EXSC 2425 – EVALUATION & ASSESSMENT OF FITNESS
DEPARTMENT OF EXERCISE SCIENCE
SALT LAKE COMMUNITY COLLEGE

Instructor:
Office Location:
Office Hours:
Contact Information:

COURSE DESCRIPTION:

This course provides students with the tools necessary to evaluate and assess participants relative to risk factors and/or symptoms for various chronic cardiovascular, pulmonary, muscular, and metabolic diseases/disorders to optimize safety during exercise testing and participation.

Prerequisites:	HLTH 2500
Credit Hours:	3
Required Text:	ACSM's Guidelines for Exercise Testing and Prescription 11th Edition. American College of Sports Medicine, Publisher: LWW, 2021
Recommended Text:	ACSM's Fitness Assessment Manual 6th Edition. American College of Sports Medicine, Yuri Feito Ph.D, Meir Magal Ph.D, Publisher: LWW, 2021.

OBJECTIVES/OUTCOMES:

Upon successful completion of this course, students will be able to:

1. Demonstrate an understanding of the role of evaluation and assessment in the fitness industry and the scope of practice of a personal trainer.
2. Basic understanding of anatomy, kinesiology, and basic exercise science principles as it relates to personal training.
3. Provide necessary documents and clear instructions to a client in preparation for the initial interview.
4. Interview a client to gather and provide relevant information prior to fitness testing.
5. Review and analyze client data to identify risk, formulate a plan of action, and conduct physical assessments.
6. Identify individuals who are at increased risk for disease because of age, symptoms, and/or risk factors who should undergo a medical evaluation and exercise testing before starting an exercise program.
7. Demonstrate the ability to assess anthropometrics, body composition, cardiorespiratory endurance, muscular strength and endurance, flexibility, balance, and functional movement screenings.

In addition to the outcomes above, this course assesses the following job tasks and levels of cognitive challenge required for the ACSM-CPT exam. See Appendix A for the job tasks and levels of cognitive challenge covered in this course.

COURSE REQUIREMENTS:
All students are required to:

1. Attend and actively participate in all class lectures and labs. *If you choose not to attend, you accept the responsibility for what occurs during your absence.* It is the responsibility of the student to contact the instructor to see what was missed.
2. Be on time for class. You don't want to miss out on all the important information and application! Students who arrive more than 5 minutes late or leave class early without notifying the instructor prior to class will be marked tardy and receive partial attendance/participation points.
3. Complete both in-class and online assignments, quizzes, and exams.
4. All work must be turned in on time. Late work is typically not accepted. If an assignment is accepted late, a 5%-point reduction will be applied for each day late. It's best to plan ahead and get as much done ahead of time in case of unexpected events. I do understand life happens, please communicate with me as situations arise.
5. Refer to Canvas for course content and due dates. Assignments and due dates are subject to change. Students will be notified of any changes with anticipation. All assignments will be discussed during class time.
6. Notify the instructor in a timely manner if a situation arises that may affect your ability to participate in the course or meet course expectations.
7. Ensure cell phones are silenced and stored in your backpack during class time. Let's all be fully present during class.
8. Practice mutual respect and cooperation. We all contribute to the learning community and can learn from one another. Respect towards the instructor and fellow students should be shown at all times.

CLASS EXPECTATIONS:
Class expectations will be decided on by the class on the first day.

IMPORTANT DATES:
1st Day of the Semester:

- Full term- August 20
- 1st half 8-week- August 20
- 12-week- September 11
- 2nd half 8-week- October 14

Last Day of Classes:

- Full term- December 5
- 12-week- December 5
- 1st half 8-week- October 12
- 2nd half 8-week- December 5

Holidays:

- September 2- Labor Day (no classes, college closed)
- October 17-18- Fall Break (no classes)
- November 27-30- Thanksgiving (no classes the 27th) (no classes/college closed the 28th-30th)

GRADING POLICIES:

- Due dates for assignments, discussions, and quizzes are provided on the Course Calendar and in Canvas. Students will be notified of any changes with anticipation. All assignments will be discussed during class time.
- Late work policy: Assignments should be submitted on time. A 5% deduction will be taken for each day that an assignment is late if late work is accepted. Assignments submitted more than one week after the due date will not be accepted. Some assignments may not be submitted late.

Grades: Student performance is based on a percentage of the possible points. Scores are available in the Canvas gradebook and should be monitored on a regular basis. Contact the instructor to discuss grade concerns throughout the semester.

Points breakdown:	**Point Value**
Attendance/Participation	100
Discussions and Case Studies	75
Quizzes (6)	60
Assessment/Lab Assignments	100
Midterm Exam	50
Chapter/Article Presentation	30
Final Project & Practical Exam	100
Total Points	**515**

Grade breakdown by percentage:

A	95-100%	**C**	73-75
A-	90-94	**C-**	70-72
B+	86-89	**D+**	66-69
B	83-85	**D**	60-65
B-	80-82	**D-**	55-59
C+	76-79	**E**	Below 55%

Instructor reserves the right to modify dates and/or points for assignments, quizzes, labs, and/or exams. There may also be additional in-class quizzes and/or assignments.

