

Course Syllabus

[Jump to Today](#)

 <p>POINT LOMA NAZARENE UNIVERSITY</p>	<p>Department of Kinesiology</p> <p>KIN 3027 - Applied Biomechanics</p> <p>Number of Units: 2</p>
<p>Fall 2020</p>	

Meeting days: Asynchronous + Synced Meetings	Instructor: Arnel Aguinaldo, PhD, ATC ("Dr. A")
Meeting times: Asynchronous + Synced Meetings	Phone: 619-849-3007
Meeting location: Online	Email: aaguinal@pointloma.edu _(https://mail.google.com/mail/?view=cm&fs=1&tf=1&to=aaguinal@pointloma.edu)
Final Exam: Narrative Review (Due 12/4/2020)	Virtual Office Hours _(https://calendar.google.com/calendar/selfsched?sstoken=UU04Y2t1MjdITEtPzGRIZmF1bHR8Y2JINzQ0MjVhOTRmYzdIMzJmODAzOTMwNzgzZDNkNjg)
TA: Tina Stefanovic _(https://mail.google.com/mail/?view=cm&fs=1&tf=1&to=tinastefanovic777@pointloma.edu)	

PLNU Mission

🔍 You are currently logged into Student View

Resetting the test student will clear all history for this student, allowing you to view the course as a brand new student.

[Reset Student](#)

[Leave Student View](#)

Point Loma Nazarene University exists to provide higher education in a vital Christian community where minds are engaged and challenged, character is modeled and formed, and service is an expression of faith. Being of Wesleyan heritage, we strive to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

COURSE DESCRIPTION

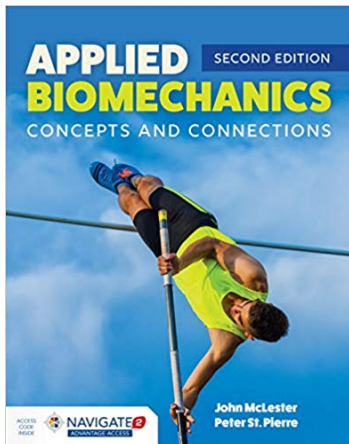
This class is designed to provide students with a mix of theoretical concepts and applied problem-solving in various biomechanical applications in human movement. Through the core math, physics, kinesiology, and anatomy classes students have taken to this point, you have been provided a breadth of information that will serve you in learning the basic concepts of kinematics and kinetics of whole body and joint movement.

COURSE LEARNING OUTCOMES

At the end of this course, students will be able to:

1. **Explain** the vocabulary, principles, and relationships unique to the disciplines of applied biomechanics.
2. **Articulate** the basic principles of kinematics in quantifying and describing joint movement.
3. **Identify** the concepts of linear and angular kinetics and their effects on human movement.
4. **Describe** various technology and methods employed to quantitatively measure joint kinematics and kinetics
5. **Apply** biomechanical techniques to evaluate joint movement in clinical-decision making and analyzing human performance
6. **Interpret** movement patterns in basic clinical applications using qualitative biomechanical analyses.
7. **Compare** the kinematic and kinetic patterns between conditions of walking and jumping.

REQUIRED TEXTS AND RECOMMENDED STUDY RESOURCES



McLester, J., St. Pierre, P. (2019). *Applied Biomechanics. Concepts and Connections*. (2nd Edition). Burlington, MA: Jones & Bartlett Learning. [Available on Amazon here](https://www.amazon.com/dp/1284170047/ref=cm_sw_em_r_mt_dp_U_OdwIDbY93H9SJ%20) (https://www.amazon.com/dp/1284170047/ref=cm_sw_em_r_mt_dp_U_OdwIDbY93H9SJ%20)

NOTE: Students are responsible to have the required textbooks prior to the first day of class. Students are also encouraged to begin reading the books in



6d You are currently logged into Student View

Resetting the test student will clear all history for this student, allowing you to view the course as a brand new student.

