Semester course: STAT 7540 -- 3 CREDIT HOURS

1. Transcript Abbreviation: (maximum 18 characters)

Stochastic Proc

2. Long course title

Theory of Stochastic Processes

3. Course description: (maximum of 250 characters)

Markov chains, ergodicity, Poisson process, martingales, Brownian motion, Gaussian processes, diffusion processes. Intended primarily for students in the PhD program in Statistics or Biostatistics.

4. Prerequisites / Co-requisites (use quarter and semester codes):

Stat 7510, or written permission of the instructor

5. Exclusions (use quarter and semester codes):

Not open to students with credit for Stat 832.

6. A list of topics that make up the course: (One per line, max of 15 topics -- if you course description is a list of topics, I can just use that list)

1 Basics of stochastic processes
2 Markov chains
3 Ergodicity
4 Poisson process
5 Martingales
6 Brownian motion
7 Gaussian processes
8 Diffusion processes

7. Does your class have a component that is not just a lecture (YES/NO):

NO

8. If your course is not a straight conversion and adds or removes material, write a brief rationale for the change (one sentence - max 250 characters).

The section on martingales will be expanded, to include material drawn from Stat 723, as three quarter courses are mapped into two semester courses.

Conversion of Stat 832