June 5th
Course Introduction

4:45-5:15 pm  Welcome Remarks and Course Overview  (at Renaissance Midtown Hotel)
Winston Thompson, Ph.D. Morehouse School of Medicine, Charles Easley, Ph.D. The University of Georgia

5:15-6:00 pm  Dinner (provided)

6:00-6:45 pm  Lecture/Group Participation: Health Disparities, Diversity and Inclusiveness Training
Grace Bagwell Adams, Ph.D. The University of Georgia

6:45-7:30 pm  Lecture: Responsible Conduct in Research and Scientific Ethics
Charles Easley, Ph.D. The University of Georgia

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June 6th
Impacts of the Global Pandemic on Human Exposures to Environmental Toxicants

9:00-9:30  Lecture: Development and Deployment of COVID-19 Vaccines to the Most Vulnerable Populations, Mark Tompkins, Ph.D. The University of Georgia

9:30-10:00  Lecture: Racial Disparities in Air Pollution Burden and COVID-19 Deaths in Louisiana, Kimberly Terrell, Ph.D. Tulane University

10:00-10:15  Coffee break

10:15-10:45  Lecture: Concerns regarding exacerbated COVID-19 health effects due to exposure to Common drinking water pollutants, Natalia Quinete, Ph.D. Florida International University

10:45-11:15  Lecture: Impact of alcohol abuse on lung function and susceptibility to SARS-CoV-2 infection, Michael Koval, Ph.D. Emory University

11:15-11:45  Lecture: Utilizing the Exposome to Address Gene - Environment Interactions in Human Disease, Gary Miller, Ph.D. Columbia University

11:45-12:30  Lunch (provided)

12:30-1:00  Lab Pre-Lecture: Michael Koval and Kristen Easley

1:00-6:00  Lab Session: Measuring the synergistic effects of alcohol and other agents on lung epithelial barrier function

6:00  Dinner on own
June 7th

**Air Pollution Impacts on Human Health**

9:00-9:30  **Lecture:** Household Air Pollution Intervention Network (HAPIN): How Household Air Pollution Impacts Human Health, Luke Naeher, Ph.D. University of Georgia

9:30-10:00  **Lecture:** Public Health and Climate Impacts of Smoke, Rawad Saleh, Ph.D. The University of Georgia

10:00-10:30  Coffee break

10:30-11:00  **Lecture:** A Community-integrated Geographic Information System Study of Air Pollution Exposure Impacts in Colfax, LA, Jennifer Richmond-Bryant, Ph.D. North Carolina State University

11:00-11:30  **Lecture:** Air Pollution and Cancer in Louisiana, Gianna St. Julien, Tulane University

11:30-12:00  **Lecture:** Childhood Exposure and Development Risks in the PROTECT Cohort in Puerto Rico, José Cordero, MD University of Georgia

12:00 -12:30  Lunch (provided)

12:30-1:00  **Lab Pre-Lecture:** Rawad and Omer, controlled burns, collection on filters, and run through of lab

1:00-6:00  **Lab Session 1:** isolate chemicals from filters, dissolve in DMSO/water  
**Lab Session 2:** assessing products from controlled combustion experiments on air-liquid interface cultures of human lung epithelial cells (treating cells overnight)  
**Lab Session 3:** Go to Emory for Mass Spectrometry Tour with Dean Jones and Zack Jerrell

6:00  Dinner on own

June 8th

**Ubiquitous and Persistent Pollutants and Their Impacts on Human Health**

9:00-9:30  **Lecture:** Water quality and human health, Ethell Vereen, Ph.D. Morehouse

9:30-10:00  **Lecture:** Screening for emerging per-and polyfluoroalkyl substances (PFAS) in tap and surface waters from South Florida: Should we be concerned? Natalia Quinete, Ph.D. Florida International University

10:00-10:30  Coffee break

10:30-11:00  **Lecture:** Use of High-resolution Metabolomics for the Identification of Metabolic Signals Associated with Ubiquitous Pollutants, Dean Jones, Ph.D. Emory University

11:00-11:30  **Lecture:** Modeling PFAS-Mediated Changes to the Sperm Epigenome using an in vitro Model of Human Spermatogenesis, Katherine Greeson, Ph.D. University of Georgia
11:30-12:30 Lunch (provided)

12:30-1:00 **Lab 1 Pre-Lecture:** Measuring DNA Methylation Changes in Male Germline Cells Exposed to PFAS Chemicals - Katherine Greeson

1:00-1:30 **Lab 2 Pre-Lecture:** Toxicity Testing of Lung Cells Exposed to Combustion Extract - Charles Easley and Elizabeth Waters

1:30-6:00 **Lab Session 1:** impacts of complex mixtures of PFAS or flame retardants and their impacts on DNA methylation
**Lab Session 2:** toxicity testing for June 7th samples and collect culture medium for metabolomics

6:00 Dinner on own

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### June 9th

**Water Pollution Impacts on Human Health:**

9:00-9:30 **Lecture:** Pesticide Exposures and their Impacts on Reproductive System Development, Tyrone Hayes, Ph.D. University of California Berkeley

9:30-10:00 **Virtual Lecture:** Understanding Lead in Water and Avoidance Strategies: A United States Perspective for Informed Decision-Making, Adrienne Katner, D.Env LSU

10:00-10:30 **Lecture:** Phthalate regulation of steroidogenic function in the male gonad, Benson Akingbemi, DVM, PhD, Auburn University

10:30-10:45 Coffee break

10:45-11:15 **Lecture:** Could've, should've, would've: Reframing the causes and consequences of the water crisis in Flint, Jerel Ezell, Ph.D. Cornell University

11:15-11:45 **Lecture:** Wastewater surveillance for SARS-CoV-2, Leah Lariscy, The University of Georgia

11:45-12:30 Lunch (provided)

12:30-1:00 **Lab 1 Pre-Lecture:** Leah Lariscy, qPCR for SARS-CoV-2 capsid proteins in wastewater

1:00-3:00 **Lab Session 1:** qPCR for SARS-CoV-2 capsid proteins in wastewater samples

**Evening Session at Renaissance Midtown Hotel**

5:00-6:30 **Panel Discussion:** Career planning and strategies for careers in Environmental Health Science, Mentorship Guidance in Career Development. Winston Thompson, Morehouse School of Medicine, Yvonne Maddox, President and CEO TA Thornton Foundation, Gerald Schatten, University of Pittsburgh, and Charles Easley, University of Georgia

6:30 pm **Keynote Address:** Racial/Ethnic Disparities in Environmental Chemical Exposures and Women’s Reproductive Health, Tamarrja James-Todd, Ph.D. Harvard University
7:00-9:00 pm  Closing Ceremony Dinner (provided)
Certificate of Participation: Winston Thompson, PhD - Morehouse School of Medicine, Gerald Schatten, PhD - University of Pittsburgh, and Charles Easley, PhD - University of Georgia

June 10th  Depart