[Reset Student](#)

[Leave Student View](#)

This course also utilizes the following online tools (free of charge for students) to facilitate student engagement and enhance your learning experience:

-  - Zoom video conferencing will be used for synced meetings and virtual office hours
-  [. \(https://knowledge.playposit.com/article/260-the-student-experience-without-an-lms\)](https://knowledge.playposit.com/article/260-the-student-experience-without-an-lms) - [PlayPosit](https://knowledge.playposit.com/article/260-the-student-experience-without-an-lms) [\(https://knowledge.playposit.com/article/260-the-student-experience-without-an-lms\)](https://knowledge.playposit.com/article/260-the-student-experience-without-an-lms) will be used for in-video quizzes and interactive video lectures/tutorials

COURSE CREDIT HOUR INFORMATION

In the interest of providing sufficient time to accomplish the stated Course Learning Outcomes, this class meets the PLNU credit hour policy for a 2 unit class delivered over 15 weeks. Specific details about how the class meets the credit hour requirement can be provided upon request. (Based on 37.5 hours of student engagement per credit hour.)

Distribution of Student Learning Hours

Category	Time Expectation in Hours
Online Participation in Discussions, Groups, etc.	15
Reading Assignments	10
Written Assignments	15
Other Assignments & Learning Activities	15
Quizzes, Surveys	20
Total Hours	75

ASSESSMENT AND GRADING

- **Assignments:** There will be six assignments worth 10 points each to be scheduled throughout the semester. These assignments will vary in difficulty depending on the module covered that week. Problems from each assignment will be discussed in class or in office hours. (60 pts total)
- **Mid-Term Exam:** A mid-term exam will be administered via Canvas on the date noted below in the course schedule. It will consist of multiple choice and T/F questions, covering the material from the first unit (5 modules). (60 pts total)
- **Lab Report:** Students will have the opportunity to perform a basic gait analysis using kinematic and kinetic data previously collected in the biomechanics lab. A lab guide on how to write this report will be posted on Canvas in Module 10. (30 pts total)
- **Narrative Review:** As part of an effort to gain experience in biomechanics scientific research, each student will be required to complete a literature review

6d You are currently logged into Student View

Resetting the test student will clear all history for this student, allowing you to view the course as a brand new student.

[Reset Student](#)

[Leave Student View](#)

research articles from peer-reviewed journals relevant to their selected topic and writing up a three-page abstract summarizing their analysis of the topic. (90 pts total)

- **In-Video Quizzes:** The *PlayPosit* web-based tool will be used for in-video quizzes (bulbs), which are interactive videos each embedded with 3-5 questions relevant to the content. At the end of the semester, points are normalized to the maximum of 40 points. For example, if the total points for bulbs at the end of the semester is 100, a student who earns 90 PlayPosit points will receive 36 participation points ($.90 \times 40 = 36$ points). If you do not complete any PlayPosit bulbs, you receive 0 points for that module. (40 pts total)
- **Participation:** In addition to the live synced meetings and syllabus quiz, participation will be measured using module discussions that require you to post a response to the prompt and replies to at least two of your peers. Your posts should be substantive in nature and foster a healthy dialogue between peers about the material. Your initial post should be at least 250 words while replies to peers should be at least 100 words. In some cases, video responses will be welcomed. (20 points total)

ASSESSMENT	POINTS	COURSE OBJECTIVES
Mid-Term Exam	60	1,2,3
Assignments	60	1,2,3,5,6
Lab Report	30	1-7
Narrative Review	90	1-6
In-Video Quizzes (bulbs)	40	1-7
Participation	20	1,2,3,4,6,7
-----	-----	
Total	300	

POINTS	GRADE	POINTS	GRADE
279-300	A	219-227	C

68 You are currently logged into Student View

Resetting the test student will clear all history for this student, allowing you to view the course as a brand new student.

[Reset Student](#)

[Leave Student View](#)

258-269	B+	198-209	D+
249-257	B	189-197	D
240-248	B-	180-188	D-
228-239	C+	0-179	F

STATE AUTHORIZATION

State authorization is a formal determination by a state that Point Loma Nazarene University is approved to conduct activities regulated by that state. In certain states outside California, Point Loma Nazarene University is not authorized to enroll online (distance education) students. If a student moves to another state after admission to the program and/or enrollment in an online course, continuation within the program and/or course will depend on whether Point Loma Nazarene University is authorized to offer distance education courses in that state. It is the student's responsibility to notify the institution of any change in his or her physical location. Refer to the map on [State Authorization \(https://www.pointloma.edu/offices/office-institutional-effectiveness-research/disclosures\)](https://www.pointloma.edu/offices/office-institutional-effectiveness-research/disclosures) to view which states allow online (distance education) outside of California.

