

1. General Information

1a. Submitted by the College of: EDUCATION

Date Submitted: 4/14/2016

1b. Department/Division: Kinesiology - Health Promotion

1c. Contact Person

Name: Mark Abel

Email: mark.abel@uky.edu

Phone: 257-4091

Responsible Faculty ID (if different from Contact)

Name:

Email:

Phone:

1d. Requested Effective Date: Specific Term/Year¹ Fall 2016

1e. Should this course be a UK Core Course? No

2. Designation and Description of Proposed Course

2a. Will this course also be offered through Distance Learning?: Yes⁴

2b. Prefix and Number: KHP 691

2c. Full Title: Analytics in High Performance

2d. Transcript Title: Analytics in High Performance

2e. Cross-listing:

2f. Meeting Patterns

LECTURE: 3

2g. Grading System: Graduate School Grade Scale

2h. Number of credit hours: 3

2i. Is this course repeatable for additional credit? No

If Yes: Maximum number of credit hours:

If Yes: Will this course allow multiple registrations during the same semester?

2j. Course Description for Bulletin: This course examines the use of athlete monitoring systems and other metrics to evaluate the stress-response relationship and performance outcomes. An emphasis is placed on data analysis and visualization.

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SENATE COUNCIL

2k. Prerequisites, if any: An undergraduate or graduate statistics course or consent of instructor.

2l. Supplementary Teaching Component:

3. Will this course taught off campus? No

If YES, enter the off campus address:

4. Frequency of Course Offering: Fall,

Will the course be offered every year?: Yes

If No, explain:

5. Are facilities and personnel necessary for the proposed new course available?: No

If No, explain: Facilities are available, however it may be necessary to employ an instructor from outside the Department/University to teach the course.

6. What enrollment (per section per semester) may reasonably be expected?: 7-12

7. Anticipated Student Demand

Will this course serve students primarily within the degree program?: Yes

Will it be of interest to a significant number of students outside the degree pgm?: Yes

If Yes, explain: It may be of interest to graduate students in allied health fields such as nutrition, rehabilitation sciences, physiology, etc.

8. Check the category most applicable to this course: Not Yet Found in Many (or Any) Other Universities ,

If No, explain: Facilities are available, however it may be necessary to employ an instructor from outside the Department/University to teach the course.

9. Course Relationship to Program(s).

a. Is this course part of a proposed new program?: Yes

If YES, name the proposed new program: Graduate Certificate in High Performance Coaching

b. Will this course be a new requirement for ANY program?: No

If YES, list affected programs:

10. Information to be Placed on Syllabus.

a. Is the course 400G or 500?: No

b. The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentiation if applicable, from 10.a above) are attached: Yes

Distance Learning Form

Instructor Name: Mark Abel

Instructor Email: mark.abel@uky.edu

Internet/Web-based: Yes

Interactive Video: No

Hybrid: No

1. How does this course provide for timely and appropriate interaction between students and faculty and among students? Does the course syllabus conform to University Senate Syllabus Guidelines, specifically the Distance Learning Considerations? The instructor will respond to students contact/email within 24 hr on business days. The course conforms with DL considerations and Univ. Senate Guidelines.

2. How do you ensure that the experience for a DL student is comparable to that of a classroom-based student's experience? Aspects to explore: textbooks, course goals, assessment of student learning outcomes, etc. The readings will be the same as compared to holding a traditional class. Learning outcomes will be assessed with similar formatted tests, simply conducted outside the classroom. Quizzes/exams may be timed.

3. How is the integrity of student work ensured? Please speak to aspects such as password-protected course portals, proctors for exams at interactive video sites; academic offense policy; etc. Course portals will be password protected.

4. Will offering this course via DL result in at least 25% or at least 50% (based on total credit hours required for completion) of a degree program being offered via any form of DL, as defined above? No.

If yes, which percentage, and which program(s)? 10%-MS in Exercise Science/Kinesiology

5. How are students taking the course via DL assured of equivalent access to student services, similar to that of a student taking the class in a traditional classroom setting? Students are offered the same services as a taking the class in a classroom setting.

6. How do course requirements ensure that students make appropriate use of learning resources? Exams, project, presentation, and assignments will require that the student reads appropriate materials, watches taped lectures, and is able to apply this content.

7. Please explain specifically how access is provided to laboratories, facilities, and equipment appropriate to the course or program. Students will have access to statistical software via the University's software program.

8. How are students informed of procedures for resolving technical complaints? Does the syllabus list the entities available to offer technical help with the delivery and/or receipt of the course, such as the Information Technology Customer Service Center (<http://www.uky.edu/UKIT/>)? Described on the syllabus.

9. Will the course be delivered via services available through the Distance Learning Program (DLP) and the Academic Technology Group (ATL)? YES

If no, explain how student enrolled in DL courses are able to use the technology employed, as well as how students will be provided with assistance in using said technology.

