LONDON SOUTH BANK UNIVERSITY

Kinesiology

SES_4_102

Engineering Science and the Built Environment

2012-2013

Level 4

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1. MODULE DETAILS

Module Title:	Kinesiology
Module Level:	Level 4
Module Reference Number:	SES_4_102
Credit Value:	30
Student Study Hours:	300
Contact Hours:	72
Private Study Hours:	228
Pre-requisite Learning (If applicable):	None
Co-requisite Modules (If applicable):	None
Course(s):	BSc (Hons) Sport and Exercise Science
Year and Semester	2012-13 Semester 1 & 2
Module Coordinator:	Steve Hunter
MC Contact Details (Tel, Email, Room)	☏ 0207 815 7965 ✉ steve.hunter@lsbu.ac.uk
Teaching Team & Contact Details (If applicable):	Steve Hunter Darren James ☏0207 815 7935 ✉ jamesd6@lsbu.ac.uk
Subject Area:	Human and Exercise Science
Summary of Assessment Method:	Course work assessment and oral examination

2. SHORT DESCRIPTION

This unit will develop the student's knowledge and understanding in human anatomy of the musculo-skeletal system. It will also develop their understanding of functional anatomy and how this can be used to explain sporting skill and performance. Further, the application of basic mechanical principles applied to the body in action and a clear understanding of the internal and external forces acting on the body during performance will provide the student with comprehensive knowledge in understanding functional anatomy and the mechanical basis of skill

3. AIMS OF THE MODULE

To develop knowledge of human musculo-skeletal anatomy,

To develop a knowledge of functional anatomy in the performance of sports skills

To develop a knowledge of biomechanical principles that underpin this functional anatomy

4. LEARNING OUTCOMES

4.1 Knowledge and Understanding

- [Structure of the human musculo-skeletal system.
- Muscle origin, insertion and neural innervation.
- Prime movers, antagonists, synergists and stabilisers
- Types/modes of muscle contraction
- Kinesiological analysis tools

- Application of mechanical principles in the explanation of human movement/sporting skills.
- Value of kinesiological analysis in error identification and correction in technique for coaching.
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4.2 Intellectual Skills

- Problem solving.
- Critical thinking.
- Analytical skills.
- Reflective-evidence based skills.

4.3 Practical Skills

- To be able to carry out a structured and logical kinesiological analysis of sports skills using clear and detailed steps.
- To be able to use Dance forms software in the analysis of sport.

4.4 Transferable Skills

- Analytical skills
- Critical thinking.
- Presentation skills.

5. ASSESSMENT OF THE MODULE

The unit will be assessed by course work & oral examination.

Coursework:
The course work will require the completion of tasks that will be clearly set out during each semester. These will take the form of in-class tests and written assignments
Examination:
Oral examinations will take the form of question and answer sessions on pre-determined topics. The sessions will normally involve 2 academic members of staff and the student.

Marking schemes for written coursework will be available on the unit blackboard site when appropriate. Further there will be numerous opportunities for students to gain experience in carrying out such analysis through formative assessment at various points throughout the academic year. Students will also have a structured programme of formative assessment to support their assessment via verbal examination.

Deadline for submission of coursework's and dates for verbal examinations will be made available through the unit blackboard site during the course of the academic year.

PRESENTATION OF THE COURSEWORK

A. *Your work should be* ***word-processed*** *and submitted in the following format:*

- *writing, printing or drawing on one side of the paper only,*

- *double-spaced text,*
- *a 4-cm margin on the left and right-hand side (for comments),*
- *all pages numbered,*
- *all pages marked with your name and student number,*
- *any diagrams and graphs included in the body of the text,*
- *a word count at the end of the text.*

B. *All coursework material should communicate clearly to the reader and be presented to a professional standard.*

- *Writing should be arranged in paragraphs with either a clear tab or an extra line space marking each new paragraph.*
- *You should use grammatically correct sentence structures.*
- *Writing should be "fluent", i.e. it should be easy to read "out loud" with no missing words, words in the wrong order or awkward constructions. (This means that careful checking is needed.)*
- *Spelling and punctuation should have been checked.*

These are standards for presentation for <u>all</u> coursework. If you do not pay attention to these features of your work, you will lose marks. 10% of marks are allocated to grammar and technical aspects of the writing.

Students should ensure that correct report writing techniques are employed and that the work draws on relevant literature. This literature should be referenced in the correct manner (exactly Journal of Sports Sciences format). You will lose marks for poor referencing and not adhering to the word limit.

