Study program	Type of study (cycle)	I cycle		
	Name of the study program	Applied mathematics		
SUBJECT				
Subject name	Statistics II			
Subject code	Semester	Case status	ECTS	Contact hours (P+AV+LV)
AMAT 360	VI	Mandatory	5	2+1+2
Objective of the course	regression models			
Learning outcome	application of regression models			

Content

- Non-parametric tests. Sign test. Rank test. Mann-Whitney-Wilcoxon test. Runs test.
- $\chi 2$-test.
- Kolmogorov-Smirnov test.
- Analysis of variance. Kruskal-Wallis and Friedman test.
- Linear regression model.
- Inferential statistical analysis of the linear regression model.
- Multiple linear regression model.
- Analysis of the multiple linear regression model.
- Software support in regression models

LITERATURE

[1] R.Christensen, Advenced Linear Modeling, Springer Verlag,2001.
[2] H.T.Nguyen, G.S.Rogers, Fundamentals of Mathematical Statistics, Springer Verlag, 1989.
[3] A.Sen,M.Srivastava, Regression analysis, Springer Verlag, 1990.
[4] Ž.Pauše, Uvod u matematičku statistiku, Školska knjiga, Zagreb, 1993.
[5] M.Bilodeau, D.Brenner, Theory of Multivariate Statistics, Springer Verlag, 1999.
[6] G.McPearson, Applying and Interpreting Statistics, Springer Verlag,2001

Lecture	30	Exercises	45	Independent work	40	Total	115

Knowledge test							
Criterion		Maximum number of points	Points for passing				
Tests		50	27,5				
Final exam		50	27,5				
Total		100	55				