

## Health and Kinesiology

### Annual Program Report Template

Year: 2022	
Program: EXSC	Exercise Science EXSC
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#### Summary of Continuous Improvement Efforts since Last Report

*Provide a brief description of how assessment results have been used for program improvement. Point to a specific example of how an assessment provided the program with data it could use for improvement and what that improvement was, if possible, also show evidence of the improvement. You may look at data from the two previous academic years to support this case.*

Respond here:

KINT 3330 Exercise Physiology is the keystone course for EXSC majors. The course is a pre-requisite for most of the EXSC core. On the content exam 10 of the 30 questions are dedicated to Exercise Physiology and it is the portion of the content exam t that is most often unsuccessful. In order to address this one new course has been added and two courses have been moved in sequence prior to Exercise Physiology . The new course addition of KINT 2371 “Functional Anatomy and Physiology” was implemented because of lack of knowledge on body structure and function. This will help with the understanding of Biomechanics (KINT 3315) and Exercise Physiology. The resequencing KINT 3324 Metabolic Effects and KINT 3318 Research Methods prior to KINT 3330 Exercise Physiology and KINT 3315 will hopefully lead to better understanding and pass rates in these courses. Metabolic Effects has basic biochemistry needed in Exercise Physiology and Research Methods will assist in understanding literature and data analysis skills needed in both Exercise Physiology and the lab. Because the new course and sequence has just begun, little to no data exist to see if this action plan will be effective.

#### Program Highlights Since Last Report

*Identify and briefly discuss any programmatic curriculum changes made since the last report (e.g. new courses, course changes, SLO changes, course deletions).*

Respond here:

#### Changes Exercise Science Degree Program

Program Title Change from: “Exercise Science and Fitness Management” to “Exercise Science”

## Proposed Changes to Exercise Science Degree Program

### 1. Course replacement

- ENGL 3311 removed and replace with KINT 2371 Functional Anatomy/Physiology
  - Rationale: Exercise Science students need a foundation of how the human body is built and works. The Functional Anatomy/Physiology course will help to build this foundation and fill a missing component of the curriculum for exercise science students.

### 2. Rationale for changes related to Exercise Science degree program:

- KINA 2378 “Applied Fitness Concepts” changed to KINT 2378.
  - Rationale: This is part of the process of removing the KINA prefix from Exercise Science and Kinesiology courses. Going forward there will only be KINT courses.
- KINT 1301 will be changed from Introduction to Physical Education to Introduction of Kinesiology
  - Rationale: The term “Physical Education” is not inclusive of all that is done in Kinesiology, thus replacing it with the name “Kinesiology” is more appropriate.
- KINT 3345 Research Methods number change to KINT 3318 Research Methods.
  - Rationale: The research methods needs to be prior to KINT 3330 Exercise Physiology in the curriculum for exercise science, thus the number change was to properly align the course in order.
- KINT 4342 Metabolic Effects of Sport and Exercise number change to KINT 3324.
  - Rationale: The course can be taken prior to KINT 3330 and is part of the Coaching Minor.
- KINT 3363 Neuromuscular Physiology number change to KINT 4318.
  - Rationale: The Neuromuscular course needed a senior level designation.
- KINT 4630 name changed from “Internship” to “Preceptorship”.
  - Rationale: In the Exercise Science degree those students in Pre-professional studies (pre- physical or occupational therapy, pre-medicine, pre-physician assistant program) intern at clinical settings, some of these settings will not allow field-based experiences under the name “Internship” unless you are a medical intern. These facilities do welcome our students for field-based experiences but it must be under a different name than “Internship”.

