DEPARTMENT OF HEALTH & HUMAN PERFORMANCE
COURSE SYLLABUS
Summer I 2026 - Online

HHPK 497 / 597
Study Abroad Research Project

INSTRUCTOR INFORMATION

Instructor:	Michael Oldham, PhD
Office Location:	Nursing and Health Science - 115
Office Hours:	By Zoom ONLY
Office Phone:	903-886-5549
Office Fax:	903-886-5365
University Email Address:	michael.oldham@tamuc.edu
Preferred Form of Communication:	Email
Communication Response Time:	24 hours

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

REQUIRED TEXT: None

Course Description: This course provides in-depth analysis of sports performance testing, sport psychology surveying, and predictive modeling in elite level athlete populations. The student learns to interpret data, incorporate knowledge into practical applications, and make inferences regarding cause-and-effect relationships within sport performance, and the differences in age group levels of professional soccer players.

Course Description

Student Learning Outcomes (Should be measurable; observable; use action verbs)

1. Conduct movement analyses using markerless motion capture technology.
2. Interpret performance variables for force production, vertical leap, and bounding in a variety of movement series.

The *syllabus/schedule are subject to change.*

3. Conduct and interpret sprint performance testing.
4. Conduct and interpret yo-yo intermittent recovery testing.
5. Conduct and interpret grip strength testing.
6. Conduct and interpret standing broad jump testing.
7. Administer sport psychology surveys.
8. Understand predictive statistical models and comparative statistical models.

COURSE REQUIREMENTS

Minimal Technical Skills Needed

Please use APA 7th Edition (American Psychological Association). All students should be familiar with spreadsheet data input and analysis.

Instructional Methods

This class is a blended face-to-face and online course. The course will involve instruction, projects, and activity-based exercises to convey the content.

Grading and Assignment Overview

Students will be graded on attendance and participation, quizzes, projects and in-class exams.

Final grades will be determined based on the following:

Final Presentation:	90%
Data Collection:	10%

Attendance and Participation

Students will be present at all data collection times and dates while at the athletic sites. Students will work collaboratively to input and analyze data sets.

Project Presentation

"Predicting Elite Soccer Player Performance: Age & Gender Stratification"

Students will:

Use real data collected abroad (tests, surveys, etc.)
Compare age groups + gender
Build a simple predictive model (no coding required)
Present applied insights for coaching/performance

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Skills Acquired:
How models work conceptually
How to interpret outputs
How to apply findings to sport performance

The "ML" is implemented using:
Excel (baseline)
Pre-built templates (you provide)
Optional drag-and-drop tools (e.g., Orange, Teachable Machine, or Excel regression)

Timeline:

DAY 1 (6 hours)
Phase 1: Data + Question Formation
Clean dataset (guided)
Define research question
Identify variables
Run basic comparisons

Phase 2: Model Building (guided template)
Use pre-built spreadsheet or tool
Generate predictions

DAY 2 (6 hours)
Phase 3: Interpretation
What predicts performance?
Differences by age/gender

Phase 4: Presentation Development
Build final presentation

Here's what you'll produce:
✓ Group Presentation (60%)
✓ Individual reflection
✓ Hands-on participation (20%)

Project will count 90% of the overall grade.

The following final grading scale will be utilized to determine the final grade based on the average of your course work:

A = 100.0 – 90.0%
B = 80.0 – 89.9%
C = 70.0 – 79.9%
D = 60.0 – 69.9%
F = under 60.0%

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TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:
https://community.brightspace.com/s/article/Brightspace-Platform-Requirements

LMS Browser Support:
https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

Zoom Video Conferencing Tool
https://inside.tamuc.edu/campuslife/CampusServices/CITESupportCenter/Zoom_Account.aspx?source=universalmenu

ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu.

