**

**Аннотация программы учебной дисциплины**

**Название дисциплины Анализ данных в социологии (преподается на английском языке)\_**

**Направление \_\_\_\_\_\_\_\_040100.62 «Социология»\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 Код, название

**Автор программы \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 ФИО, ученая степень, ученое звание, электронный адрес

1. Краткое описание курса (outline)

Курс направлен на обучение студентов теоретическим знаниям и практическим навыкам статистического анализа социологических данных в пакете программ SPSS с применением баз данных международных количественных сравнительных исследований. Изучение данного курса предполагает ознакомление с ключевыми проблемами и методами современных количественных исследований, практическое обучение количественному анализу данных на основе использования баз данных кросс-культурных социальных исследований и социальной статистики, а также формирование и закрепление знаний основных методов математической статистики, применяемых в социологических исследованиях, для анализа актуальных социально-экономических проблем в сравнительной перспективе.

2. План курса (syllabus)

1. Введение: теория и практика социальных исследований. Сравнительные количественные исследования и международные опросы. Базы данных открытого доступа и архивы данных.

2. Среда SPSS. Синтакс SPSS.

3. Сбор данных и логика измерения. Описательная статистика. Графические методы проверки гипотез о распределении.

4.Трансформация переменных. Перекодирование и вычисление новых переменных. Композитные индексы.

5. Сравнительные методы анализа. Кросс-табуляция.

6. Хи-квадрат и меры ассоциации для номинальных и порядковых переменных.

7. Сравнение средних. Т-тест.

8. Корреляционный анализ.

9. Факторный анализ.

10. Кластерный анализ.

11. Дисперсионный анализ.

12. Регрессионный анализ.

13. Фиктивные переменные и эффект взаимодействия.

14. Логистическая регрессия

15. Подготовка и презентация исследовательского проекта.

3. Требования к уровню знаний студентов (prerequisites)

Изучение данной дисциплины базируется на следующих дисциплинах:

* Математика
* Статистика
* Прикладное программное обеспечение
* Социальная теория
* Методология и методы социологических исследований

Для освоения учебной дисциплины, студенты должны владеть следующими знаниями и компетенциями:

* Знать основные социальные теории
* Понимать базовые статистические понятия
* Владеть методологией количественных социологических исследований

4. Преподаватель

Немировская А.В., к. соц. н., к. филол. н., доц. департамента социологии; Костенко В.В. преподаватель департамента социологии

5. Тип экзамена (тест, письменная работа, устный экзамен и т.д.)

Письменная работа (аналитический проект)

Англоязычная версия

1. Outline

The course provides students with theoretical knowledge and practical skills in statistical analysis of sociological data with the SPSS software, using databases of international quantitative comparative research. The aims of the course are to present key issues and methods of current quantitative sociological research; to train in quantitative data analysis using cross-countries sociological and statistical data sets and to develop and reinforce the knowledge of basic mathematical statistical methods used in quantitative sociological research to analyse current socio-economic problems in comparative perspective.

2. Syllabus

1. Introduction: The theory and practice of social research. Comparative quantitative research and international surveys. Open access datasets and data archives.

2. The SPSS Environment. SPSS syntax.

3. Data collection and logics of measurement. Descriptive statistics. Exploring data with graphs.

4. Transforming variables. Recoding and computing variables. Creating composite measures.

5. Making comparisons. Cross-tabulation analysis.

6. Chi-square and measures of association for nominal and ordinal variables.

7. Comparing two means. The T test.

8. Correlation.

9. Exploratory factor analysis

10. Cluster analysis

11. Analysis of variance

12. Regression analysis

13. Dummy variables and interaction effects

14. Logistic regression

15. Writing and presenting own research project

3. Prerequisite

The Course is based on the acquisition of the following Courses (at the bachelor level):

* Mathematics
* Statistics
* Applied Software
* Social Theory
* Methods for Sociological Research

The Course requires the following students' competencies and knowledge:

* Major social theories
* Basic statistical concepts
* Methods of quantitative social research

4. Author

Nemirovskaya A.V., PhD in Sociology, PhD in Philology, associate professor at the Department of Sociology; Kostenko V.V., senior lecturer at the Department of Sociology

5. Examination type

Final paper (analytical project)

# 1. Area of Application and Regulatory References

The program intends to lay the basic foundation of knowledge and determine the content and forms of educational activities and assessment.

The program is designed for the instructors of the Data Analysis in Sociology course, teaching assistants, and students of sociology (Bachelor Program 040100.62 "Sociology").

The program of the Data Analysis course has been developed in accordance with:

* Educational standard of NRU HSE for Bachelor level education, approved by the Academic Council of NRU HSE (record #15 dated 02.07.2010). URL: <http://spb.hse.ru/umuspb/structure%20standards-hse>
* Educational Program of NRU HSE for Bachelor level education, area of studies 040100.62 "Sociology.
* University Academic Plan of NRU HSE – Saint Petersburg for Bachelor level education, 040100.62 "Sociology” area of studies, the 3rd year of education.

# 2. Course Goals

The goal of the "Data analysis in Sociology” course is to provide students of sociology with the theoretical knowledge and practical skills needed for efficient research. It trains students in the application of basic statistical techniques in quantitative analysis of sociological and statistical data.

The aims of the course are:

1. To present key issues and methods of current quantitative sociological research.
2. To train in quantitative data analysis using cross-countries data sets.
3. To develop and reinforce the knowledge of basic mathematical statistical methods used in quantitative sociological research to analyse current socio-economic problems in comparative perspective.

# 3. Develop Competency

As a result of studying the discipline a student is supposed to:

know:

* The features of different measurement levels and differences among analytical tools that are applied to the data measured by different types of scales;
* The capabilities and limitations of the methods of mathematical statistics that are discussed in the course;
* The features of sampling and the specifics of the analysis of the results of such research;

be able:

* To interpret statistical and sociological indicators, indices, the results of analysis presented in charts and graphs that are produced with the help of SPSS;
* To select statistical and sociological indicators relevant to the research, and evaluate and correctly interpret them;
* To draw tables, charts and graphs to represent the results of statistical analysis, and write up interpretation in the analytical report on the sociological study as per requirements;

gain the skills:

* Of application of mathematical statistical methods to the analysis of sociological data;
* Of formatting tables, charts, statistical indicators, and indices, interpreting these in accordance with the requirements of class assignments, diploma theses, articles, academic and commercial analytical reports;
* Of using the SPSS program for statistical analysis and processing of sociological data.

