

GRANDE PRAIRIE REGIONAL COLLEGE
DEPARTMENT OF PHYSICAL EDUCATION AND ATHLETICS

PHYSICAL EDUCATION PA 1810
NORDIC SKIING - COURSE OUTLINE 1993

I. GENERAL INFORMATION

Instructor: Harry Stevens
Office: K218
Phone: 539-2974

Class Times: T, R 1:30 - 2:50 p.m.
plus 3 hours per week of practice
Starting January 5 to April 14.

Some of this practice time will be required at the 12:30 to 1:30 time table time slot, as well as volunteering or participating in one weekend race event. And participating in one 4 hour ski trip. (date to be determined).

Credit: 3.0 credits

Transferability:

Equivalent to PAC 281 - University of Alberta
3.0 Credits, OPAT259/Jr. OPAT - University of
Calgary
1.5 Credits, unspecified PE option -
- University of Lethbridge 1.5 credits

II. COURSE

OBJECTIVES:

The objective and competencies related to skiing will include:

1. To improve the individual's basic understanding and knowledge of the principles and concepts of nordic skiing.
2. To provide a learning situation in which individuals are encouraged to develop the motor skills related to nordic skiing.
3. To provide opportunities for individuals to experience a wide variety of skiing terrain in their skill development.
4. To provide opportunities and situations in which skiing may be integrated into a winter recreational pursuit for the participant.

III. RESOURCES:

- Reference Texts: Malcolm Corcoran, Waxing for Cross-Country Skiing, Laval Quebec, Intristic Publishing, 1988.
- Audun Endestod, and John Teaford, Staking for Cross Country, Champaign, Il. Leisure Press, 1987.
- Laurie Gullion, Nordic Skiing Steps to Success, Windsor, Human Kenetics Publishers, 1983.

IV. CLASS FORMAT:

1. Students who have more than 3 unexcused absences may NOT be granted permission to write the final exam, and/or asked to withdraw from the course.
2. Course Evaluation
 - a) Practical (See Evaluation Criteria Sheets) 50%
(Adapted from the University of Alberta)
 - b) Practice Logs (See Practice Log Guidelines) 20%
 - c) Video analysis 10%
 - d) Final Exam 20%
3. Classes 100%

When weather and snow conditions permit, classes will be held outside. If the weather is too cold or the snow too scarce, lectures will be conducted indoors. Lectures could cover any of the following topics; which you would then be responsible for on the exam.

History (of Nordic Skiing)
 Purchase and Maintenance of Ski Equipment
 Use of Equipment and Its Care
 Terminology
 Teaching Progressions
 Hypothermia, Cold Weather Survival
 Films in Classical Skating Techniques
 Conditioning and Training Techniques in Skiing
 Common Injuries - Cause, Prevention, Treatment and Care
 Common Mistakes in Skiing
 Planning a Ski Trip
 Skiing Special Terrain

INTRODUCTION TO CROSS-COUNTRY SKIING

Instruction will cover the following skills:

- diagonal stride without poles
- diagonal stride with poles
- double poling
- one step double poling
- diagonal stride uphill
- step turn while running
- snowplow
- snowplow turns
- skating techniques

The examination items will be restricted to: (10% each)

- diagonal stride with poles
- one step double poling
- snowplow turns
- offset skate
- 2 skate

Evaluation of Practice Logs

Handing in a log book will help the instructor in his evaluation of the students 1 - 2 hours/week of practice (for a minimum of 15 hours outside of class practice). The log book should include date, time and duration of practice session, plus skills that the student worked on and a self analysis of those skills. Log books can be collected at any time so it is highly recommended that these log books are kept up to date and brought to every class.

Examination Marking Criteria

Diagonal Stride with Poles

<u>Grade</u>	<u>Evaluation Criteria</u>
3 or less	<ul style="list-style-type: none"> - inadequate forward body lean (eg. less than 30%) - no weight shift; not lifting back foot off snow; shuffling - arms and legs not moving in opposition (bear)

