

Operational Plan for Exercise Science Program

Section A

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Welcome to the Exercise Science Program at Greenville University

The Greenville University (GU) Exercise Science (EXSC) program, housed within the Division of Math and Science, is grounded in scientific theory and biblical truth. This program is intentionally designed to equip students for professional practice through a comprehensive study of concepts central to Exercise Science and Kinesiology, emphasizing both foundational theory and practical application. Through engagement with leading disciplinary frameworks and hands-on experiences, students develop the knowledge and skills necessary to promote health and well-being across a diverse set of career opportunities. Graduates are prepared for entry into a range of professional pathways including arenas like recreation, sports medicine, athletic training, coaching, physical therapy, occupational therapy, massage therapy, sport and exercise psychology, chiropractic medicine, and research, to name a few. Additionally, this program prepares students for competitive admission into graduate and professional programs. Beyond professional preparation, the EXSC program intentionally engages students in thoughtful exploration of faith and character as they relate to scientific perspectives and professional aspirations. Students are challenged to meaningfully connect their vocational goals with the faith and values they hold dear. This integrative process deepens learning and ultimately prepares GU Exercise Science students for lives marked by competence, character, and Christ-like service.

Program Mission Statement

The mission of the Greenville University Exercise Science program is to bridge scientific knowledge with hands-on application, preparing graduates for effective, evidence-based practice that improves health, performance, and quality of life in the communities they serve.

Programmatic Faith Integration

The Exercise Science faculty at Greenville University intentionally integrate Christian faith and Scripture throughout the curriculum. Students are guided to examine the ethical and moral dimensions of Exercise Science. We strive to expose students to opportunities to examine contemporary issues with discernment, integrity, and Christ-centered character. Faculty model respectful, informed, and faithful engagement with current topics in the field, demonstrating how professional excellence and Christian conviction work together. Three examples of faith integration across the curriculum, at the introductory, developmental, and mastery levels, include the following:

1. **Introductory Level:** In EXSC 101, students reflect on their personal faith and consider how it has shaped their career aspirations and understanding of the field of Exercise Science. Through guided discussion and intentional reflection, they begin articulating their core beliefs and values, developing greater awareness of how their faith may one day inform their professional identity and practice.
2. **Developmental Level:** In EXSC 301, students study the proper structure and function of the human body and consider how this knowledge informs compassionate, competent service in their future careers. Emphasis is placed on understanding the body as part of God's creation and applying scientific insight in ways that promote human flourishing, dignity, and stewardship.
3. **Mastery Level:** In EXSC 410, students conduct interviews with professionals currently working in the field and critically assess those experiences through the lens of their personal faith. They reflect on vocational calling, ethical leadership, and Christ-centered service, articulating how their faith will shape their professional identity and practice.

Section B

Program Objectives: *At the close of their degree, students should be able to*

1. Integrate Christian thought into the field of Exercise Science.
2. Understand the physiological basis for diet, exercise, and physical activity.
3. Test, assess, design, implement, and administer exercise programs.
4. Recognize critical issues in the field of Exercise Science, including but not limited to gender, physical adaptations, and cultural differences.
5. Apply theory and knowledge through experiential learning in the field of Exercise Science.

Exercise Science Fulfillment of the SLOs

1. *Critical Self-Awareness:*
 - a. Students explore potential career paths in Exercise Science and discern which best align with their strengths and interests.
 - b. Students examine the professional conduct and skills necessary to support the health and well-being of others.
 - c. Critical self-awareness is further developed through a reflective autobiography examining the student's life and faith journey leading to their study of Exercise Science at GU.
2. *Knowledge and Skill:*
 - a. Students study the proper function of the human body, including the cardiovascular and musculoskeletal systems involved in exercise.
 - b. Students demonstrate practical competencies such as CPR and injury evaluation.
 - c. Students conduct exercise assessments and use the results to design appropriately structured exercise programs.
3. *Collaboration and Cooperation:*
 - a. Students complete group projects evaluating peers' movement patterns and identifying deviations.
 - b. Students teach proper human movement to classmates to demonstrate their understanding of movement mechanics.
 - c. Students gain collaborative experience through professional internships and job shadowing with professionals in the field.
4. *Communication:*
 - a. Students complete individual and group presentations explaining complex scientific information in clear, accessible language.
 - b. Students prepare detailed literature reviews based on current research in the field.