INCOMPLETES AND LATE ASSIGNMENTS

All assignments are to be submitted/turned in by the beginning of the class session when they are due—including assignments posted in Canvas. Incompletes will only be assigned in extremely unusual circumstances.

PLNU COPYRIGHT POLICY

Point Loma Nazarene University, as a non-profit educational institution, is entitled by law to use materials protected by the US Copyright Act for classroom education. Any use of those materials outside the class may violate the law.

PLNU ACADEMIC HONESTY POLICY

Students should demonstrate academic honesty by doing original work and by giving appropriate credit to the ideas of others. Academic dishonesty is the act of presenting information, ideas, and/or concepts as one's own when in reality they are the results of another person's creativity and effort. A faculty member who believes a situation involving academic dishonesty has been detected may assign a failing grade for that assignment or examination, or, depending on the seriousness of the offense, for the course. Faculty should follow and students may appeal using the procedure in the university Catalog. See [Academic Policies \(http://catalog.pointloma.edu/content.php?catoid=18&navoid=1278\)](http://catalog.pointloma.edu/content.php?catoid=18&navoid=1278) for definitions of kinds of academic dishonesty and for further policy information.

PLNU ACADEMIC ACCOMMODATIONS POLICY

 You are currently logged into Student View

Resetting the test student will clear all history for this student, allowing you to view the course as a brand new student.

[Reset Student](#)

[Leave Student View](#)

with the Disability Resource Center (DRC), located in the Bond Academic Center. (DRC@pointloma.edu [_https://mail.google.com/mail/?view=cm&fs=1&tf=1&to=DRC@pointloma.edu](https://mail.google.com/mail/?view=cm&fs=1&tf=1&to=DRC@pointloma.edu)) or 619-849-2486). The DRC's policies and procedures for assisting such students in the development of an appropriate academic adjustment plan (AP) allows PLNU to comply with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act. Section 504 (a) prohibits discrimination against students with special needs and guarantees all qualified students equal access to and benefits of PLNU programs and activities. After the student files the required documentation, the DRC, in conjunction with the student, will develop an AP to meet that student's specific learning needs. The DRC will thereafter email the student's AP to all faculty who teach courses in which the student is enrolled each semester. The AP must be implemented in all such courses.

If students do not wish to avail themselves of some or all of the elements of their AP in a particular course, it is the responsibility of those students to notify their professor in that course. PLNU highly recommends that DRC students speak with their professors during the first two weeks of each semester about the applicability of their AP in that particular course and/or if they do not desire to take advantage of some or all of the elements of their AP in that course.

PLNU ATTENDANCE AND PARTICIPATION POLICY

Hybrid Format

At Point Loma Nazarene University, attendance is required at all scheduled classes. Adult Degree Completion courses are taught in the hybrid format, which means some class meetings will be face-to-face and some will be online.

Attendance in the face-to-face classes is to be for the entire time of the class. Arriving late or leaving early will be considered a partial absence. A day of attendance in an online class is determined as contributing a substantive note, assignment, discussion, or submission that adds value to the course as determined by the instructor. Three days of attendance are required each week. (It may be any three days during the week.)

Face-to-face Portion of the Hybrid course

In blended or hybrid courses, if a student misses one face-to-face class then the faculty member will send an email to the student and the Director of Student Success warning of attendance jeopardy. There are no exceptions to this policy.

If a student misses two face-to-face classes, the faculty member or Vice Provost for Academic Administration (VPAA) will initiate the student's de-enrollment from the course without further advanced notice to the student. If the date of de-enrollment is past the last date to withdraw from a class, the student will be assigned a grade of "F" and there will be no refund of tuition for that course.

Online Portion of the Hybrid Course

If a student misses two online classes (fails to contribute to a discussion board) during the course, then the faculty member will send an email to the student and the Director of Student Success warning of attendance jeopardy. There are no exceptions to this policy.

If a student misses three online classes (fails to contribute to a discussion board by the due date) during the course, then the faculty member or Vice

6d You are currently logged into Student View

Resetting the test student will clear all history for this student, allowing you to view the course as a brand new student.