Failure to acknowledge the work of others will be regarded as plagiarism, as will the direct copying of text from published sources. Cases of plagiarism will be penalised in accordance with the LSBU Policy.

Late work will also be penalised in accordance with the Faculty Policy that is included in your Course Guide.

Assignments should be handed in to the Faculty Office (T313), **for the attention of Steve Hunter.** Failure to submit to the correct unit leader can lead to delays in receiving grades.

You should obtain a receipt for your assignments. ***Remember that it is essential for you to keep a second copy of all of your coursework.*** *If coursework were for any reason to go missing, you will be asked to submit your second copy. You can only receive marks for work directly available to academic staff and the External Examiner.*

<u>Extensions</u>

An extension must be sought **at least** 24 hours before the assignment deadline.
An extension:

is not a right;
is granted in exceptional circumstances;
is only granted when evidence is available;
will not be granted because of computer problems.

"Unless you have obtained the agreement of your unit co-ordinator to the late submission of your coursework, coursework submitted:

- ***<u>up to two weeks</u> after the deadline will receive a maximum mark of the pass mark (40% …);***

- ***<u>more than two weeks</u> after the deadline date will not be marked.***

<u>Request for late submission</u>

If you want an extension of the deadline date, you must:

- get a copy of the form for late submission from your School Office;
- fill in Part A of the form, giving reasons why you cannot meet the existing deadline date;
- ask your unit co-ordinator to fill in Part B – the decision whether to agree the request rests with the unit co-ordinator;
- attach the form to the front of your coursework when you submit it."

(South Bank University Registrar's Standing Memorandum RSM/98/3)

Award of marks

Most units offered within the programme contain more than one type of assessment. Each type of assessment is called an element of assessment. You will normally be required to achieve a minimum threshold mark of 30% in each element of assessment as well as an overall aggregate, based on the weighting of the elements, of a minimum of 40%. Ensure that you prepare well for assessment; it is not good practice to merely achieve the minimum mark. A good performance in other units may enable the Examination Board to decide in your favour on the basis of overall performance if you have performed less well in other areas.

Criteria used in assessing essay assignments and essay-type examination questions

Guidance only

A more specific guide to the assessment of essay assignments and essay-type examination questions is given below. These criteria are intended to provide a benchmark against which marks allocated to an essay-type question can be compared, in order to see if they give a reasonable assessment of the quality of an answer.

Distinction (70-100%)

An excellent answer displaying complete understanding of the question. It presents all, or virtually all, the relevant information. Further, it will contain significant 'non-given' (not presented within the taught unit programme) information displaying evidence of wider reading and an ability to synthesise information from diverse sources. The answer will be logically organised and well presented, it should be substantially error-free. It should show originality of thought or approach and will display insight.

Pass (50-69%)

A very good answer showing a sound understanding of the question. It will contain all, or nearly all, the relevant information. It should normally display evidence of wider reading. It will not contain any serious errors. The answer should be logically presented. Better answers in this category may display originality or 'synthetic' ability.

Fail (40 - 50%)
Although displaying some understanding of the question the answer will be incomplete and show a poor appreciation of the subject. It will contain relevant 'given' information but may have a high level of errors or irrelevancies. Important points will not be addressed. Presentation may be poor.
Fail (<40%)
An inadequate answer lacking substance and understanding, it may not represent a serious attempt. Where the question has been understood the answer will be very limited and probably contain many errors. Where the student has answered the wrong question, marks may still be given if relevant information is presented.

ACADEMIC MISCONDUCT

Students are referred to the University's Student Handbook Section 10.12 Academic misconduct, which summarises Chapter 13 of the academic regulations. The full version of the regulations is available from the registry (situated in Technopark building).

Sections taken from 10.12 academic misconduct section of the student handbook:

Academic misconduct is defined as 'any attempt to gain unfair advantage in assessment, or to help another student gain unfair advantage, by deception or fraudulent means.'

Some examples of academic misconduct:

Assisting another student to gain unfair advantage – for example by allowing another student to copy your work, or use an electronic copy of your work.

Syndication: The submission of pieces of work, which are substantially similar by two or more students. This may apply within the same institution or in a number of institutions, either at the same time or different times.

Plagiarism: To 'take and use another person's thoughts, writings, inventions as one's own'. Representing another person's work as your own, without acknowledging the source. Examples of this are provided in your student handbook (10.12d).

Collusion: Representing as your own piece of work which two or more students have undertaken together, without permission to do so.