The Course develops the following competencies:

|  |  |  |  |
| --- | --- | --- | --- |
| Competencies | NRU-HSE Code | Descriptors – the learning outcomes (the indicators of achievement) | Forms and methods of studies that contribute to the development of a competence |
| **The graduate should have such general cultural competences (GC),** as: |  |
| The preparedness to cooperate with colleagues and to work in a team. | GC-3 | Students should be able to communicate in English with other students, he/she is expected to demonstrate cooperation and contribute to group work.Professional competence in oral and written English.Students will be required to use English literary sources to develop their language skills and communicate their arguments in English. | Lectures, seminar and practical sessions in computer classes, homework assignments. Elaboration and public defense of individual analytical projects. Participation in group presentations at seminars. Each student will be expected to take turns in representing their teams in group projects. |
| The ability of applying fundamental ideas and methods of liberal arts, social and economic sciences in order to solve professional tasks. | GC-9 | To use English literary texts in the preparation of lectures, seminars, practical classes, and home assignments. Develop written and oral communication skills in English.Students are taught to use the information that he/she got from English-language literary sources to express themselves.Students are trained to work with different sources of sociological and statistical information: web-pages, data sets, secondary sociological data, academic and study literature sources.Students should be able to solve research problems applying the knowledge of modern theory in social sciences and comparative methodology. Students should be aware of existing methods of statistical analysis applied in sociology and use them in his or her professional research. | Lectures, seminar and practical sessions in computer classes, reading, homework assignments, designing own analytical project, performing statistical analyses, and writing analytical reports of own project research. |
| The ability to analyze socially important issues and processes. | GC-10 | Students should be able to prepare for lectures, seminars, practical classes and home assignments in English. Develop professional competency in oral and written communication skills in English.Students should be able to work with different sources of sociological and statistical information: web-pages, data sets, secondary sociological data, academic and study literature sources.Students should be able to use the information that he/she got from English literary sources to express and develop their arguments.Students should have the ability to solve research problems by applying recent theoretical approaches in the social sciences and comparative methodology.Students should be aware of existing methods of statistical analysis applied in sociology and able to use them in his or her professional research. | Lectures, seminar and practical sessions in computer classes, reading, homework assignments, writing analytical reports on own project research. |
| The ability to use the basic laws of the natural sciences in professional research, apply methods of mathematical analysis and modeling, theoretical and experimental research. | GC-11 | To use English texts in the preparation of lectures, seminars, practical classes, and home assignments. Develop written and oral communication skills in English.Students are taught to use the information that he/she got from English-language literary sources to express themselves.Students are trained to work with different sources of sociological and statistical information: web-pages, data sets, secondary sociological data, academic and study literature sources.Students should be able to solve research problems applying the knowledge of modern theory in social sciences and comparative methodology.Students should be aware of existing methods of statistical analysis applied in sociology and use them in his or her professional research. | Lectures, seminar and practical sessions in computer classes, reading, homework assignments, performing statistical analyses and writing analytical reports of own project research. |
| The ability to work with information in the global computer networks. | GC-14 | Students should be able to use web resources.To use English texts in the preparation of lectures, seminars, practical classes, and home assignments. Develop written and oral communication skills in English.Students should be able to work with different sources of sociological and statistical information: web resources, data sets, secondary sociological data, and other traditional databases and sources.Students should be able to identify the gaps in existing research and lack of sources and explore new avenues of information to recuperate the same. Students should be able to explore open and archived sources for sociological surveys.Students should be able to perform statistical analyses both using on-line built-in facilities of sociological data archives web-sites and PC-installed SPSS. | Lectures, seminar and practical sessions in computer classes, reading, homework assignments, designing an own analytical project, performing statistical analysis for analytical projects, writing analytical report on own project research. |
| **The graduate should have such general professional competences (PC),** as: | *in research activity:* |
| The ability to independently formulate objectives, set specific tasks of research in various fields of sociology and solve them with the help of modern research methods, applying the latest Russian and international experience and modern facilities, gadgets, information technologies. | PC-2 | To use English texts in the preparation of lectures, seminars, practical classes, and home assignments. Develop written and oral communication skills in English.Students should be able to work with different sources of sociological and statistical information: web-pages, data sets, secondary sociological data, academic and literary sources.Students are taught to use the information that he/she got from English-language literary sources to express themselves and defend their arguments.Students should have the ability to solve research issues by applying a comparative methodology and modern theoretical approaches in the social sciences.Students should be aware of existing methods of statistical analysis applied in sociology and use them in his or her professional research. | Lectures, seminar and practical sessions in computer classes, reading, homework assignments, elaboration and fulfillment of an own research project. |
| The ability and readiness to participate in the processing of the scientific and technical documentation, research reports, present the results of research taking into account the demands of a potential audience. | PC-3 | To use English texts in the preparation of lectures, seminars, practical classes, and home assignments. Develop written and oral communication skills in English.Students should be able to work with different sources of sociological and statistical information: web-pages, data sets, secondary sociological data, academic and literary sources.Students are taught to use the information that he/she got from English-language literary sources to express themselves and defend their arguments.Students should be aware of existing methods of statistical analysis applied in sociology and use them in his or her professional research.Students should be able to apply methods of statistical analysis to social and economic problems using SPSS. Students should be able to interpret the results of the statistical analysis and make conclusions.Students should be able to make tables and graphs presenting the results of statistical analysis.Students should be able to write academic and commercial analytical reports. | Lectures, seminar and practical sessions in computer classes, reading, homework assignments, writing an analytical report of own project research. |
|  | *in project activity:* |
| The ability to prepare and present scientific research and analytical projects in accordance with the guidelines of normative documents. | PC-7 | To use English texts in the preparation of lectures, seminars, practical classes, and home assignments. Develop written and oral communication skills in English. Students should be able to work with different sources of sociological and statistical information: web-pages, data sets, secondary sociological data, academic and literary sources.Students are taught to use the information that he/she got from English-language literary sources to express themselves and defend their arguments.Students should be able to solve research problems applying the knowledge of modern theory in social sciences and comparative methodology.Students should be aware of existing methods of statistical analysis applied in sociology and use them in his or her professional research.Students should be able to write both academic and commercial analytical reports.Students should be able to meet the requirements for information security in his research work. | Lectures, seminar and practical sessions in computer classes, reading, homework assignments, performing statistical analysis and writing analytical report of own project research. |
| The ability to process and analyze data to produce analytical solutions, expertise, and solutions. | PC-8 | To use English texts in the preparation of lectures, seminars, practical classes, and home assignments. Develop written and oral communication skills in English.Students should be able to work with different sources of sociological and statistical information: web-pages, data sets, secondary sociological data, academic and literary sources.Students are taught to use the information that he/she got from English-language literary sources to express themselves and defend their arguments.Students should be aware of existing methods of statistical analysis applied in sociology and use them in his or her professional research.Students should be able to apply methods of statistical analysis to social and economic problems using SPSS. Students should be able to write both academic and commercial analytical reports.Students should be able to meet the requirements for information security in his research work. | Lectures, seminar and practical sessions in computer classes, reading, homework assignments, performing statistical analysis and writing analytical report of project research. |
|  | *in the organizational and administrative activity:* |
| The ability to use basic theoretical knowledge as well as practical skills in research, analytical and consulting activities. | PC-10 | To use English texts in the preparation of lectures, seminars, practical classes, and home assignments. Develop written and oral communication skills in English.Students should be able to work with different sources of sociological and statistical information: web-pages, data sets, secondary sociological data, academic and literary sources.Students are taught to use the information that he/she got from English-language literary sources to express themselves and defend their arguments.Students should be able to set research goals and implement the research design to study various social problems through a comparative perspective. Students should be aware of existing methods of statistical analysis applied in sociology and use them in his or her professional research.Students should be able to apply methods of statistical analysis to social and economic problems using SPSS. Students should be able to write both academic and commercial analytical reports.Students should be able to meet the requirements for information security in his research work. | Lectures, seminar and practical sessions in computer classes, reading, homework assignments, performing statistical analysis and writing analytical report of own project research. |
| The ability of using methods of gathering, processing and interpretation of the complex social data in order to solve managerial and organizational issues including those outside a direct sphere of activity. | PC-11 | To use English literary texts in the preparation of lectures, seminars, practical classes, and home assignments. Develop written and oral communication skills in English.Students should be able to work with different sources of sociological and statistical information: web-pages, data sets, secondary sociological data, academic and literary sources.Students are taught to use the information that he/she got from English-language literary sources to express themselves and defend their arguments.Students should be aware of existing methods of statistical analysis applied in sociology and use them in his or her professional research.Students should be able to apply methods of statistical analysis to social and economic problems using SPSS.  Students should be able to write both academic and commercial analytical reports.Students should be able to meet the requirements for information security in his research work. | Lectures, seminar and practical sessions in computer classes, reading, homework assignments, performing statistical analysis and writing analytical report on own project research. |