- c. Students use accurate anatomical terminology to describe movement and instruct others.

5. *Cultural and Aesthetic Values:*

- a. Students develop knowledge and skills about how to communicate with unique individuals regarding their health and well-being.
- b. Students explore the historical and interdisciplinary foundations of Exercise Science and the influences shaping health and well-being today.
- c. Students consider the unique sub-disciplines within Exercise Science and how they influence professional expectations and work environments.

6. *Character and Application of Christian Virtues:*

- a. Students reflect on Christian values and how these inform professional philosophy and practice.
- b. Students consider how Christian virtues can guide service to diverse populations in professional settings.
- c. Students reflect on areas of personal growth and ways to deepen their faith in preparation for future careers.

Exercise Science Connections to Greenville University as a Whole

The students and student athletes in the Exercise Science program are uniquely positioned to support GU due to the interdisciplinary nature of Exercise Science. As such, students are involved in various areas of study and take classes from other departments and programs ranging from Business, Psychology, and Education. This allows students to share their knowledge of Exercise Science with the broader student body and bring what they learn from these various disciplines to complement their professional development in Exercise Science. Additionally, the Exercise Science program has a special hand at developing student athletes at GU. In real time, students are able to apply their coursework to promote their athletic performance on and off the field, which has a hand at enhancing GU's athletic programs as a whole.

Section C

PO	Required Core Courses/Learning Opportunities									Required Supplemental Courses							
	EXSC 101	EXSC 250	EXSC 301	EXSC 311	EXSC 315	EXSC 405	EXSC 410	EXSC 416	EXSC 426	BIOL 105	BIOL 110	BIOL 150	BIOL 145 or BIOL 245 and 246	BUSN 101	CHEM 111	PHED 335	EDUC346
1	I				D		M							I		D	
2		I	D						M	I	I		D		I		D
3		I	D	D				M								D	
4	I			D	D		M	M		I							
5	I	I	D	D		M		M	M	I		I	D	I		M	D
Key: I=Introduced D=Developed M=Mastered																	

Required Supplemental Courses For Pre-Physical Therapy and Pre-Athletic Training:

BIOL 112 – General Biology II

CHEM 112 – General Chemistry II

MATH 115 – Calculus I

BIOL 245 and 246 – Human Anatomy and Physiology I and II

PSYC 101 - Introduction to Psychology

PSYC 202 – Statistics

PHYS 120 – University Physics I

PHYS 210 – University Physics II

The content of these supplemental courses provides Exercise Science students with additional knowledge and skills to further develop their preparation. While the focus of the courses is not solely geared towards Exercise Science specifically, the varied coursework provides additional information to solidify the students' foundation as they prepare for a profession in Exercise Science.

Section D

Streamlined SLOs	Program Objective	Level of Mastery (IDM)	Term	Course number	Learning Activity	Benchmark	Assessment method
Year One							
6	1	M	Spring	EXSC 410	Paper 1 Prompt 2; Paper 3 Prompt 4	>70%	Rubric
2	2	D	Fall	EXSC 301	Exam Scores (Exams 1,3,4,5,6)	>70%	Sum of Exams
4	3	D	Fall	EXSC 311	Movement Practical 3	>70%	Rubric
2	4	I	Fall	EXSC 101	Module 3 Assessment	>70%	Rubric
2	5	M	Spring	EXSC 426	Treatment Protocol Report	>70%	Rubric
Year Two							
6	1	I	Fall	EXSC 101	Module 1 Assessment	>70%	Rubric
2	2	D	Fall	EXSC 311	Module 2 Exam	>70%	Exam Score
2	3	M	Spring	EXSC 416	Weekly Submission Scores	>70%	Sum of Quizzes
5	4	M	Spring	EXSC 410	Paper 2 Prompt 3; Paper 3 Prompt 1	>70%	Rubric
1	5	M	Spring	EXSC 405	Student Reflection Questions 3	>70%	Test Score

Formative Learning Experiences

Exercise Science students do a wide variety of assignments that measure their learning at both the formative and summative levels. Examples of assignments that fulfill the Introductory formative level include:

EXSC 101 – Module 3 Assessment: In the Module 3 Assessment, students are challenged to connect their understanding of Exercise Science and Kinesiology to specific societal health topics. The intent of this assignment is to broaden students' perspectives of how key topics in the field relate to wider reaching societal issues.