10. Does the syllabus contain all the required components? YES

11. I, the instructor of record, have read and understood all of the university-level statements regarding DL.

Instructor Name: Mark Abel

SIGNATURE|BFJO225|Benjamin F Johnson|KHP 691 NEW Dept Review|20151127

SIGNATURE|MYRT|Myrt L Geoghegan|KHP 691 NEW College Review|20160303

SIGNATURE|BFJO225|Benjamin F. Johnson|KHP 691 NEW Dept Review|20160415

SIGNATURE|MYRT|Myrt L. Geoghegan|KHP 691 NEW College Review|20160907

SIGNATURE|ZNNIKO0|Roshan Nikou|KHP 691 NEW Graduate Council Review|20160929

New Course Form

https://myuk.uky.edu/sap/bc/soap/rfc?services=

Open in full window to print or save

Attachments:

Browse: No file selected.

	ID	Attachment
Delete	6581	2016_2_4_Faculty_Meeting_Minutes.pdf
Delete	6967	KHP 691-Analytics in High Performance.pdf
Delete	6968	KHP 691DL-Analytics in High Performance.pdf

First | 1 | Last

(*denotes required fields)

1. General Information

- a. * Submitted by the College of: EDUCATION Submission Date: 4/14/2016
- b. * Department/Division: Kinesiology - Health Promotion
- c.
 - * Contact Person Name: Mark Abel Email: mark.abel@uky.edu Phone: 257-4091
 - * Responsible Faculty ID (If different from Contact) Email: Phone:
- d. * Requested Effective Date: Semester following approval OR * Specific Term/Year 1-Fall 2016
- e.
 - Should this course be a UK Core Course? Yes No
 - If YES, check the areas that apply:
 - Inquiry - Arts & Creativity Composition & Communications - II
 - Inquiry - Humanities Quantitative Foundations
 - Inquiry - Nat/Math/Phys Sci Statistical Inferential Reasoning
 - Inquiry - Social Sciences U.S. Citizenship, Community, Diversity
 - Composition & Communications - I Global Dynamics

2. Designation and Description of Proposed Course.

- a. * Will this course also be offered through Distance Learning? * Yes No
- b. * Prefix and Number: KHP 691
- c. * Full Title: Analytics in High Performance
- d. Transcript Title (if full title is more than 40 characters): Analytics in High Performance
- e. To be Cross-Listed ² with (Prefix and Number):
- f. * Courses must be described by at least one of the meeting patterns below. Include number of actual contact hours³ for each meeting pattern type.

<input checked="" type="checkbox"/> 3 Lecture	<input type="checkbox"/> Laboratory ¹	<input type="checkbox"/> Recitation	<input type="checkbox"/> Discussion
<input type="checkbox"/> Indep. Study	<input type="checkbox"/> Clinical	<input type="checkbox"/> Colloquium	<input type="checkbox"/> Practicum
<input type="checkbox"/> Research	<input type="checkbox"/> Residency	<input type="checkbox"/> Seminar	<input type="checkbox"/> Studio
<input type="checkbox"/> Other		If Other, Please explain:	
- g. * Identify a grading system:
 - Letter (A, B, C, etc.)
 - Pass/Fail
 - Medicine Numeric Grade (Non-medical students will receive a letter grade)
 - * Graduate School Grade Scale
- h. * Number of credits: 3
- i. * Is this course repeatable for additional credit? Yes No
 - If YES: Maximum number of credit hours:
 - If YES: Will this course allow multiple registrations during the same semester? Yes No
- j. * Course Description for Bulletin:

This course examines the use of athlete monitoring systems and other metrics to evaluate the stress-response relationship and performance outcomes. An emphasis is placed on data analysis and visualization.

k. Prerequisites, if any:

An undergraduate or graduate statistics course or consent of instructor.

I. Supplementary teaching component, if any: Community-Based Experience Service Learning Both

3. * Will this course be taught off campus? Yes No

If YES, enter the off campus address:

4. Frequency of Course Offering.

a. * Course will be offered (check all that apply): Fall Spring Summer Winter

b. * Will the course be offered every year? Yes No

If No, explain:

5. * Are facilities and personnel necessary for the proposed new course available? Yes No

If No, explain:

Facilities are available, however it may be necessary to employ an instructor from outside the Department/University to teach the course.

6. * What enrollment (per section per semester) may reasonably be expected? 7-12

7. Anticipated Student Demand.

a. * Will this course serve students primarily within the degree program? Yes No

b. * Will it be of interest to a significant number of students outside the degree pgm? Yes No

If YES, explain:

It may be of interest to graduate students in allied health fields such as nutrition, rehabilitation sciences, physiology, etc.

