

# **Sport Technique & Movement Analysis (KINE 4563)**

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| <b>Instructor:</b>             | <b>Braden H. Romer, MSc, CSCS</b>                                      |
| <b>Meeting Times:</b>          | <b>Online Course</b>   |
| <b>Meeting Place:</b>          | <b>N/A</b>   |
| <b>Office:</b>                 | <b>1127 Beard Eaves Memorial Coliseum</b>                              |
| <b>E-mail Address:</b>         | <b>bhr0002@auburn.edu</b>  |
| <b>Office Hours:</b>           | <b>By Appointment <u>or</u> Mon: 9am – 11am<br/>Wed: 11am – 1:00pm</b> |
| <b>Credit Hours:</b>           | <b>3 semester hours</b>  |
| <b>Pre-requisites:</b>         | <b>None</b>  |
| <b>Co-requisites:</b>          | <b>None</b>  |
| <b>Date Syllabus Prepared:</b> | <b>Spring 2012</b>   |

## **REQUIRED TEXTBOOK:**

Bartlett, R. (2007) Introduction to Sports Biomechanics: Analysing Human Movement Patterns. (ISBN 978-0-415-33994-4)

## **COURSE DESCRIPTION:**

The purpose of this course is to introduce the techniques and develop the skills needed to perform biomechanical analysis of a specific sport technique or movement.

## **COURSE INSTRUCTIONAL OBJECTIVES:**

The student will demonstrate an understanding of and the ability to:

1. Break a skill into its component parts
2. Able to isolate the waypoints of skills
3. Analyze a videotaped performance
4. Able to provide appropriate feedback to the performer regarding their skill performance

## **COURSE REQUIREMENTS**

The class will be made up of online discussion boards, quizzes, exams, and a paper. If a computer problem occurs with the blackboard system you must notify the instructor immediately. Discussion boards and quizzes will cover material that has already been covered in class, thus it is vital to keep up with the information throughout the semester. There will be no make-up unless an excused absence is pre-arranged. Recorded lectures will be provided to students (video and/ or audio only) at varying points throughout the semester. Students will be responsible for the material covered in these lectures. Lectures will also follow the book, and as such, students are responsible for any assigned reading material, even if not directly referenced in a lecture or discussion board.

Discussion Board topics will follow the lecture and reading material. Specific participation requirements will be posted with the discussion board topic. Students are expected to fully participate with their classmates while completing their assignment within the designated time period. Furthermore, students are expected to refrain from derogatory or iniquitous comments.

All quizzes or exams are expected to be completed with no outside assistance including, but not limited to notes, lecture material, or other students (enrolled or not enrolled in the class), unless otherwise noted by the instructor.

### **GRADING SCALE:**

The grading scale for this course is as follows:

|                      |                              |
|----------------------|------------------------------|
| <b>A = 90 – 100%</b> | <b>Discussion Board: 35%</b> |
| <b>B = 80 – 89%</b>  | <b>Quizzes: 35%</b>          |
| <b>C = 70 – 79%</b>  | <b>Paper: 15%</b>            |
| <b>D = 60 – 69%</b>  | <b>Final: 15%</b>            |
| <b>F = Under 59%</b> | <b>Total: 100%</b>           |

Extra Credit opportunities will be provided during this semester. Every student will have an equal opportunity to earn the credit. A grade will be given based on the accumulation of the “discussion boards, quizzes, paper, and the final.”

### **HONESTY CODE:**

The University Academic Honesty Code and Regulations pertaining to Cheating will apply to this class. All academic honesty violations or alleged violations of the SGA Code of Laws will be reported to the Office of the Provost, which will then refer the case to the Academic Honesty Committee. For detailed information please refer to the University Policies site for Auburn University.

### **CLASS POLICY STATEMENTS**

Participation: Students are expected to participate in all class discussions and participate in all laboratory exercises. It is the student’s responsibility to contact the instructor **PRIOR** to class if an illness or emergency requires the student to miss class. Any missed work due to a University approved excuses **MUST** be made-up within 5 days.

Attendance/ Absences: Attendance is required at each class meeting. If an exam is missed, a make-up exam will be given only for University-approved excuses as outlines in the **Tiger Cub**. Arrangements to take the make-up exam **must be made in advance** and the exam taken within 5 days of the missed exam. Students who miss an exam because of illness should inform the instructor prior to the missed class if possible. A doctor’s statement for verification of sickness is required and should clear the absence with the instructor the day the return to class. Other unavoidable absences from campus must be documented and cleared with the instructor in advance. No late assignments or quizzes will be accepted outside of extreme circumstances noted by the professor. Please carefully adhere to established assignment deadlines. In such a case the professor will have the discretion of lowering the assignment **Five (5)** points for each day that it is late.

Questions/ Help: Students are encouraged to ask questions and seek extra help on a regular basis. **Please do not wait** until the day before an exam or laboratory is due.

Students Accommodations: Students who need accommodations are asked to arrange a meeting during office hours the first week of classes, or as soon as possible if accommodations are needed immediately. If you have a conflict with my office hours, an alternate time can be arranged. To set up this meeting, please contact me by e-mail. If you have not established accommodations through the Office of Accessibility, but need accommodations, make an appointment with the Office of Accessibility, 1228 Haley Center, 844-2096 (V/TT).

Professionalism: As faculty, staff, and students interact in professional settings, they are expected to demonstrate professional behaviors as defined in the College's conceptual framework. These professional commitments or dispositions are listed below:

- Engage in responsible and ethical professional practices
- Contribute to collaborative learning communities
- Demonstrate a commitment to diversity
- Model and nurture intellectual vitality

### **TENTATIVE SCHEDULE**

| <b>Week</b> | <b>Reading</b> | <b>Topic</b>                                 |
|-------------|----------------|--|
| Week 1      | Chapter 1      | Introduction to Movement Analysis            |
| Week 2      | Chapter 6      | Biomechanical Terminology: Formal & Informal |
| Week 3      | Chapter 2      | Qualitative Movement Analysis                |
| Week 4      | Chapter 2      | Qualitative Movement Analysis                |
| Week 5      | Chapter 3      | Movement Patterns                            |
| Week 6      | Chapter 4/6    | Biomechanical Analysis Equipment             |
| Week 7      | Chapter 1/2    | Walking Gait                                 |
| Week 8      | Chapter 1/2    | Walking Gait                                 |
| Week 9      | Chapter 1/2    | Running Gait                                 |
| Week 10     | Chapter 1/2    | Pathological Gait                            |
| Week 11     | Chapter NA     | Introduction to Dartfish Tools               |
| Week 12     | Chapter NA     | Introduction to Dartfish Tools               |
| Week 13     | Chapter 2/3    | Sports Movements                             |
| Week 14     | Chapter 2/3    | Sports Movements                             |
| Week 15     | Chapter NA     | Semester Project (Paper Due)                 |

**The above content, schedule and procedures in this course are subject to amendments at the discretion of the instructor.**