

Exercise Science - BS - Exercise Science 2016 - 2017 Assessment Plan

Currently status is: Accepted
Change Plan Status

I. ANNUAL REPORT FOR YEARS 2015 - 2016

Mission Statement

The mission of the BS Program in Exercise Science is to prepare students for entry into a wide range of health-related post-baccalaureate graduate and professional programs.

Goal 1.

Goal 1 Acquire knowledge of theory and practice in the core areas of Exercise Science.

Curriculum

EXSC 191, 223, 223L, 224, 224L, EPID 410

Learning Outcome 1.

Describe the relationship among behavior, physical activity, functional capacity and health and disease across the life span.

Measures and Criteria

EXSC 191-Students will complete a dietary and physical activity self-assessment report.

Criteria

80% of students will earn an 80% or higher on dietary and physical activity self-assessment report.

Dietary and Physical activity assignment

Methods

The instructor(s) of the selected courses will report grades for the assignment and will provide the program director with samples of student work for review/analysis. The results will be compiled by the program director and distributed to the Arnold School (ASPH) EXSC UG Advisory Committee and to respective academic department chairs (as applicable) for discussion. Appropriate recommendations for changes will be made and recorded in the committee minutes.

Results

EXSC 191 – 709 students were included in the data for the Dietary & Physical Activity Self-Assessment Report. Overall, 89% (632 out of 709) of the students earned an 80% or higher on the assignment. Since the criterion for an acceptable level of performance was set at 80% of the students earning an 80% on the assignment, the outcome was achieved.

Use of Results

EXSC 191 – Since the learning outcome was met, no changes are recommended at this time.

Learning Outcome 2.

Explain the connections between anatomical structures, physiological and cellular mechanisms of exercise.

Measures and Criteria

EXSC 223, 223L EXSC 224, 224L-Students will answer questions on a cumulative exam discussing the connections between anatomical structures, physiological and cellular mechanisms of exercise.

Criteria

75% of the students in each course will score 70% or higher on the relevant exam questions.

Methods

The instructor(s) of the selected courses will report grades for the assignment and will provide the program director with samples of student work for review/analysis. The results will be compiled by the program director and distributed to the Arnold School (ASPH) EXSC UG Advisory Committee and to respective academic department chairs (as applicable) for discussion. Appropriate recommendations for changes will be made and recorded in

the committee minutes.

Results

EXSC 223: 403 students test results were included in the data; 78% scored a 70% or higher on the cumulative exam. The outcome was achieved.

EXSC 223L: Out of 370 students, 94% scored a 70% or higher on the relevant exam. The outcome was achieved.

EXSC 224: 336 student test results were included in the data; 94% scored 70% or higher on the cumulative exam. The outcome was achieved.

EXSC 224L- Out of 316 students, 98% scored 70% or higher on the cumulative exam. The outcome was achieved.

Use of Results

EXSC 223, 223L, 224, 224L-since the outcome was met on all four exams in the appropriate courses, no changes are recommended at this time.

Learning Outcome 3.

Use scientific inquiry skills to understand research on exercise science and public health issues.

Measures and Criteria

EPID 410-Students will complete an assignment that focuses on research methodology for addressing public health problems. (NOTE: Epidemiology is the foundational science of public health and by definition requires students to identify public health problems.)

Criteria

80% of students will score 80/100 (80%) or higher on the assignment grading rubric.

Methods

The instructor(s) of the selected courses will report grades for the assignment and will provide the program director with samples of student work for review/analysis. The results will be compiled by the program director and distributed to the Arnold School (ASPH) EXSC UG Advisory Committee and to respective academic department chairs (as applicable) for discussion. Appropriate recommendations for changes will be made and recorded in the committee minutes.

Results

EPID 410 (all sections) – 468 students were included in the data for Homework #7 (see attached; scoring rubric appears in red font). The assignment required students to 1) locate three peer reviewed, scientific journal articles, 2) provide brief information about (analyze & evaluate) each article in a table and 3) write a 1 page synthesis of the three articles. The average across the three assignments was calculated along with number of students who scored 80% or higher. Overall, 85% (398 of 468) of the students scored 80% or higher on this assignment. This criterion was met.