8. * Check the category most applicable to this course:

Traditional - Offered in Corresponding Departments at Universities Elsewhere

Relatively New - Now Being Widely Established

Not Yet Found in Many (or Any) Other Universities

9. Course Relationship to Program(s).

a. * Is this course part of a proposed new program? Yes No

If YES, name the proposed new program:

Graduate Certificate in High Performance Coaching

b. * Will this course be a new requirement for ANY program? Yes No

If YES, list affected programs::

10. Information to be Placed on Syllabus.

a. * Is the course 400G or 500? Yes No

If YES, the *differentiation for undergraduate and graduate students must be included* in the information required in 10.b. You must include: (i) identification of additional assignments by the graduate students; and/or (ii) establishment of different grading criteria in the course for graduate students. (See SR 3.1.4.)

b. * The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentiation if applicable, from 10.a above) are attached.

Distance Learning Form

This form must accompany every submission of a new/change course form that requests distance learning delivery. This form may be required when changing a course already approved for DL delivery. All fields are required!

Introduction/Definition: For the purposes of the Commission on Colleges Southern Association of Colleges and Schools accreditation review, *distance learning* is defined as a formal educational process in which the majority of the instruction (interaction between students and instructors and among students) in a course occurs when students and instructors are not in the same place. Instruction may be synchronous or asynchronous. A distance learning (DL) course may employ correspondence study, or audio, video, or computer technologies.

A number of specific requirements are listed for DL courses. The *department proposing the change in delivery method is responsible for ensuring that the requirements below are satisfied at the individual course level.* It is the responsibility of the instructor to have read and understood the university-level assurances regarding an equivalent experience for students utilizing DL (available at <http://www.uky.edu/USC/Rev/forms.htm>).

Course Number and Prefix: KHP 691

Date: 4/14/2016

Instructor Name: Mark Abel

Instructor Email: mark.abel@uky.edu

Check the method below that best reflects how the majority of the course content will be delivered.

Internet/Web-based

Interactive Video

Hybrid

Curriculum and Instruction

1. How does this course provide for timely and appropriate interaction between students and faculty and among students? Does the course syllabus conform to University Senate Syllabus Guidelines, specifically the Distance Learning Considerations?
The instructor will respond to students contact/email within 24 hr on business days. The course conforms with DL considerations and Univ. Senate Guidelines.
2. How do you ensure that the experience for a DL student is comparable to that of a classroom-based student's experience? Aspects to explore: textbooks, course goals, assessment of student learning outcomes, etc.
The readings will be the same as compared to holding a traditional class. Learning outcomes will be assessed with similar formatted tests, simply conducted outside the classroom. Quizzes/exams may be timed.
3. How is the integrity of student work ensured? Please speak to aspects such as password-protected course portals, proctors for exams at interactive video sites; academic offense policy; etc.
Course portals will be password protected.
4. Will offering this course via DL result in at least 25% or at least 50%* (based on total credit hours required for completion) of a degree program being offered via any form of DL, as defined above?
No.
- Which percentage, and which program(s)?
10%-MS in Exercise Science/Kinesiology
- *As a general rule, if approval of a course for DL delivery results in 50% or more of a program being delivered through DL, the effective date of the course's DL delivery will be six months from the date of approval.
5. How are students taking the course via DL assured of equivalent access to student services, similar to that of a student taking the class in a traditional classroom setting?
Students are offered the same services as a taking the class in a classroom setting.

Library and Learning Resources

6. How do course requirements ensure that students make appropriate use of learning resources?
Exams, project, presentation, and assignments will require that the student reads appropriate materials, watches taped lectures, and is able to apply this content.
7. Please explain specifically how access is provided to laboratories, facilities, and equipment appropriate to the course or program.
Students will have access to statistical software via the University's software program.

Student Services

8. How are students informed of procedures for resolving technical complaints? Does the syllabus list the entities available to offer technical help with the delivery and/or receipt of the course, such as the Information Technology Customer Service Center (<http://www.uky.edu/UKIT/>)? Described on the syllabus.
9. Will the course be delivered via services available through the Distance Learning Program (DLP) and the Academic Technology Group (ATL)?
- Yes
 No
- If no, explain how students enrolled in DL courses are able to use the technology employed, as well as how students will be provided with assistance in using said technology.
10. Does the syllabus contain all the required components, below? Yes
- Instructor's *virtual* office hours, if any.
 - The technological requirements for the course.
 - Contact information for Distance Learning programs (<http://www.uky.edu/DistanceLearning>) and Information Technology Customer Service Center (<http://www.uky.edu/UKIT/Help/>; 859-218-HELP).
 - Procedure for resolving technical complaints.
 - Preferred method for reaching instructor, e.g. email, phone, text message.
 - Maximum timeframe for responding to student communications.
 - Language pertaining academic accommodations:
 - "If you have a documented disability that requires academic accommodations in this course, please make your request to the University Disability Resource Center. The Center will require current disability documentation. When accommodations are approved, the Center will provide me with a Letter of Accommodation which details the recommended accommodations. Contact the Disability Resource Center, Jake Karnes, Director at 859-257-2754 or jkarnes@email.uky.edu."
 - Specific dates of face-to-face or synchronous class meetings, if any.
 - Information on Distance Learning Library Services (<http://www.uky.edu/Libraries/DLLS>)
 - Carla Cantagallo, DL Librarian
 - Local phone number: 859 257-0500, ext. 2171; long-distance phone number: (800) 828-0439 (option #6)
 - Email: dllservice@email.uky.edu
 - DL Interlibrary Loan Service: http://www.uky.edu/Libraries/libpage.php?iweb_id=253&lib_id=16