- 4
 - incomplete forward body lean - 30-40°
 - poor weight shift - back foot dropping onto snow behind gliding foot on recovery
 - arms and legs moving in correct opposition 50% of the time - inconsistent swinging poles on recovery to angle greater than 90° - allowable only if don't create 'bear' problems
- 5
 - body lean approaching 45° - 50°
 - recovery foot landing at least parallel to glide foot, 50% of strides
 - poling in opposition, but not smooth and consistent
 - high arm recovery or low swinging one
 - some shoulder rotation (twisting) present
 - incomplete extension of kick leg and /or poling arm (eg. poling ends at hip)
- 6
 - correct forward lean - about 45°
 - recovery foot landing parallel with glide foot consistently
 - leg and arm extension present 50% of strides
 - shoulders remain square, arms do poling
 - arm recovery follows correct path
 - appears comfortable and relaxed; smooth overall
- 7
 - correct body position
 - recovery foot landing in front (at least 4-6") of glide foot on 50% of strides
 - leg and arm extension present consistently
 - correct system and timing consistently
 - some evidence of leg pre-load 50% of strides (riding up onto nearly straight leg before flexing to kick)
- 8
 - correct body position
 - recovery foot consistently landing in front of glide foot
 - complete extension with kick leg and poling arm
 - correct and smooth rhythm and timing
 - consistent leg pre-load.
- 9
 - all of criteria for 8 present plus pole assisted glide

- 9
- all of criteria for 8 present plus pole assisted glide
 - exceptionally smooth and effortless appearance

One Step Double Poling

- 3 or less
- no or little forward lean on double poling (eg. body angle staying less than 45°)
 - not standing up for rest phase between poling and next stride
 - squatting down, hips not over feet on stride
 - kick not occurring simultaneous to arm reach
 - arms buckling on double pole (less than 90°)
 - see diagonal stride evaluation criteria for elements pertaining to this aspect of the skill
- 4
- forward lean better, 45° - 75° (about 90° is optimal)
 - 3 distinct phases visible
 - reach with arms and kick
 - double pole
 - stand and rest
 - some knee flex on glide, but not sitting
 - arm recovery high (above shoulders on reach), resulting in body arch
 - see diagonal stride notes
- 5
- lean approaching 90°
 - 3 phases visible
 - good extension on poling
 - poles angled back on all recoveries and pole plants
 - see diagonal stride notes
- 6
- all of 5 plus proper arm recovery (initial swing with lift - push from hips to reach position)
 - good weight shift on kick
 - glide on heels, ankle angle at least 90° on glide
 - see diagonal stride notes

- 7
- all of 6 plus:
 - arm action continuous, no pauses at hips or behind
 - complete extension on poling, hands open
 - see diagonal stride notes
- 8
- strong, consistent movement pattern; powerful kick and poling
 - feet driven forward on double poling so ankle angle greater than 90°
 - see diagonal stride notes
- 9
- all of 8 plus consistent pre-loading of arms and legs - see diagonal stride notes
 - skier may use back leg as counterbalance in reach phase

Snowplow Turns

- 3 or less
- major body position errors (ie. excessive forward body lean greater than 30°), or sitting down
 - skis not wedged, or wedge angle varying greatly
 - leading turns with upper body twist versus turning with the feet
 - falling down
- 4
- skis within control
 - minor body position errors, but basically correct
 - wedge angle reasonably controlled; tips less than a foot apart consistently
 - skis may be slightly staggered
 - downhill ski may track
 - turns initiated with feet, not upper body
- 5
- correct start on hill; beginning from stand in correct body position; relaxed, slight forward lean ($10-15^{\circ}$), knees slightly flexed
 - ski wedge maintained at 4-6" apart and skis not staggered fore and aft excessively
 - minimal tracking; less than 25° of turns
 - skis equally weighted

- 6
 - correct body position; hands held in front of hips 50% of turns (tray carry position)
 - both skis gliding flat on snow; not staggered at all
 - middle to wide radius turns to both sides.

- 7
 - upper body maintaining angle to hill throughout turns to both sides, 75% of the time
 - correct hand position consistently held
 - ski tail width appropriate for hill steepness
 - poles angled back with baskets inside skis

- 8
 - all of 7 plus; - consistency in maintaining body angle to hill
 - adaptation to terrain variations (eg. ice, bumps) with reasonable comfort and control, minimal bobbing
 - smooth, rhythmic turns; equal radius and time per turn

- 9
 - completely relaxed, consistent turns, absorbing terrain variations without any up/down motion or slipping out on icy patches
 - Steve Podborski look out!

Skating

Your grading for skating techniques will be based on balance, timing, fluidity of body movement in the push and recovery phases of the following techniques.

- a. offset skate - 10% weightings of skating techniques
- b. the 2 skate - 20%