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THE GOLD STANDARD IN EXERCISE SCIENCE AND PERSONAL TRAINING

CSEP Clinical Exercise Physiologist™ Recommended Course Map

Ontario Tech University

Approved CSEP Recommended Course Maps identify courses recognized by CSEP as satisfying the associated core competency area. Courses not listed in this Recommended Course Map may still satisfy the associated core competency area upon review by CSEP. Candidates must meet all requirements including coursework to be approved to challenge exams.

CORE COMPETENCIES	COURSE CODE	COURSE TITLE
1. Anatomy, Biomechanics, and Exercise Physiology • Functional anatomy, biomechanics, and exercise physiology as it applies to fitness assessment, exercise prescription, demonstration of exercise, and exercise education of the client(s) related to physical activity/exercise, fitness, and health. • Exercise physiology and its application to submaximal and maximal exercise, acute bouts of exercise and chronic exercise (training) for both men and women of all ages. • The impact of physical activity and exercise training on all of the body system.	KINE 1010U KINE 1100U KINE 2000U KINE 2130U	Human Anatomy and Physiology I Human Anatomy and Physiology II Anatomy of Human Movement Exercise Physiology
2. Health Behaviour Change and Education • Health and exercise psychology and behavior change theory and application. • Client education in areas of nutrition and weight management, sleep, sedentary behaviour.	KINE 2030U KINE 3000U	Psychology of Sport and Exercise Fitness Assessment and Exercise Prescription
3. Client Pre-participation Screening (& pharmacology) • Proper use of pre-screening tools and the ability to gather client subjective history • Describe the effect of common medications on rest and exercising responses	KINE 3000U KINE 4412U	Fitness Assessment and Exercise Prescription Exercise Rehab I: Cardiac, Respiratory, and Metabolic Conditions
4. Advanced Exercise & Health Assessment for Apparently Healthy Populations • Develop and select appropriate assessments and implement valid reliable testing protocols. Apply fitness assessment outcomes and fitness assessment normative data accurately and appropriately.	KINE 4482U KINE 4410U	Advanced Exercise Assessment and Prescription Practical Skills for Kinesiology Professionals
5. Advanced Exercise & Health Assessment for Chronic Conditions • Develop and select appropriate assessments and implement valid reliable testing protocols for clinical population. • Apply fitness assessment outcomes and fitness assessment normative data accurately and appropriately for clinical populations.	KINE 4412U KINE 4410U KINE 4413	Exercise Rehab I: Cardiac, Respiratory, and Metabolic Conditions Practical Skills for Kinesiology Professionals Exercise Rehabilitation II: Integrated Case Studies (focus on MSK integrated with other conditions)
6. Advanced Exercise Prescription for Apparently Healthy Populations • Development and design of appropriate exercise prescriptions that fulfill different needs of the individual (health-related fitness program). • Application of appropriate training principles and lifestyle interventions to enhance aerobic fitness, anaerobic fitness, musculoskeletal fitness, balance, flexibility and a healthy body composition. • Demonstration of exercises and the use of exercise equipment. • Monitoring activity and providing appropriate progression.	KINE 4482U KINE 4410U	Advanced Exercise Assessment and Prescription Practical Skills for Kinesiology Professionals
7. Advanced Exercise Prescription for Chronic Conditions • Development and design of appropriate exercise prescriptions that fulfill different needs of the individual (health-related fitness program). • Application of appropriate training principles and lifestyle interventions to enhance aerobic fitness, anaerobic fitness, musculoskeletal fitness, balance, flexibility and a healthy body composition. • Demonstration of exercises and the use of exercise equipment. • Monitoring activity and providing appropriate progression. • Knowledge of the physiology, pathophysiology, clinical management, contraindications, precautions and exercise modifications for the following; Cardiopulmonary, metabolic, pulmonary, musculoskeletal, neurological, cancer, musculoskeletal injuries, and mental health.	KINE 4412U KINE 4410U KINE 4413 KINE 4414	Exercise Rehab I: Cardiac, Respiratory, and Metabolic Conditions Practical Skills for Kinesiology Professionals Exercise Rehabilitation II: Integrated Case Studies (focus on MSK integrated with other conditions) Advanced Topics in Neurmuscular Physiology and Pathophysiology
8. Professional and Ethical Practice • Program Administration, including effective communication (oral and written). • Statistics and Research Methodologies in Health and Fitness. • Professional Ethics.	KINE 2120U KINE 3000U	Ethical Behaviour Fitness Assessment and Exercise Prescription
LAST REVIEWED:	February 2024	

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