

Academic Year 2025-2026
BS in Exercise Science - BS-EXSC Learning Outcomes

Outcome 1: Content knowledge

Students majoring in Exercise Science will demonstrate an understanding of and ability to apply principles of wellness, biomechanics, exercise physiology, exercise assessment and prescription. Exercise Science majors will demonstrate their knowledge of the acquisition and retention of content associated with Exercise Science profession.

Rationale: The content areas listed in objective 1 are ACSM (American College of Sports Medicine) content areas for degree programs in Exercise Science. The exam will be used to examine strengths and weaknesses in the curriculum.

MEASURES	RESULTS	ACTIONS
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ACSM Acquisition exams Biomechanics and Exercise Physiology acquisition exams will be utilized to measure this student outcome. Content areas were selected by the Exercise Science faculty to identify strengths and weaknesses within the curriculum. Program success will be a 70% pass rate. Rationale: A score of 70% or greater was chosen because that is the score necessary to achieve certification and thus is a rigorous standard for Exercise Science students. Direct - Exam (Course-based) <i>Biomechanics: KINT 3315</i> Target A successful score on each content area (10 questions each) will be a score of 70% or greater. 70% of Exercise Science students will score 70 or better on Acquisition measurements. Exam scores will be utilized to compare acquisition of knowledge to retention taken in KINT 4350.	Summary First Assessment: Acquisition quizzes were given in KINT 3315 Biomechanics and KINT 3330 Exercise Physiology both in the fall 2025 and spring 2026. The quiz in KINT 3315 covered Fitness, Anatomy and Biomechanics, while the quiz in KINT 3330 covered Exercise Physiology. 71.43% of students achieved a score of 70% or better on the Fitness/anatomy/biomechanics quiz, meeting the target. Only 29.03% of students achieved a score of 70% or greater on the Exercise physiology quiz falling short of the target. Analysis A successful score on each content area (10 questions each) will be a score of 70% or greater. 70% of Exercise Science students will score 70 or better on Acquisition measurements. First Assessment: The rationale for giving the acquisition quizzes was that the same questions are repeatedly missed on the exit exam given in KINT 4350. The quizzes are to see if the knowledge is ever acquired. Findings for the acquisition quizzes reveal that the same questions missed on the exit exam are also missed on acquisition quizzes. For the Biomechanic/anatomy/fitness quiz questions on aerobic versus anaerobic exercise (50%), kinematic versus kinetic analysis (64%) and identifying Newton's 3 laws (43%) are consistently missed. For the exercise physiology quiz this trend continues with questions on primary fuel at low intensity exercise (87%), production of ATP for aerobic exercise (65%) and calories to lose a pound (87%) as most often missed. Knowing these items are a problem area from the retention test (exit exam) and now the acquisition quiz, additional assignments will be given. The items will be emphasized in labs and course assignments. New ways to approach the topics will need to be investigated to reverse this trend.	<i>No actions have been added.</i>
ACSM Retention Content exam Retention Measurement - A 30 question content exam (exit exam) will be administered in KINT 4350 and will be utilized to assess the students' content knowledge in the ACSM content areas. Direct - Exam (Course-based) <i>Exercise Prescription: KINT 4350</i>	Summary Summary Second Assessment (Obj 1): The result of the exit exam for Biomechanics/anatomy/fitness was that 89.47% of students had a pass rate of 70% or greater, which met the target. For the Exercise Physiology portion of the exam only 63% of students scored a 70% or	<i>No actions have been added.</i>

Target A passing score of 70% on the retention exam for 70% or Exercise Science majors.	greater, falling short of the target. For the Measurement/Exercise Prescription portion of the exam 68% of the students successfully scored a 70% or greater, again falling short of the target. The average on the entire 30-question exam was 75.05 ± 10.7 with 70% of students scoring a 70% or greater on the exam, meeting the target of 73.68% of students having an average score of 70% or greater on the exam. Analysis No actions have been added. Findings: The results of the exit exam demonstrate there are still problems with success rates on the Exercise Physiology and Measurement/Exercise Prescription portions of the exam. Efforts to change these results in Measurements (started fall 2024) have already begun and will be seen in Objective 2 "examine fitness testing knowledge". These changes should also help the prescription portion of the exam. The exercise physiology portion will need to be examined in KINT 2378 "Applied Fitness Concepts" and KINT 3330 and 3130 "Exercise Physiology" and "lab". Although the Exercise physiology and Measurement/Exercise Prescription portions did not meet the target each improved 62.5 (24-25) to over 63% (25-26) Ex Phys and 56% (24-25) to 68% (25-26) for Meas/Exe. Prescription.	
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Outcome 2: Fitness Testing Knowledge

Students in Exercise Science will be given exercise prescription scenarios to examine their knowledge of fitness testing.

Rationale: From observations and results of assignment in various Exercise Science courses a lack of understanding fitness testing (choice of test, what is measured, when to use various test) is evident. This is a key skill for Exercise Science professionals.

