Syllabus – Summer 2015

Excluding materials for purchase, syllabus information may be subject to change. The most up-to-date syllabus is located within the course in HuskyCT.

Course and Instructor Information

Course Title: Survival Analysis with SAS (OPIM 5894)
Credits: 3
Format: Online via HuskyCT
Prerequisites: OPIM 5604
Professor: Arda Zuber
Email: arda.zuber@business.uconn.edu, arda.zuber@gmail.com

Office Hours/Availability: Unless otherwise noted, the instructor will check into the course at least five days a week to monitor discussions and respond to HuskyCT Messages. If the instructor expects to be away due to illness, travel or family obligations, the instructor will make every attempt to notify you in advance. If you need to discuss an issue with the instructor individually, please feel free to use the private Messages tool within HuskyCT or provided e-mail addresses.

Course Materials

There are no required course materials. Instructor will provide the materials for you.

However, there are some optional materials listed below for reference and further study.

Optional Materials:


Additional course readings and media are available within HuskyCT, through either an Internet link or Library Resources

Course Description

Survival Analysis course describes the various methods used for modeling and evaluating survival data, also called time-to-event data. General statistical concepts and methods discussed in this course include survival and
hazard functions, Kaplan-Meier graphs, log-rank and related tests, Cox proportional hazards model, and the extended Cox model for time-varying covariates and non-proportional hazards.

### Course Objectives

By the end of the semester, students should be able to:

1. Import or create SAS files into SAS system
2. Work with, modify and combine SAS data sets
3. Recognize the general principles and definitions of Survival Analysis
4. Create survival analysis specific models with SAS
5. Evaluate the fit of survival models to the data

### Course Outline (and Calendar if Applicable)

1. Introduction to SAS Base
2. Data steps and procedures in SAS Base
3. Basic statements and options in procedures in SAS Base
4. Working with Graphics in SAS Base
5. Introduction to Survival Analysis
6. Basic Concepts of Survival Analysis
8. Estimating Parametric Regression Model with PROC LIFEREG
9. Estimating Cox Regression Models with PROC PHREG
10. Competing Risks (If time permits)

### Course Requirements and Grading

#### Summary of Course Grading:

<table>
<thead>
<tr>
<th>Course Components</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Activity on HuskyCT Forum</td>
<td>10%</td>
</tr>
<tr>
<td>B. SAS Programming Assignment</td>
<td>15%</td>
</tr>
<tr>
<td>C. Group Project 1</td>
<td>20%</td>
</tr>
<tr>
<td>D. Group Project 2</td>
<td>25%</td>
</tr>
<tr>
<td>E. Group Project 3</td>
<td>30%</td>
</tr>
</tbody>
</table>

**Component A**

This is an online course. By the nature of this fact, interactions between students are severed. But, students learn, not only directly from the instructor, but also by asking their peers. Discussing and sharing information in forums boosts the knowledge gained during the course for everybody, both the sharer and the “sharee”.

Full points will be given to students who are showing ambition to help their fellow students on the forum.

**Component B**

It will be an arguably easy assignment on retrieving, modifying and analyzing data on SAS environment.

**Component C, D, E**

Group projects which will simulate a survival analysis report to a CEO of a company by a consulting company. The looks of the project will also be important. Instructor will give the project a base grade. At the end, **Peers will evaluate each other for their contributions**. This evaluation point will be added or subtracted from the base grade to determine the final grades of each group member.
<table>
<thead>
<tr>
<th>Grade</th>
<th>Letter Grade</th>
<th>GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>97-100</td>
<td>A+</td>
<td>4.3</td>
</tr>
<tr>
<td>93-96</td>
<td>A</td>
<td>4.0</td>
</tr>
<tr>
<td>90-92</td>
<td>A-</td>
<td>3.7</td>
</tr>
<tr>
<td>87-89</td>
<td>B+</td>
<td>3.3</td>
</tr>
<tr>
<td>83-86</td>
<td>B</td>
<td>3.0</td>
</tr>
<tr>
<td>80-82</td>
<td>B-</td>
<td>2.7</td>
</tr>
<tr>
<td>77-79</td>
<td>C+</td>
<td>2.3</td>
</tr>
<tr>
<td>73-76</td>
<td>C</td>
<td>2.0</td>
</tr>
<tr>
<td>70-72</td>
<td>C-</td>
<td>1.7</td>
</tr>
<tr>
<td>67-69</td>
<td>D+</td>
<td>1.3</td>
</tr>
<tr>
<td>63-66</td>
<td>D</td>
<td>1.0</td>
</tr>
<tr>
<td>60-62</td>
<td>D-</td>
<td>0.7</td>
</tr>
<tr>
<td>&lt;60</td>
<td>F</td>
<td>0.0</td>
</tr>
</tbody>
</table>

**Due Dates and Late Policy**

All course due dates are identified on the related HuskyCT assignment page. Deadlines are based on Eastern Standard Time; if you are in a different time zone, please adjust your submittal times accordingly. *The instructor reserves the right to change dates accordingly as the semester progresses. All changes will be communicated in an appropriate manner.*

Late assignments will get no points. Please plan accordingly.

