



Kinesiology (KNES) Certificate and Diploma Programs

Program Outline

PROGRAM IMPLEMENTATION DATE:	September 2012
OUTLINE EFFECTIVE DATE:	September 2020
PROGRAM OUTLINE REVIEW DATE:	March 2025

GENERAL PROGRAM DESCRIPTION:

The Kinesiology Certificate and Diploma programs are the ideal option if you enjoy learning about the science of the body and human movement or are pursuing a career as a fitness instructor, personal trainer, an athletic trainer or coach, a physical therapist, a practicing kinesiologist, sports psychology consultant or a teacher (further post-secondary education may be required). Students who complete two full years of study may transfer into third year studies at select post-secondary institutions in BC and Alberta. In addition, students have opportunities to receive additional industry required credentials within the various courses in the Kinesiology program.

Credentials:

Students can be admitted into a one-year certificate program or a two-year diploma program. Students in the two-year diploma program may be awarded a certificate after completing all first-year requirements of the diploma program.

Certificate:

The Kinesiology Program certificate is awarded on successful completion of the first year requirements of the diploma program. (30 credits)

Diploma:

The Kinesiology Program is awarded on successful completion of all requirements of the diploma program. (60 credits)

Industry Credentials:

Students in the diploma program may have the opportunity to obtain industry certifications such as:

- Canadian Society for Exercise Physiology (CSEP) – Certified Personal Trainer (CPT)
- Canadian Fitness Education Services – (CFES) Fitness Knowledge
- CFES Weight Training Instructor 1
- National Coaching Certification Program (NCCP) Modules
- CPR-C and Emergency First Aid
- SportMedBC Sports Aid Certificate

Program Design:

College of the Rockies Kinesiology Program offers a 1-year certificate and 2-year diploma.

<u>YEAR 1</u>	<u>YEAR 2</u>
Semester 1	Semester 3
KNES 104 KNES 163 KNES 190 ENGL 100 or 101 PSYC 101 or BIOL 101	KNES 200 KNES 204 KNES 209 KNES 206 Elective 100 or 200 level
Semester 2	Semester 4
KNES 102 KNES 103 KNES 110 KNES 201 PSYC 102 or BIOL 102	KNES 203 KNES 202 KNES 205 KNES 210 KNES 270 or Elective 100 or 200 level

***Note:** Students wishing to attempt the external certification exams and become a Canadian Society of Exercise Physiology-Certified Personal Trainer (CSEP-CPT) must take KNES 270 and complete the kinesiology diploma.

If a student's goal is to get the diploma in *two consecutive years*, then they should follow the prescribed course sequences as presented above for each semester. There are no guarantees that a course will be available without schedule conflict if a student takes courses out of the prescribed order.

Electives should be chosen according to further post-secondary requirements or career/personal interest. For example, STAT 106 is required in some Kinesiology degree programs.

Each elective must be a university transferable, 3 credit course.

Delivery: The program is delivered face-to-face. Some courses may be offered in an online format.

Hours for this program: 1155 - 1335 hours

COTR Credits: 60 credits

Typical Structure of Instructional Hours:

Instructional Activity	Duration
Lecture Hours	840-870*
Seminars / Tutorials	
Laboratory / Studio Hours	315-465*
Practicum / Field Experience Hours	*
Other Contact Hours	
Total	1155-1335

Practicum Hours (if applicable):

Type of Practicum	Duration
On-the-job Experience	N/A
Formal Work Experience	N/A
Other	N/A
Total	

* Exact hours vary according to elective courses chosen.

Course Program Author or Contact:

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Signature

APPROVAL SIGNATURES:

Department Head
Sandi Hill
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Department Head Signature

Dean Signature

EDCO

Valid from: September 2020 – March 2025

Education Council Approval Date

PROGRAM PREREQUISITES AND TRANSFER CREDIT:

Academic Requirements

- Secondary school graduation or equivalent
- Minimum 65% in either English 12, English Studies 12, English First Peoples 12, ENGL 090, or equivalent (refer to Course Equivalency information on the College Website)
- Either MATH 080, Foundations of Math 11, Foundations of Math 12, Pre-Calculus 11, Pre-Calculus 12, Calculus 12, or equivalent
- To take BIOL 101 either BIOL 090, Biology 12, Anatomy & Physiology 12, or equivalent is required

- Minimum 65% in Anatomy and Physiology 12 is required to take KNES 200 without taking KNES 190
- Either Anatomy & Physiology 12, or Life Sciences 11 is required to take KNES 205 without taking KNES 190/KNES 200 or BIOL 181/101

Additional Information for Students

Students must submit the Get Active Questionnaire (GAQ), documenting medical clearance for participation in unrestricted physical activity or for participation in progressive physical activity with special limitations or exclusions. Any positive (YES) responses on the GAQ will require Physician Clearance prior to physical activity participation

Applicants are advised that students in this program engage in moderate to vigorous physical activity as part of their laboratory practice in a variety of courses. Students will act both as physical activity leaders and participants.