EXSC 101 – Module 1 Assessment: In the Module 1 Assessment, students reflect on personal interests, values, and life experiences as they relate to pursuing a career in Exercise Science. Students are challenged to consider why they chose this field, what they hope to accomplish in

their career, and why they believe this path is well-suited for their skills, personality, and passions. As part of this reflection, students explore how their faith has shaped their interest in the field.

Examples of assignments that fulfill the Developing formative level include:

EXSC 301 – Exam Scores: During EXSC 301, students are challenged to learn about the relationship between exercise and the various bodily systems impacted by human movement. After concluding their study of the physiological processes that unfold or change during exercise, students complete module quizzes that assess their understanding of the physiology of physical activity and exercise.

EXSC 311 – Module 2 Exam: Students are challenged to deepen their understanding of the structural and functional underpinnings of the human body in EXSC 311 during the second module of the course. As part of this module, and tested during the Module 2 Exam, students gain deeper knowledge of the musculoskeletal system (i.e., muscles, joints, and bones) and how they function during human movement.

Examples of assignments that fulfill the Mastery Summative level include:

EXSC 405 – Student Reflection Questions 1 & 3: The EXSC 405 Internship/Practicum course challenges students to complete at least 120 hours of shadowing and training in a practical, real-world environment related to Exercise Science. During this experience, students are apply course content into a professional setting, intended for career development and personal growth. As part of their culminating experience in the internship, students complete a reflection activity that asks them to consider how they intentionally applied course content from their EXSC program to their internship and real-world experiences.

EXSC 416 – Final Report and Presentation: During EXSC 416, students deep dive into concepts and content related to exercise assessment and programming. As part of their course work, students conduct a case study using key course concepts such as conducting a Health History Questionnaire and interview of a real-life case study and developing an exercise prescription based on the data obtained from their case study. As part of the culminating experience, students submit what they have learned in a report and present their case study findings in class.

Assessment Processes

The Exercise Science program assesses student progress through formative and summative assessment strategies to allow for a holistic review of course curriculum and student development. Each of these assessment processes includes data collection, methods of review, and presentation of the data. This is described for each assessment type below.

Formative assessment in Exercise Science is practiced allowing faculty to collect and review data throughout the course to help students and faculty identify areas of improvement. This commonly includes assessments like quizzes, in-class practical activities, and worksheets. Quizzes are implemented to collect information about student comprehension of scientific terms and other content-based knowledge. In-class practical activities are conducted to collect information about the level of student understanding and skill with lab-based activities, such as coaching movement, evaluating injury, or testing exercise metrics. Worksheets are used to assess student comprehension of more elaborate content problems, such as case studies and the best course of action based on the information provided.

It is necessary for formative assessments to be reviewed and feedback to be given in a timely manner to help students develop a stronger connection to the content they are learning. Methods of reviewing assessments are tied to the assessments themselves, such that quizzes are reviewed for correct, partially correct, and incorrect responses, practical activities are reviewed for implementation of skills, and worksheets are reviewed for critical thinking. Feedback and presentation of this data is ongoing throughout the semester to provide opportunities for continued learning. Additionally, data collected from formative assessments are used during the end-of-semester and end-of-year course evaluations.

At the end of each course, summative assessments are implemented to help faculty and students determine a student's overall performance in the course, which serves as a representation of how well they understood the content presented to them. Summative assessments implemented in Exercise Science include assessments like final presentations, papers, and exams. Papers and presentations are reviewed based on rubrics presented to the students, which account for the requirements of the assessment. Additionally, exams are evaluated for correct, partially correct, and incorrect

responses. This data is presented to students as a summation of their progress in the course. Additionally, data collected from formative assessments are used during the end-of-semester and end-of-year course evaluations.

Closing the Loop

Assessment Timetable

Beginning in the fall of 2026, the Exercise Science program will begin a two-year rotating assessment timetable. This will allow faculty to evaluate the effectiveness of the Exercise Science program in meeting the set of program objectives. To do this, the program will evaluate program all objectives across different courses and levels of mastery each year. Data collection uses multiple methodologies to incorporate qualitative and quantitative measures. Data collection will include FCAR's, course evaluations, objective benchmarks including but not limited to exit surveys and in-course evaluations. At the end of the two-year cycle, we will do a program evaluation based upon the data uncovered over the two-year cycle. We use these information sources in our program to determine strengths and deficiencies within our program. Based on this, we will begin to make decisions regarding how to improve student learning.