

## Fall 2014 - CSC495/CSC663 Tentative Study Planner

**Tuesdays and Thursdays at 2:00pm – 3:15pm in STON Building 186**

<b>Week Number</b>	<b>Dates</b>	<b>Topics Covered</b>
Week 1	Aug 19 <sup>th</sup> and 21 <sup>st</sup>	Big data: analytics and datasets selection
Week 2	Aug 26 <sup>th</sup> and 28 <sup>th</sup>	Big data: scalability and report writing
		<b>Assignment 1: Report 1 due</b>
Week 3	Sep 2 <sup>nd</sup> and 4 <sup>th</sup>	Big data computing environment: Hadoop
Week 4	Sep 9 <sup>th</sup> and 11 <sup>th</sup>	Big data computing environment: MapReduce
Week 5	Sep 16 <sup>th</sup> and 18 <sup>th</sup>	Big data computing environment: Programming
Week 6	Sep 23 <sup>rd</sup> and 25 <sup>th</sup>	Big data computing environment: Scikit-Learn
		<b>Assignment 2: Report 2 due</b>
Week 7	Sep 30 <sup>th</sup> and Oct 2 <sup>nd</sup>	Machine learning: Training, validation, and testing; batch learning and online learning
Week 8	Oct 7 <sup>th</sup> and 9 <sup>th</sup>	Machine learning: Support Vector Machine
	Oct 11 <sup>th</sup> to Oct 14 <sup>th</sup>	Spring Break
Week 9	Oct 16 <sup>th</sup>	Machine learning: Support Vector Machine
Week 10	Oct 21 <sup>st</sup> and 23 <sup>rd</sup>	Machine learning: Decision Trees and Random Forests
Week 11	Oct 28 <sup>th</sup> and 30 <sup>th</sup>	Machine learning: Deep learning
		<b>Assignment 3: Report 3 due</b>
Week 12	Nov 4 <sup>th</sup> and 6 <sup>th</sup>	Scaling up: Principal Component Analysis
Week 13	Nov 11 <sup>th</sup> and 13 <sup>th</sup>	Scaling up: Feature Hashing
Week 14	Nov 18 <sup>th</sup> and 20 <sup>th</sup>	Scaling up: Stochastic Gradient Descent
Week 15	Nov 25 <sup>th</sup>	Scaling up: Big data models implementation
Week 16	Dec 1 <sup>st</sup> to Dec 6 <sup>th</sup>	<b>Project: Final Report due</b>