

# ***PHY 331 (Experimental Physics Laboratory 2)***

## ***Understanding Data Acquisition and Developing LabVIEW Applications for Experimental Research***

### Data Acquisition

1. Introduction to PCI-6221 and SCC-68
2. Description of SCC-68 architecture
3. Understanding Analog Input Types Differential and single-ended input
4. Basics of thermocouple and cold junction compensation
5. Routing signals through SCC-68

### Introduction to Labview

1. Acquiring signal in LabVIEW
2. While loop and Execution controls
3. Acquiring more than one signal.
4. Temperature Measurements using NI DAQ
5. Simulate Signals
6. Generating signals using Analog output channels
7. Filtering a signal
8. Mathematical Calculations
9. Using C language block
10. Write to measurement file and uploading data in Matlab
11. Waveform graphs and different indicators
12. Context help

Venue:  
Physics Conference Room  
SSE-BLD, 2<sup>th</sup> Floor