**Feedback and Grades**

The instructor will make every effort to provide feedback and grades in a timely manner. To keep track of your performance in the course, refer to My Grades in HuskyCT.

---

**Student Responsibilities and Resources**

As a member of the University of Connecticut student community, you are held to certain standards and academic policies. In addition, there are numerous resources available to help you succeed in your academic work. This section provides a brief overview to important standards, policies and resources.

**Student Code**

You are responsible for acting in accordance with the [University of Connecticut's Student Code](#). Review and become familiar with these expectations. In particular, make sure you have read the section that applies to you on Academic Integrity:

- [Academic Integrity in Undergraduate Education and Research](#)
- [Academic Integrity in Graduate Education and Research](#)

Cheating and plagiarism are taken very seriously at the University of Connecticut. As a student, it is your responsibility to avoid plagiarism. If you need more information about the subject of plagiarism, use the following
resources:

- Plagiarism: How to Recognize it and How to Avoid It
- University of Connecticut Libraries’ Student Instruction (includes research, citing and writing resources)

Copyright

Copyrighted materials within the course are only for the use of students enrolled in the course for purposes associated with this course and may not be retained or further disseminated.

Netiquette and Communication

At all times, course communication with fellow students and the instructor are to be professional and courteous. It is expected that you proofread all your written communication, including discussion posts, assignment submissions, and mail messages. If you are new to online learning or need a netiquette refresher, please look at this guide titled, The Core Rules of Netiquette.

Adding or Dropping a Course

If you should decide to add or drop a course, there are official procedures to follow:

- Matriculated students should add or drop a course through the Student Administration System.
- Non-degree students should refer to Non-Degree Add/Drop Information located on the registrar’s website.

You must officially drop a course to avoid receiving an “F” on your permanent transcript. Simply discontinuing class or informing the instructor you want to drop does not constitute an official drop of the course. For more information, refer to the:

- Undergraduate Catalog
- Graduate Catalog

Academic Calendar

There are important dates and deadlines for each semester and session classes are offered:

- Fall and Spring Semester
- Summer Session
- Winter Session

Academic Support Resources

Technology and Academic Help provides a guide to technical and academic assistance.

Students with Disabilities

Students needing special accommodations should work with the University's Center for Students with Disabilities (CSD). You may contact CSD by calling (860) 486-2020 or by emailing csd@uconn.edu. If your request for accommodation is approved, CSD will send an accommodation letter directly to your instructor(s) so that special arrangements can be made. (Note: Student requests for accommodation must be filed each semester.)

Blackboard measures and evaluates accessibility using two sets of standards: the WCAG 2.0 standards issued by the World Wide Web Consortium (W3C) and Section 508 of the Rehabilitation Act issued in the United States federal government.” (Retrieved March 24, 2013 from Blackboard's website)

Policy against Discrimination, Harassment and Inappropriate Romantic Relationships

The University is committed to maintaining an environment free of discrimination or discriminatory harassment directed toward any person or group within its community – students, employees, or visitors. Academic and professional excellence can flourish only when each member of our community is assured an atmosphere of mutual respect. All members of the University community are responsible for the maintenance of an academic and work environment in which people are free to learn and work without fear of discrimination or discriminatory harassment. In addition, inappropriate Romantic relationships can undermine the University’s mission when those in positions of authority abuse or appear to abuse their authority. To that end, and in accordance with
federal and state law, the University prohibits discrimination and discriminatory harassment, as well as inappropriate Romantic relationships, and such behavior will be met with appropriate disciplinary action, up to and including dismissal from the University. Refer to the Policy against Discrimination, Harassment and Inappropriate Romantic Relationships for more information.

Sexual Assault Reporting Policy

To protect the campus community, all non-confidential University employees (including faculty) are required to report assaults they witness or are told about to the Office of Diversity & Equity under the Sexual Assault Response Policy. The University takes all reports with the utmost seriousness. Please be aware that while the information you provide will remain private, it will not be confidential and will be shared with University officials who can help. Refer to the Sexual Assault Reporting Policy for more information.

Software Requirements and Technical Help

The technical requirements for this course include:

- Any version of SAS Programming Environment (SAS university, Base SAS etc.)
- Video playing software
- Word processing software
- Any .PDF Reader
- Internet access

This course is completely facilitated online using the learning management platform, HuskyCT. If you have difficulty accessing HuskyCT, students have access to the in person/live person support options available during regular business hours through HuskyTech. Students also have 24x7 Course Support including access to live chat, phone, and support documents.

Minimum Technical Skills

To be successful in this course, you will need the following technical skills:

- Use electronic mail with attachments.
- Save files in commonly used word processing program formats.
- Copy and paste text, graphics or hyperlinks.
- Work within two or more browser windows simultaneously.
- Open and access PDF files.

University students are expected to demonstrate competency in Computer Technology. Explore the Computer Technology Competencies page for more information.

Evaluation of the Course

Students will be provided an opportunity to evaluate instruction in this course using the University’s standard procedures, which are administered by the Office of Institutional Research and Effectiveness (OIRE).

Additional informal formative surveys may also be administered within the course as an optional evaluation tool.