Students may be required to travel to off-campus fitness and recreation facilities in the local area, and will require appropriate transportation. College of the Rockies students have access to public transportation covered by the student fees they pay to the College.

Flexible Assessment (FA):

Students seeking prior credit to any of the required courses for the certificate and diploma must refer to individual course outlines and follow the procedures outlined in the College Calendar.

Transfer Credit: For transfer information within British Columbia, Alberta and other institutions, please visit <http://www.cotr.bc.ca/Transfer>.

Students should also contact an Education Advisor at the institution where they want transfer credit.

EVALUATION AND ASSESSMENT:

See each individual course outline.

EXAM POLICY:

Students must attend all required scheduled exams that make up a final grade at the appointed time and place.

Individual instructors may accommodate for illness or personal crisis. Additional accommodation will not be made unless a written request is sent to and approved by the appropriate Department Head prior to the scheduled exam.

Any student who misses a scheduled exam without approval will be given a grade of "0" for the exam.

COURSE GRADE:

Course grades are assigned as follows:

Grade	A+	A	A-	B+	B	B-	C+	C	C-	D	F
Mark (Percent)	≥ 90	89-85	84-80	79-76	75-72	71-68	67-64	63-60	59-55	54-50	< 50

A grade of "D" grants credit, but may not be sufficient as a prerequisite for sequential courses.

ACADEMIC POLICIES:

See www.cotr.bc.ca/policies for general college policies related to course activities, including grade appeals, cheating and plagiarism.

PROGRAM CHANGES:

Information contained in program outlines is correct at the time of publication. Content of the courses is revised on an ongoing basis to ensure relevance to changing educational, employment and marketing needs. The instructor endeavours to provide notice of changes to students as soon as possible. The instructor reserves the right to add or delete material from courses.

COURSE DESCRIPTIONS:

KNES 102: Introduction to Motor Skill Acquisition

This course is an introductory examination of motor skill acquisition, the variables which influence the learning and performance of motor skills, and the relationship between skill acquisition and growth and development. The course examines various fields for information that may help in the understanding of how motor skills are acquired.

KNES 103: Introduction to Biomechanics

In this course, students acquire knowledge of the mechanical, anatomical, and physiological aspects of human movement and performance, including the application of basic principles of physics and math to a quantitative analysis of human movement. Analysis focus on the development of forces within the body and their effect on initiating and controlling movement.

KNES 104: Personal Health and Wellbeing

This course will provide a broad introduction to the principles of personal health and wellbeing with emphasis on student health. A review of education and research on a variety of student health issues, and their larger impact on health competency will be investigated and discussed. Students will have opportunities to develop skills and resources for optimal health as it relates to life and academic success.

KNES 110: Foundations of Exercise and Physical Fitness

This course introduces students to the foundations of physical fitness, exercise, and human physiology as applied to exercise management, prescription, and their relationship to a healthy lifestyle. The focus will be on the components of fitness and basic training principles; including, theory and practice of fitness development through progressive resistance exercise, aerobic fitness, and flexibility. We will be exploring these components through both traditional fitness methods and current trends in the industry. A portion of the course content is based on the Canadian Fitness Education Service (CFES) Weight Training Instructor Course. Following completion, students may have the opportunity to become a CFES Certified Weight Training Instructor.

KNES 163: Physical Literacy for Life

Physical literacy is the motivation, confidence, physical competence, knowledge, and understanding to value and take responsibility for engagement in physical activities for life. This course will cover the development and assessment of these components as well as their importance in physical literacy participation and health throughout the Lifespan. Students will have the opportunity to gain relevant industry certifications.

KNES 190: Basic Human Anatomy

This course introduces the student to basic human anatomy and physiology. The basic structure and function of various organ systems are discussed through a series of lectures and labs. Organ systems included in this course are skeletal, muscular, cardiovascular, respiratory, nervous, urinary and endocrine systems.

KNES 200: Functional Anatomy and Physiology 1

This course is an introduction to the structure and function of the systems involved in the control and execution of human movement. Special emphasis will be placed on the musculoskeletal, nervous and endocrine systems that are responsible for the integration and control of human movement.

