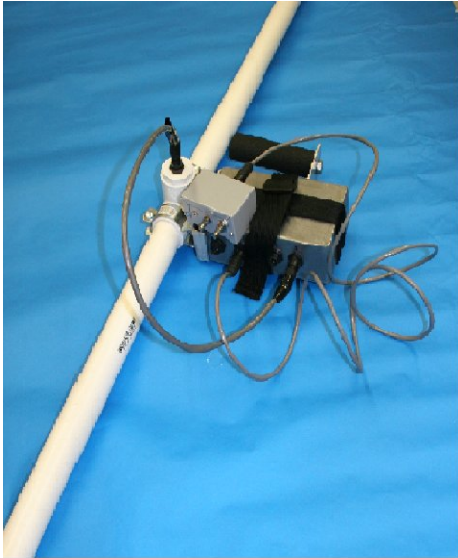


# Physics Seminar

Wednesday 12/6/2006, 4:30pm  
Willet Science Center 101



## **The convergence of Physics and Archeology: The physics and utility of a Fluxgate Magnetometer**

**A talk by Mercer students Thomas Legare and Kyle Suddreth**

Fluxgate Magnetometers are devices used to detect changes in a relatively constant external magnetic field, like changes due to the presence of ferrous or magnetically sensitive objects in the location of the magnetometer sensors. The Macon Archeological Society is interested in finding such materials located in the Ocmulgee River here in Macon, yet due to zero visibility conditions of the river, they are having a very tough time finding anything. Our project was to build a magnetometer capable of finding ferrous artifacts by detecting changes in the Earth's magnetic field and producing a difference wave sent through a circuit that can produce a voltage to power an output device informing us of the location of a suspicious magnetic object. Hopefully, we can assist the Macon Archeological Society by narrowing down the search area only to the locations our device detects some sort of ferrous anomaly.

***Please join us for light refreshments at 4:15pm outside WSC 109.***