Bribery: Offering payment or other inducement to another person in order to gain improper advantage in assessment or to falsify the result of assessment.

Commission: Commissioning another person to undertake all or part of an assignment presented as your own work, or knowingly undertaking work for another student to present his or her own work

6. FEEDBACK

In keeping with University regulations feedback will normally be given to students 15 working days after the submission of an assignment

7. INTRODUCTION TO STUDYING THE MODULE

7.1 Overview of the Main Content

Human musculo-skeletal system. Types/modes of muscle contraction: Kinesiological analysis tools: Application of mechanical principles in the explanation of human movement/sporting skills: Value of kinesiological analysis in error identification and correction in technique for coaching

7.2 Overview of Types of Classes

The unit is taught as a series of key lectures, tutorials, interactive student driven sessions and assessment orientation sessions (formative assessment)

7.3 Importance of Student Self-Managed Learning Time

Student self-managed learning time is essential to the complete understanding of the application of anatomy and biomechanics to sports technique. It requires the students to think clearly about sporting performance and to determine how the interaction of human structure and the internal and external forces acting on the body limit and explain the performance of sporting skills. It will require students to study sports that are of interest to them and to study the scientific theory and knowledge of human musculo-skeletal anatomy and biomechanical principles. Although this is supported in class, practice outside in the private study time using a range of sports will enhance the skill of the applied sports scientist/kinesiologist.

7.4 Employability

The unit is designed to provide the students with a strong background in the analysis and explanation of human movement/sporting skills. These skills strongly underpin the competencies required in the field of sports coaching.

8. THE PROGRAMME OF TEACHING, LEARNING AND ASSESSMENT

Semester & week Number	**Proposed session**	
Semester 1		
1	Unit introduction & assessment	SH
2	Anatomical position and terminology	SH
3	Bone tissue – structure and growth	SH
4	Ligaments and tendons	
5	The appendicular skeleton	SH
6	Coaching week	SH
7	The axial skeleton (spinal structure and posture)	
8	Axial skeletal muscles (origin; insertion; bone markings; nerve)	SH
9	Appendicular skeletal muscles (origin; insertion; bone markings; nerve)	SH
10	Musculo-skeletal organisation (agonist;antagonist;synergist;fixator)	SH
11	Skeletal muscle structure & Skeletal muscle contraction (types of contraction)	SH
12	Joint structures musculo-skeletal organisation & and lever systems	SH
13-14	Student prep time for formative assessment	
15	Formative Verbal examination	SH
Semester 2		
1	Terminology and measurement in Biomechanics	DJ
2	Linear kinematics of human movement	DJ
3	Angular kinematics of human movement	DJ
4	Linear kinetics of human movement	DJ
5	Angular kinetics of human movement	DJ
6	Equilibrium and human movement	DJ
7	Tools for Kinesiological assessment	DJ
8	Kinesiology for the coach, Kinesiology for the Performance Analyst	DJ
9	Laboratory - procedures	DJ/SH
10	Group data collection	DJ/SH
11	Group data analysis	DJ/SH
12	Review and evaluation.	SH

9. STUDENT EVALUATION

The unit was well received by the previous cohort of students. There was some lack of clarity of the role of the formative assessment on the analysis of bone. To rectify this it is intented to ensure that students understand that a formative assessment is one where the student and academic can guage their level of understanding of a topic, but the mark does not count towards the unit mark. It is in essence a check for progress. It is intended to use formative assessment again but this time not just to set a task but to set a problem solving task.

10. LEARNING RESOURCES

10.1 Core Materials

Bartlett. R., (1997) *Introduction to sports biomechanics*. E&FN Spon. London

Floyd. R.T., (2009) *Manual of Structural Kinesiology* (17th Ed). McGraw Hill, Boston.

Muscolino. J.E., (2006) *Kinesiology: The skeletal system and muscle function*. Mosby Elsevier. Edinburgh

Reaburn. P., Dascombe. B., Reed. R., Jones. A., & Weyers. J., (2011) *Practical Skills in Sport and Exercise Science.* Prentice Hall. Harlow, England

Wirhed. R. (2006) *Athletic ability and the anatomy of motion* (3rd ed). Mosby Elsevier. Edinburgh.

10.2 Optional Materials

Delavier. F., (2006) *Strength Training anatomy* (2nd ed) Human Kinetics. Chapaign Ill.

Hoffman. S.J., (2009) *Introduction to kinesiology: studying physical activity*. Human Kinetics. Champaign Ill

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