# 4. How the Course Fits in with the Curriculum

The present course relates to professional disciplines, the block of basic disciplines. It is an essential element of study for a comprehensive and in depth understanding of the majority of professional disciplines and is crucial for developing research competency.

 The “Data Analysis” is an obligatory course within the Basic Syllabus for the area of studies 040100.62 "Sociology" for the B.A. program at the Higher School of Economics.

The Course is based on the acquisition of the following Courses (at the bachelor level):

* Mathematics
* Statistics
* Applied Software
* Social Theory
* Methods for Sociological Research

The Course requires the following students' competencies and knowledge:

* Major social theories
* Basic statistical concepts
* Methods of quantitative social research

The main provisions of the Course should be used for further studies of the following Courses:

* Scientific Research Seminar
* Advanced Methods of Data Analysis
* Economic Sociology

# 5. Thematic plan of the course

The course is divided into 21 lectures on 15 topics, 11 seminars and 11 practical workshops in computer classes. This course gives an overview of 12 major quantitative data analysis topics with a special focus on comparative perspective based on the analysis of WVS, EVS and ESS data using SPSS.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| № | Topic | Total amount of hours  | Classroom Activities | Self-Study |
| Lectures | Seminars | Practical sessions |
| 1 | Introduction: The theory and practice of social research. Comparative quantitative research and international surveys. Open access datasets and data archives. | 10 | 2 | 2 | - | 8 |
| 2 | The SPSS Environment. SPSS syntax. | 12 | 2 | 2 | - | 8 |
| 3 | Data collection and logics of measurement. Descriptive statistics. Exploring data with graphs. | 12 | 2 | - | 2 | 8 |
| 4 | Transforming variables. Recoding and computing variables. Creating composite measures. | 12 | 2 | - | 2 | 8 |
| 5 | Making comparisons. Cross-tabulation analysis.  | 12 | 2 | - | 2 | 8 |
| 6 | Chi-square and measures of association for nominal and ordinal variables. | 12 | 2 | - | 2 | 8 |
| 7 | Comparing two means. The T test. | 12 | 2 | 2 | - | 8 |
| 8 | Correlation. | 12 | 2 | 2 | - | 8 |
| 9 | Exploratory factor analysis | 16 | 4 | 2 | 2 | 8 |
| 10 | Cluster analysis | 16 | 4 | 2 | 2 | 8 |
| 11 | Analysis of variance | 16 | 4 | 2 | 2 | 8 |
| 12 | Regression analysis | 16 | 4 | 2 | 2 | 8 |
| 13 | Dummy variables and interaction effects | 14 | 2 | 2 | 2 | 8 |
| 14 | Logistic regression | 16 | 4 | 2 | 2 | 8 |
| 15 | Writing and presenting own research project | 28 | 4 | 2 | 2 | 18 |
|  | Total: | 216 | 42 | 22 | 22 | 130 |

# 6. Forms of control of students’ knowledge

|  |  |  |  |
| --- | --- | --- | --- |
| Type of control | Form of control | Modules | Requirements |
| 1 | 2 | 3 | 4 |
| Entry Test | Individual test with multiple choice questions | x |  |  |  | The course starts with an introductory test, evaluating the level of basic statistical knowledge that students are expected to have acquired in their previous years of studying |
| Current (week) | Questions and answers in the class, class participation, graded and recorded in The Journal of Class Participation  | x | x | x | x | Each student is expected to read and analyze the assigned readings so that s(he) is able to participate in the class discussions.  |
| Current (week) | Home assignment (applying of methods of analysis, studied in lectures, seminars and practical sessions)  | x | x | x | x | After every seminar and practical session students are given a task to apply a studied method of statistical analysis using WVS, EVS or ESS data. The task is checked and discussed in the class at the beginning of the next seminar or practical session. Written assignments should be submitted via email or LMS in one week time after the announcement. |
| Current (week) | Test | x | x | x | x | Tests are given in class on the regular basis in order to evaluate students` knowledge of the studied topics on the theory and application of the methods of analysis. |
| Intermediary exam | Intermediary written assignment (a draft of analytical report) |  | х |  |  | One week prior to the end of the Module 2, every student is expected to present a draft of analytical project (2-3 pages in length) to be developed during the module up to the final assessment in the form of exam paper, stating research problem, research question, theoretical framework, selected data, methods of analysis and the list of literature. The draft of analytical project should be submitted via email or LMS in one week time after the announcement. |
| Final exam | Final exam paper (analytical report with the results of statistical analysis) |  |  |  | x | One week prior to the end of the Module 4 every student has to submit an analytical report of 10-15 pages (1.5-spaced) investigating a social problem in comparative perspective, using data of international social surveys, including as a minimum descriptive statistics and results of factor, cluster and regression analyses.  |
| Final assessment | Exam |  |  |  | x | Public defense of an analytical project in the classroom, using Power Point presentation. |

## 7. Grading criteria

## Students` intermediary assessment for the course in the form of intermediary examination at the end of the 2nd module requires the preparation of a draft of an analytical project (2-3 pages in length) to be developed during the module up to the final assessment in the form of exam paper, followed by its defense in class. The draft of analytical project should include: research problem; research question; theoretical framework; selected social data; list of variables and description of their transformations, if necessary; methods of statistical analysis and the list of literature. The draft of analytical project should be submitted via email or LMS in one week time after the announcement.