11. I, the instructor of record, have read and understood all of the university-level statements regarding DL.

Instructor Name: _____
Mark Abel

Revised 8/09

[1] Courses are typically made effective for the semester following approval. No course will be made effective until all approvals are received.

[2] The chair of the cross-listing department must sign off on the Signature Routing Log.

[3] In general, undergraduate courses are developed on the principle that one semester hour of credit represents one hour of classroom meeting per week for a semester, exclusive of any laboratory meeting. Laboratory meeting, generally, represents at least two hours per week for a semester for one credit hour. (from SR 5.2.1)

[4] You must also submit the Distance Learning Form in order for the proposed course to be considered for DL delivery.

[5] In order to change a program, a program change form must also be submitted.

Rev 8/09

Faculty Meeting Minutes

February 4, 2016

Present: Lucian Taylor, Justin Nichols, Ben Johnson, Heather Erwin, Aaron Beighle, Rosie LaCoe, Kristen Mark, Stephanie Bennett, Liz Fettrow, Haley Bergstom, Brad Fleenor, Rob Shapiro, Lance Bollinger, Randy Crist, Jonell Pedesleaux, Mark Abel, Jody Clasey, Steve Parker, Melody Noland, Brian Wallace, Marc Cormier, Joaquin Fenollar, Jill Day, & Nick Trubee.

Absent: Mike Pohl

Approval of Minutes for November

- Minutes were approved as written from the November meeting.

Comments

- Dr. Trubee has accepted a new position in Cleveland, OH and he will be leaving at the end of the spring 2016 semester. We have several lecture open positions at this time.
- Lecturer positions will be advertised soon and committee's formed.
- Keri needs all syllabi for all classes soon.
- Look at the KHP website and give any suggestions or corrections to Beth.
- Budget cuts for this year and next year, according to the governor's budget cuts for higher education.

Possible DOE Equity Document Changes

- Dr. Erwin & Dr. Abel - Faculty council needs feedback on DOE class credit percentage (12.5% vs 10%), online classes and low enrollment. Fifty hour work week comments are needed and they will take these to faculty council. Faculty should not get the same percentage on a 1 hr. credit class as he or she would receive for a 3 hr. credit class.
- Dr. Cormier- LLC - KHP will be combined with the wellness focus. LLC is already up to 50 students.
- Dr. Parker stated that KHP 101 will be required for all students that will be attending UK. Arts and Sciences are going in the direction of block scheduling. KHP may look into block scheduling also.
- Dr. Johnson advised that retention is one of the topics that the university is working on. A proposal to aid in retention of students was discussed and put forth by the Deans of Education, Communications and Business that will eventually lead to an undergraduate major (with tracks in each college) in Sport Management.

High Performance Certificate

- Dr. Abel gave information regarding the certificate. Pending the requested revisions, a motion was unanimously carried to modify the new course as a Distance Learning section of KHP 691- Analytics in High Performance as part of the curriculum in the proposed Graduate Certificate in High Performance Coaching. Dr. Nichols also stated that minor changes requested to update SACS-COC learning targets and assessments table, replace Jake Karnes name in DRC and religious liaison contact information, and change "Course Objectives" to "Student Learning Outcomes". Also, contact information for eLearning to be moved to the beginning of the syllabus.

- A motion was unanimously carried to convert KHP 781 – Physiological Foundations in High Performance to KHP 690 – Applied Foundations in High Performance. Justification will be provided to Courses and Curricula for the conversion.

Health Promotion

- Dr. Ickes stated that the Health Promotion faculty is proposing to breakout the option in Health Promotion within the existing Kinesiology degree to ensure that this program area is noted in the student's transcript and on their diploma. 1) list multiple stats classes that will better fulfill our students 2) require KHP 577 – practicum/internship experience for those not doing a thesis (Plan A) 3) increase total required hours to 33 for Plan A and Plan B. A motion was proposed to formalize a Health Promotion option within the existing MS Department of Health and Kinesiology degree. All were voted on and approved unanimously.

