

# Processing of Stochastic Signals

## Course no. 389.053, VU 4.5 ECTS

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**Time and Place.** The course starts on October 6, 2011, at 11:00 in lecture hall EI 4. Regular dates:

- Thursday 11:00–12:00, lecture hall EI 4 (usually exercises)
- Friday 10:30–12:00, lecture hall EI 4 (usually lectures)

**Prerequisites.** We require basic knowledge of:

- mathematics, in particular probability theory and linear algebra
- signals and systems theory, e.g., convolution, Fourier analysis,  $z$ -transform

**Course Grading.** Grading is based upon:

- exercise credit points and written exam score
- performance at oral exam

**Exercise Classes.** Solving problems allows students to accumulate up to 40 credits (roughly 1 credit per problem). Up to 9 bonus credits can be collected by presenting problems on the board during class. The problem sets will be made available on the web one week before they are due.

Solutions have to be handed in at the latest by 6 pm the day before the exercise class; for this purpose, there exists a box located on the ground floor of the Institute of Telecommunications. Late solutions will not be accepted.

You are allowed, even encouraged, to discuss the problems in small groups, but you must write up your own solutions to hand in. To be admitted to the written exam, at least 40% of all problems have to be solved successfully.

**Written Exam.** The written exam lasts three hours and consists of four problems which sum up to 70 credit points in total. Electronic registration via TISS is required for the written exam. A copy of the lecture notes will be provided during the exam. No documents or electronic devices other than a simple calculator are permitted.

At least 35 points must be scored in order to pass the written exam. The grade for the written part of the course is then derived from the sum of the credit points obtained in the exercises and the written exam (denoted by  $z$ ) according to the following table:

Total score	$50 \leq z < 70$	$70 \leq z < 85$	$85 \leq z < 100$	$z \geq 100$
Grade (written part)	G4	B3	U2	S1

**Oral Exam.** To be admitted to the oral exam, students must have passed the written part of the course.

**Lecture Notes.** Detailed lecture notes are available at “Grafisches Zentrum” (Wiedner Hauptstraße 8–10).

**Links.** For further information check the following links:

- Course web page (up-to-date information, problem sets)  
<http://www.nt.tuwien.ac.at/teaching/courses/winter-term/389053/>
- TISS page (general information, exam registration)  
<https://tiss.tuwien.ac.at/course/courseDetails.xhtml?courseNr=389053>