The instructor evaluates the performance of students at seminars and practical sessions, preparation for classes, implementation of studied methods and quality of tasks done. Their grades for seminars and practical sessions are entered into the The Journal of Class Participation. The resultant grade (10-marks scale is used) for work at seminars and practical sessions is determined as *G classwork during seminars and practical sessions* before intermediary and final assessment.

The instructor evaluates the independent work of students on the basis of the accuracy and timeliness of home assignments. These grades are entered into The Journal of Class Participation. The resultant grade (10-marks scale is used) for written home assignments and test is determined as *G written home assignment s and tests* before the final assessment. Each individual task is evaluated in scores.

A student, who, without a meaningful reason, has not fulfilled individual written home assignments in time is allowed to provide a "work off" (an abstract, solutions of the tasks that the instructor requested to prepare for seminars and practical sessions) not later than two weeks from the date of the missed seminar or practical session. If written assignments are provided after the deadline, then the grade for a particular piece of work can be reduced by one score. If a written assignment is not provided within two weeks from the deadline, then the student gets a 0 which is recorded into the cumulative sheet. Students demonstrating exceptionally high results during the course (a cumulative grade of above seven points) may be exempt from the final assessment and will receive the grade “excellent” (8, 9, 10) by the instructor.

Intermediary exam grade is formed from:

1. Grades of written home assignments and tests on data analysis methods in modules 1-2
2. Grade of the intermediary written assignment (in a form of a draft of an analytical project, must be submitted via LMS not later than the last week of the 2nd module)
3. Grade of the presentation of the intermediary written assignment in class
4. Grade of class work during seminars and practical sessions in modules 1-2

G intermediary = 0,3\**G written home assignment s and tests* + 0,25\**G* intermediate written assignment *+ 0,25\**G the presentation of intermediate written assignment + 0,2 \*G *class work during seminars and practical sessions*

## Students’ final grade in the course is determined by their compliance with the course requirements and overall performance.

Final exam grade is formed from:

1. Grades of written home assignments and tests on data analysis methods in modules 3-4
2. Grade of the final exam paper (in a form of a written analytical report based on own research with statistical analysis of sociological data), including the results of data analysis in tables and graphic form (must be submitted via LMS not later than the last week of the 4th module)
3. Grade of the presentation of the results of own research with statistical analysis of sociological data in class (during the last two weeks of the 4th module)
4. Grade of class work during seminars and practical sessions in modules 3-4

Apart from descriptive statistics, the students have to use at least three methods of multivariate mathematical-statistical analysis in the final analytical work: regression, factor and cluster analysis.

In excellent exam papers (8 - 10), in addition to the proper use of statistical analysis, students should demonstrate the ability to informatively analyze and summarize the results obtained by the use of different methods in statistical analysis. The comparative conclusions on at least three or four analyzed countries should be presented in a written analytical report. The highest grade (10) is earned by students whose works have solid and in-depth statistical analysis and excellent interpretation of the results, thereby approaching the quality of work required for scientific publications.

Good exam papers (6 - 7) are works that demonstrate good knowledge of statistical tools, but at the same time have some mistakes in the analysis and / or its interpretation.

Satisfactory papers (5 - 4) are works with serious errors in the statistical analysis and / or the interpretation of the obtained results, or with ignorant use of analytic procedures.

Unsatisfactory grades (3 - 1) are earned by students whose analytical reports does not include at least one of the required methods of analysis (regression, cluster or factor analysis). This also includes works which have practically no interpretation of the obtained results.

The final grade accounts for the results of a student`s performance throughout all 4 modules as follows:

G final = 0,3\**G written home assignment s and tests +* 0,25\*G final exam paper + 0,25\*G exam paper presentation + 0,2\**G class work during seminars and practical sessions*

Rounding of the grades is done as follows: if the score, which is calculated by the formula above, is greater than or equal to the arithmetic mean between the nearest integer values​​, then the higher of the nearest integer value is taken, otherwise – the lower of the nearest integer values is used​​.

Throughout the course the students are expected to fulfill practical assignments which are set based on the data collected in different comparative survey research and publicly available on the web. It allows students to get acquainted with the practical issues of current sociological research. In addition, students must read academic papers and presentations of sociological research based on WVS, EVS and ESS data; these will also allow them to acquire an essential knowledge for sociologist-researcher activity from contemporary real-world examples. The tasks within the framework of practical training and individual assignments reproduce the research problems arising in actual research practice. The results of the student`s individual work are discussed during seminars and practical sessions.

In order to complete individual research assignment, the students themselves choose the topic that is of interest to them, data, and literature on the subject of their research. Before the last week of the 2nd module they are expected to present the abstract of their future research report, containing the title of their research project, the motivation, aim and objectives of their research, the description of the data, list of the methods to be applied and a preliminary review of literature. During seminars and practical sessions the instructor works with students through a range of research techniques, skills and abilities which are required for the fulfillment and the presentation of the final report. The structure of analytical report corresponds with the logic of a typical empirical social study: choice of topic, review of literature, research design (since the data of large-scale international surveys are used for the analysis in this course, students are expected to understand the design of these surveys and get a good knowledge of the questionnaires and the structure of the survey database), data analysis, graphical presentation and interpretation of the results, and conclusion. It is assumed that students are already familiar with general literature on issues and methods of social research, the choice of proper methods for data analysis and the strategies for analytical reports writing that are studied in courses on «Methods of Social Research» and «Statistics».

The final assessment in the course requires preparation of their own analytical projects (based on a secondary analysis of statistical and sociological data), including elaboration of the program of analytical project, choosing methodological framework, performing statistical analysis, tabular and graphical presentation of the results and their interpretation, hardcopy submission of research results to instructor and a public presentation of the results in the classroom.

Data analysis is performed using either WVS, EVS or ESS data (for the student`s choice). Students may also use for their analysis other sociological and statistical data by the agreement with the instructor (optional).

Students have to choose the topics for their analytical projects and the tools of sociological analysis by their own and obtain approval of the instructor. The choice of the research topic is determined by two factors:

1. Research interests of the student. Thus, a report on this course can be also used to prepare coursework or diploma thesis.

