**Evaluation:**

1. Pre/Post Lab Reports (50%)
2. Quizzes (6) (25%)
3. Lab Practical Exam (25%)
4. Final Laboratory Project (15% of total course grade)

**Lab Grade = 20% of Total Course Grade**

**TA Office Hours**

Chris Ramos  
TBD  
rchristo@usc.edu

Travis Peterson  
TBD  
travispe@usc.edu

Office hours will be held in PED B9/B10

**Laboratory Schedule:**

<table>
<thead>
<tr>
<th>Wk</th>
<th>Dates</th>
<th>Lab Work</th>
<th>Due</th>
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</table>
| 1  | 8/25, 27    | Introduction  
Lab 1: Computer Skills                                                  | Post-Lab 1   |
|    |             |                                                                          | Pre-Lab 2    |
|    |             |                                                                          | Slide 1      |
| 2  | 9/1, 3      | Lab 2: Introduction to Motion Analysis: Linear Kinematics and Total Body Center of Mass (TBCM) | Post-Lab 2   |
|    |             |                                                                          | Slide 2      |
| 3  | 9/8, 10     | Lab 3: Angular Kinematics                                                | Post-Lab 2   |
|    |             |                                                                          | Slide 2      |
| 4  | 9/15, 17    | Lab 4: Linear Impulse & Momentum                                         | Post-Lab 3   |
|    |             |                                                                          | Pre-Lab 4    |
|    |             |                                                                          | Slide 3      |
| 5  | 9/22, 24    | Lab 5: Angular Impulse & Momentum                                         | Post-Lab 4   |
|    |             |                                                                          | Slide 4      |
| 6  | 9/29, 10/1  | Project: **Data Collection** – Force, kinematics, digital video capture  | Post-Lab 5   |
| 7  | 10/6, 8     | Lab Practical                                                            | Post-Lab 6   |
|    |             |                                                                          | Slide 5      |
| 8  | 10/13, 15   | Lab 6: Total Body Kinetics, $\Sigma F=ma$                                | Post-Lab 6   |
|    |             |                                                                          | Slide 5      |
| 9  | 10/20, 22   | Lab 7: Joint Kinetics                                                    | Post-Lab 7   |
|    |             |                                                                          | Slide 6      |
| 10 | 10/27, 29   | Project: Analysis #1 – Linear and Angular Kinematics (How to interpret and present) | Post-Lab 7   |
|    |             |                                                                          | *Project Results 1* |
| 11 | 11/3, 5     | Project: Analysis #2 – Impulse/Momentum (How to interpret and present)    | *Project Results 2* |
| 12 | 11/10, 12   | Project: Analysis #3 – Joint Kinetics (How to interpret and present)       | *Project Results 3* |
| 13 | 11/17, 19   | Final report .ppt / prezi                                                | *Project Results 4* |
| 14 | 11/24, 26   | **Thanksgiving**                                                          | *****        |
| 15 | 12/1, 3     | **Oral Project Presentations**                                           | Written Report |
Slides:
1. Specify movement of interest; provide critical review of related literature “What is known/unknown?”
2. How can analysis of human motion contribute to solving significant problems?
3. Develop Hypotheses/Experimental design to test hypotheses
4. Identify key variables to test hypothesis
5. Finalize data collection plan for analysis of goal directed tasks
6. Title, Significance
7. Project Results 1: Test hypothesis using linear and angular kinematics
8. Project Results 2: Test hypothesis using impulse/momentum relationship
9. Project Results 3: Test hypothesis using joint kinetics analysis

**Slides 7-9 (Project Results) will be based on your project analysis completed during that day's lab. They will be due at the END of that week's lab section. These will serve as checkpoints to make sure that you are on track with your project.**

Academic Accommodations
Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to the instructor as early in the semester as possible. DSP is located in Student Union (STU) 301 and is open 8:30am-5:00pm Monday-Friday. The phone number for DSP is (213) 740-0776.
HBIO Instructional Laboratory Policies

Attendance to & participation in all laboratory sessions is mandatory.

- If you are not prepared to participate, or if you refuse to participate without an acceptable (as determined by Lab Instructor) written excuse, you will be penalized 10% of the total points possible on the lab report for that lab (first offense). Each subsequent offense will be penalized an additional 10% (2nd = -20%, 3rd = -30%, etc.).
- If you arrive more than 20 minutes late to class, you will be considered absent for that lab.

Quizzes & Exams:

- Quizzes will be given at the beginning of each lab; no extra time will be given for students arriving late.
- Calculators will be provided for quizzes and exams; you may not use your own.

