



EFFECTIVE: SEPTEMBER 2007
CURRICULUM GUIDELINES

A. Division: **Education** Effective Date: September 2007

B. Department / Program Area: **Science and Technology** / **Sport Science** Revision New Course

If Revision, Section(s) Revised:
 Date of Previous Revision:
 Date of Current Revision:

C: **SPSC 4256** D: **Advanced Sport Analysis** E: **3**

Subject & Course No.	Descriptive Title	Semester Credits
F: Calendar Description: This course focuses on qualitative and quantitative analysis of human movement by using an interdisciplinary approach applying principles from major sub-disciplines of kinesiology, biomechanics and motor learning. Four tasks of an integrated qualitative analysis are applied to all fields of human movement. Using various modes of sport analysis instrumentation will provide practical quantitative experience.		
G: Allocation of Contact Hours to Type of Instruction / Learning Settings Primary Methods of Instructional Delivery and/or Learning Settings: Lecture / Practice Number of Contact Hours: (per week / semester for each descriptor) 2 hours lecture classroom per week 2 hours lecture practical per week Number of Weeks per Semester: 15	H: Course Prerequisites: SPSC 1151 and SPSC 1164 (or permission of the instructor).	
	I: Course Corequisites: None	
	J: Course for which this Course is a Prerequisite None	
	K: Maximum Class Size: 30	
L: PLEASE INDICATE: <input type="checkbox"/> Non-Credit <input type="checkbox"/> College Credit Non-Transfer <input checked="" type="checkbox"/> College Credit Transfer: SEE BC TRANSFER GUIDE FOR TRANSFER DETAILS (www.bctransferguide.ca)		

M: Course Objectives / Learning Outcomes

Following successful completion of this course, students shall be able to:

1. Apply their knowledge to effectively analyze human movement in everyday practice.
2. Analyze movement patterns and select, create, and implement strategies for improving performance.
3. Discuss, conclude and demonstrate the ability to perform quantitative movement analysis by utilizing available technology.
4. Relate their knowledge about basic biomechanics and motor control concepts to the model of qualitative movement analysis.

N: Course Content:

1. Introduction and history of qualitative analysis of human movement:
 - 1.1. Definitions
 - 1.2. History
 - 1.3. Qualitative versus quantitative analysis
2. Models in qualitative analysis:
 - 2.1. Common structure for qualitative analysis
 - 2.2. Observational models
 - 2.3. Comprehensive models
 - 2.4. Comprehensive, integrated model
 - 2.5. Validity and reliability
3. Role of senses in qualitative analysis:
 - 3.1. Vision
 - 3.2. Auditory system
 - 3.3. Haptic system and kinesthetic proprioception
 - 3.4. Function of the senses and their underlying qualitative analysis
 - 3.5. Integration of senses
4. Information processing in qualitative analysis:
 - 4.1. Information processing
 - 4.2. Knowledge and information processing
 - 4.3. Models of information processing
 - 4.4. Related research to information processing
5. The four tasks of integrated qualitative analysis:
 - 5.1. Preparation with respect to:
 - 5.1.1. Knowledge of activity
 - 5.1.2. Knowledge of performers
 - 5.1.3. Knowledge of effective instruction
 - 5.1.4. Knowledge to develop an observational strategy
 - 5.2. Observation with respect to:
 - 5.2.1. Observational strategies and their key elements
 - 5.2.2. Integrated use of all senses
 - 5.3. Evaluation and Diagnosis
 - 5.4. Intervention strategies to improve performance:
 - 5.4.1. Feedback
 - 5.4.2. Visual models
 - 5.4.3. Exaggeration, overcompensation
 - 5.4.4. Modification
 - 5.4.5. Guidance
 - 5.4.6. Conditioning

6. Practical applications using instrumentation of qualitative analysis to sport specific skills:
 - 6.1. Video technology
 - 6.2. Computer technology
 - 6.3. Use of instrumentation to evaluate performance intervention and improve performance.
7. Practical applications using instrumentation of qualitative analysis to sport specific skills:
 - 7.1. Video technology
 - 7.2. Computer technology
 - 7.3. Use of instrumentation to evaluate and improve kinetics and kinematics of specific sport related human movements.

DOUGLAS COLLEGE SIGNATURE ELEMENTS:

Core Competencies:

- a. Oral, written and interpersonal communication:
 - Students will interact during group learning.
 - Students will present an article critique.
 - Students will present a complete movement analysis in oral and written formats.
- b. Computational and Information Technology:
 - Students will apply computer skills (word processing, spreadsheets, and presentations) throughout the course.
 - Students will become proficient in utilizing video and computer technology
 - Students will demonstrate proficiency in completing computer labs
- c. Critical and Creative Thinking:
 - Throughout the course, the critical thinking model by Roland Case (SFU) will be applied by the instructor as well as the students.
- d. Teamwork:
 - Emphasis is on partner, small group, and team work when preparing and completing various assignments.

Academic Signature:

- a. Applied Skills (field, laboratory practicum)
 - Coaching and teaching skills will be refined throughout the course
 - Students will be able to test their analysis skills under field conditions depending on their professional goals.
- b. Ethical behaviour and social responsibility
 - Students will be expected to demonstrate ethical behaviour and to adhere to college policies at all times.
 - The teamwork aspect will promote personal and social responsibility.
- c. Intercultural, International and Global Perspective
 - Students will be exposed to the technical aspect of sport performance, which is employed in coaching worldwide.

O. Methods of Instruction

Lecture
 Discussion groups
 Practical application
 Field observation and/or video observation
 Self-study via print or online materials
 Reading assignments
 Online discussion groups
 Instructor tutoring

P: Textbooks and Materials to be Purchased by Students

Will be decided by course instructors. Potential resources include:

Knudson, D.; Morrison, C.S. (2002). Qualitative Analysis of Human Movement. 2nd Edition. Human Kinetics Publishers, Whitby, Ontario, Canada

Carr, G. (2004). Mechanics of Sport: A Practitioner's Guide. Human Kinetics Publishers, Whitby, Ontario, Canada

Carr, G. (2004). Sport Mechanics for Coaches 2nd Edition. Human Kinetics Publishers, Whitby, Ontario, Canada

Certifications/Conference requirements:

As part of the course, instructors and students may engage in extra-curricular certification processes that overlap with the curriculum of the class. Fees for professional certification, where applicable, will be borne by the student. Potential certifications relating to this course include:

1. Canadian Society of Biomechanics. Student Fee: \$40 for a 2 year membership.

Q: Means of Assessment

The selection of evaluation tools for this course is based upon:

1. Adherence to college evaluation policy regarding number and weighing of evaluations - for example, a course of three credits or more should have at least three separate evaluations.
2. A developmental approach to evaluation that is sequenced and progressive.
3. Evaluation is used as a teaching tool for both students and instructors.
4. Commitment to student participation in evaluation through such processes as self and peer evaluation, and program/ instructor evaluation.

The following is presented as an example assessment format for this course:

Article Critique	20%
Labs	20%
Movement Analysis/Case Study	25%
Quizzes	15%
Preparation & participation	<u>20%</u>
Total	100%

R: Prior Learning Assessment and Recognition: specify whether course is open for PLAR

Not at this time

Course Designer(s): Christine Bromme, Lara Duke

Education Council / Curriculum Committee Representative

Dean / Director: Des Wilson

Registrar