2. The availability of sociological research data on the topic of interest to the student. In some cases correction of topic may be required due to limitations of the databases in hand: if the WVS, EVS or ESS databases do not contain the data needed for a particular topic, or the student cannot find suitable data from other sources.

Analytical report should be submitted in three weeks time before the end of the 4th module, in both printed and electronic forms, prior to the presentations in class. Analytical report must contain a justification of the relevance of the problem, its novelty, statement of the object, the subject, a purpose, objectives, hypotheses of the study, a systematic factor analysis of the research object, a description of research instruments (databases, indicators, scales, characteristics of variables, etc.), a justification of the necessity and the legality of the application of the proposed scheme of analysis in accordance with the suggested hypotheses, tabular and graphical materials of data analysis, an interpretation of results and a list of references. The volume of the report may vary from 10 to 15 pages, including the title page, contents, main text, tabular and graphic material, a list of references and sources (not less than 10 sources, including academic monographs, articles, publications of specialized sites as well as references and lexicographical publications). Formatting of the text in accordance with the requirements of the State Standards (GOST), list of references and links to the sources of citations and data are necessary. Text formatting: 14pt font in Times New Roman, one and a half interval, width alignment. Charts and tables: 12pt font in Times New Roman, single interval, center alignment.

The final assessment is held in the format of presentation of the results of analytical reports. The students are provided with PC and OHP. Topic of presentation and selection of countries for comparative analysis is determined by students on their own and in agreement with the instructor. Each presentation is limited by 15 minutes and is followed by 5 minutes discussion of the results.

# 8. The Course Content

**Topic 1. The theory and practice of social research. Comparative quantitative research and international surveys. Open access datasets and data archives.**

Course outline, objectives and requirements. Contemporary quantitative sociological and political research. The comparative approach to social and political science: theories and methods. International comparative surveys, cross-country survey design and comparative analysis. Sociological and statistical data on open access. Russian and international electronic databases and archives of sociological data (Sophist, Gesis, WVS, EVS, ESS and others). Databases of national and international statistical data (Rosstat, Central Bank, United Nations Development Program, World Bank and others). Databases of Russian surveys data available for statistical analysis (Public Opinion Foundation, WCIOM, Levada Centre, Zircon, Institute of Sociology or RAS and others). Methods of statistical analysis applied in comparative social and political research.

*Core readings:*

Wagner W.E. (2010) Using SPSS for Social Statistics and Research Methods. Sage Publications.

*Additional readings:*

Comparative Methods in the Social Sciences. Four-Volume Set. (2006) Sage Publications.

Hantrais L. (2009) International Comparative Research: Theory, Methods andPractice. Palgrave Macmillan.

Minkov M. (2012) Cross-Cultural Analysis: The Science and Art of Comparing the World's Modern Societies and Their Cultures. Sage Publications.

Pennings P., Keman H., Kleinnijenhuis J. (2005) Doing Research in Political Science: An Introduction to Comparative Methods and Statistics. Second Edition. Sage Publications.

Schrodt P.A. (2013) [Seven Deadly Sins of Contemporary Quantitative Political Analysis](https://www.google.ru/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&ved=0CDMQFjAB&url=http%3A%2F%2Fjpr.sagepub.com%2Fcontent%2Fearly%2F2013%2F10%2F08%2F0022343313499597.full&ei=3mOiUumlIsm64ATuvIH4Bw&usg=AFQjCNHOk-0Gch9zrDlLa9SU5Lu9KqDjtg&sig2=iNN3U4-7U10YumcHKH3Orw&bvm=bv.57752919,d.bGE). Journal of Peace Research. URL: <http://polmeth.wustl.edu/media/Paper/Schrodt7SinsAPSA10.pdf>

**Topic 2. The SPSS Environment. SPSS syntax.**

 Versions of SPSS program. SPSS electronic files. The data editor, the SPSS viewer, syntax window. Opening, creating and saving SPSS data files. Importing data from non-SPSS file formats. Creating, editing and exporting SPSS output files.

*Core readings:*

Wagner W.E. (2010) Using SPSS for Social Statistics and Research Methods. Sage Publications.

*Additional readings:*

Field, A. (2009) Discovering Statistics Using SPSS (and sex, drugs and rock'n'roll). 3rd edition. SAGE Publications Ltd, 2009.

Бююль А., Цефель П. SPSS: искусство обработки информации, анализ статистических данных и восстановление скрытых закономерностей. DiaSoft, 2002.

Наследов А. IBM SPSS Statistics и AMOS: профессиональный статистический анализ данных. – Спб: Питер, 2013.

**Topic 3. Data collection and logics of measurement. Descriptive statistics. Exploring data with graphs.**

Sampling and statistical testing. Random and non-random samples. Measurement error. Validity and reliability. Theories, concepts, hypothesis, variables and cases. Inductive and deductive strategies in social research. Operationalization and measurement: from a concept and a unit toward a value. Selecting cases and variables for comparative data analysis. Missing data. Levels of measurement in SPSS Statistics: nominal, ordinal and scale. Tabular and graphical displays of data. Creating and editing graphics in SPSS: histograms, boxplots, bar charts, pie charts, line charts, scatterplots. Frequency distributions, the centre and the dispersion in distribution, fitting statistical models to the data. Simple statistical models, the standard error, confidence intervals. Application of statistical models to test research questions.

*Core readings:*

Wagner W.E. (2010) Using SPSS for Social Statistics and Research Methods. Sage Publications.

*Additional readings:*

Aldrich J.O., Rodrigues J.M. (2013) Building SPSS Graphs to Understand Data. Sage.

Field, A. (2009) Discovering Statistics Using SPSS (and sex, drugs and rock'n'roll). 3rd edition. SAGE Publications Ltd, 2009.

Pollock, Philip H. (2012) An SPSS Companion to Political Analysis. 4th edition. SAGE Publications Ltd, 2012.

Бююль А., Цефель П. SPSS: искусство обработки информации, анализ статистических данных и восстановление скрытых закономерностей. DiaSoft, 2002.

Крыштановский А.О. Анализ социологических данных с помощью пакета SPSS. М.: Издательский дом ГУ-ВШЭ, 2007.

**Topic 4. Transforming variables. Recoding and computing variables. Creating composite measures.**

 Recoding and computing variables. Recoding categorical and interval-level variables. Dichotomies and dummy variables. Collapsing interval-level variables using “visual binning” function. Creating composite measures. Using the “compute” and “count” functions. Computing an index using the mean. “Aggregate” function.

*Core readings:*

Wagner W.E. (2010) Using SPSS for Social Statistics and Research Methods. Sage Publications.