MEASURES	RESULTS	ACTIONS
Identifying Fitness Test and Appropriate Use At the beginning of KINT 3380 (Testing Procedures and Measurement) students will be asked to fill in a table identifying fitness tests and the health/fitness area being measured by the test. At the end of KINT 3380 a second survey of fitness test and there use will be administered. Direct - Assignment <i>Testing Procedures & Measureme: KINT 3380</i> Target	Summary First Assessment (Obj 2): After examining the Pre and Post fitness testing surveys the following observations were made: 1. Aerobic fitness: Students struggle distinguishing aerobic and anaerobic exercise and testing. On items like a GXT, (i.e. Bruce protocol or YMCA bike test) 73% of students correctly identified them as aerobic fitness measurements on the post survey which was an improvement from the pre-survey results of 36% (Bruce) and 13% for the YMCA bike. 100% of the students correctly identified field-based test like the 1- mile walk and 1.5 mile run as aerobic fitness measures.	<i>No actions have been added.</i>

70% of Exercise Science majors will be able to appropriately identify 50% of the fitness test.	2. Risk factor measurements: Only 21% of students correctly identified BMI and waist to hip ratio as health risk factor measurements on the pre-survey while 80% correctly identified them on the post survey. 3. Body Composition: Only 26% of students correctly identified Bioelectrical impedance as a body composition measurement on the pre-survey while number increased to 93% on the post survey. 4. Strength: 88% of students correctly identified a 1RM and pushup test as forms or strength measurements. 5. Power: 100% of students correctly identified the Vertical Jump as a power measurement, while only 39% correctly properly identified the 40-yard dash as a power assessment. Overall, at least 70% of the students did appropriately identify over 50% of the fitness test correctly, meeting the target for this objective. Analysis Findings: Though the 25-26 results were better and the target was meet several areas of concern were exposed when examining these outcome; first a better understanding of aerobic and anaerobic exercise must be taught throughout the program, second a better understanding of health risk factor measurements and their purpose needs to be emphasized.	
Scenario based test Students will be given five scenario-based exercise prescriptions and will be asked to identify the appropriate test(s) to be utilized in several specified fitness areas. Direct - Exam (Course-based) <i>Testing Procedures & Measureme: KINT 3380</i> Target 70% of Exercise Science majors will be able to correctly apply the correct fitness tests in each of five scenario- based client profiles provided.	Summary Second Assessment (Obj 2): 100% of the students chose appropriate test on the 5 scenario-based client profiles, surpassing the target for this assessment. Analysis Findings: By the end of the KINT 3380 "Testing Procedures" course, students were able to correctly identify and match the right fitness test with the client's goals based on the exercise prescriptions given for each of the scenario.	<i>No actions have been added.</i>

Outcome 3: Overall Program Effectiveness

Students Majoring in Exercise Science will demonstrate the ability to show both content knowledge growth (written exam) and application in a field base setting (Preceptorship).

Rationale: Entry level measurements on Exercise Science majors will be compared to Exit level knowledge to show growth in content level proficiency. The preceptorship is conducted in a professional setting where students are asked to apply the content knowledge in Exercise Science curriculum, which will be vital for the students' professional development and future success. The student Portfolio and professional evaluation will be utilized to examine the application of knowledge and communication skills of the student.

MEASURES	RESULTS	ACTIONS
Entry/Exit Content Knowledge Change Exercise Science majors will demonstrate their knowledge of the content associated with Exercise Science profession. Rationale: The test utilized will provide information on entry level knowledge of Exercise Science majors and content knowledge changes (exit exam). The results will be utilized to examine the effectiveness of the Exercise Science curriculum. Baseline (entry level) knowledge in Exercise Science content will be gathered in KINT 2378 "Fitness Concepts". Exit level knowledge will be gathered in KINT 4350 "Exercise Prescription". The data will be compared to examine the impact of the program has on Exercise Science majors. Direct - Exam (Course-based) <i>Exercise Prescription: KINT 4350</i> Target Content growth (improvement) is a minimum of 20% between content scores on the Entry exam (KINT 2378) and the Exit exam (KINT 4350).	Summary First Assessment (Obj 3): The entry level exam was given in KINT 2378 during the spring 2026 semester with an average score of $49.32 \pm 14.31\%$, the exit quiz was given in the fall 2025 and spring 2026 in KINT 4350 the average score was $75.05 \pm 10.7\%$ an increase of 25.73% from the entry exam. Analysis No actions have been added. Findings: The target of over 20% increase is desired and was met.	<i>No actions have been added.</i>
Preceptorship Portfolio Students in KINT 4630 (Preceptorship) will construct a portfolio demonstrating the utilization of Exercise Science content in a field-based setting. The portfolio will consist of assignments, reports and data gathering to assess the student's application of professional knowledge. A successful score will be a portfolio grade of 70% or greater. The criterion of 70% is the minimum acceptable score for a student in KINT 4630. Direct - Portfolio <i>ESFM Preceptorship: KINT 4630</i> Target The program criterion for this objective is a success rate of at least 70% of students.	Summary Second Assessment (Obj 3): Over 90% of students in KINT 4630 "Preceptorship" for summer and fall 2025 and spring 2026 semesters achieved a grade of 70% or greater, meeting the target for this objective. Analysis No actions have been added. Findings: The portfolio includes items graded by the instructor as well as two mentor evaluations of the students. The results of this assessment demonstrate that the professional preparation of students within the Exercise Science degree program continues to be strong.	<i>No actions have been added.</i>