Coaching Minor

- Dr. Erwin gave information on the coaching minor. The motion was approved for the KHP proposed coaching minor with amendments of adding KHP 573/473 and KHP 350, as possible electives and the possible inclusion of KMA/KHSAA Safety Certification for credit. The new proposed course KHP 280: Intro to Coaching. Both were voted on and approved unanimously.

Study Abroad Approvals

- Dr. Nichols advised that study abroad classes must be approved each year by Course and Curriculum. Summer classes do not have to be approved, but any full semester classes must be approved for coverage and internal approval.

Seaton Beautification

- Dr. Noland stated that Jeannine Schaefer is giving ideas on updating Seaton. She has some items to give that would update the building, such as furniture, floor lamps, wooden hall benches, easel white boards, chairs, and etc. Some pictures will be hung and some ceiling tiles will be replaced. Several updates will be added in different areas.

Proposals to Provost

- Dr. Johnson gave information on some proposals that he produced at the request of the Dean for her meeting with the Provost. He noted that the only way KHP will be able to make major renovations/additions to Seaton Center is if the Provost provides the money. Dr. Johnson prepared the proposal and shared it with the Chair's Advisory Committee for feedback prior to submitting it to Dean O'Hair. The proposal highlighted the significant challenges presented by the exceptionally large number of KHP majors and the limited number of full-time faculty and classroom/lab facilities we have. These are only proposals at this point. Once feedback is received from the Provost and if/when funding is available, we will formally decide on facility renovation priorities.

Other Announcements

- Dr. Johnson made the announcement that a Childhood Obesity Grant is available, if someone acts immediately. Dr. Fettrow has shown interest and if anyone else is, let Dr. Johnson know.

**University of Kentucky
KHP 691: Analytics in High Performance**

Instructor: Mark Abel, Ph.D., CSCS*D, TSAC-F*D, USAW
Office: 217 Seaton Center
E-mail: mark.abel@uky.edu (Preferred method of communication)
Phone: 257-4091

Office Hours: TBD

Term: Fall 2016

Reading Materials: Independent reading materials will be posted.

Prerequisites: Undergraduate or graduate level Statistics course.

Research and Reflection for Learning and Leading. This is the theme of the conceptual framework for the College of Education and reflects how the College and this course approach the preparation of graduate students in exercise science. This course will review **research** that supports the concepts instrumental to athletic and occupational performance. You will be required to review scientific literature and **reflect** upon the results of experiments. Proper **reflection** will lead to **learning** analytical concepts relevant to human performance in diverse populations. This knowledge base will prepare you for **leading** and training others to promote desired outcomes.

Course Description

This course examines the use of athlete monitoring systems and other metrics to evaluate the stress-response relationship. Functional systems theory and other stress-response theories are discussed and applied to training and recovery strategies to optimize athlete performance. An emphasis is placed on data analysis and visualization of data trends.

Student Learning Outcomes

By the end of this course, the student will be able to:

1. Describe how to predict performance outcomes in sports.
2. Describe how to predict injury outcomes in sports.
3. Describe and calculate properties of data/data sets/variables commonly associated with high performance in sport in order to distinguish between levels of performance.
4. Utilize common statistical procedures and parameters to analyze high performance data/data sets in order to distinguish between levels of performance.
5. Describe, analyze, and interpret output from heart rate variability and DC potential.
6. Describe, analyze, and interpret GPS tracking data.
7. Describe, analyze, and interpret sleep outcomes.
8. Describe, analyze, and interpret wellness surveys.
9. Describe how to evaluate training stress balance.
10. Describe how to use social media to increase fan bases.
11. Describe how rules changes and collective bargaining agreements may affect injury outcomes.
12. Demonstrate proficiency in written and oral communication skills.

Learner Outcomes	Assessment	Standards
1-9) Demonstrate the ability to analyze and interpret data for a variety of performance outcomes.	Exams / Assignments / Project	NASPE: 1,2,5,7,8,9,10
10-11) Describe how to use social media and evaluate rules changes in sports.	Exam / Project	NASPE: 1,2,5,6,7,8,9
12) Demonstrate the ability to communicate and disseminate data.	Project / Presentation	NASPE: 1,2,5,6,7,8,9

Criteria for Evaluation

1. **Written exams.** There will be 2 exams for this course.
2. **Project.** (Due: X/X/XX) Describe a problem or research question regarding athletic/occupational data and provide an analysis and interpretation to answer the question. The report should be 5 pages in length and include figures/tables as necessary. Include a separate supplemental literature review supporting the concepts discussed in the summary report. The literature review must be a minimum of 10 pages, use APA formatting, and cite references as necessary.
3. **Presentation.** Each student will be responsible for providing a Power Point presentation and facilitating a discussion on a given topic. Students will be graded on the quality of the content, the degree of preparation, and mechanics of the presentation. *Students must email a copy of the slides to the instructor at least 24 hours before the class.* Additional instructions will be provided regarding presentation requirements.
4. **Participation.** You are expected to read the assigned material and be prepared to actively participate and contribute to class discussions. Note, additional articles will be posted on Canvas that you are expected to review. I reserve the right to give pop-quizzes if I feel students are not prepared for class.
5. **Assignments.** Assignments will supplement the weekly content. Directions for the assignments will be provided.

