Where the Wild Things Are:
Answering Questions You’re Afraid to Ask

What questions do you hesitate to ask because they might be difficult or controversial to answer?

Do we have a “sixth” sense?
What shapes multiracial identity?
Does your DNA make you act a certain way?
What factors are contributing to the obesity epidemic?
Can we use a laser to count molecules inside the cell?

In this interdisciplinary and ever expanding culture in which we live, your college career will certainly take many twists and turns. By teaming up with Emory researchers from diverse backgrounds, we will look at these questions from different vantage points, find answers, and help you formulate your own unique questions and solutions. Every week will contain new ways to answer questions: interactive discussions, hands-on projects, group activities, fun demonstrations. The only prerequisites are to be a good observer, an active participant, and to be curious and eager to use scientific tools to answer your own questions.
Multiracial Identity in America.
Nikki Khanna, Sociology, nkhanna@emory.edu
What do these celebrities have in common??
They are all multiracial! Since the late 1960s, the number of mixed-race Americans has grown at a record rate due to federal bans on anti-miscegenation laws, increased immigration, and changing societal views towards interracial relationships. In this module, we will explore issues of identity among multiracial individuals — how do they identify themselves racially and why? We’ll discuss the most recent sociological research on multiracial identity and the methods used to study this diverse population.

Where physics meets biology: lasers and jellyfishes to understand life
Suzette Pablt, Physics, spabit@physics.emory.edu
Imagine you are an alien observing humans for the first time, how long do you have to watch them to differentiate between functions of arms and legs? What about eyes and hair? Do they travel alone or in pairs? In this module, we'll look at our bodies at the molecular level and discover a fantastic highly synchronous alien world inside. Using lasers, lenses, and... jellyfishes (!), we'll discover how the physics of counting light fluctuations is used to answer the questions of life and understand the little molecular machines that keep us alive.

Genes and Behavior
Zoe Donaldson, Neuroscience, zdonald@emory.edu
Does your DNA make you who you are? Criminals, cheaters, and addicts have all used their genes to justify their behavior. What’s legitimate and what is not? In this module we will define what genes are and discuss the ways that scientists determine the genetic components of complex behaviors including monogamy and fidelity. We will investigate how our genes make us all different and what that means for a diverse society.

Muscles, Movement, and More
Gelsy Torres-Oviedo, Biomedical Engineering, gtorres@emory.edu
You have five senses, right? See, hear, smell, touch, taste, right? Wrong! Some very important senses don’t often get counted. The nervous system uses them to determine the position of your body, activate your muscles, and produce the coordinated movements that you perform everyday. In this module we will discuss findings in muscle coordination. We will begin by examining how muscles work. Next we will go through the sensory information used during motor activities. Finally we will show how muscles are coordinated to perform a motor behavior such as postural control.

Nutrition and Cardiovascular Disease
Cria Gregory, Nutrition and Health Science, cgregor@emory.edu
Can you remember what you ate yesterday? Or last month? Trying to assess what populations are eating, and associating diet with diseases like cardiovascular disease or diabetes, is one of the many things we do in the field of nutritional epidemiology. But we can’t just study diet without considering other things affecting health status. In this module you’ll learn how to use different tools and surveys to measure dietary factors, physical activity levels, and body measures like body mass index (BMI), as well as discuss issues that need to be considered when working in international settings.