Course Title: Introduction to Data Science  
Course Code: SCI 01 A  
Instructor: Mohammad Shokoohi-Yekta  
Lecture: Tuesdays 7pm-8:50pm

Grade Options and Requirements:  
- No Grade Requested (NGR)  
  o Final project is optional  
- Credit/No Credit (CR/NC)  
  o Final project is required  
- Letter Grade (A, B, C, D, No Pass)  
  o Final project is required

Final Project and Presentation:  
The final project is due on Week 8. Projects should be done in groups of 4. Each team will have 10 minutes to present their work on the last week.  
Here is a brief description for the final project:  
1. Find a data set of your interest (in csv or excel format)  
2. Import the data set into R  
3. Take advantage of plots to show correlations and distributions of your data  
4. Predict/Classify one of the variables in your data set and measure the accuracy of your model.  
5. Prepare a few slides to present your data, plots, prediction/classification accuracy, etc. You can also show the class a demo and run your code in real time.

Weekly Timetable:  

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<tr>
<th>Week</th>
<th>Main Topic</th>
<th>Real World Applications</th>
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<tbody>
<tr>
<td>1</td>
<td>What is Data Science, Getting Started with R</td>
<td>Malaria Detection</td>
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<td>2</td>
<td>Data Visualization, Basics in Programming with R</td>
<td>Mice Project</td>
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<tr>
<td>3</td>
<td>Predictive Modeling</td>
<td>Data Mining in Healthcare</td>
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<td>4</td>
<td>Classification Methods</td>
<td>Time Series Prediction</td>
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<tr>
<td>5</td>
<td>Association Rule Mining</td>
<td>Internet of Things</td>
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<tr>
<td>6</td>
<td>Clustering Techniques - Guest Speaker</td>
<td>AI in Neuroscience</td>
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<tr>
<td>7</td>
<td>Advanced Topics: Web Scraping in R</td>
<td>Mining Health Insurance Data</td>
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<td>8</td>
<td>Project Presentation</td>
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Please contact the Stanford Continuing Studies office with any questions  
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