Grading Scale

A: 90-100%

B: 80-89%

C: 70-79%

E: \leq 69%

*Final course grade values are rounded to the nearest whole number (i.e., 89.4 = 89%; 89.5 = 90%)

Evaluation

<u>Item</u>	<u>Course Points</u>
Exam 1	15
Exam 2	15
Assignments (4; 5 pt ea)	20
Project	20
Presentation	20
<u>Participation</u>	<u>10</u>
Total	100

Tentative Course Schedule

Date	Topic	Assignment Due	Reading
Week 1	Introduction		
Week 2	GPS Tracking Systems for Athletes		
Week 3	Heart rate variability and DC Potential	Assign. #1 due	
Week 4	Sleep & Physical Activity Monitoring Devices	Assign. #2 due	
Week 5	Wellness & Recovery Surveys		
Week 6	Exam 1		
Week 7	<i>Review Exam 1</i> Training Stress Balance		
Week 8	Predicting performance and injury outcomes		
Week 9	Spreadsheet Design & Visualization of Data (Pivot tables/graphs, Radar Graphs)	Assign. #3	
Week 10	Social Media and Sports	Assign. #4	
Week 11	Collective Bargaining and Injury		
Week 12	Data Collection and Imputation / Report Preparation		
Week 13	Exam 2		
Week 14	<i>Review Exam 2</i> Report Preparation		
Week 15	Student Presentations		
Week 16	Student Presentations		

Communication

The preferred method of communication with the instructor is via email. The instructor will respond to email inquiries within 1 business day.

Minimum Electronic Technical Requirements for the class include the following:

Table of Hardware and Software Requirements

Hardware	<ul style="list-style-type: none"> • Headset with a microphone • Webcam (<i>Recommended</i>)
Software	<ul style="list-style-type: none"> • MS Office (including Excel, Word, & Power Point) Available here: http://www.uky.edu/ukat/help/software • SPSS (Statistical Package for the Social Sciences) Available here: http://www.uky.edu/ukat/help/software • The latest version of Java (Available Here) • The latest version of Adobe Flash (Available Here) • The latest version of Adobe Acrobat Reader (Available Here) • Microsoft Office (Available free to students through http://download.uky.edu)
	<ul style="list-style-type: none"> • 1 MBPS Broadband Connection

Recommendations regarding Laptop / Tablet capabilities may be found here:

<http://www.uky.edu/ukat/hardwareguide>

Excused Absences

Students need to notify the professor of absences prior to class when possible. *Senate Rules 5.2.4.2* defines the following as acceptable reasons for excused absences: (a) serious illness, (b) illness or death of family member, (c) University-related trips, (d) major religious holidays, and (e) other circumstances found to fit “reasonable cause for nonattendance” by the professor.

Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day in the semester to add a class. Two weeks prior to the absence is reasonable, but should not be given any later. Information regarding major religious holidays may be obtained through the Ombud (859-257-3737,

http://www.uky.edu/Ombud/ForStudents_ExcusedAbsences.php.

Students are expected to withdraw from the class if more than 20% of the classes scheduled for the semester are missed (excused) per University policy.

Per *Senate Rule 5.2.4.2*, students missing any graded work due to an excused absence are responsible: for informing the Instructor of Record about their excused absence within one week following the period of the excused absence (except where prior notification is required); and for making up the missed work. The professor must give the student an opportunity to make up the work and/or the exams missed due to an excused absence, and shall do so, if

feasible, during the semester in which the absence occurred.

Verification of Absences

Students may be asked to verify their absences in order for them to be considered excused. *Senate Rule 5.2.4.2* states that faculty have the right to request “appropriate verification” when students claim an excused absence because of illness, or death in the family. Appropriate notification of absences due to University-related trips is required prior to the absence when feasible and in no case more than one week after the absence.

Academic Integrity

Per University policy, students shall not plagiarize, cheat, or falsify or misuse academic records. Students are expected to adhere to University policy on cheating and plagiarism in all courses. The minimum penalty for a first offense is a zero on the assignment on which the offense occurred. If the offense is considered severe or the student has other academic offenses on their record, more serious penalties, up to suspension from the University may be imposed.

