

**GRANDE PRAIRIE REGIONAL COLLEGE**  
**DEPARTMENT OF PHYSICAL EDUCATION, ATHLETICS & KINESIOLOGY**  
**PE 2060 - BIOMECHANICS**  
**COURSE OUTLINE - WINTER 2003**

**INSTRUCTOR:** Leigh Goldie  
 Office: K219 Phone: 539-2978 E-mail: lgoldie@gpre.ab.ca

**CLASS TIMES:** Monday, 8:30 – 9:50  
 Wednesday, 8:30 – 9:50  
 Friday, 11:30 – 12:20

**COURSE DESCRIPTION:** This course is concerned with establishing the role biomechanics can play in the teaching and analysis of sport techniques. Emphasis is placed on those basic biomechanical concepts which are of the greatest importance in the qualitative analysis of sports performance.

**TRANSFERABILITY:** PEDS 206(3) - U. of Alberta  
 Jr. KNES(3) - U. of Calgary  
 KNES 3650(3) - U. of Lethbridge

**COURSE OBJECTIVES:**

The objective of this course is to provide students with the knowledge to:

1. Identify mechanical principles governing human motion.
2. Identify the critical features of selected sport skills.
3. Design and carry out an observation plan.
4. Determine faults in observed performance.

**COURSE TEXT:** Kreighbaum, E. and Barthels, K.M. 1996. *Biomechanics: A qualitative approach for studying human movement*, 4<sup>th</sup> ed. Boston: Allyn and Bacon.

**COURSE EVALUATION:**

Skill analysis projects	30%
Test #1 - Wed. Jan. 22	15%
Test #2 - Fri. Feb. 14	15%
Test #3 - Mon. Mar. 24	15%
Test #4 - Final Exam Week	25%
	100%

## COURSE CONTENT AND SCHEDULE

Jan. 6 - Introduction, course outline, 1 1-6

Jan. 8 - C 80-89

Jan. 10 - D 91-107

Jan. 13 - "

Jan. 15 - E 109-128

Jan. 17 - "

Jan. 20 - 3 129-143

Jan. 22 - TEST NO. 1 - 1, C, D, E, 3

Jan. 24 - 4 145-166

Jan. 27 - "

Jan. 29 - F 276-288

Jan. 31 - "

Feb. 3 - G 290-298

Feb. 5 - "

Feb. 7 - 9 300-312

Feb. 10 - H 313-324

Feb. 12 - "

Feb. 14 - TEST NO. 2 - 4, F, G, 9, H

Feb. 19 - I 326-332

Feb. 21 - J 335-353

Mar. 3 - "

Mar. 5 - 10 355-366

Mar. 7 - 11 370-384

Mar. 10 -

Mar. 12 - Lab

Mar. 14 - No class

Mar. 17 - 11 370-384

Mar. 19 - 12 387-412

Mar. 21 - "

Mar. 24 - TEST NO. 3 - I, J, 10, 11, 12

Mar. 26 - K 414-426

Mar. 28 - "

Mar. 31 - 13 427-448

Apr. 2 - "

Apr. 4 - 14 451-488

Apr. 7 - "

Apr. 9 - 15 493-516

Apr. 11 - "

Apr. 14 - video analysis

Apr. 16 - review

Final Exam Period - TEST NO. 4 - K, 13, 14, 15 + PREVIOUS MATERIAL