

# EMG Lab 3: In Class Assignment

BIOE 385 Bioinstrumentation Laboratory

*Print a copy of this sheet and bring it to lab!*

**Student Name:** **Total Grade: /20**

**Student Name:** **Total Grade: /20**

**Student Name:** **Total Grade: /20**

## Pre-Lab Assignment

**Student Name:** **Grade: /5**

**Student Name:** **Grade: /5**

**Student Name:** **Grade: /5**

Have the Instructor or Teaching Assistant initial that you have demonstrated successful completion of each task where designated.

## **In-Lab Assignment**

### **Safety and Electrical Isolation**

After you make these connections, have your TA or instructor check them before you connect any electrodes to the test subject.

TA check: \_\_\_\_\_

### **EMG Amplification**

- Draw the circuit you want to build for this stage:

TA check: \_\_\_\_\_

- Build your circuit. Test it out using the function generator in ELVIS to be sure it is behaving as you would expect. *Before trying your circuit on a test subject, have the instructor or a TA check your circuit!*

TA check: \_\_\_\_\_

### **Signal Filtering**

Draw and build the filter you would like to have for your device. Specify your cutoff frequencies and components' values.

TA check: \_\_\_\_\_

### **Final Amplification**

Amplify your signal (second stage) using an OP07 Op Amp to a level appropriate for detection with the NI ELVIS system.

TA check: \_\_\_\_\_

\_\_\_\_\_/15