2016 – Weeks 1 through 5								
Monday – Jan 11	Monday – Jan 18	Monday – Jan 25	Monday – Feb 1	Monday – Feb 8				
 **: Introduction to the challenge and overview of course D: Brainstorm - If you were going to design a device to accomplish the challenge, what features should it include and what obstacles need to be overcome ML: Overview of the prototype that has already been engineered 	NO CLASS	D: Summer in the City discussion	HO Assembly of devices	HO: Assembly of devices				
Wednesday – Jan 13 LA: Examination of materials LA: Test soldering (part I) HW: Summer in the City: Hot and Getting Hotter	Wednesday – Jan 20 LA: Test soldering (part 2) LA: Test soldering (part 3)	Wednesday – Jan 27 HO: Assembly of devices HW: Weather bike reading	Wednesday - Feb 3 D: Weather bike discussion HO: Assembly of devices HW: Convergence of Microclimate in Residential Landscapes Across Diverse Cities in the United States	Wednesday – Feb 10D: Convergence of Microclimate in Residential Landscapes Across Diverse Cities in the United States DiscussionHO: Assembly of devicesHW: The Beginner's Guide to Temperature Measurement?See following website https://learn.adafruit.com/calibrating- sensors/why-calibrate (Read: Why calibrate? So, how do we calibrate? One-point calibration & Two-point Calibration.)				

 $HO = hands-on \qquad D = discussion$

HW = homework

LA = learning activity

ML = mini-lecture

2016 - Weeks 6 through 10							
Monday – Feb 15	Monday – Feb 22	Monday – Feb 29	Monday – Mar 7	Monday – Mar 17			
HO Assembly of devices (Goal: Working on Board 2)	D: Review Board 1 shakedown data HO: Assembly of devices (Goal: Finish Board 2)	D: Review Board 2 shakedown data	Location: BPCRC – Learning Center Rm 177 HO Review device performance and data (Instructors will retrieve devices from Waterman prior to class) ML: Overview of 3D printing and CAD software	No Class: SPRING BREAK			
Wednesday – Feb 17	Wednesday – Feb 24	Wednesday – Mar 2	Wednesday – Mar 10	Wednesday – Mar 16			
 D: Measuring temperature & calibration discussion HO Assembly of devices (Goal: Board 1 shakedown and continue Board 2) HW: The impact of surface characteristics on ambient temperature at urban micro scale: comparative field study in two climates 	 Micro-scale reading discussion Assembly of housing, waterproofing, and installation of devices (Goal: Board 2 shakedown) 	Location: Waterman (Be prepared for weather!) HO Setting up devices for calibration and intercomparison to run over the weekend at fixed location(s)	 D: Preparation for data collection to begin after Spring Break including refinements and finalization to fleet of devices When/where do we want to sample? Design discussion and specific plan. HW: (1) Boundary layer effects reading TBA and (2) GPS and its limits within the urban environment reading TBA 	No Class: SPRING BREAK			

ML = mini-lecture

2016 - Weeks 11 through 16							
Monday – Mar 21	Monday – Mar 28	Monday – Apr 4	Monday – Apr 11	Monday – Apr 18			
D: Device update	HO: Begin examination of	HO: Complete and share	HO: Examination and spatial	HO: Final Data Collection			
	data collected on March 25th	visualizations of first round	visualization of data				
ML: Overview of device		of data collection.	collected on April 6 th				
code	HW: UHI Review Paper						
		D: Discuss UHI Review					
D: Initial setting of route		paper.					
plans and times based on							
prior knowledge and weather		Discuss improved sampling					
forecast		techniques, device					
		refinements, and second data					
		collection					
Wednesday – Mar 23	Wednesday – Mar 30	Wednesday – Apr 6	Wednesday – Apr 13	Wednesday – Apr 20			
ML: Overview of	HO: Continue examination	HO: Second Data	HO: Complete examination	HO: Examination and spatial			
GoogleEarth Pro tools	of data collect on March 25 th	Collection (campus – 1hr	of data and create spatial	visualization of data			
	and create spatial	snapshot)	visualizations of data	collected on April 18 th			
D : Final preparation for data	visualizations of data.						
collection – including routes,			D: Discuss final data				
dates, times, and protocol	HW: Think about routes for		collection				
	second data collection						
	(campus)						
Failer Mar 25							
Friday – Mar 25							
HO : First Data Collection							
(Bikes)							



ML = mini-lecture

HO = hands-on

