Semester course: STAT 8605 -- 3 CREDIT HOURS

1. Transcript Abbreviation: (maximum 18 characters) ADV SURV ANAL

2. Long course title: Advanced Survival Analysis

3. Course description: (maximum of 250 characters)

Counting process approach to modeling life history data, including Nelson-Aalen, product limit, and K-sample estimators. Topics from parametric models, semiparametric proportional and additive hazards regressions, and multivariate survival models.

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

Stat 7201 (Stat 722-723) and Stat 7540 (Stat 832) or permission of instructor

5. Exclusions (use quarter and semester codes):

Biostat 805 and Biostat 806.

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. Counting processes
   2. Nelson-Aalen estimator
   3. Product limit estimator
   4. K-sample estimators
   5. Parametric models
   6. Semiparametric proportional hazards regression
   7. Additive proportional hazards regression
   8. Dynamic Path Analysis
   9. Multivariate survival models
   10. 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).

Conversion of a two-quarter sequence (Biostat 805-605, 3+3) to a one-semester course (3 semester hours). Some material from the end of Biostat 806 will be condensed to fit into the semester format.