microsoft Excel functions and formulas	18	2	6	20
3	Regression analysis and forecasting in Microsoft Excel	18	2	6	20
4	Using Pivot tables and charts for creating dashboards and survey data analysis	18	2	6	20
<b>Total study hours</b>		114	10	24	80

Indicative Assessment Methods and Strategy	<p>Assessment methods:</p> <p>Problem sets solved in class: 75-min. tests given at classroom every week. Each Problem Set consists of 3-5 problems. Classwork is assessed using the average grade across all problem sets.</p> <p>Homework: problem set solved at home (week 2 of Module 2)</p> <p>Test: Problem set solved in class that assesses knowledge and skills studied (week 4 of Module 2)</p> <p>Exam: Final test (duration: 75-minutes) covering all topics</p> <p>Assessment strategy:</p> <p>Cumulative grade (before exam)=0.8*average grade across all classroom problem sets (rounded to the nearest integer)+0.1*Homework+0.1*Test</p> <p>Final grade=0.7*Cumulative grade+0.3*Exam</p>																										
Readings / Indicative Learning Resources	<p><u>Mandatory</u></p> <p>Quirk T. J. Excel 2016 for Business Statistics. – Springer International Publishing Switzerland, 2016. The book is available through HSE’s electronic resources (Springer Books)</p>																										
Indicative Self- Study Strategies	<table border="1"> <thead> <tr> <th data-bbox="528 1137 1139 1189">Type</th> <th data-bbox="1139 1137 1291 1189">+/-</th> <th data-bbox="1291 1137 1495 1189">Hours</th> </tr> </thead> <tbody> <tr> <td data-bbox="528 1189 1139 1279">Reading for seminars / tutorials (lecture materials, mandatory and optional resources)</td> <td data-bbox="1139 1189 1291 1279">+</td> <td data-bbox="1291 1189 1495 1279">20</td> </tr> <tr> <td data-bbox="528 1279 1139 1335">Assignments for seminars / tutorials / labs</td> <td data-bbox="1139 1279 1291 1335">+</td> <td data-bbox="1291 1279 1495 1335">20</td> </tr> <tr> <td data-bbox="528 1335 1139 1424">E-learning / distance learning (MOOC / LMS)</td> <td data-bbox="1139 1335 1291 1424">-</td> <td data-bbox="1291 1335 1495 1424"></td> </tr> <tr> <td data-bbox="528 1424 1139 1480">Fieldwork</td> <td data-bbox="1139 1424 1291 1480">-</td> <td data-bbox="1291 1424 1495 1480"></td> </tr> <tr> <td data-bbox="528 1480 1139 1536">Project work</td> <td data-bbox="1139 1480 1291 1536">+</td> <td data-bbox="1291 1480 1495 1536">20</td> </tr> <tr> <td data-bbox="528 1536 1139 1581">Other (please specify)</td> <td data-bbox="1139 1536 1291 1581">-</td> <td data-bbox="1291 1536 1495 1581"></td> </tr> <tr> <td data-bbox="528 1581 1139 1637">Preparation for the exam</td> <td data-bbox="1139 1581 1291 1637">+</td> <td data-bbox="1291 1581 1495 1637">20</td> </tr> </tbody> </table>	Type	+/-	Hours	Reading for seminars / tutorials (lecture materials, mandatory and optional resources)	+	20	Assignments for seminars / tutorials / labs	+	20	E-learning / distance learning (MOOC / LMS)	-		Fieldwork	-		Project work	+	20	Other (please specify)	-		Preparation for the exam	+	20		
Type	+/-	Hours																									
Reading for seminars / tutorials (lecture materials, mandatory and optional resources)	+	20																									
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E-learning / distance learning (MOOC / LMS)	-																										
Fieldwork	-																										
Project work	+	20																									
Other (please specify)	-																										
Preparation for the exam	+	20																									
Academic Support for the Course	<p>Academic support for the course is provided via LMS, where students can find: guidelines and recommendations for doing the course; guidelines and recommendations for self-study; samples of assessment materials</p>																										
Facilities, Equipment and Software	<p>(If required)</p>																										
Special conditions for organization of learning process for students with special needs	<p>The following types of comprehension of learning information (including e-learning and distance learning) can be offered to students with disabilities (by their written request) in accordance with their individual psychophysical characteristics:</p> <p>1) <i>for persons with vision disorders</i>: a printed text in enlarged font;</p>																										