Plagiarism and cheating are serious breaches of academic conduct. Each student is advised to become familiar with the various forms of academic dishonesty as explained in the Code of Student Rights and Responsibilities. Complete information can be found at the following website: <http://www.uky.edu/Ombud>. A plea of ignorance is not acceptable as a defense against the charge of academic dishonesty. It is important that you review this information as all ideas borrowed from others need to be properly credited.

Senate Rules 6.3.1 (see <http://www.uky.edu/Faculty/Senate/> for the current set of *Senate Rules*) states that all academic work, written or otherwise, submitted by students to their instructors or other academic supervisors, is expected to be the result of their own thought, research, or self-expression. In cases where students feel unsure about a question of plagiarism involving their work, they are obliged to consult their instructors on the matter before submission.

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**University of Kentucky
KHP 691-DL: Analytics in High Performance**

Instructor: Mark Abel, Ph.D., CSCS*D, TSAC-F*D, USAW
Office: 217 Seaton Center
E-mail: mark.abel@uky.edu
Phone: 257-4091

Term: Fall 2016

Reading Materials: Independent reading materials will be posted.

Prerequisites: Undergraduate or graduate level Statistics course.

Instructor's Virtual Office Hours: TBA

Preferred Method of Communication: Email: mark.abel@uky.edu

Maximum Timeframe for Responding to Student Communication: Students may expect the instructor to have responses to email inquiries within 24 hours excluding weekends and holidays.

Teaching and Academic Support: Contact the Teaching and Academic Support Service Center at <http://www.uky.edu/TASC/index.php> or 859-257-8772

Procedures to Resolve Technical Problems: Contact the Information Technology Customer Service Center at <http://www.uky.edu/UKIT/> or 859-257-1300.

Information on Distance Learning Library Services: Available through the Web at www.uky.edu/Libraries/DLLS, DL Librarian (Carla Contagallo via email at dlservice@email.uky.edu or telephone at 859-257-0050 x2171 or 1-800-828-0439) or Distance Learning Interlibrary Loan Services: http://www.uky.edu/Libraries/libpage.php?lweb_id=253&lilib_id+16

Communication

The preferred method of communication with the instructor is via email. The instructor will respond to email inquiries within 1 business day.

Minimum Electronic Technical Requirements for the class include the following:

Table of Hardware and Software Requirements

Hardware	<ul style="list-style-type: none">• Headset with a microphone• Webcam (<i>Recommended</i>)
Software	<ul style="list-style-type: none">• MS Office (including Excel, Word, & Power Point) Available here: http://www.uky.edu/ukat/help/software• SPSS (Statistical Package for the Social Sciences) Available here: http://www.uky.edu/ukat/help/software• The latest version of Java (Available Here)• The latest version of Adobe Flash (Available Here)• The latest version of Adobe Acrobat Reader (Available Here)• Microsoft Office (Available free to students through http://download.uky.edu)
	<ul style="list-style-type: none">• 1 MBPS Broadband Connection

Recommendations regarding Laptop / Tablet capabilities may be found here:

<http://www.uky.edu/ukat/hardwareguide>

Other important resources:

<https://www.uky.edu/ukat/elearning/SACS-Syllabus-Requirements>

Research and Reflection for Learning and Leading. This is the theme of the conceptual framework for the College of Education and reflects how the College and this course approach the preparation of graduate students in exercise science. This course will review **research** that supports the concepts instrumental to athletic and occupational performance. You will be required to review scientific literature and **reflect** upon the results of experiments. Proper **reflection** will lead to **learning** analytical concepts relevant to human performance in diverse populations. This knowledge base will prepare you for **leading** and training others to promote desired outcomes.

Course Description

This course examines the use of athlete monitoring systems and other metrics to evaluate the stress-response relationship. Functional systems theory and other stress-response theories are discussed and applied to training and recovery strategies to optimize athlete performance. An emphasis is placed on data analysis and visualization of data trends.

Student Learning Outcomes

By the end of this course, the student will be able to:

1. Describe how to predict performance outcomes in sports.
2. Describe how to predict injury outcomes in sports.
3. Describe and calculate properties of data/data sets/variables commonly associated with high performance in sport in order to distinguish between levels of performance.
4. Utilize common statistical procedures and parameters to analyze high performance data/data sets in order to distinguish between levels of performance.
5. Describe, analyze, and interpret output from heart rate variability and DC potential.
6. Describe, analyze, and interpret GPS tracking data.
7. Describe, analyze, and interpret sleep outcomes.
8. Describe, analyze, and interpret wellness surveys.
9. Describe how to evaluate training stress balance.
10. Describe how to use social media to increase fan bases.
11. Describe how rules changes and collective bargaining agreements may affect injury outcomes.
12. Demonstrate proficiency in written and oral communication skills.

