

Course programme

Course code IFI7041.DT	Data analysis: descriptive statistics		
ECTS credits: 4ETC	Amount of contact lessons: 24	Teaching semester: fall 2016	Assessment form: exam
Course objectives:	<p>The aim of the course is to provide an overview of descriptive statistics.</p> <p>To create an understanding about data, its collection and presentation by theoretical and practical skills.</p> <p>To enhance the skills of implementing the theoretical and practical knowledge of main descriptive statistics methods.</p> <p>To enable students to make correct decisions about appropriate method and to correctly interpret the results on their own.</p> <p>To introduce statistics packet SPSSs main descriptive statistics methods.</p>		
Brief description of course content:	<p>Statistical data. Collection and analyzing of data. Types of data and variables. Descriptive statistics, the main principles of summarizing and presenting data. Tables, diagrams, statistics and correlation. Proper presentation of different types of data.</p>		
(including the description of the independent work)	<p>The exam consists of two parts: one of them is a written test and the other is independent work. Each of them make 50% of the final grade.</p> <p>Independent work is practical written work of solving statistical assignments by using knowledge gained in class. Approximately 32 hours of work.</p>		
Learning outcomes:	<p>At the end of the course the student:</p> <p>Knows how to compile a proper data set.</p> <p>Differentiates between types of variables and chooses accordingly correct statistical methods for analysis.</p> <p>Knows how to propose analysis questions that derive from data.</p> <p>Is able to use SPSS (with the help of guiding materials) with learned methods.</p> <p>Knows how to correctly interpret the results of these analysis methods.</p>		
Assessment Methods:	<p>Exam consist of two equal parts: written test and independent work. Each of them make 50% of the final grade.</p>		

Lecturer(s):	Triinu Jesmin jesmin@tlu.ee
Prerequisite course(s):	-
Compulsory literature:	-
Replacement literature:	http://www.indiana.edu/~educy520/sec5982/week_2/variable_types.pdf https://www.analyticsvidhya.com/blog/2015/10/inferential-descriptive-statistics-beginners- r/?utm_content=bufferd573e&utm_medium=social&utm_source=facebook.com&utm_campaign=buffer http://www.real-statistics.com/descriptive-statistics/ http://www.socialresearchmethods.net/kb/statdesc.php https://statistics.laerd.com/statistical-guides/descriptive-inferential-statistics.php
Participation and exam requirements:	<p>It is highly recommended to participate in every seminar.</p> <p>For a positive grade, both independent work and exam, have to be at least 51% each.</p>
Independent work:	<p>At the end of the course students must submit an independent work that can be done in pairs. It consists of practical exercises given by the teacher. Each of the exercises must have a research question, explanation why this is the correct method for this question; outcome/results from a program; interpretation of the results. Each pair of students have to defend their work – answer questions about their work. If you wish to use your own database, please, confirm it with the teacher.</p>
Grading criteria scale or the minimum level necessary for passing the subject:	<p>The evaluation criteria:</p> <p>The final grade consists of independent work and exam, both 50% of the grade.</p> <p>A – 91-100%</p> <p>B – 81-90%</p> <p>C – 71-80%</p> <p>D – 61-70%</p> <p>E – 51-60%</p> <p>F - ...- 50%</p>

	<p>Both, independent work and written exam have to be at least 51% completed.</p> <p><i>Written, open questions exam which gives 50% of the grade:</i></p> <p>A – (46-50 pt) Excellent and wide knowledge of the course content.</p> <p>B – (41-45 pt) Very good level of knowledge, some inaccuracies in details.</p> <p>C – (36-40 pt) Good level of knowledge, some small mistakes in details.</p> <p>D – (31-35 pt) Average level of knowledge, mistakes in details.</p> <p>E – (26-30 pt) Poor level of knowledge, some mistakes in principal methods.</p> <p>F – (... - 25 pt) Inadequate level of knowledge.</p> <p><i>Independent work, done in pairs, gives 50% if the grade:</i></p> <p>A – (46-50 pt) All the exercises are solved correctly with the best possible method.</p> <p>B – (41-45 pt) Most exercises are solved correctly with the best possible method, with some mistakes in details.</p> <p>C – (36-40 pt) Most exercises are solved correctly with the best possible method, with some mistakes in details and interpretation.</p> <p>D – (31-35 pt) Most exercises are solved correctly with the best possible method, with some mistakes in details and interpretation, some lacking details.</p> <p>E – (26-30 pt) The minimum level of exercises are solved correctly. Mistakes in choosing the correct method, missing exercises, mistakes in details and interpretation, lacking details.</p> <p>F – (... - 25 pt) Most of the exercises are solved with the incorrect method.</p>	
<p>Information about the course:</p> <p>(Topics by contact session, deadlines of independent works and exams/assessments times)</p>	<p>1st lecture/seminar</p> <p>22.09.2016</p> <p>14:15 – 17:45</p> <p>S-303</p>	<p>Introduction to the course and topic. Methods of Descriptive statistics. Introduction to SPSS program.</p>
	<p>2nd seminar</p> <p>20.10.2016</p>	<p>Frequency tables. Crosstabs.</p>

	14:15 – 17:45 S-303	
	3rd seminar 03.11.2016 14:15 – 17:45 S-303	Graphical presentation of data. Diagrams
	4th seminar 17.11.2016 14:15 – 17:45 S-303	Descriptive statistics (mean, median, mode, SD, range, quartiles)
	5th seminar 01.12.2016 14:15 – 17:45	Correlation. Significance of correlation coefficient
	EXAM	I 17.12.16 10.00 II (re-exam) 19.01.17 14.15

Teaching Unit in charge:	Institute of Digital Technologies
Course programme is prepared by:	Triinu Jesmin
Date:	12.08.2016

The course program is registered in the academic unit:

Date:	26.08.2016
Name of academic coordinator:	Viktoria Humal