General Information

Course name ÚINF/APS1/15	**Applied probability and statistics**	**ECTS Credits**	**5**
		Semester	**1**

Aims

To understand probability and statistical terms and principles. Make students familiar with the base stochastic and statistical methods and techniques for modeling and data processing.

Content

Randomness, probability. Laws of probability distributions, characteristics of location, variability and dependency. Samples, estimates and tests of hypotheses. Modeling of dependencies, noise. Bayes theory of decision. Pseudorandom values and Monte Carlo method.

Assessment Methods and Criteria

1. Attendance - students are expected to attend each class according to the schedule. Should the student miss three or more classes, he/she will not receive credits for the course no matter what his/her overall results are on the tests(s). The student must be on time for class.
2. Active participation - students are required to do their best with respect to active participation in seminar sessions.

Assessment: project 20p, 2 tests 60p, examination 20p.

Grading Scale (in %):
A 91-100%
B 81-90%
C 71-80%
D 61-70%
E 51-60%
FX 50 and less -

Grading System:
The University recognises the following six degrees for the evaluation of the study results:
a) A – excellent (excellent results) (numerical value 1)
b) B – very good (above average results) (1.5)
c) C – good (average results) (2).
d) D – satisfactory (acceptable results) (2.5)
e) E – sufficient (results meet the minimum criteria) (3)
f) FX –failed (requires further work) (4)

Bibliography

- J. Maindonald, W.J. Braun, Data Analysis and Graphics Using R – an Example-Based Approach, CAMBRIDGE UNIVERSITY PRESS, 2010
- M.R.Spiegel, J.J.Schiller, R.A.Srinivasan, Probability and Statistics, McGraw Hill, 2009
- Cs. Török: Úvod do teórie pravdepodobnosti a matematickej štatistiky, Košice, 1992
- http://www.statsoft.com/textbook/stathome.html
- http://www.r-project.org/