Incompletes: An incomplete is a conditional grade given only in extraordinary cases where a student has completed a major portion of the class but is unable to complete coursework due to circumstances beyond their control such as a major illness/injury or a death in the family. Written documentation from your physician will be required.

INSTRUCTIONAL CONTINUITY AND CONTINGENCY PLAN

In the event of a campus emergency, mandatory action for air quality, inclement weather, instructor absence, or other event that disrupts academic activities the instructor may need to adjust the following:

- course format
- assignments and deadlines

- grading policies
- other course requirements

Possible changes to the class format could include:

- shifting from in-person to alternative online assignments such as completing an online assignment/discussion or practicing assessments at home to count for attendance points
- shifting from in-person to livestream (Zoom) class

Information about changes in the course will be communicated as soon as possible via email and in Canvas. The instructor will do their best to notify students in a timely manner. They will comply with state and college recommendations in making a decision that is in the best interest of the class. It is the responsibility of the student to check Canvas and their email not only regularly but also when there is the potential threat of a disruption to academic activities. Students are expected to contact their instructor promptly if they have any questions or concerns.

STUDENT CODE OF CONDUCT:
Each student is expected to follow the SLCC Code of Student Rights and Responsibilities found at: https://www.slcc.edu/policies/policies/student_affairs/8.1.050.aspx

Use of Artificial Intelligence (AI) in this course:

"Generative artificial intelligence (AI) software is a rapidly emerging tool that students may be interested in using. If doing so, SLCC students are expected to adhere to the same standards as the Code of Student Rights and Responsibilities statement on plagiarism. Presenting generative AI software content as your own is a violation of academic integrity. If you use generative AI in your work, you must indicate that you have done so." -SLCC Dean of Students

Generative AI can be an excellent resource, but your own thoughts and words must be used on all assignments and discussion posts. If any sources are used, including generative AI, they must be properly cited. As stated in the SLCC Code of Student Rights and Responsibilities, " Students who are unsure of what constitutes plagiarism should consult with their instructors. Claims of ignorance will not necessarily excuse the offense."

MEDICAL CONSIDERATIONS:
If you have any doubts about your health in relation to this course, consult with your doctor and then your instructor before beginning your program. Notify the instructor immediately in the event of any injury, or change in health status which occurs before, during, or after class. Please do not leave class without notifying the instructor.

ACCESSIBILITY AND DISABILITY SERVICES:
SLCC values inclusive learning environments and strives to make all aspects of the College accessible to our students. If you have a disability and believe you need accommodations to improve access to learning materials or the learning environment, please contact the Disability Resource Center: (phone) 801-957-4659; (email) drc@slcc.edu; (website) www.slcc.edu/drc.

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Please refer to the Institutional Syllabus in the main menu in Canvas for additional policies, procedures, and services available to students.

Appendix A

ACSM-CPT Domain I Job Tasks and Levels of Cognitive Challenge

A. Recall: Provide documents and clear instructions to the client in preparation for the initial interview.
    1. Knowledge of:
        a. the components of and preparation for the initial client consultation
        b. the necessary paperwork to be completed by the client prior to the initial client interview
    2. Skill in:
        a. effective communication
        b. utilizing a variety of communication channels (email, social media)

B. Application: Interview the client to gather and provide pertinent information prior to fitness testing and program design.
    1. Knowledge of:
        a. the components and limitations of a health/medical history, preparticipation screening, informed consent, trainer-client contract and organizational policies and procedures
        b. the use and order of medical clearance for exercise testing and program participation
        c. health behavior modification theories and strategies
        d. orientation procedures, including equipment utilization and facility layout
    2. Skill in:
        a. obtaining and securing health/medical history, medical clearance and informed consent

C. Synthesis: Review and analyze client data to identify risk, formulate a plan of action and conduct physical assessments.
    1. Knowledge of:
        a. risk factors for cardiovascular disease
        b. signs and symptoms of chronic cardiovascular, metabolic and/or renal disease
        c. the process for determining the need for medical clearance prior to participation in fitness testing and exercise programs
        d. relative and absolute contraindications to exercise testing
    2. Skill in:
        a. identifying modifiable risk factors for cardiovascular disease and teaching clients about risk reduction
        b. determining appropriate fitness assessments based on the initial client consultation
        c. following protocols during fitness assessment administration
        d. interpret preparticipation physical activity screening, including self-guided screening (e.g., PAR-Q)
        e. interpret professionally supervised screening, including informed consent, preparticipation physical activity screening (e.g., ACSM, AHA), health history and cardiovascular risk factor analysis