*Additional readings:*

Field, A. (2009) Discovering Statistics Using SPSS (and sex, drugs and rock'n'roll). 3rd edition. SAGE Publications Ltd, 2009.

Pollock, Philip H. (2012) An SPSS Companion to Political Analysis. 4th edition. SAGE Publications Ltd, 2012.

Бююль А., Цефель П. SPSS: искусство обработки информации, анализ статистических данных и восстановление скрытых закономерностей. DiaSoft, 2002.

Крыштановский А.О. Анализ социологических данных с помощью пакета SPSS. М.: Издательский дом ГУ-ВШЭ, 2007.

Наследов А. IBM SPSS Statistics и AMOS: профессиональный статистический анализ данных. – Спб: Питер, 2013.

**Topic 5. Making comparisons. Cross-tabulation analysis.**

 Cross-tabulation analysis. Mean comparison analysis. Interaction and additive relationships. Adding another variable or dimension to the analysis. Cross-tabulation and mean comparison analysis using a control variable. Exploring groups of data.

*Core readings:*

Wagner W.E. (2010) Using SPSS for Social Statistics and Research Methods. Sage Publications.

*Additional readings:*

Field, A. (2009) Discovering Statistics Using SPSS (and sex, drugs and rock'n'roll). 3rd edition. SAGE Publications Ltd, 2009.

Pollock, Philip H. (2012) An SPSS Companion to Political Analysis. 4th edition. SAGE Publications Ltd, 2012.

Бююль А., Цефель П. SPSS: искусство обработки информации, анализ статистических данных и восстановление скрытых закономерностей. DiaSoft, 2002.

Крыштановский А.О. Анализ социологических данных с помощью пакета SPSS. М.: Издательский дом ГУ-ВШЭ, 2007.

Наследов А. IBM SPSS Statistics и AMOS: профессиональный статистический анализ данных. – Спб: Питер, 2013.

**Topic 6. Chi-square and measures of association for nominal and ordinal variables.**

 Chi-square as a “goodness of fit” test. Chi-square as a test of independence. The assumptions of the Chi-square test. Proportionate reduction of error. Measures of association for nominal and ordinal variables. Lambda, gamma, and Somer`s d. Symmetrical and asymmetrical measures. Analyzing an ordinal-level relationship with a control variable. Analyzing a nominal-level relationship with a control variable.

*Core readings:*

Wagner W.E. (2010) Using SPSS for Social Statistics and Research Methods. Sage Publications.

*Additional readings:*

Field, A. (2009) Discovering Statistics Using SPSS (and sex, drugs and rock'n'roll). 3rd edition. SAGE Publications Ltd, 2009.

Pollock, Philip H. (2012) An SPSS Companion to Political Analysis. 4th edition. SAGE Publications Ltd, 2012.

Бююль А., Цефель П. SPSS: искусство обработки информации, анализ статистических данных и восстановление скрытых закономерностей. DiaSoft, 2002.

Крыштановский А.О. Анализ социологических данных с помощью пакета SPSS. М.: Издательский дом ГУ-ВШЭ, 2007.

Наследов А. IBM SPSS Statistics и AMOS: профессиональный статистический анализ данных. – Спб: Питер, 2013.

**Topic 7. Comparing two means. The T test.**

 Testing hypothesis using means and cross-tabulation. Descriptives and one-sample T test. Dependent and independent samples T test. Reading and interpreting the output from the T test. Calculating the effect size. T test as a general linear model.

*Core readings:*

Wagner W.E. (2010) Using SPSS for Social Statistics and Research Methods. Sage Publications.

*Additional readings:*

Field, A. (2009) Discovering Statistics Using SPSS (and sex, drugs and rock'n'roll). 3rd edition. SAGE Publications Ltd, 2009.

Pollock, Philip H. (2012) An SPSS Companion to Political Analysis. 4th edition. SAGE Publications Ltd, 2012.

Бююль А., Цефель П. SPSS: искусство обработки информации, анализ статистических данных и восстановление скрытых закономерностей. DiaSoft, 2002.

Крыштановский А.О. Анализ социологических данных с помощью пакета SPSS. М.: Издательский дом ГУ-ВШЭ, 2007.

Наследов А. IBM SPSS Statistics и AMOS: профессиональный статистический анализ данных. – Спб: Питер, 2013.

**Topic 8. Correlation.**

Measuring of relationships. Standardization and the correlation coefficient. The significance of the correlation coefficient. Bivariate correlation on SPSS. Pearson`s and Spearman`s correlation coefficients. Kendall`s tau rank correlation coefficient. Partial and semi-partial correlations. Calculating the effect size. Reading and reporting correlation coefficients from the SPSS output. Interpretation and the problem of causality.

*Core readings:*

Wagner W.E. (2010) Using SPSS for Social Statistics and Research Methods. Sage Publications.

*Additional readings:*

Field, A. (2009) Discovering Statistics Using SPSS (and sex, drugs and rock'n'roll). 3rd edition. SAGE Publications Ltd, 2009.

Miles J., Shevlin M. (2011) Applying Regression and Correlation. A Guide for Students and Researchers. Sage Publications.

Pollock, Philip H. (2012) An SPSS Companion to Political Analysis. 4th edition. SAGE Publications Ltd, 2012.

Бююль А., Цефель П. SPSS: искусство обработки информации, анализ статистических данных и восстановление скрытых закономерностей. DiaSoft, 2002.

Крыштановский А.О. Анализ социологических данных с помощью пакета SPSS. М.: Издательский дом ГУ-ВШЭ, 2007.

Наследов А. IBM SPSS Statistics и AMOS: профессиональный статистический анализ данных. – Спб: Питер, 2013.

**Topic 9. Exploratory factor analysis.**

 Data structure analysis. Graphical and mathematical representation of factors. Methods for discovering factors. Factor analysis and principal component analysis. Factor extraction on SPSS. Reading the scree plot. Factor rotation. Interpreting the output from SPSS. Reliability analysis on SPSS. Cronbach`s a.

*Core readings:*

Wagner W.E. (2010) Using SPSS for Social Statistics and Research Methods. Sage Publications.

*Additional readings:*

Field, A. (2009) Discovering Statistics Using SPSS (and sex, drugs and rock'n'roll). 3rd edition. SAGE Publications Ltd, 2009.

Hatcher L. (2013) Advanced Statistics in Research: Reading, Understanding, and Writing Up Data Analysis Results. Shadow Finch Media LLC.

Бююль А., Цефель П. SPSS: искусство обработки информации, анализ статистических данных и восстановление скрытых закономерностей. DiaSoft, 2002.

Крыштановский А.О. Анализ социологических данных с помощью пакета SPSS. М.: Издательский дом ГУ-ВШЭ, 2007.

