Syllabus Course in Survey Data Analysis

SDA: Survey Data Analysis	**Assoc. Prof. Dr. Ralitsa Simeonova-Ganeva**
Language of instruction: English	*Department of Statistics and Econometrics, FEBA*
Fall 2015, FEBA, Sofia University	*Office: Room 414, FEBA*
Course materials: **edu.sigma-hat.com** (enrollment key: SDA1516) and **FEBA website**	*Emails: r_ganeva@feb.uni-sofia.bg* *ralitsa@sigma-hat.com*

1. Schedule

Lectures: Tue, 9:30 - 11:00 a.m., room 306   Seminars: Tue, 11:15 – 12:00 a.m., room 306

2. Textbooks and readings

Main textbooks:

1. de Leeuw, E., Hox, J. and Dillman, D. (2008) *International Handbook of Survey Methodology*, EAM.
http://joophox.net/papers/SurveyHandbookCRC.pdf
2. Tyrrell, S. (2009) *SPSS: Stats Practically Short and Simple*, Sydney Tyrrell & Ventus Publishing ApS.
http://bookboon.com/en/textbooks/statistics/stats-practically-short-and-simple
3. Tiemann, Thomas K. (2010) *Introductory Business Statistics, The Global Text Project funded by the Jacobs Foundation*, Zurich, Switzerland.
http://www.saylor.org/site/wp-content/uploads/2012/03/Introductory-Business-Statistics.pdf
4. Hansen, B. (2014) *Econometrics*, University of Wisconsin.
http://www.ssc.wisc.edu/~bhansen/econometrics/Econometrics.pdf

Additional references:

5. SPSS Brief Guide, SPSS Inc, 2003.
http://www.hks.harvard.edu/fs/pnorris/Acrobat/SPSS%20Brief%20Guide%2012.0.pdf
6. SPSS Base User's Guide, SPSS Inc, 2005.
http://www.ums.edu.my/spss/SPSS%20Base%20User%27s%20Guide%2014.0.pdf
7. SPSS Regressions Models 12.0, SPSS Inc, 2003.
http://www.hks.harvard.edu/fs/pnorris/Acrobat/SPSS%20Regression%20Models%2012.0.pdf
8. SPSS Advanced Models, SPSS Inc, 2003.
http://priede.bf.lu.lv/grozs/Datorlietas/SPSS/SPSS%20Advanced%20Models%2012.0.pdf
9. Gupta, V. (1999) SPSS for Beginners, VJBooks Inc.
http://instructional1.calstatela.edu/ikim/MKT446/spss/SPSSforBeginners.pdf
10. Brink, D. (2010) Essentials of Statistics, David Brink & Ventus Publishing ApS
http://bookboon.com/en/statistics-compendium-ebook
11. Sykes, A. (1993) „An Introduction to Regression Analysis", Coase-Sandor Working Papers Series in Law and Economics, University of Chicago Law School.
http://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=1050&context=law_and_economics
12. Lecture notes, applied research papers, datasets, etc.
edu.sigma-hat.com

3. Course Description

SDA course provides a logical continuation of economics, business, statistics and econometrics courses. Course objective is development of practical skills in survey data analysis using popular software packages in business and academics (SPSS and its open source equivalent – PSPP). Course topics cover basic concepts, applications and practical examples of survey methods, data processing, parametric estimation, and nonparametric testing in business and economic research. Seminars are focused on application of studied techniques with real life data from Bulgaria and other EU countries using SPSS/PSPP. Students have a possibility to apply survey data analysis methods while developing their own individual research project.

4. Prerequisites

Microeconomics, Macroeconomics, Statistics I, Economic Statistics, Econometrics I

Every student in the class is responsible for reviewing and learning once studied but forgotten knowledge in these subjects if it is relevant to course materials.

5. Requirements for Success

In order to fully understand survey data analysis concepts and their applications students are strongly advised to:

- Attend class regularly, do the class assignments and ask questions (both in class and in the web forum);
- Prepare for quizzes;
- Take the time to develop a research project.