[Reset Student](#)

[Leave Student View](#)

1 missed F2F class = warning

2 missed F2F classes = de-enrollment

2 missed online classes = warning

3 missed online classes = de-enrollment

Online Format

Students taking online courses are expected to attend each week of the course. Attendance is defined as participating in an academic activity within the online classroom which includes posting in a graded activity in the course. (Note: Logging into the course does not qualify as participation and will not be counted as meeting the attendance requirement.)

Students who do not attend at least once in any 3 consecutive days will be issued an attendance warning. Students who do not attend at least once in any 7 consecutive days will be dropped from the course retroactive to the last date of recorded attendance.

SPIRITUAL CARE

Please be aware PLNU strives to be a place where you grow as whole persons. To this end, we provide resources for our students to encounter God and grow in their Christian faith.

If students have questions, a desire to meet with the chaplain or have prayer requests you can contact the [Office of Spiritual Development](https://www.pointloma.edu/offices/spiritual-development) (<https://www.pointloma.edu/offices/spiritual-development>)

DIVERSITY AND INCLUSION STATEMENT

It is my intent that students from all diverse backgrounds and perspectives be well-served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that the students bring to this class be viewed as a resource, strength, and benefit. It is my intent to present materials and activities that are respectful of diversity: disability, age, socioeconomic status, ethnicity, race, nationality, religion, gender, and culture. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally, or for other students or student groups.

To help accomplish this:

- If you have a name and/or set of pronouns that differ from those that appear in your official PLNU records, please let me know!
- If you feel like your performance in the class is being impacted by your experiences outside of class, please don't hesitate to come and talk with me. I want to be a resource for you.
- I (like many people) am still in the process of learning about diverse perspectives and identities. If something was said in class (by anyone) that made you feel uncomfortable, please talk to me about it.

USE OF TECHNOLOGY

6d You are currently logged into Student View

Resetting the test student will clear all history for this student, allowing you to view the course as a brand new student.

[Reset Student](#)










[Leave Student View](#)

Problems with technology do not relieve you of the responsibility of participating, turning in your assignments, or completing your class work.

ASSIGNMENTS AT-A-GLANCE

The table below lists our assignments and their due dates. Click on any assignment to review it.

Course Summary:












Date	Details
Mon Aug 17, 2020	 Module 1 Overview to do: 11:59pm
	 Live Class Webinar (10 AM) https://canvas.pointloma.edu/calendar?event_id=45317&include_contexts=course_51957 10am to 11am
	 Live Kick-Off Session (Module 1) https://canvas.pointloma.edu/courses/51957/assignments/539695 due by 11:59pm
Thu Aug 20, 2020	 Meet & Greet https://canvas.pointloma.edu/courses/51957/assignments/544489 due by 11:59pm
	 Module 1 Discussion Initial Post Due https://canvas.pointloma.edu/calendar?event_id=44132&include_contexts=course_51957 11:59pm
	 Syllabus Quiz https://canvas.pointloma.edu/courses/51957/assignments/537882 due by 11:59pm
Sun Aug 23, 2020	 Module 1 Discussion https://canvas.pointloma.edu/courses/51957/assignments/531936 due by 11:59pm
	 In-Video Quiz: Biomechanics Overview https://canvas.pointloma.edu/courses/51957/assignments/539768 due by 11:59pm
	 In-Video Quiz: System and Motion Description I https://canvas.pointloma.edu/courses/51957/assignments/539769 due by 11:59pm

68 You are currently logged into Student View

Resetting the test student will clear all history for this student, allowing you to view the course as a brand new student.

