

**CSC334\_424: Tentative Schedule (this schedule might change slightly to accommodate more topics as we move through the quarter)**

DATE	TOPIC	ASSIGNMENTS
Week 1	<ul style="list-style-type: none"> <li>Syllabus &amp; tentative schedule</li> <li>Overview of multivariate data analysis and its applications</li> <li>Matrix Computation Review</li> <li>Multiple Linear Regression (MLR)</li> </ul>	
Week 2	<ul style="list-style-type: none"> <li>Multiple Linear Regression (cont.)</li> <li>Multiple linear regression using SPSS</li> <li>Canonical Correspondence Analysis (CCA)</li> <li><b>Lab 1: Hands-on tutorial on SPSS: Introduction to SPSS and MLR</b></li> </ul>	Homework #1 is assigned
Week 3	<ul style="list-style-type: none"> <li>CCA and its application (cont)</li> <li>Factor Analysis</li> <li>Principal Component Analysis (PCA)</li> </ul>	Homework 1 is due Homework 2 is assigned
Week 4	<ul style="list-style-type: none"> <li>PCA and its Applications (cont.)</li> <li>Paper discussion</li> </ul>	<i>Paper review</i>
Week 5	<ul style="list-style-type: none"> <li>Linear Discriminant Analysis (LDA)</li> <li>Review</li> <li><b>Lab 2: Hands-on Tutorial on SPSS: PCA, CCA, and LDA</b></li> </ul>	Homework #2 is due
Week 6	<ul style="list-style-type: none"> <li><b>Midterm</b></li> <li>LDA and its applications (cont.)</li> <li>LDA using SPSS</li> </ul>	
Week 7	<ul style="list-style-type: none"> <li>Introduction to Clustering (partitioning and hierarchical)</li> <li>SPSS for clustering</li> <li>Paper discussion</li> </ul>	Homework #3 is assigned <i>Paper review</i>
Week 8	<ul style="list-style-type: none"> <li>More on Clustering (density based, grid based, model based) and its applications (cont)</li> </ul>	Homework 3 is due Homework 4 is assigned
Week 9	<ul style="list-style-type: none"> <li>Other techniques for feature reduction and extraction: <ul style="list-style-type: none"> <li>multidimensional scaling</li> </ul> </li> <li>Paper discussion</li> </ul>	Homework 4 is due <i>Paper review</i>
Week 10	<ul style="list-style-type: none"> <li><b>Midterm II</b></li> </ul>	
Week 11	<ul style="list-style-type: none"> <li><b>Take-Home Final Exam</b></li> </ul>	Take-home exams are due on final exam date