Наследов А.Д. Математические методы психологического исследования. Анализ и интерпретация данных. Учебное пособие. 4-е издание, стереотип. – СПЮ.: Речь, 2012.

Наследов А. IBM SPSS Statistics и AMOS: профессиональный статистический анализ данных. – Спб: Питер, 2013.

**Topic 10. Cluster analysis.**

 Classification using cluster analysis. Reasons for classifying and basic concepts: cluster formation, cluster validity, meaningfulness, distance (proximities). Hierarchical cluster analysis. K-means cluster analysis. Two-step cluster analysis.

*Core readings:*

Wagner W.E. (2010) Using SPSS for Social Statistics and Research Methods. Sage Publications.

*Additional readings:*

# Garson G.D. (2012) Cluster Analysis. (Statistical Associates Blue Book Series). Statistical Associates Publishers.

Бююль А., Цефель П. SPSS: искусство обработки информации, анализ статистических данных и восстановление скрытых закономерностей. DiaSoft, 2002.

Крыштановский А.О. Анализ социологических данных с помощью пакета SPSS. М.: Издательский дом ГУ-ВШЭ, 2007.

Наследов А.Д. Математические методы психологического исследования. Анализ и интерпретация данных. Учебное пособие. 4-е издание, стереотип. – СПЮ.: Речь, 2012.

Наследов А. IBM SPSS Statistics и AMOS: профессиональный статистический анализ данных. – Спб: Питер, 2013.

**Topic 11. Analysis of variance.**

 The theory behind ANOVA. One-Way ANOVA. Factorial ANOVA. Repeated-measures ANOVA. Analysis of covariance. Mixed design ANOVA. Mutivariate analysis of variance (MANOVA): theory and practical issues. Discriminant analysis.

*Core readings:*

Wagner W.E. (2010) Using SPSS for Social Statistics and Research Methods. Sage Publications.

*Additional readings:*

Field, A. (2009) Discovering Statistics Using SPSS (and sex, drugs and rock'n'roll). 3rd edition. SAGE Publications Ltd, 2009.

Hatcher L. (2013) Advanced Statistics in Research: Reading, Understanding, and Writing Up Data Analysis Results. Shadow Finch Media LLC.

Бююль А., Цефель П. SPSS: искусство обработки информации, анализ статистических данных и восстановление скрытых закономерностей. DiaSoft, 2002.

Крыштановский А.О. Анализ социологических данных с помощью пакета SPSS. М.: Издательский дом ГУ-ВШЭ, 2007.

Наследов А. IBM SPSS Statistics и AMOS: профессиональный статистический анализ данных. – Спб: Питер, 2013.

**Topic 12. Regression analysis.**

 The method of least squares. Assessing the goodness of fit and individual predictors. A simple regression on SPSS. Multiple regression. Assessing the regression model. Regression plots and diagnostic. Reading SPSS output, interpreting and reporting the results of regression analysis.

*Core readings:*

Wagner W.E. (2010) Using SPSS for Social Statistics and Research Methods. Sage Publications.

*Additional readings:*

Field, A. (2009) Discovering Statistics Using SPSS (and sex, drugs and rock'n'roll). 3rd edition. SAGE Publications Ltd, 2009.

Hatcher L. (2013) Advanced Statistics in Research: Reading, Understanding, and Writing Up Data Analysis Results. Shadow Finch Media LLC.

Бююль А., Цефель П. SPSS: искусство обработки информации, анализ статистических данных и восстановление скрытых закономерностей. DiaSoft, 2002.

Крыштановский А.О. Анализ социологических данных с помощью пакета SPSS. М.: Издательский дом ГУ-ВШЭ, 2007.

Наследов А. IBM SPSS Statistics и AMOS: профессиональный статистический анализ данных. – Спб: Питер, 2013.

**Topic 13. Dummy variables and interaction effects.**

 Dummy explanatory variables as proxy variables for qualitative facts. The role and application of dummy variables. Regression analysis with dummy variables. Interaction effects in multiple regression, using “compute” function for interaction variables.

*Core readings:*

Wagner W.E. (2010) Using SPSS for Social Statistics and Research Methods. Sage Publications.

*Additional readings:*

Field, A. (2009) Discovering Statistics Using SPSS (and sex, drugs and rock'n'roll). 3rd edition. SAGE Publications Ltd, 2009.

Pollock, Philip H. (2012) An SPSS Companion to Political Analysis. 4th edition. SAGE Publications Ltd, 2012.

Бююль А., Цефель П. SPSS: искусство обработки информации, анализ статистических данных и восстановление скрытых закономерностей. DiaSoft, 2002.

Крыштановский А.О. Анализ социологических данных с помощью пакета SPSS. М.: Издательский дом ГУ-ВШЭ, 2007.

Наследов А. IBM SPSS Statistics и AMOS: профессиональный статистический анализ данных. – Спб: Питер, 2013.

**Topic 14. Logistic regression.**

 The principles of logistic regression. Assessment of the model: log-likelihood statistics, Wald statistics, odds ratio. Binary logistic regression. Logistic regression with binary independent variables. Reading SPSS output, interpreting and reporting the results of logistic regression.

*Core readings:*

Wagner W.E. (2010) Using SPSS for Social Statistics and Research Methods. Sage Publications.

*Additional readings:*

Field, A. (2009) Discovering Statistics Using SPSS (and sex, drugs and rock'n'roll). 3rd edition. SAGE Publications Ltd, 2009.

Pollock, Philip H. (2012) An SPSS Companion to Political Analysis. 4th edition. SAGE Publications Ltd, 2012.

Бююль А., Цефель П. SPSS: искусство обработки информации, анализ статистических данных и восстановление скрытых закономерностей. DiaSoft, 2002.

Крыштановский А.О. Анализ социологических данных с помощью пакета SPSS. М.: Издательский дом ГУ-ВШЭ, 2007.

Наследов А. IBM SPSS Statistics и AMOS: профессиональный статистический анализ данных. – Спб: Питер, 2013.

**Topic 15. Writing and presenting own research project.**

The research question. Previous research and academic publications. Literature sources, electronic academic databases. Selecting a research topic, research questions and hypotheses. Data analysis: descriptive and inferential statistics, validity of findings. Presenting the results: descriptions, tables, graphs and figures. Discussion of the findings: conclusions and implications for practice. Preparation and practice of presentation of the analytical report to the audience.

*Core readings:*

Wagner W.E. (2010) Using SPSS for Social Statistics and Research Methods. Sage Publications.

*Additional readings:*

Creswell J.W. (2013) Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. Sage Publications.

Layder D. (2013) Sociological Practice. Linking Theory and Social Research. Sage Publications.

