UNIVERSITY OF CENTRAL FLORIDA
Department of Mathematics

Fall 2017

Course:	MAA 7239.01, Asymptotic Methods in Mathematical Statistics
Class Meets:	HEC 104, TR 3:00-4:20 p.m.
Instructor:	Prof. Marianna Pensky
Office:	MSB 422
Office Phone:	407-823-2115
E-mail:	marianna.pensky@ucf.edu
Office Hours:	9:00-10:30 TR, 1:00-2:00 p.m. TR

TEXTBOOKS AND REFERENCES
1. Giraud, C. Introduction to High-Dimensional Statistics. CRC Press, 2015.
2. Hastie, T., Tibshirani, R., Friedman, J. The elements of statistical learning : data mining, inference, and prediction Springer, 2009. (E-book)
3. Massart, P. Concentration inequalities and model selection. Springer-Verlag, 2007. (E-book)

Course Contents: Model selection. Aggregation and selection of estimators. Dimension reduction techniques. Multivariate regression. Graphical models. Multiple testing. False discovery rates. Classification and clustering.

Course and Grading Policy: There will be three homework assignments and two individual projects. The homework assignments will be based on lecture materials and will be 50 pts each. The research projects will allow students with different backgrounds to explore the topics which are of interest to them. The projects will be presented in class once, close to the end of the semester. The first project is 50 pts, the second project is 100 pts (50 pts for the written portion and 50 pts for class presentation). Final project presentations will be held during exam time on **Thursday, December 7, 1:00-3:50 p.m..**

Grade scale:
- 90-100 % – A
- 80-89 % – B
- 70-79 % – C
- 60-69 % – D
- < 60 % – F

Withdrawal deadline: Monday, October 30
Holidays: Monday, September 4; Friday, November 10; Thanksgiving, November 23-25
Football game: Thursday, August 31