Summary page of updated pre-requisites for the Exercise Science program

Course & number	Title	pre-requisites and grade
<b>KINT 1301</b>	Introduction to Kinesiology	None
<b>KINT 2371</b>	Functional Anatomy & Physiology	BIOL 2401 C
<b>KINT 2378</b>	Applied Fitness Concepts	None
<b>KINT 3310</b>	Wellness Strategies	None
<b>KINT 3315</b>	Biomechanics	KINT 2371 C
<b>KINT 3318</b>	Research Methods	MATH 1342 <b>or</b> PSYC 2317 C
<b>KINT 3322</b>	Strength and Conditioning	None
<b>KINT 3324</b>	Metabolic Effects of Sport and Exercise	None
<b>KINT 3130</b>	Exercise Physiology Lab	BIOL 2402 C
<b>KINT 3330</b>	Exercise Physiology	BIOL 2402 C
<b>KINT 3342</b>	Cardiopulmonary Physiology	KINT 3330 C
<b>KINT 3380</b>	Testing Procedures and Measurement	KINT 3330 C
<b>KINT 4315</b>	Electrocardiography	KINT 3330 C
<b>KINT 4318</b>	Neuromuscular Physiology	KINT 3330 C
<b>KINT 4323</b>	Practicum in Exercise Science	None
<b>KINT 4350</b>	Exercise Prescription	KINT 3330 C
<b>KINT 4355</b>	Fitness Special Population	KINT 3330 C
<b>KINT 4630</b>	ESFM Preceptorship	KINT 4350 C

**Table 1. Assessment Results and Analyses for Current Cycle.**

STAGE 1: PLAN				STAGE 2: DO		STAGE 3: STUDY
Departmental Student Learning Goal	Program Student Learning Outcome	Assessment	Assessment Method/Location	Benchmark Expectations	Data Results	Actions/Goals Based on Data Results* What do the data tell you? How will you use this data? How were data from the last cycle used to make changes during this cycle, and What were the results of those changes?
Content Knowledge in Exercise Science, At the conclusion of the degree program, students in Exercise Science and Fitness Management will be able to demonstrate comprehension of the major content areas, as designated by ACSM (American College of Sport Medicine), for Exercise Science and Fitness Management degree programs. Rationale: In order to meet professional standards, in exercise science, students must possess and demonstrate professional competencies by passing ACSM certification exams in order to be successful in the work force.	Students majoring in Exercise Science and Fitness Management will demonstrate an understanding of and ability to apply principles of wellness, biomechanics, exercise physiology, exercise assessment and prescription. Rationale: The content areas listed in the 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. Students majoring in Exercise Science and Fitness Management will demonstrate an understanding of and ability to apply principles of wellness, biomechanics, exercise physiology, exercise assessment and prescription. Rationale:	utce A content exam to be administered in KINT 4350 (exit) will be used to assess the students' content knowledge in ACSM content areas. 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	Content Exam	A successful score on each content area (10 questions each) will be a score of 70% or greater. A score of 70% on the entire exam is needed to be successful.	2021-22 pass rates on the exam for Exercise Science majors for the Fitness/Biomechanics section was 65%, for the Exercise Physiology section, 59% and a 76% pass rate on Testing and Procedure section. Overall 65% of majors made a 70% or greater.	KINT 3330 Exercise Physiology is the keystone course for EXSC majors. The course is a pre-requisite for most of the EXSC core. On the content exam 10 of the 30 questions are dedicated to Exercise Physiology and it is the portion of the content exam that is most often unsuccessful. In order to address this one new course has been added and two courses have been moved in sequence prior to Exercise Physiology . The new course addition of KINT 2371 "Functional Anatomy and Physiology" was implemented because of lack of knowledge on body structure and function. This will help with the understanding of Biomechanics (KINT 3315) and Exercise Physiology. The resequencing KINT 3324 Metabolic Effects and KINT 3318 Research Methods prior to KINT 3330 Exercise Physiology and KINT 3315 will hopefully lead to better understanding and pass rates in these courses. Metabolic Effects has basic biochemistry needed in Exercise Physiology and