Use of Results

EPID 410 – Since the outcome was achieved, no changes are recommended at this time.

Goal 2.

Goal 2 Gain knowledge and skills of assessment techniques commonly used in Exercise Science.

Curriculum

EXSC 530, 530L

Learning Outcome 1.

Conduct disease risk factor screening, physical fitness assessments and clinical exercise testing.

Measures and Criteria

EXSC 530 Lab-Students will demonstrate the techniques necessary to conduct laboratory exercises consistent with written protocol. The techniques will be assessed by a practical exam.

Criteria

80% of students will receive a minimum score of 70% on the practical exam.

Methods

The instructor(s) of the selected courses will report grades for the assignment and will provide the program director with samples of student work for review/analysis. The results will be compiled by the program director and distributed to the Arnold School (ASPH) EXSC UG Advisory Committee and to respective academic department chairs (as applicable) for discussion. Appropriate recommendations for changes will be made and recorded in the committee minutes.

Results

EXSC 530/530L: 85% of the students earned at least 70% or higher on the practical exam. The outcome was achieved.

Use of Results

EXSC 530/530L- Since the outcome was achieved, no changes are recommended.

Goal 3.

Goal 3. Develop knowledge and skills for prescribing exercise interventions to improve the health of individuals of all ages.

Curriculum

EXSC 351

Learning Outcome 1.

Explain factors related to optimal motor skill function related to physical activity and exercise.

Measures and Criteria

EXSC 351-Students will create a Lesson Plan for a hypothetical client/patient who is learning/relearning a motor skill. The Lesson Plan is an evidence-based research project.

Criteria

80% of the students will score 80% or higher on the lesson plan project.

Lesson Plan Assignment

Methods

The instructor(s) of the selected courses will report grades for the assignment and will provide the program director with samples of student work for review/analysis. The results will be compiled by the program director and distributed to the Arnold School (ASPH) EXSC UG Advisory Committee and to respective academic department chairs (as applicable) for discussion. Appropriate recommendations for changes will be made and recorded in the committee minutes.

Results

EXSC 351: 292 students were included in the data; 79% scored 80% or higher on the lesson plan assignment.

[fall 2015 assignment](#)

[fall 2015 rubric](#)

[spring 2016 assignment](#)

[spring 2016 rubric](#)

Use of Results

** Since the results were only 1% short, no changes will be made. We will monitor this data in the next academic year to see if any programmatic adjustments are required.

Goal 4.

Goal 4 Adapts acquired knowledge and abilities to address new challenges.

Curriculum

One of the following: EXSC 481, 482, 483, 499

Learning Outcome 1.

Demonstrate proficient reasoning and critical thinking including the ability to analyze, synthesize and evaluate information to make sound decisions and solve problems as they apply to exercise science

and health.

Measures and Criteria

Students will complete the practicum assignment required by their concentration.

EXSC 481-Health Fitness concentration.

EXSC 482-Motor Development concentration.

EXSC 483-Scientific Foundations concentration.

Criteria

80% of students will score 80% or higher on the required practicum assignment.

Grading Rubric for Practicum Assignment Practicum Assignment (paper) Practicum Assignment (Presentation)

Methods

The instructor(s) of the selected courses will report grades for the assignment and will provide the program director with samples of student work for review/analysis. The results will be compiled by the program director and distributed to the Arnold School (ASPH) EXSC UG Advisory Committee and to respective academic department chairs (as applicable) for discussion. Appropriate recommendations for changes will be made and recorded in the committee minutes.

Results

Fall EXSC 481: The students were required to create a PowerPoint presentation. 100% scored an 80% or higher.

Fall EXSC 483: The students were required to write a research paper. 100% scored an 80% or higher.

In the spring semester, all three practica changed instructors and the courses were redesigned to use identical final assignments. This will provide grading consistency and fairness to all students. All practicum students now create a research poster slide on a topic that is relevant to their practicum location. The instructions, examples and grading rubric are attached.