D. Application: Evaluate behavioral readiness and develop strategies to optimize exercise adherence.

1. Knowledge of:

a. behavioral strategies to enhance exercise and health behavior change (e.g., reinforcement, S.M.A.R.T. goal setting, social support)

b. health behavior change models (e.g., Socioeconomic Model, Transtheoretical Model, Social Cognitive Theory, Theory of Planned Behavior, Health Belief Model) and effective strategies that support and facilitate behavioral change

2. Skill in:

a. setting effective client-oriented S.M.A.R.T. behavioral goals

b. choosing and applying appropriate health behavior modification strategies based on the client's skills, knowledge and level of motivation

E. Synthesis: Assess the components of health- and/or skill-related physical fitness to establish baseline values, set goals and develop individualized programs.

1. Knowledge of:

a. the basic structures of bone, skeletal muscle and connective tissue

b. the basic anatomy of the cardiovascular and respiratory systems

c. the definition of the following terms: anterior, posterior, proximal, distal, inferior, superior, medial, lateral, supination, pronation, flexion, extension, adduction, abduction, hyperextension, rotation, circumduction, agonist, antagonist and stabilizer

d. the sagittal, frontal (coronal), transverse (horizontal) planes of the body and plane in which each muscle action occurs

e. the interrelationships among center of gravity, base of support, balance, stability and proper spinal alignment

f. the following curvatures of the spine: lordosis, scoliosis and kyphosis

g. the differences between the aerobic and anaerobic energy systems and the effects of acute and chronic exercise on each

h. acute responses to cardiorespiratory exercise and resistance training

i. chronic physiological adaptations associated with cardiovascular exercise and resistance training

j. physiological responses related to warm-up and cool-down

k. physiological basis of acute muscle fatigue, delayed onset muscle soreness (DOMS) and musculoskeletal injury/overtraining

l. physiological adaptations that occur at rest and during submaximal and maximal exercise following chronic aerobic and anaerobic exercise training

m. physiological basis for improvements in muscular strength and endurance

n. expected blood pressure responses associated with postural changes, acute physical exercise and adaptations as a result of long-term exercise training

o. types of muscle actions, such as isotonic (concentric, eccentric), isometric (static), and isokinetic

p. major muscle groups (e.g., trapezius, pectoralis major, latissimus dorsi, deltoids, biceps, triceps, rectus abdominis, internal and external obliques, erector spinae, gluteus maximus, hip flexors, quadriceps, hamstrings, hip adductors, hip abductors, anterior tibialis, soleus, gastrocnemius)

q. major bones (e.g., clavicle, scapula, sternum, humerus, carpals, ulna, radius, femur, fibula, tibia, tarsals)
r. joint classifications (e.g., hinge, ball and socket)
s. the primary action and joint range of motion specific to each major muscle group
t. the following terms related to muscles: hypertrophy, atrophy, hyperplasia, dynapenia, sarcopenia and sarcopenic obesity
u. physiological basis of the components of health- and/or skill-related physical fitness (cardiovascular endurance, body composition, muscular strength, muscular endurance, flexibility, agility, coordination, balance, power, reaction time and speed)
v. normal chronic physiologic adaptations associated with cardiovascular, resistance and flexibility training
w. test termination criteria and proper procedures to be followed after discontinuing an exercise test
x. anthropometric measurements and body composition techniques (e.g., skinfolds, plethysmography, bioelectrical impedance, infrared, dual-energy x-ray absorptiometry [DEXA], body mass index [BMI], circumference measurements)
y. fitness testing protocols, including pre-test preparation and assessments (i.e., cardiovascular endurance, body composition, muscular strength, muscular endurance, flexibility, agility, coordination, balance, power, reaction time and speed)
z. interpretation of fitness test results
aa. the recommended order of fitness assessments
bb. appropriate documentation of signs or symptoms during an exercise session
cc. various mechanisms for appropriate referral to a physician

2. Skill in:
a. locating/palpating pulse landmarks, accurately measuring heart rate and obtaining rating of perceived exertion (RPE)
b. selecting and administering cardiovascular fitness assessments
c. locating anatomical sites for circumference (girth) and skinfold measurements
d. selecting and administering muscular fitness assessments
e. selecting and administering balance and mobility assessments
f. selecting and administering range of motion assessments for various muscle groups
g. recognizing postural deviations that may affect exercise performance and body alignment
h. providing effective client-centered communication of test and assessment results

F. Application: Develop a plan and timeline for reassessing physical fitness, goals, and related behaviors.
1. Knowledge of:
a. developing fitness plans based on the information obtained in the client interview and the results of the physical fitness assessments
b. alternative health behavior modification strategies

c. the purpose and timeline for reassessing each component of physical fitness (cardiovascular endurance, body composition, muscular strength, muscular endurance, flexibility, agility, coordination, balance, power, reaction time and speed)