

AGENDA: 4th Short Course R25DK099080 The Mathematical Sciences in Obesity

Mon 6/26/2017 - Fri 6/30/2017 The University of Alabama at Birmingham Executive Learning Center (ELC), 6th floor 1705 University Blvd, SHPB 640 Birmingham AL 35233		Module identification color codes
		Introduction to math method
		Application of method to obesity
		Hands-on interactive session
		Open problems [†]
Time	Speaker	Topic
Day 1 - Mon 6/26/2017		
8:00 - 8:30	Diana Thomas, Montclair	Registration
8:30 - 9:30	David Allison/Andrew Brown, UAB	Introductory remarks: A comedy of errors
9:30 – 10:30	Steven Heymsfield, PBRC	Overview of state of the field of obesity and mathematical sciences
10:30 – 11:30	David Allison, UAB	Overview of funding approach at NIH and other federal granting agencies
Lunch 11:30-12:45		
Module 1: Outcomes in Obesity Randomized Controlled Trials (RCTs)		
1:00-1:45	Inmaculada (ChiChi) Aban, UAB	Introduction to RCTs and their quantitative analysis
2:00-2:45	Peng Li, UAB	Missing data in randomized clinical trials
3:00-4:00	Michael Oakes, U of Minnesota	Cluster Randomized Trials
4:00-5:30	Moderated by Senior Researchers	Roundtable Session ^{††}
Day 2 - Tue 6/27/2017		
Module 2: Modeling weight change using energy balance		
9:00 – 9:45	Diana Thomas, Montclair	Introduction to Energy Balance Models
10:00 – 10:45	Corey Gerving PhD, USMA West Point	Application of Energy Balance Models
11:00-11:30	Corby Martin	Models delivered using smart phone technology
Lunch 11:30-12:45		
Module 3: Modeling Effects in Populations		
1:00-1:45	Stephen Mennemeyer PhD, UAB	Using Simulation to Estimate Economic Effects: Examples from Cost-Effectiveness of Obesity Programs
2:00-2:45	Shawn Bauldry PhD, Purdue	Instrumental Variable Approaches
3:00-4:00	Bruce Lee MD, Johns Hopkins	Population Level Effects of Energy Balance Manipulations
4:00-5:30	Moderated by Senior Researchers	Roundtable Session ^{††}
Day 3 - Wed 6/28/2017		
Module 4: Modeling Obesity Interventions Through Networks		
9:00 - 09:45	Ryan Miller, USMA	Introduction to Networks to Identify sub-Communities

10:00 – 10:45	Kayla de la Haye ,USC	Informing obesity interventions using networks
11:00-11:45	James Hill, UC Denver	Open problems
Lunch		
Module 5: Modeling Behavioral Responses in Obesity		
1:00-1:45	Graham Thomas, Brown University	Application of models to monitor adherence
2:00-2:45	Rodney Sturdivant PhD, Azusa Pacific University	Structural Equation Modeling in Obesity
2:45-3:45	Paula-Chandler Laney, UAB	Open Problems
4:00-5:30	Moderated by Senior Researchers	Roundtable Session ^{††}
Day 4 - Thu 6/29/2017		
Module 6: Sensor and Engineering Models in Obesity		
9:00 – 9:45	Edward, Sazonov, Alabama, Tuscaloosa	Overview of the field
9:30 – 10:30	Adam Hoover, Clemson University	Bite measurement methods and models
10:30 – 11:30	Ken McLeod, Binghamton	Regulating RMR to maintain heat balance and body mass
Lunch 11:30-12:45		
Module 7: Scaling Laws and Obesity		
1:00-1:45	Courtney Peterson, UAB	Overview of the field
2:00-2:45	Dave Nelson, Univ S Alabama	Allometric Scaling & Whole-Animal Energy Balances
3:00-4:00	Steven Heymsfield, PBRC	Open Problems
4:15-5:30	Moderated by Senior Researchers	Roundtable Session ^{††} Preparation for student presentations
Day 5 - Fri 6/30/2017		
Module 8: Evolutionary Genetics		
9:00 – 09:45	John R. Speakman PhD DSc, Univ of Aberdeen	TBA
9:30 – 10:45	Andrew Higginson PhD, Univ of Exeter	TBA
11:00 – 12:00	TBA	TBA
Lunch		
1:00-1:45	Student Presentations	
2:00-2:45		
3:00-3:30		
3:30-4:00		
4:15-5:30		

Course website:

<https://www.uab.edu/shp/home/energetics/courses/mathematical-sciences-shortcourse/fourth>

Registration website:

<http://www.uab.edu/shp/home/energetics/courses/mathematical-sciences-shortcourse/fourth-registration>

