Snacks and beverages will be provided.

Kyra Kaercher (Archaeology) Mosul Archaeological Project

After the Gulf War and the Iraq War, Iraq's archaeology programs are in disarray. Michael Danti received a State Grant to work with Mosul University to help rebuild their Archaeological Program. This talk will focus on our efforts to rebuild this program along with what we are doing to prepare for the upcoming field season, located outside of Rowanduz, in Iraqi Kurdistan.

Leah Sheline (Psychology) How Does Context Affect Early Word Learning?

When children hear a word for the first time, how do they discover whether it's a noun, verb, or adjective, and how do they figure out its meaning? It is often thought that toddlers need someone to point out objects or actions and explain what they're called; we explore this view and present research to support an alternate perspective. We also examine whether overhearing other people talk can aid in word learning for children. What if the child does not know any of the words being used? In this case, toddlers may still be able to pick up on the meaning of a new word, and we examine what aspects of its meaning are acquired.

Daniel Cuzzocreo (Math and Statistics) Complex Dynamical Systems

A discrete dynamical system consists of a set of numbers or points, together with a function, or rule, that "sends" each element in the set to another. For a given element, we can apply this rule over and over again, leading to a sequence that describes its location at every step of the process. For example, given a population of a city in some year, a function could tell us the population in the following year, and then each year thereafter. We like to be able to classify the dynamical behavior of these systems. For example, we look for fixed points (points sent directly to themselves), periodic points (points that return to themselves after some number of applications of the function), and chaotic regions (subsets for which the dynamics is wild and unpredictable). It turns out that when the set that the system is defined on is the complex numbers (numbers of the form $a+b*i$, where a and b are real numbers, and i is the square root of -1), certain special properties always hold, and the behavior of the system is particularly amenable to study. We'll see some examples of how seemingly simply rules can lead to extremely complicated behavior, and we'll look at some of the beautiful fractal images that arise in the study of this topic.