	<p>an electronic document; audios (transferring of learning materials into the audio); an individual advising with an assistance of a sign language interpreter; individual assignments and advising.</p> <p>2) <i>for persons with hearing disorders</i>: a printed text; an electronic document; video materials with subtitles; an individual advising with an assistance of a sign language interpreter; individual assignments and advising.</p> <p>3) <i>for persons with muscle-skeleton disorders</i>: a printed text; an electronic document; audios; individual assignments and advising.</p>
Course Instructor	ВИЛЛО Н.Ю.

## Annex 1

### Course Content

#### 1. Decision support using spreadsheets for marketing and management

What if, financial functions, graphical presentation of data, sorting, data tables, solver

#### 2. Advanced Microsoft Excel functions and formulas

IF combined with AND / OR, SUMIF and COUNTIF, MAX MIN function, etc.

#### 3. Regression analysis and forecasting in Microsoft Excel

Regression Analysis, Correlation, Interpretation and graphical analysis

#### 4. Using Pivot tables and charts for creating dashboards and survey data analysis

Summary statistics, Comparisons, pivot tables, pivot charts

## Annex 2

### Assessment Methods and Criteria

#### Assessment Methods

Types of Assessment	Forms of Assessment	Modules			
		1	2	3	4
Formative Assessment	Test	*	*		
	Project		*		
	In-class Participation	*	*		
Summative Assessment	Exam		*		

## Assessment Criteria

### In-class Participation

Grades	Assessment Criteria
«Excellent» (8-10)	A critical analysis which demonstrates original thinking and shows strong evidence of preparatory research and broad background knowledge.
«Good» (6-7)	Shows strong evidence of preparatory research and broad background knowledge. Excellent oral expression.
«Satisfactory» (4-5)	Satisfactory overall, showing a fair knowledge of the topic, a reasonable standard of expression. Some hesitation in answering follow-up questions and/or gives incomplete or partly irrelevant answers.
«Fail» (0-2)	Limited evidence of relevant knowledge and an attempt to address the topic. Unable to offer relevant information or opinion in answer to follow-up questions.

### Project Work

Grades	Assessment Criteria
«Excellent» (8-10)	A well-structured, analytical presentation of project work. Shows strong evidence and broad background knowledge. In a group presentation all members contribute equally and each contribution builds on the previous one clearly; Answers to follow-up questions reveal a good range and depth of knowledge beyond that covered in the presentation and show confidence in discussion.
«Good» (6-7)	Clearly organized analysis, showing evidence of a good overall knowledge of the topic. The presenter of the project work highlights key points and responds to follow up questions appropriately. In group presentations there is evidence that the group has met to discuss the topic and is presenting the results of that discussion, in an order previously agreed.
«Satisfactory» (4-5)	Takes a very basic approach to the topic, using broadly appropriate material but lacking focus. The presentation of project work is largely unstructured, and some points are irrelevant to the topic. Knowledge of the topic is limited and there may be evidence of basic misunderstanding. In a group presentation, most of the work is done by one or two students and the individual contributions do not add up.
«Fail» (0-2)	Fails to demonstrate any appropriate knowledge.

### Written Assignments (Test)

Grades	Assessment Criteria
«Excellent» (8-10)	Has a clear argument, which addresses the topic and responds effectively to all aspects of the task. Fully satisfies all the requirements of the task; rare minor errors occur;
«Good» (6-7)	Responds to most aspects of the topic with a clear, explicit argument. Covers the requirements of the task; may produce occasional errors.
«Satisfactory» (4-5)	Generally addresses the task; the format may be inappropriate in places; display little evidence of (depending on the assignment): independent thought and critical judgement include a partial superficial coverage of the key issues, lack critical analysis, may make frequent errors.
«Fail» (0-2)	Fails to demonstrate any appropriate knowledge.