



SITE APPROVAL FORM

Location: Orlando FL Date: 05/30/2017
City State

Organization: University of Central Florida

\*Contact Person(s): Helen J. Huang
\*Must have at least a Bachelor's degree in a related field and a minimum of 2 years' experience within the discipline.

Address: 12760 Pegasus Drive, Building 40, Room 307 Orlando FL/32816
Street/PO Box City State/Zip

Phone: 734-223-3196 Fax:

Email: hjhuang@ucf.edu Website: mae.ucf.edu/brain

What semesters is your organization available to accept interns?
[Fx] Fall (August-December) [Fx] Spring (January-April) [Fx] Summer (May-August)

Please check the specializations that best pertain to the internship experience offered:

[Fx] Exercise Physiology [ ] Fitness/Wellness

How many interns do you typically accept per semester? 1 or less

Interns must complete a minimum of 35-40 hours per week (520 hours total). List the normal working hours for your organization. Please indicate any evening or weekend time commitments:

9:30 AM - 5:30 PM

Is office space available to interns? [Fx] Yes [ ] No
Comments

Is a computer/scanner available to interns? [Fx] Yes [ ] No
Comments

Does your organization offer paid or non-paid internships? [Fx] Non-paid [ ] Paid (amount)

List other benefits your organization offers interns (i.e. housing, health insurance, travel reimbursement, etc.)
None at the moment

List required purchases for interning with your site (e.g. parking pass, uniform, back-ground check, etc.):
None required. The parking for the lab does not require a parking pass.

List required skills or previous experience necessary for interning with your organization:

Required experience related to exercise physiology: knowledge of biomechanics of movement, muscle, brain function, neurophysiology

Special Requirements (i.e. special application, proof of health insurance, immunizations, etc.)

*Please note: All interns are required to purchase professional liability insurance coverage for \$1,000,000*

None

Provide a bulleted list of duties/responsibilities your organization expects to be fulfilled by interns:

Exercise Physiology Interns will be expected to

- set up motion capture, electromyography (EMG), and electroencephalography (EEG) equipment independently
- assist with data collections (performing baseline physical assessments with participants, placing sensors on human participants, checking the EMG placement and signal quality, monitoring data quality during experiments, record data)
- complete tutorial on EEGLAB and assist with EEG analyses using the EEGLAB graphical user interface
- learn to run the lab's MATLAB scripts for analyzing EMG and motion capture. We write programs in MATLAB for analyzing our data
- be able to interpret biomechanics, EMG, and EEG results as they relate to gait, balance, exercise, motor adaptation, motor control, and aging
- perform a literature review on a related topic and build an Endnote library (ex. EEG studies related to motor control and aging)
- write brief summaries, < 100 words, of the most important aspect of each paper they read
- help recruit and screen potential participants
- co-author an abstract

Please describe a typical day for the intern:

On a data collection day, the intern will help setup the equipment, perform baseline physical assessments, place motion capture markers, EMG sensors, and EEG sensors on the participant, record data, troubleshoot problems, and clean up. Our data collections are comprehensive and will require 5-7 hours of the intern's time (setup, collection, and clean up) for a single data collection. Any extra time will be spent checking data files, cleaning motion capture data, and backing up data from the data collection.

When not collecting data, the intern will spend ~2-3 hours doing a literature search or reading papers, ~1 hour writing and summarizing paper(s), and ~4-5 hours learning the software programs and/or analyzing data.

Interns must be evaluated on at least 6 of the following Student Learning Outcomes (SLO's). Please check each SLO that applies to the duties/responsibilities provided to interns at your organization.