	The content areas listed in Outcome 1 are ACSM (American College of Sports Medicine) content areas for degree programs in Exercise Science. An exit exam will be used to examine strengths and weaknesses of Exercise Science and Fitness Management in the various content areas as well as overall content knowledge.	exercise science students.				Research Methods will assist in understanding literature and data analysis skills needed in both Exercise Physiology and the lab.
Student Growth and Development. A content exam to be administered in KINT 2378 (entry) and then again in KINT 4350 (exit) to assess the students' entrance and exit content knowledge levels. Rationale: The entry exam gives exercise science faculty insight into the knowledge base of students entering the program, while the exit exam allows program administrators to see the potential progress achieved by students as they exit the program.	Exercise Science and Fitness Management students will demonstrate their knowledge of the content associated with Exercise Science. Rationale: The test utilized will provide information on entry level knowledge of Exercise Science majors and content knowledge changes (exit exam) as the result of the Exercise Science curriculum to examine program effectiveness. 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	A content exam to be administered in KINT 2378 (entry) and then again in KINT 4350 (exit) to assess the students' entrance and exit content knowledge levels. Source of Evidence: Faculty pre-test / post-test of knowledge mastery. Rationale: The entry exam gives exercise science faculty insight into the knowledge base of students entering the program, while to exit exam allows program administrators to	Entry and Exit content exams	The scores on the exam in KINT 2378 will be utilized as a baseline to assess the entry level knowledge Exercise Science majors. Average percent change in entry level scores compared to exit scores will be utilized to assess program effectiveness.	The percent change from entry level averages (54%) to exit scores for 2021-22 (69.6%) was 15.56%, which is was lower than the two previous cycles. COVID and the necessity for online learning replacing face to face courses may account for the decreases.	Though this outcome is Met, it is hoped that the curriculum changes mentioned in learning outcome one will increase the % change in entry and exit assessment to at least the previous levels if not greater.

	the program has on Exercise Science majors.	see the potential progress achieved by students as they exit the program. A content knowledge exam will be given in KINT 2378 (Entry) and in KINT 4350 (Exit).				
Professional Application. Students in KINT 4630 (preceptorship) will construct a portfolio demonstrating the utilization of Exercise Science content in a field-based setting. Rationale: The internship 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.	Students Majoring in Exercise Science and Fitness Management will demonstrate the ability to apply content knowledge in a field base setting. Rationale: The internship 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 exam the application of knowledge and communication skills of the student.	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. Rationale: A standard of 70% was chosen by the faculty as a rigorous standard for the portfolio.	Preceptorship Portfolio	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. The program criterion for this objective is a success rate of at least 70% of students.	Over 90% of students in KINT 4630 made a grade of 70% or greater on their portfolio.	To add to success in the portfolio, the midterm and final evaluations will be utilized to assess improvement in soft skills (i.e. communication with clients) as this is an ever more important skill in EXSC professions.

**Table 2. Continuous Improvement Results Since Last Report**

<b>Stage 4: ACT</b>		
<b>Actions/Goals Based on Data Results</b> <i>*Copy last cycle's actions/goals and report on progress toward continuous improvement on those here.</i>	<b>Status</b> <i>C=Complete P=Progressing N=No Action Taken</i>	<b>Discussion of Status</b> <i>If C, describe efforts that led to accomplishment of actions/goals. If P, provide update on progress made toward accomplishing actions/goals and what tasks remain If N, discuss why action toward accomplishing actions/goals has been delayed and what work will be initiated toward accomplishment.</i>
<p>IContent Knowledge in Exercise Science, At the conclusion of the degree program, students in Exercise Science and Fitness Management will be able to demonstrate comprehension of the major content areas, as designated by ACSM (American College of Sport Medicine), for Exercise Science and Fitness Management degree programs.</p> <p>Rationale: In order to meet professional standards, in exercise science, students must possess and demonstrate professional competencies by passing ACSM certification exams in order to be successful in the work force.</p>	P	Data from changes are just beginning to come in partially because of COVID and two year course rotations.
<p>Student Growth and Development. A content exam to be administered in KINT 2378 (entry) and then again in KINT 4350 (exit) to assess the students' entrance and exit content knowledge levels.</p> <p>Rationale: The entry exam gives exercise science faculty insight into the knowledge base of students entering the program, while the exit exam allows program administrators to see the potential progress achieved by students as they exit the program.</p>	P	In order to see continued improvement, the entry/exit differences will be monitored as program changes take place.
<p>Professional Application. Students in KINT 4630 (preceptorship) will construct a portfolio demonstrating the utilization of Exercise Science content in a field-based setting. Rationale: The internship 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.</p>	P	In order to better serve EXSC students soft skills will be included to see if further curriculum or assignment modifications are necessary.

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