Winter Semester 2015

University of Toronto

STA 447H1 – Stochastic Processes
and
STA 2006H1S – Applied Stochastic Processes

Thursday 6:10 pm - 9:00 pm, Sidney Smith Hall, Room SS 1087

Instructor: **Dr. Vladimir Vinogradov**
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Instructor's office hours: **Thursday 3:30 pm - 4:30 pm**

Teaching Assistant: **Ms. Reihaneh Entezari**

Teaching Assistant's office hours (held in SS 1091): **Monday 12:00 noon - 1:00 pm**
Wednesday 2:00 pm – 3:00 pm

Prerequisite: **STA347H1**

Required Text: ***Introduction to Probability Models, 11 th ed.*** by Sheldon M. Ross
(On reserve at Mathematical Sciences Library, **QA273.R84 2014**)
Electronic access is also available through **www.library.utoronto.ca**

Mid term examination will be held during the first hour of **February 5, 2015** class meeting, **6:10 pm – 7:10 pm**

Final examination will be **comprehensive** and take place in April, 2015. The final exam duration is **three hours**. Students will be informed on its date, time, and location in the due course.

Term work consists of two quizzes and one midterm test. There will be no make-up tests. Instead, for legitimate absences, missed work will be replaced by the corresponding percentage earned on the final exam. To be excused, students must submit a written request.

Home work assignments will be given on the regular basis but **not collected**. Instead, students will be tested on their home work during both quizzes.

Attendance is mandatory.

Marking Policy: Each quiz will be weighted 12%, midterm 30% and the final exam 46%.

Regrading policy: Regrading requests should be initiated by writing or typing a detailed explanation of your concern (together with your full name, student ID number, e-mail address, and telephone number), submitting the signed hard copy on a separate piece of paper, and giving this together with your original unaltered test paper to the instructor within one week of when the graded test was first available.

Tentative Course Syllabus:

Relevant topics of Probability Theory, Markov chains (discrete and continuous time), Poisson process and its generalizations, birth and death process, renewal theory, queuing theory, Brownian motion and related stochastic processes, martingales, stationary processes, Gaussian processes, applications.

Special Notes:

1. Absolutely no cell phone use!

2. The use of non-programmable, non-graphing calculators is permitted during the final examination, midterm and quizzes.

3. More topics may be added, depending on students' interests and the instructor's preferences. Students will be responsible for such topics added.

4. Cheating of any sort will result in an **F** and may be referred to the university.