| APK Student Learning Outcomes (SLOs)  | Applied Examples (These examples used to describe each SLO are not exclusive; they are simply intended to provide clarity to the individual SLOs)  |
|---|--|
| <input checked="" type="checkbox"/> Integrate principles and methods of math, social sciences, and arts and humanities to applied physiology and kinesiology, wellness, and/or fitness environments.  | <ul style="list-style-type: none"> <li>• Intern can perform body composition calculations.</li> <li>• Intern can identify socioeconomic impacts on health and fitness behaviors.</li> <li>• Intern can calculate target and max heart rates in order to prescribe aerobic exercise.</li> </ul>   |
| <input checked="" type="checkbox"/> Identify and relate the nomenclature, structures, and locations of components of human anatomy to health, disease, and physical activity.   | <ul style="list-style-type: none"> <li>• Intern can identify muscles used in specific exercises and name other exercises that use those muscles.</li> <li>• Intern can name specific structures damaged by pathologies like diabetes.</li> </ul>   |
| <input type="checkbox"/> Identify, examine, and explain physiological mechanisms of homeostasis at various levels of an organism (i.e., cells, tissues, organs, systems).   | <ul style="list-style-type: none"> <li>• Intern can explain the baroreflex.</li> <li>• Intern can explain why skeletal muscle cells atrophy when immobilized.</li> <li>• Intern can describe the impact of respiration on blood pH.</li> </ul>   |
| <input type="checkbox"/> Investigate and explain the effects of physical activity on psychological health as well as the perspectives used to enhance adherence to healthier lifestyles.  | <ul style="list-style-type: none"> <li>• Intern can explain how exercise helps depression.</li> <li>• Intern knows where to locate information related to psychological health impacts of various activities.</li> <li>• Intern can identify and properly refer individuals with eating disorders.</li> </ul>                                  |
| <input checked="" type="checkbox"/> Identify and explain the acute and chronic anatomical and physiological adaptations to exercise, training, and physical activity.   | <ul style="list-style-type: none"> <li>• Intern can explain why resting HR and BP are reduced following endurance training.</li> <li>• Intern can identify immediate and long-term benefits of resistance training.</li> </ul>   |
| <input type="checkbox"/> Select and utilize the appropriate scientific principles when assessing the health and fitness of an individual and prescribing physical activity based on those assessments.  | <ul style="list-style-type: none"> <li>• Intern can select a safe fitness test for a cardiac patient.</li> <li>• Intern can perform skinfold testing and use that data to prescribe appropriate amounts of exercise.</li> </ul>  |
| <input checked="" type="checkbox"/> Solve applied physiology and kinesiology problems from personal, scholarly, and professional perspectives using fundamental concepts of health and exercise, scientific inquiry, and analytical, critical, and creative thinking.                       | <ul style="list-style-type: none"> <li>• Intern can describe which populations might be prone to ankle sprains.</li> <li>• Intern can identify medications which might lead to an impaired ability to perform aerobic exercise.</li> <li>• Intern can prescribe exercise to suit the goals of clients based on fitness assessments.</li> </ul> |
| <input checked="" type="checkbox"/> Collect, compare, and interpret qualitative or quantitative data in an applied physiology and kinesiology context.  | <ul style="list-style-type: none"> <li>• Intern can perform a submaximal VO<sub>2</sub> test and use the collected data to classify the subject's level of fitness.</li> <li>• Intern can perform a laboratory experiment and compare their results to other similar studies.</li> </ul>   |
| <input checked="" type="checkbox"/> Effectively employ written, oral, visual, and electronic communication techniques to foster inquiry, collaboration, and engagement among applied physiology and kinesiology peers and professionals as well as with patients, clients, and/or subjects. | <ul style="list-style-type: none"> <li>• Intern can explain to a patient the importance of hydration during exercise.</li> <li>• Intern can generate professional emails to ask scientific or medical questions.</li> <li>• Intern can generate an abstract to present research at a scientific or medical conference.</li> </ul>              |

Would you like to be added to the Department's list of approved sites for future interns?  Yes  No

Name of student requesting completion of the site approval form (if applicable): \_\_\_\_\_

I have reviewed the APK Undergraduate Internship Policies and Procedures Manual: Helen J. Huang

Site Signature: Helen J. Huang Digitally signed by Helen J. Huang  
DN: cn=Helen J. Huang, o, ou, email=hjhuang@ucf.edu, c=US  
 Date: 2017.05.31 11:01:13 -05'00' Date: 05/31/17

Department Approval: Blain Harrison Digitally signed by Blain Harrison  
DN: cn=Blain Harrison, o=Applied Physiology and Kinesiology, ou, email=blainharrison@ufl.edu, c=US  
 Date: 2017.05.31 14:39:46 -04'00' Date: 05/31/17