[Reset Student](#)

[Leave Student View](#)












Date	Details	
Mon Aug 24, 2020	 In-Video Quiz: System and Motion Description II https://canvas.pointloma.edu/courses/51957/assignments/546809	due by 11:59pm
Mon Aug 24, 2020	 Module 2 Overview	to do: 11:59pm
Thu Aug 27, 2020	 Module 2 Discussion Initial Post Due https://canvas.pointloma.edu/calendar?event_id=44808&include_contexts=course_51957	11:59pm
Sun Aug 30, 2020	 Module 2 Discussion https://canvas.pointloma.edu/courses/51957/assignments/531935	due by 11:59pm
Sun Aug 30, 2020	 In-Video Quiz: Functional Movement Screen https://canvas.pointloma.edu/courses/51957/assignments/539006	due by 11:59pm
Sun Aug 30, 2020	 In-Video Quiz: Qualitative Analysis https://canvas.pointloma.edu/courses/51957/assignments/539770	due by 11:59pm
Mon Aug 31, 2020	 Module 3 Overview	to do: 11:59pm
Thu Sep 3, 2020	 Live Class Webinar (10 AM) https://canvas.pointloma.edu/calendar?event_id=45318&include_contexts=course_51957	10am to 11am
Thu Sep 3, 2020	 Live Class Webinar (Module 3) https://canvas.pointloma.edu/courses/51957/assignments/539955	due by 11:59pm
Sun Sep 6, 2020	 Assignment 1 https://canvas.pointloma.edu/courses/51957/assignments/531930	due by 11:59pm
Sun Sep 6, 2020	 In-Video Quiz: Linear Motion I https://canvas.pointloma.edu/courses/51957/assignments/540054	due by 11:59pm

 You are currently logged into Student View

Resetting the test student will clear all history for this student, allowing you to view the course as a brand new student.

[Reset Student](#)

[Leave Student View](#)












Date	Details	
Mon Sep 7, 2020	 Module 4 Overview	to do: 11:59pm
Thu Sep 10, 2020	 Module 4 Discussion Initial Post Due (https://canvas.pointloma.edu/calendar?event_id=45613&include_contexts=course_51957)	11:59pm
Sun Sep 13, 2020	 Assignment 2 (https://canvas.pointloma.edu/courses/51957/assignments/531932)	due by 11:59pm
Sun Sep 13, 2020	 Module 4 Discussion (https://canvas.pointloma.edu/courses/51957/assignments/539866)	due by 11:59pm
Sun Sep 13, 2020	 In-Video Quiz: Center of Gravity (https://canvas.pointloma.edu/courses/51957/assignments/540070)	due by 11:59pm
Sun Sep 13, 2020	 In-Video Quiz: Torque (https://canvas.pointloma.edu/courses/51957/assignments/540061)	due by 11:59pm
Mon Sep 14, 2020	 Module 5 Overview	to do: 11:59pm
Thu Sep 17, 2020	 Live Class Webinar (10 AM) (https://canvas.pointloma.edu/calendar?event_id=45319&include_contexts=course_51957)	10am to 11am
Thu Sep 17, 2020	 Live Class Webinar (Module 5) (https://canvas.pointloma.edu/courses/51957/assignments/539956)	due by 11:59pm
Sun Sep 20, 2020	 Assignment 3 (https://canvas.pointloma.edu/courses/51957/assignments/531925)	due by 11:59pm
Sun Sep 20, 2020	 In-Video Quiz: Angular Motion I (https://canvas.pointloma.edu/courses/51957/assignments/540084)	due by 11:59pm

 You are currently logged into Student View

Resetting the test student will clear all history for this student, allowing you to view the course as a brand new student.

[Reset Student](#)

[Leave Student View](#)












Date	Details	
Thu Sep 24, 2020	 Module 5 Discussion Initial Post https://canvas.pointloma.edu/calendar?event_id=45614&include_contexts=course_51957	11:59pm
Sun Sep 27, 2020	 Module 5 Discussion https://canvas.pointloma.edu/courses/51957/assignments/540031	due by 11:59pm
Sun Sep 27, 2020	 In-Video Quiz: Bat Swing Analysis https://canvas.pointloma.edu/courses/51957/assignments/540088	due by 11:59pm
Thu Oct 1, 2020	 Live Class Webinar (10 AM) https://canvas.pointloma.edu/calendar?event_id=45320&include_contexts=course_51957	10am to 11am
Thu Oct 8, 2020	 Live Class Webinar (Review Session) https://canvas.pointloma.edu/courses/51957/assignments/540027	due by 11:59pm
Thu Oct 8, 2020	 Exam 1 https://canvas.pointloma.edu/courses/51957/assignments/531927	due by 11:59pm
Mon Oct 12, 2020	 Module 6 Overview	to do: 11:59pm
Thu Oct 15, 2020	 Live Class Webinar (10 AM) https://canvas.pointloma.edu/calendar?event_id=45321&include_contexts=course_51957	10am to 11am
Thu Oct 15, 2020	 Live Class Webinar (Module 6) https://canvas.pointloma.edu/courses/51957/assignments/539934	due by 11:59pm
Sun Oct 18, 2020	 Assignment 4 https://canvas.pointloma.edu/courses/51957/assignments/531931	due by 11:59pm
Sun Oct 18, 2020	 In-Video Quiz: Projectiles I https://canvas.pointloma.edu/courses/51957/assignments/540093	due by 11:59pm

