

332:545 Communication Theory – Spring 2002

Course Webpage: <http://www.winlab.rutgers.edu/spasojev/courses/541> This information as well as new announcements will be posted here.

Time and Location: MWed 6:10 - 7:30pm - SEC 218

Instructor: Professor P. Spasojević

Prerequisites: 16:332:501 System Analysis and 16:332:541 Stochastic Signals and Systems

Text: *Principles of Communication Engineering*, Wozencraft and Jacobs, Waveland Press, Inc., 1990.

The goal is to address the following list of topics.

- 1 Chernoff bound
- 2 Random waveforms (a selection of topics including random vectors obtained from random processes and multivariate Gaussian distribution)
- 3 Optimum receiver principles (complete Chapter 4 of the Wozencraft and Jacobs textbook).
- 4 Efficient signalling for message sequences (complete Chapter 5)
- 5 Coded systems (topics from Chapter 6 including transmitter implementation and receiver quantization)

Class Project: Groups of three to four students will work on a class project which will require research and simulations in Matlab. Time permitting, project presentations will be scheduled.

Exam: There will be one hourly exam and a final exam.

Grading: The hourly exam and the class project will each be worth 30%. The final is comprehensive and worth 40%. Homeworks will not be graded.

Faculty member data:

Professor P. Spasojević; Room - WINLAB 111 Phone # 445-3849, e-mail: spasojev@winlab.rutgers.edu

Office hours: Monday and Wednesday at 5pm before class.