Learner Outcomes	Assessment	Standards
1-9) Demonstrate the ability to analyze and interpret data for a variety of performance outcomes.	Exams / Assignments / Project	NASPE: 1,2,5,7,8,9,10
10-11) Describe how to use social media and evaluate rules changes in sports.	Exam / Project	NASPE: 1,2,5,6,7,8,9
12) Demonstrate the ability to communicate and disseminate data.	Project / Presentation	NASPE: 1,2,5,6,7,8,9

Criteria for Evaluation

- 1. Written exams.** There will be 2 exams for this course.
- 2. Project.** (Due: X/X/XX) Describe a problem or research question regarding athletic/occupational data, collect data, and provide an analysis and interpretation to answer the question. The report should be 5 pages in length and include figures/tables as necessary. Include a separate supplemental literature review supporting the concepts discussed in the summary report. The literature review must be a minimum of 10 pages, use APA formatting, and cite references as necessary.
- 3. Presentation.** Each student will be responsible for providing a video of a Power Point presentation and facilitating a video-based or written discussion on the data analyzed in the project via a Discussion Post on Canvas. Students will be graded on the quality of the content, the degree of preparation, and mechanics of the presentation. Additional instructions will be provided regarding presentation requirements.
- 4. Participation.** You are expected to read the assigned material and be prepared to actively participate and contribute to Discussion Board posts on Canvas. Note, additional articles will be posted on Canvas that you are expected to review.
- 5. Assignments.** Assignments will supplement the weekly content. Directions for the assignments will be provided.

Grading Scale

- A: 90-100%
- B: 80-89%
- C: 70-79%
- E: ≤ 69%

*Final course grade values are rounded to the nearest whole number (i.e., 89.4 = 89%; 89.5 = 90%)

Evaluation

<u>Item</u>	<u>Course Points</u>
Exam 1	15
Exam 2	15
Assignments (4; 5 pt ea)	20
Project	20
Presentation	20
<u>Participation</u>	<u>10</u>
Total	100

Tentative Course Schedule

Date	Topic	Assignment Due	Reading
Week 1	Introduction		
Week 2	GPS Tracking Systems for Athletes		
Week 3	Heart rate variability and DC Potential	Assign. #1 due	
Week 4	Sleep & Physical Activity Monitoring Devices	Assign. #2 due	
Week 5	Wellness & Recovery Surveys		
Week 6	Exam 1		
Week 7	<i>Review Exam 1</i> Training Stress Balance		
Week 8	Predicting performance and injury outcomes		
Week 9	Spreadsheet Design & Visualization of Data (Pivot tables/graphs, Radar Graphs)	Assign. #3	
Week 10	Social Media and Sports	Assign. #4	
Week 11	Collective Bargaining and Injury		
Week 12	Data Collection and Imputation / Report Preparation		
Week 13	Exam 2		
Week 14	<i>Review Exam 2</i> Report Preparation		
Week 15	Student Presentations		
Week 16	Student Presentations		

Excused Absences

Students need to notify the professor of absences prior to class when possible. *Senate Rules 5.2.4.2* defines the following as acceptable reasons for excused absences: (a) serious illness, (b) illness or death of family member, (c) University-related trips, (d) major religious holidays, and (e) other circumstances found to fit “reasonable cause for nonattendance” by the professor.

Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day in the semester to add a class. Two weeks prior to the absence is reasonable, but should not be given any later. Information regarding major religious holidays may be obtained through the Ombud (859-257-3737, http://www.uky.edu/Ombud/ForStudents_ExcusedAbsences.php).

Students are expected to withdraw from the class if more than 20% of the classes scheduled for the semester are missed (excused) per University policy.

Per *Senate Rule 5.2.4.2*, students missing any graded work due to an excused absence are responsible: for informing the Instructor of Record about their excused absence within one week following the period of the excused absence (except where prior notification is required); and for making up the missed work. The professor must give the student an opportunity to make up the work and/or the exams missed due to an excused absence, and shall do so, if feasible, during the semester in which the absence occurred.

Verification of Absences

Students may be asked to verify their absences in order for them to be considered excused. *Senate Rule 5.2.4.2* states that faculty have the right to request “appropriate verification” when students claim an excused absence because of illness, or death in the family. Appropriate notification of absences due to University-related trips is required prior to the absence when feasible and in no case more than one week after the absence.

Academic Integrity

Per University policy, students shall not plagiarize, cheat, or falsify or misuse academic records. Students are expected to adhere to University policy on cheating and plagiarism in all courses. The minimum penalty for a first offense is a zero on the assignment on which the offense occurred. If the offense is considered severe or the student has other academic offenses on their record, more serious penalties, up to suspension from the University may be imposed.

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