6.   Course Outline

Topics and activities	Date
1. **Application of survey data and software packages for analysis in modern economic analysis and business practices. Introduction to the course software packages SPSS and PSPP.** ✓ Seminar: Real life example(s) ✓ Seminar+: Guidelines for the research project	**6 Oct 2015**
2. **Business and consumers surveys: formulation of research questions; survey planning; drafting a questionnaire.** ✓ Seminar: Real life example(s)	**13 Oct 2015**
3. **Samples and sampling.** ✓ Seminar: Real life example(s)	**20 Oct 2015**
➢ **Quiz 1: Surveys and samples**	**27 Oct 2015** or during the session
4. **Data processing: coding; workfiles; variables; data inputting; verification and validation.** ✓ Seminar: Real life example(s)	**27 Oct 2015**
5. **Data processing: descriptive statistics; frequencies; graphs; customized tables.** ✓ Seminar: Real life example(s)	**27 Oct 2015**
6. **Data processing: generation of new variables; applications of index numbers; reliability analysis.** ✓ Seminar: Real life example(s) ✓ Seminar+: Guidelines for the research project	**3 Nov 2015**
➢ **Reporting field of research project and key reference papers (online)**	**3 Nov 2015**
➢ **Quiz 2: Data processing**	**10 Nov 2015** or during the session
7. **Hypothesis testing.** ✓ Seminar: Real life example(s)	**10 Nov 2015**
8. **Analysis of samples and subsamples.** ✓ Seminar: Real life example(s)	**17 Nov 2015**
9. **Nonparametric testing.** ✓ Seminar: Real life example(s)	**24 Nov 2015**
10. **Correlation analysis.** ✓ Seminar: Real life example(s)	**1 Dec 2015**
➢ **Quiz 3: Quantitative techniques**	**15 Dec 2015** or during the session
11. **Factor analysis.** ✓ Seminar: Real life example(s) ✓ Seminar+: Guidelines for the research project	**15 Dec 2015**
➢ **Reporting datasets and research questions (online)**	**15 Dec 2015**
12. **Regression analysis.** ✓ Seminar: Real life example(s)	**5 Jan 2016**
13. **Causal and non-causal models.** ✓ Seminar: Real life example(s)	**12 Jan 2016**
14. **Estimation of elasticities.** ✓ Seminar: Real life example(s) ✓ Seminar+: Guidelines for the research project	**19 Jan 2016**
➢ **Reporting outline of research report (online)**	**19 Jan 2016**
➢ **Quiz 4: Regression analysis**	**19 Jan 2016** or during the session

7.   Grading

Students' grades will be determined as follows:

Component	Weight
Quizes (15 minutes each; A4 cheat sheet for all quizes)	32%
Applied research project	68%
Total	**100%**

Each component of the grade can be evaluated with maximum number of points – 100. All grades will be assigned as follows:

0% - 59.5%	59.6% - 69.5%	69.6% - 79.5%	79.6% - 89.5%	89.6% - 100%	95.6% - 100% +
F	**D**	**C**	**B**	**A**	**A+**
Poor 2	**Average 3**	**Good 4**	**Very good 5**	**Excellent 6**	**Certificate**

8.   Important Dates

Final grading – 30 Jan 2016

9.   Attendance Policy

According to Sofia University rules, students are expected to attend classes regularly. Students who miss classes for any reason bear the full responsibility for finding out and learning what material may have been missed.

However, only motivated students are strongly advised to come to the class. All other students may simply set in advance their objective for final grade and plan their efforts accordingly.

10.   Academic Honesty

I am extremely intolerant with academic dishonesty and plagiarism.

Please check the following definitions:

- http://en.wikipedia.org/wiki/Plagiarism
- http://en.wikipedia.org/wiki/Academic_dishonesty

Any act of such behavior will be reported to the Dean and disqualifies the relevant students from continuing in the course.