Semester course: STAT 8540 -- 3 CREDIT HOURS

1. Transcript Abbreviation: (maximum 18 characters)
Adv Stoch Proc

2. Long course title:
Topics in Advanced Stochastic Processes

3. Course description: (maximum of 250 characters)
Detailed study of a particular set of topics in stochastic processes. Topics selected may include stochastic integration, stochastic differential equations (SDEs), numerical methods for SDEs, and parametric and nonparametric inference for SDEs. Applications in one or more of the following areas may be discussed: biology, finance, climate and environmental modeling.

4. Prerequisites / Co-requisites (use quarter and semester codes):
Stat 7540 (Stat 832) or
Stat 7201 (Stat 722-723) and Stat 6540 (Stat 632) or
Permission of instructor

5. Exclusions (use quarter and semester codes):
None.

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)

(sample topics)
1. Stochastic integration
2. Stochastic Differential Equations (SDEs)
3. Numerical methods for SDEs
4. Parametric inference for SDEs
5. Nonparametric inference for SDEs
6. Applications

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).
New course.