

Graduate Certificate in Urban Computing Checksheet

The Graduate Certificate in Urban Computing is available to all graduate students in the university. Graduate students can select courses from the list below. At least 2 of the courses must be from outside the student's home department. All courses are 3-hour credit unless otherwise noted in the Graduate Catalog. Transfer credits are not permitted. No hours can be below the 5000 level.

Student Name: _____

Department: _____ Degree (MS/Ph.D.): _____

Advisor: _____ Co-Advisor: _____

	Credit Hours	Check
<u>A. Required Core Courses: (6 credit hours minimum)</u>	3	_____
	3	_____
CS 5834 Introduction to Urban Computing		
CS 5024 Ethics and Professionalism in Computer Science		
<u>B. Restricted Elective Courses: (6 credit hours minimum)</u>	3	_____
	3	_____
<i>“Horizontal” (Data Science/Research Methods) Courses (Choose 1)</i>		
CS 5234 Advanced Parallel Computation		
CS/MATH 5485 Numerical Analysis and Software I		
CS/MATH 5486 Numerical Analysis and Software II		
CS/STAT 5525 Data Analytics I		
CS/STAT 5526 Data Analytics II		
CS 5824/ECE 5424G: Advanced Machine Learning		
CS 5764 Information Visualization		
STAT 5444 Bayesian Statistics		
STAT 5544 Spatial Statistics		
<i>“Verticals” (Urban Informatics/Applications) Courses (Choose 1)</i>		
CEE 5604 Traffic Characteristics and Flows		
CEE 5634 Analysis & Planning of Mass Transit Systems		
PHS/VM 5314 Infectious Disease Epidemiology		
PHS 5354 Modeling Infectious Diseases		
ECE 6304 Advanced Topics in Power		
ECE 6334 Computational Methods in Power Engineering		
SOC 5504 Population Processes and Policies		
SOC 6504 The Sociology of Culture		
**UAP 5114 Computer Applications in Urban Planning and Management		
UAP 5234 Urban Economics and Policy		
UAP 5604 Housing Planning and Policy Topics		
UAP 5644 Transportation Svstems Planning		

** = students in the UAP department pursuing the certificate are advised, based on their background, to take UAP 5114 Computer Applications in Urban Planning and Management as a pre-requisite for CS 5834 Introduction to Urban Computing. Students should enroll in the section taught by either Wenwen Zhang or Theo Lim.

The above student has successfully completed the program requirements.

Signed: _____ (Chair, Oversight Committee)

Date: _____