KNES 201: Leisure & Sport in Canadian Society

This course examines the organization and role of the sport and recreation delivery systems in Canada. Students explore the historical, social, and political influences on sport and health policy and the increasing collaboration among Federal/Provincial/Territorial governments.

KNES 202: Physical Growth and Human Development

This course introduces characteristics of physical growth and motor development throughout the lifespan, with particular reference to the effects of physical activity on growth, development and health. Developmental differences in the motor ability of children is studied.

KNES 203: Introduction to Athletic Injuries

This course is an introduction to the recognition, prevention and treatment of injuries associated with sport and exercise. It is offered in a modular format including sports first aid, athletic taping and advanced issues in athletic injuries and practical application. Completion of all components, in addition to a standard first aid and current CPR level, may result in recognition by the Sports Medicine Council of BC's "Sports Aid Training Certificate".

KNES 204: Psychology of Sport and Exercise

This course provides insight into the theories, subject matter, and recent research concerning the cognitive processes and emotional states that regulate and influence performance in sports, exercise, and other physical activity. An examination of aggression, cohesion, self-talk, motivation, and mental training as they relate to human performance will be conducted.

KNES 205: Nutrition

This course investigates factors involved in food choices and healthy living, the function of nutrients, distribution of nutrients in the diet, metabolism, and dietary requirements. Students gain theoretical knowledge and practical skills that allow them to make evidence based decisions about healthy food choices and dietary habits. Nutrition for active lifestyles and exercise, weight management, disease prevention, considerations along the lifespan, and current trends and issues are covered.

KNES 206: Introduction to Exercise Physiology

This course is an introduction to acute and chronic effects of exercise on the human body. It will further look at the basic concepts of cardiovascular, respiratory, muscular and neuromuscular responses to physical activity.

KNES 209: Research and Inquiry in Kinesiology and Health

This course introduces students to research methods and design related to the areas of kinesiology, health and wellness. Focus is on understanding the scientific method, interpretation and evaluation of research literature and issues related to research practices. Students will explore current research topics and develop their critical thinking skills to promote their understanding of quality research activities.

KNES 210: Functional Anatomy & Physiology 2

A continuation of KNES 200, this course is designed to allow students to continue to explore the anatomy and physiology of the human body. Special emphasis will be placed on the systems that play a significant role in human movement and physical activity. These include the cardiovascular, respiratory, urinary and digestive systems. The lymphatic, immune, reproductive and integumentary systems will also be examined.

KNES 270: Exercise Testing & Prescription

This course helps to develop theoretical knowledge and practical skills in fitness and lifestyle appraisal and exercise prescription. Students should acquire the skills to administer various assessment protocols including those of the Canadian Society for Exercise Physiology – Physical Activity Training for Health (CSEP-PATH). Personalized exercise prescription for various populations following industry standards is emphasized. Students may have the opportunity to become a recognized Certified Personal Trainer (CPT) through CSEP.

BIOL 101: Introduction to Biology I

An introduction to the structure and function of organisms with particular reference to molecular, biochemical and physiological aspects of the living world. Designed for students seeking a degree or diploma in a field of science or technology, BIOL 101, with BIOL 102 lays the foundations on which the higher-level courses in Biology are based. It is also suitable as an elective course for general interest or arts students.

BIOL 102: Introduction to Biology II

BIOL 102 is an introduction to organismic and population biology with emphasis on reproduction, genetics, developmental biology, evolution, diversity, and ecology.

ENGL 100: English Composition

English 100 focuses on composition for academic purposes and develops a student's ability to write clearly and effectively. Students also learn the fundamentals of critical thinking, persuasive writing techniques (including rhetorical appeals and devices), scholarly research, and academic reading.

ENGL 101: Introduction to Poetry & Drama

An introduction to the critical reading of literature through the study & analysis of poetry and drama across historical periods from Shakespeare to twenty-first century poets and dramatists.

PSYC 101: Introduction to Psychology I

This course provides an introduction to the history, principles, and methods of psychology. Topics may include the brain and behavior, sensation and perception, learning and memory, thinking and language, and states of consciousness.

PSYC 102: Introduction to Psychology 2

This course is a continuation of PSYC 101. Topics may include development across the lifespan, intelligence, motivation, emotion, stress and health, personality, psychological disorders, therapy, and social behaviour.

STAT 106: Statistics

This course introduces the fundamental ideas of statistics and can be applied to any discipline. Topics include: collection, description, and presentation of data; calculating central tendency and dispersion; probability and statistical inference; hypothesis testing (means, proportions, variances, one and two samples); correlation and regression; decision making and sampling, Goodness of Fit Tests, and Contingency Tables.