Minkov M. (2012) Cross-Cultural Analysis: The Science and Art of Comparing the World's Modern Societies and Their Cultures. Sage Publications.

Pennings P., Keman H., Kleinnijenhuis J. (2005) Doing Research in Political Science: An Introduction to Comparative Methods and Statistics. Second Edition. Sage Publications.

Pollock, Philip H. (2012) An SPSS Companion to Political Analysis. 4th edition. SAGE Publications Ltd, 2012.

# 9. Educational Technologies

The course syllabus, reading texts, presentations, practical tasks and home assignments will be available in the LMS and also shared via email. Students are expected to log in to the course web-site on a regular basis.

# 10. Information basis for the course

# 10.1. Core Textbook

Wagner W.E. (2010) Using SPSS for Social Statistics and Research Methods. Sage Publications.

**10.2. Internet resources**:

European Social Survey. http://www.europeansocialsurvey.org

European Values Study. http://www.europeanvaluesstudy.eu

Field A. Discovering Statistics Using IBM SPSS Statistics. Companion Web-site. http://www.uk.sagepub.com/field4e

Field A. Discovering Statistics Using IBM SPSS Statistics (and Sex and Drugs and Rock 'n' Roll). Personal web-site. <http://www.statisticshell.com/html/dsus.html>

SPSS Tutorials. The London School of Economics and Political Science. http://www.lse.ac.uk/methodology/tutorials/SPSS/home.aspx

SPSS Software [http://www-01.ibm.com/software/analytics/spss](http://www-01.ibm.com/software/analytics/spss/)

The Laboratory for Comparative Social Research. http://lcsr.hse.ru

The World Values Survey Association. [http://www.worldvaluessurvey.org](http://www.worldvaluessurvey.org/)

UNdata. http://data.un.org

World Bank Open Data. http://data.worldbank.org

## 10.3. Supplementary Reading

Aldrich J.O., Rodrigues J.M. (2013) Building SPSS Graphs to Understand Data. Sage.

Aneshensel C.S. (2013) Theory-Based Data Analysis for the Social Sciences. Sage.

Babones S.J. (2013) Methods for Quantitative Macro-Comparative Research. Sage Publications.

Comparative Methods in the Social Sciences. Four-Volume Set. (2006) Sage Publications.

Creswell J.W. (2013) Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. Sage Publications.

Field, A. (2009) Discovering Statistics Using SPSS (and sex, drugs and rock'n'roll). 3rd edition. SAGE Publications Ltd, 2009.

# Garson G.D. (2012) Cluster Analysis. (Statistical Associates Blue Book Series). Statistical Associates Publishers.

Hantrais L. (2009) International Comparative Research: Theory, Methods and Practice. Palgrave Macmillan.

Hatcher L. (2013) Advanced Statistics in Research: Reading, Understanding, and Writing Up Data Analysis Results. Shadow Finch Media LLC.

Layder D. (2013) Sociological Practice. Linking Theory and Social Research. Sage Publications.

Miles J., Shevlin M. (2011) Applying Regression and Correlation. A Guide for Students and Researchers. Sage Publications.

Minkov M. (2012) Cross-Cultural Analysis: The Science and Art of Comparing the World's Modern Societies and Their Cultures. Sage Publications.

Kornblum W., Julian J. (2011) Social Problems. 14 edition. Pearson.

Pennings P., Keman H., Kleinnijenhuis J. (2005) Doing Research in Political Science: An Introduction to Comparative Methods and Statistics. Second Edition. Sage Publications.

Pollock, Philip H. (2012) An SPSS Companion to Political Analysis. 4th edition. SAGE Publications Ltd, 2012.

Schrodt P.A. (2013) [Seven Deadly Sins of Contemporary Quantitative Political Analysis](https://www.google.ru/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&ved=0CDMQFjAB&url=http%3A%2F%2Fjpr.sagepub.com%2Fcontent%2Fearly%2F2013%2F10%2F08%2F0022343313499597.full&ei=3mOiUumlIsm64ATuvIH4Bw&usg=AFQjCNHOk-0Gch9zrDlLa9SU5Lu9KqDjtg&sig2=iNN3U4-7U10YumcHKH3Orw&bvm=bv.57752919,d.bGE). Journal of Peace Research. URL: <http://polmeth.wustl.edu/media/Paper/Schrodt7SinsAPSA10.pdf>

Tarling R. (2009) Statistical Modeling for Social Researchers. Principles and Practice. Routledge.

Бююль А., Цефель П. SPSS: искусство обработки информации, анализ статистических данных и восстановление скрытых закономерностей. DiaSoft, 2002.

Крыштановский А.О. Анализ социологических данных с помощью пакета SPSS. М.: Издательский дом ГУ-ВШЭ, 2007.

Многомерный статистический анализ в экономических задачах: компьютерное моделирование в SPSS: Учебное пособие / Под редакцией И.В. Орловой. – М.: Вузовский учебник, 2011. – 310 с.

Наследов А.Д. Математические методы психологического исследования. Анализ и интерпретация данных. Учебное пособие. 4-е издание, стереотип. – СПЮ.: Речь, 2012. – 392 с.

Наследов А. IBM SPSS Statistics и AMOS: профессиональный статистический анализ данных. – Спб: Питер, 2013. – 416 с.

Резник А.Д. Книга для тех, кто не любит статистику, но вынужден ею пользоваться. Непараметрическая статистика в примерах, упражнениях и рисунках. – СПб.: Речь, 2008 – 265 с.

Толстова Ю.Н. Математико-статистические модели в социологии. Математическая статистика для социологов. М.: Издательский дома ГУ ВШЭ, 2007.

## 10.4. Program packages

For successful acquisition of the Course, students use IBM SPSS Statistics 20, available in HSE computer classes.

# 11. Technical support

Each lecture, seminar, and practical session is supported by Power Point presentations, shown by OHP projector or via PC screen (in computer class). Seminars and practical sessions are held in a fully-equipped computer class with personal computers available to every student in group.

# 12. Academic Integrity

Each student in this course is expected to abide by the Higher School of Economics’ Academic Honesty Policy. For this course, collaboration is allowed for pair and group work during seminar classes (Modules 1 – 4) and preparation of group presentation of analytical work (Module 1 – 4).

# 13. Accommodation for Students with Disabilities

The Higher School of Economics is committed to ensuring equal academic opportunities and inclusion of students with disabilities based on the principles of independent living, accessible universal design, and diversity. The instructor is available to discuss appropriate academic accommodations that may be required for students with disabilities. In the absence of unusual circumstances, requests for academic accommodations are to be made during the first three weeks of the semester. Students are encouraged to register with the Disability Services Center to verify their eligibility for appropriate accommodations.