 You are currently logged into Student View

Resetting the test student will clear all history for this student, allowing you to view the course as a brand new student.

[Reset Student](#)

[Leave Student View](#)












Date	Details
	 In-Video Quiz: Projectiles II due by 11:59pm
Mon Oct 19, 2020	 Module 7 Overview to do: 11:59pm
Thu Oct 22, 2020	 Module 7 Discussion Initial Post Due 11:59pm
	 Assignment 5 due by 11:59pm
Sun Oct 25, 2020	 Module 7 Discussion due by 11:59pm
	 In-Video Quiz: Work I due by 11:59pm
	 In-Video Quiz: Work II due by 11:59pm
Mon Oct 26, 2020	 Module 8 Overview to do: 11:59pm
Thu Oct 29, 2020	 Live Class Webinar (10 AM) 10am to 11am
	 Live Class Webinar (Module 8) due by 11:59pm
Sun Nov 1, 2020	 In-Video Quiz: Gait Analysis I due by 11:59pm

 You are currently logged into Student View

Resetting the test student will clear all history for this student, allowing you to view the course as a brand new student.

[Reset Student](#)

[Leave Student View](#)


Date	Details	
Mon Nov 2, 2020	 Module 9 Overview	to do: 11:59pm
Thu Nov 5, 2020	 Module 9 Discussion Initial Post Due (https://canvas.pointloma.edu/calendar?event_id=45616&include_contexts=course_51957)	11:59pm
Sun Nov 8, 2020	 Assignment 6 (https://canvas.pointloma.edu/courses/51957/assignments/531928)	due by 11:59pm
Sun Nov 8, 2020	 Module 9 Discussion (https://canvas.pointloma.edu/courses/51957/assignments/539951)	due by 11:59pm
Sun Nov 8, 2020	 In-Video Quiz: Jumping Analysis I (https://canvas.pointloma.edu/courses/51957/assignments/540102)	due by 11:59pm
Sun Nov 8, 2020	 In-Video Quiz: Jumping Analysis II (https://canvas.pointloma.edu/courses/51957/assignments/540104)	due by 11:59pm
Mon Nov 9, 2020	 Module 10 Overview	to do: 11:59pm
Thu Nov 12, 2020	 Live Class Webinar (10 AM) (https://canvas.pointloma.edu/calendar?event_id=45323&include_contexts=course_51957)	10am to 11am
Thu Nov 12, 2020	 Live Class Webinar (Module 10) (https://canvas.pointloma.edu/courses/51957/assignments/539953)	due by 11:59pm
Sun Nov 15, 2020	 In-Video Quiz: Movement Lab Data Interpretation (https://canvas.pointloma.edu/courses/51957/assignments/540108)	due by 11:59pm
Wed Nov 25, 2020	 Thanksgiving Break (https://canvas.pointloma.edu/calendar?event_id=44809&include_contexts=course_51957)	12am to 11:59pm

 You are currently logged into Student View

Resetting the test student will clear all history for this student, allowing you to view the course as a brand new student.

Reset Student

Leave Student View

Date	Details
Fri Dec 4, 2020	 Course Evaluation (Extra Credit) (https://canvas.pointloma.edu/courses/51957/assignments/531939) due by 11:59pm
	 Narrative Review (https://canvas.pointloma.edu/courses/51957/assignments/531944) due by 11:59pm
	 Jeopardy 1 (Extra Credit) (https://canvas.pointloma.edu/courses/51957/assignments/531941)

6d You are currently logged into Student View

Resetting the test student will clear all history for this student, allowing you to view the course as a brand new student.

[Reset Student](#)

[Leave Student View](#)