Spring EXSC 481: 81% scored an 80% or higher on the research poster slide.

Spring EXSC 482: 75% scored an 80% or higher on the research poster slide.

Spring EXSC 483: 93% scored an 80% or higher on the research poster slide.

Overall, 207 students completed their research project in their practicum course. 179 students (86%) scored 80% or higher on the project. The outcome was achieved.

Use of Results

In the spring semester, all three practica changed instructors and the courses were redesigned to use identical assignments. This will provide grading consistency and fairness to all students. All practicum students now create a research poster slide on a topic that is relevant to their practicum location. Part of the reason for this change is the move away from 3 separate concentrations to one EXSC BS program. This change will be noted in our future plan. The instructions, examples and grading rubric are attached.

About the results: In spring, there were only 24 EXSC 482 students, so a smaller number of students made the percentage considerably lower. The assignment and instructions were exactly the same- blackboard modules and the prep class was identical for all students in all three practica (they were all in the same prep class). All three spring practicum instructors graded all the projects so they were graded equally and fairly. EXSC 483 is the scientific foundations track; those students have more advanced science classes and the majority of the students are pre-med. As we move away from the concentrations, the practicum will be EXSC 444 and the assignments will be in line with the spring assignments, which is why we made the transition.

II. FUTURE ASSESSMENT PLAN FOR YEARS 2016 - 2017

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Acquire knowledge of theory and practice in the core areas of Exercise Science.

[curriculum map](#)

Curriculum

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Measures and Criteria

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[Dietary and physical activity assignment](#)

Methods

The instructor(s) of the selected courses will report grades for the assignment and will provide the program director with samples of student work for review/analysis. The results will be compiled by the program director and distributed annually to the Arnold School EXSC UG Advisory Committee and to respective academic department chairs (as applicable) for discussion.

Appropriate recommendations for changes will be made and recorded in the committee minutes. The UG Advisory Committee meets as needed to review issues that may arise.

Learning Outcome 2.

Explain the connections between anatomical structures, physiological and cellular mechanisms of exercise.

Measures and Criteria

EXSC 223, 223L EXSC 224, 224L-Students will answer questions on a cumulative exam discussing the connections between anatomical structures, physiological and cellular mechanisms of exercise.

Criteria

75% of the students in each course will average 70% or higher on the relevant exam questions.

Methods

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Measures and Criteria

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[Lesson plan assignment](#)

[Lesson plan rubric](#)

Methods

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Measures and Criteria

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Goal 3.

Develop knowledge and skills for prescribing exercise interventions to improve the health of individuals of all ages.

Curriculum

EXSC 351

Learning Outcome 1.

Explain factors related to optimal motor skill function related to physical activity and exercise.

Measures and Criteria

EXSC 351-Students will create a Lesson Plan for a hypothetical client/patient who is learning/relearning a motor skill. The Lesson Plan is an evidence-based research project.

Criteria

80% of the students will score 80% or higher on the lesson plan project.

Methods

The instructor(s) of the selected courses will report grades for the assignment and will provide the program director with samples of student work for review/analysis. The results will be compiled by the program director and distributed annually to the Arnold School EXSC UG Advisory Committee and to respective academic department chairs (as applicable) for discussion.

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Goal 4.

Adapts acquired knowledge and abilities to address new challenges.

Curriculum

One of the following: EXSC 481, 482, 483, 499, 444

Learning Outcome 1.

Demonstrate proficient reasoning and critical thinking including the ability to analyze, synthesize and evaluate information to make sound decisions and solve problems as they apply to exercise science and health.

Measures and Criteria

Students will complete a research poster slide on a health topic relevant to their practicum location.

Criteria

80% of students will score 80% or higher on the required practicum assignment.

[Poster slide outline](#)

[Poster slide guidelines](#)

Methods

The instructor(s) of the selected courses will report grades for the assignment and will provide the program director with samples of student work for review/analysis. The results will be compiled by the program director and distributed annually to the Arnold School EXSC UG Advisory Committee

and to respective academic department chairs (as applicable) for discussion.
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