

MODULE DESCRIPTOR

MODULE TITLE	Introduction to Sport Science in Football		
MODULE CODE	LS1518	CREDIT VALUE	20 credits
MODULE DELIVERY	Year Long		
MODULE TUTOR	Rick Hayman		
DATE APPROVED	October 2007, April 2008, July 2008	VERSION NUMBER	3
DEPARTMENT	Tourism & Leisure Management	PARTNER INSTITUTION	Myerscough College

RELATIONSHIP WITH OTHER MODULES

Co-requisites	None	Pre-requisites	None	Excluded Combinations	None
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MODULE AIMS

The module will introduce sports science from a multidisciplinary approach. Areas covered will be physiology, biomechanics, notational analysis and psychology. This module will use a theoretical base to develop an understanding of key terminology and, importantly, the application of scientific principles to the football coaching process.

The module will seek to highlight the relevance of Sports Science in the coaching process. To achieve this, an introduction to the fundamental concepts of Biomechanics/Kinesiology, Physiology and Psychology will be provided. The application of these concepts to football-related situations will be outlined, thereby illustrating the interdisciplinary nature of the coaching process.

MODULE CONTENT

The physiology of skeletal muscular contraction

- 1 Physiological responses of the cardiovascular and respiratory systems to sport and exercise.
- 2 Energy system dynamics in relation to football performance.
- 3 Kinesiological terminology and application.
- 4 Skeletal structure and function: Influences on football performance.
- 5 Kinematics and football performance.
- 6 Kinetics and football performance.
- 7 The application of ICT to the coaching process.
- 8 A review of key theories of sports psychology.
- 9 Application of Mental Skills Training to football.
- 10 Motivation in football.

- 11 Aggression in football.
- 12 Team dynamics in football.
- 13 Impact of Stress on football performance.
- 14 Implications of arousal and fatigue in football.
- 15 Adherence to training programmes.

LEARNING OUTCOMES

On successful completion of this module a student will be able to:

1	Describe how physiological systems affect or are manipulated by the coaching process.
2	Define notational analysis terminology and concepts, and their application to football coaching.
3	Identify key biomechanical theories in relation to football performance.
4	Outline those theories underpinning the psychological aspects of football performance.

TEACHING AND LEARNING STRATEGY

This module will be taught year long, through a series of lecture sessions, during which key themes are developed. Where necessary, students will apply key learning to practical coaching situations. This will be achieved through the use of directed practical sessions. To facilitate the achievement of the learning outcomes listed, students will need to take a pro-active role in their own learning. Directed reading will need to be undertaken prior to seminar activities and group discussions. Students will be expected to work on their own initiative in the development of appropriate skills, taking a critical appreciation of their progress.

INDICATIVE CLASS CONTACT

1 hour Lecture/workshop plus 1 hour small group tutorial per week. Total 2 hours per week.

INDICATIVE ASSESSMENT

Number of Assignments	Assessment	Weighting %	Type/Duration/ Wordcount (indicative only)	Learning Outcomes being assessed
2	Multiple Choice Tests (Duration of each test is 1 hour)	2 x 25%	2 x 1 hours (Test 1 undertaken in Semester 1 and Test 2 undertaken in Semester 2)	1, 2, 3, 4
1	Essay (critique of group presentation)	20%	1000 words	1, 2, 3, 4
1	Multimedia Group Presentation	30%	1500 word equivalent	1, 2, 3, 4

MODULE PASS REQUIREMENTS

For successful completion of the module, each individual element of assessment must be attempted and an overall average of 40% achieved.

BIBLIOGRAPHY AND LEARNING SUPPORT MATERIAL

Physiology

Adams, G. (1998) *Exercise Physiology Laboratory Manual*. McGraw-Hill Publications, London.

Astrand, P.O. Rodhal, K. Dahl, H.A. and Strømme, S.B. (2003) *Textbook of Work Physiology: Physiological Bases of Exercise*. (4th Ed). Human Kinetics, Champaign.

Foss, W.E. and Keteyian, L. (1998) *Fox's Physiological Basis of Human Performance*. 3rd edition. McGraw-Hill Publications, London.

McArdle, W.D. Katch, F.I. and Katch, V.L. (1996) *Exercise Physiology. Energy, Nutrition and Human Performance*. 4th edition. Lea and Febiger, Philadelphia.

Powers, S. and Howley, F. (2001) *Exercise Physiology*. (4th ed.). McGraw-Hill Publications, London.

Wilmore, J.H. and Costill, D.L. (1999) *Physiology of Sport and Exercise*. (2nd Edition) Human Kinetics Publishers, Champaign.

Biomechanics/Kinesiology

Abernethy, B. et al. (1997) *The Biophysical Foundations of Human Movement*. Human Kinetics. Champaign.

Knudson, D.V. & Morrison, C.S. (2002) *Qualitative Analysis of Human Movement; (2nd Edition)*. Human Kinetics, Champaign, IL.

Sprunt, K. (1992) *An Introduction to Sports Mechanics*. NCF, Leeds.

Wirhed, R. (1996) *Athletic Ability and the Anatomy of Motion; (2nd Edition)*. Mosby, London.

Psychology

- Cox, R.H. (1998) *Sports Psychology: Concepts and Applications*. McGraw-Hill Publishers, London.
- Gill, D.L. (2000) *Psychological Dynamics of Sport and Exercise*. Human Kinetics, Champaign.
- Horn, T.S. (1992) *Advances in Sport Psychology*. Human Kinetics, Champaign.
- Palmer, C. Burwitz, L. and Smith, N. (1999) *Adherence to fitness training of elite netball players: A naturalistic inquiry*. *The sport psychologist*, **13**, 313-333.
- Strean, W.B. (1998) *Possibilities for qualitative research in sport psychology*. *The Sport Psychologist*, **12**, 333-345.
- Weinberg, R.S. Butt, J. and Knight, B. (2001) *High School Coaches Perceptions of the Process of Goal Setting*. *The Sport Psychologist*, **15**, 20-47.
- Woodman, T. and Hardy, L. (2003) *The relative impact of cognitive anxiety and self confidence upon sport performance: A mete analysis*. *Journal of Sports Sciences*, **21**, 443-457.
- Wilmore, J.H. and Costill, D.L. (1999) *Physiology of Sport and Exercise*. (2nd Edition) Human Kinetics Publishers, Champaign.
- Weinberg, R.S. & Gould, D. (2003). *Foundations of Sport and Exercise Psychology*. (3rd Edition) Human Kinetics, Champaign.

Journals

British Journal of Physical Education
Journal of Sports Sciences
Journal of Strength and Conditioning Research
Medicine and Science in Sports and Exercise
Sports Medicine

Websites

www.sportengland.org	The general Sport England website
www.sportscoachuk.co.uk	The website for Sports Coach UK
www.culture.gov.uk	Department for Culture, Media and Sport
www.sportsci.org	An excellent site for general sports science issues.
www.acsm.org	American College of Sports Medicine.
www.bases.org.uk	British Association of Sport and Exercise Sciences