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your Instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

https://community.brightspace.com/support/s/contactsupport

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Interaction with Instructor Statement

The best way to reach me is via email at michael.oldham@tamuc.edu, as I check it frequently. I will aim to reply with 24 hours to your MyLeo email address. Please be courteous and professional in all of your interactions with me and fellow students.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

***Please note that this schedule is tentative and is subject to change. Also, this is NOT all-inclusive (i.e., Homework/Participation). Other assignments might be given throughout the semester, so you MUST check the class announcements and e-mail frequently.**

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook.
http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum:
https://www.britannica.com/topic/netiquette

TAMUC Attendance

For more information about the attendance policy please visit the Attendance webpage and Procedure 13.99.99.R0.01.
http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf

Academic Integrity

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

Undergraduate Academic Dishonesty 13.99.99.R0.03
Undergraduate Student Academic Dishonesty Form

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/documents/13.99.99.R0.03UndergraduateStudentAcademicDishonestyForm.pdf

Graduate Student Academic Dishonesty Form

http://www.tamuc.edu/academics/graduateschool/faculty/GraduateStudentAcademicDishonestyFormold.pdf

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf

Students with Disabilities-- ADA Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services
Texas A&M University-Commerce
Velma K. Waters Library Rm 162
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
Email: studentdisabilityservices@tamuc.edu
Website: Office of Student Disability Resources and Services
http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/

Nondiscrimination Notice

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

The *syllabus/schedule are subject to change.*

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the Carrying Concealed Handguns On Campus document and/or consult your event organizer.

Web url:
http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

A&M-Commerce Supports Students' Mental Health

Mental Health and Well-Being

The university aims to provide students with essential knowledge and tools to understand and support mental health. As part of our commitment to your well-being, we offer access to Telus Health, a service available 24/7/365 via chat, phone, or webinar. Scan the QR code to download the app and explore the resources available to you for guidance and support whenever you need it.

AI Use in Courses

Texas A&M University-Commerce acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software **must be documented**. **Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).**

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Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors 'guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

13.99.99.R0.03 Undergraduate Academic Dishonesty
13.99.99.R0.10 Graduate Student Academic Dishonesty

Health and Human Performance Department

HHPK 497 / 597 – Study Abroad 2026
Portugal and Spain – Professional Soccer Academies

COURSE OUTLINE / CALENDAR

Week 1 – May 25 – June 1
- **Data Collection at Marcet Football**

Week 2 – June 2 – 5
- **Data Collection Povoa Pro Academy**

Week 3 – June 15 – 18
- **Data Cleaning**

Week 4 – June 23 and 24 – IN PERSON WORKSHOP
- **Data Analysis**
- **Predictive Algorithm Analysis**
- **Presentation Construction**

Week 5 – June 29 – July 2
- **Presentation of Data**
- **Manuscript – Literature Review**

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Project Overview

Performance Variables:
Sprint time
Vertical jump
Broad jump
Yo-Yo test
Grip strength

Demographics:
Age
Gender
Academy (Spain vs Portugal)

Psychology:
Survey scores

STEP 2: RESEARCH QUESTIONS (PICK ONE)
Examples:
Does age predict sprint performance?
Do male vs female athletes differ in vertical jump?
Can we predict Yo-Yo performance from other variables?
Does psychology score predict performance?

STEP 3: TEAM ROLES
Each group MUST assign:
1. Data Team
- **Cleans spreadsheet**
- **Organizes variables**

2. Analysis Team
- **Runs comparisons (means, charts)**

3. Modeling Team
- **Uses template to generate predictions**

4. Presentation Team
- **Builds visuals/story**

STEP 4: "MACHINE LEARNING" (NO CODING)
Excel-Based Prediction Template

You will be provided with a sheet with:
Pre-built regression formula
Students just:
Select predictor variables
Interpret output

STEP 5: REQUIRED ANALYSIS OUTPUTS

HHPK 497 Must Produce:

- **2 graphs (age vs performance, gender vs performance)**
- **1 prediction model**
- **3 applied conclusions**

HHPK 597 Must ALSO Include:

- **Model accuracy discussion**
- **Limitations (bias, sample size, etc.)**
- **Comparison of 2 models (e.g., sprint vs jump predictors)**

STEP 6: FINAL PRESENTATION STRUCTURE

All groups must follow this:

1. **Introduction**
   - **What academy? (Spain vs Portugal)**
   - **What question?**
2. **Data Overview**
   - **Variables used**
3. **Findings**
   - **Age differences**
   - **Gender differences**
4. **Predictive Model**
   - **What predicts performance?**
5. **Application**
   - **Coaching implications**
   - **Talent identification insights**
6. **Limitations (HHPK 597 – must have a secondary level of stat limitations)**

Category	Weight
Data Analysis	25%
Model Interpretation	25%
Application to Sport	20%
Presentation Quality	20%
Individual Contribution	10%

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