Lab Reports:

- Lab reports will be completed in groups (no more than 3). Each member will be expected to contribute, and all members will receive the same grade. Group members should rotate responsibilities each week to ensure everyone gets experience in all aspects of the lab report. Each week, instead of completing a lab report, one group will conduct a presentation of the previous lab’s findings while another group will perform a demonstration of the concepts and use of the content of the previous lab. Everyone else will complete the reports as usual.
- Lab reports are due at the beginning of class. If you are late, your lab is late.
- If a lab report is due the day you miss a lab (excused or not), it is still due on time or earlier.
- **This department does NOT accept late labs.** Exceptions can sometimes be made, under rare circumstances, and these exceptions are made at your Lab Instructor’s discretion. If accepted, 20% of the total points possible will be taken off for each day it is late.
- Labs must be given directly to your Lab Instructor. *The Kinesiology office will not accept lab reports.*
- **If you disagree with the grading of a lab report, you have one week from the day it is returned to you to discuss it with your lab instructor for a grade change consideration.**

Excused Absences:

- If you are excused by your Lab Instructor for missing lab, you may attend another lab section during the same week to make up the lab and quiz. **Prior to making up the lab, your Lab Instructor must be notified as to which lab you will be attending.**
- To be excused from missing a lab, you must:
  - a. Notify your Lab Instructor on or before your regular scheduled lab day.
  - b. Provide acceptable written documentation of your absence. Excused absences are granted at your Lab Instructor’s discretion.
- A maximum of TWO absences may be excused and made-up per semester.
- Attending an overlapping course is not a sufficient reason to justify an “excused” absence.

Missed Labs:

- Excused & lab made up: no penalty
- Excused & lab not made up: if there was a quiz, it must be made up the same week -10% of the points possible on the report for the lab you missed (miss 1 part of a 2-part lab: -5%)
HBIO 408L
Introduction to Biomechanics
Laboratory Syllabus

- Unexcused:
  - if there was a quiz, it cannot be made up
  - 100% of the points possible on the report for the lab you missed (miss 1 part of a 2-part lab: -50%)

Religious Holidays:

- In the event that a religious holiday coincides with a lab, you may be excused from the lab. The absence will be treated as an “excused absence” (please see above for details).
- Your lab instructor MUST be notified in advance.
- If a lab report is due the day of a missed lab, it is still due ON TIME or earlier.

Academic Integrity Violations

Please read the following carefully!

- **ZERO TOLERANCE FOR ACADEMIC INTEGRITY VIOLATIONS**
  Academic dishonesty/misconduct (plagiarism, cheating, unauthorized collaboration, etc.) will not be tolerated. All academic integrity violations will result in a grade sanction and will be reported to the Office for Student Judicial Affairs, NO EXCEPTIONS!

- Lab reports and assignments should be done completely on your own and written in your own words. Data collection is a group project, but report writing is not. Unauthorized collaboration is considered plagiarism and will be reported.

- It is your responsibility to “reasonably” protect your own work from the plagiarism of others.

- If plagiarism is detected on a group project, all members of the group will be held responsible.

- You are expected to be familiar with the Academic Integrity guidelines found in the current SCampus (student guidebook). An electronic version is available at http://usc.edu/scampus.

Please contact the Instructional Laboratory Manager with any questions or concerns regarding departmental policy. Office hours are by appointment.

Emi Embler, Ph.D.
Office: PED 107
(213) 740-3098
eembler@usc.edu
Statement on Academic Conduct and Support Systems

Academic Conduct

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in Scampus in Section 11, Behavior Violating University Standards https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions. Other forms of academic dishonesty are equally unacceptable. See additional information in Scampus and university policies on scientific misconduct, http://policy.usc.edu/scientific-misconduct.

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the Office of Equity and Diversity http://equity.usc.edu or to the Department of Public Safety http://adminopsnet.usc.edu/department/department-public-safety. This is important for the safety of the whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. The Center for Women and Men http://www.usc.edu/student-affairs/cwm/ provides 24/7 confidential support, and the sexual assault resource center webpage http://sarc.usc.edu describes reporting options and other resources.

Support Systems

A number of USC’s schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the American Language Institute http://dornsife.usc.edu/ali, which sponsors courses and workshops specifically for international graduate students. The Office of Disability Services and Programs http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html provides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, USC Emergency Information http://emergency.usc.edu will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.

STATEMENT FOR STUDENTS WITH DISABILITIES

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STATEMENT ON ACADEMIC INTEGRITY
USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one’s own academic work from misuse by others as well as to avoid using another’s work as one’s own. All students are expected to understand and abide by these principles. SCampus, the Student Guidebook, contains the University Student Conduct Code (see University Governance, Section 11.00), while the recommended sanctions are located in Appendix A.

EMERGENCY PREPAREDNESS/COURSE CONTINUITY IN A CRISIS

In case of a declared emergency if travel to campus is not feasible, USC executive leadership will announce an electronic way for instructors to teach students in their residence halls or homes using a combination of Blackboard, teleconferencing, and other technologies. See the university’s site on Campus Safety and Emergency Preparedness.