

EXERCISE PHYSIOLOGY, M.S.

The Exercise Science major, within the School of Health and Movement Sciences (SHMS) is a multidisciplinary field of study involving the understanding of the active human body in the areas of anatomy, physiology, metabolism, and human kinetics. Students in the Exercise Science major will learn foundational sciences and critical thinking skills to apply the practical approaches and programming of exercise for health and disease, fitness and sport across the lifespan. This program prepares students for professional careers like the following settings (but not limited to):

- Hospital/ Medical Fitness Centers
- Clinical Rehabilitation Centers (i.e. Cardiopulmonary rehabilitation)
- University / Industry Research Laboratories
- Collegiate and Professional Sports
- Athletic Performance Centers
- Fitness and Wellness Centers
- Weight Management and Metabolism Programs
- Fitness and Sales Industries

Students enrolled in the Marshall University Exercise Science major have the opportunity to obtain hands-on experiences outside and inside the classroom with health and disease, fitness and sport testing and interpretation within our state-of-the-art Exercise Physiology Laboratories (MUEPL (<https://www.marshall.edu/exercise-science/muepl/>)) and the Diabetes and Cardiometabolic Exercise Center (DCEC (<https://www.marshall.edu/exercise-science/cepl/>)). Internship or Graduate Assistant opportunities involve working with community members in the Diabetes and Cardiometabolic Exercise Center or with general populations and athletes in the Human Performance Lab (MUEPL (<https://www.marshall.edu/exercise-science/muepl/>)).

Marshall University Exercise Science students are well-prepared for premier certifications through the American College of Sports Medicine (ACSM) ([https://nam02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.acsm.org%2F&data=05%7C02%7Cmclvain2%40marshall.edu%7Cd64f6faf468843315e9608dd3f0c4498%7C239ab2783bba4c78b41d8508a54f6025%7C0%7C0%7C6587560441189041153%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWU5IlYiOiIlwLjAuMDAwMCIsIl9iOiIjXW4zMlslkFoljoiTWpCbCIsIlRlUjIjoifQ%3D%3D%7C0%7C%7C%7C&sdata=HcNqaSRUKkP2PmFBZm0AuHuICLBwo8sZ2m%2FFrb9nz5o%3D&reserved=0](https://nam02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fcertification.acsm.org%2F&data=05%7C02%7Cmclvain2%40marshall.edu%7Cd64f6faf468843315e9608dd3f0c4498%7C239ab2783bba4c78b41d8508a54f6025%7C0%7C0%7C6587560441189041153%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWU5IlYiOiIlwLjAuMDAwMCIsIl9iOiIjXW4zMlslkFoljoiTWpCbCIsIlRlUjIjoifQ%3D%3D%7C0%7C%7C%7C&sdata=HcNqaSRUKkP2PmFBZm0AuHuICLBwo8sZ2m%2FFrb9nz5o%3D&reserved=0)) and the National Strength and Conditioning Association (NSCA) (https://nam02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.nasca.com%2FCSCS_Certification_2%2F&data=05%7C02%7Cmclvain2%40marshall.edu%7Cd64f6faf468843315e9608dd3f0c4498%7C239ab2783bba4c78b41d8508a54f6025%7C0%7C0%7C6587560441189041153%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWU5IlYiOiIlwLjAuMDAwMCIsIl9iOiIjXW4zMlslkFoljoiTWpCbCIsIlRlUjIjoifQ%3D%3D%7C0%7C%7C%7C&sdata=AxbRVNSBRqKmfZejGbOgEEHwo7cTsqbxSXtEExX9Nxl%3D&reserved=0).

Admission Requirements

Prospective students must meet the minimum criteria listed below to be considered for admission to the program:

- Admission to Marshall University Graduate School,
- Declare a Health and Movement Sciences major of biomechanics, exercise physiology, sports science, or strength and conditioning,
- An Undergraduate Grade Point Average of 2.75 or higher on a 4.0 scale for all previously completed undergraduate university work,
- An appropriate undergraduate/graduate background that includes human anatomy, human physiology, exercise physiology, and physics,
- Three letters of reference;
- Personal statement; and
- A scholarly writing sample.

Acceptance into the M.S. Health and Movement Sciences program is competitive and not guaranteed.

Students are restricted to twelve semester hours of transfer credit from other institutions and limited to a maximum of nine semester hours taught at the 500 level.

Graduation Requirements

Completion of one of the following approved by your academic advisor:

- (1) ESS 681 Thesis
- (2) oral presentation of ESS 660 Internship & pilot research project
- (3) graduate project

Course Requirements

Code	Title	Credit Hours
ESS 578	Exercise Metabolism	3
ESS 601	Adv Exercise Testing	3
ESS 621	Adv Exercise Physiology I	3
ESS 623 or ESS 644	Adv Ex Phys II Cardio Exer Physioli	3
ESS 670	Research Meth in Kinesiology	3
ESS 682	Prev & Rehab Physiology	3
ESS 683 or ESS 684	Cardiovascular Assessment	3
BSC 517 or STA 518	Biostatistics Biostatistics	3
Restricted Electives		6
ESS 681 or ESS 660	Thesis Internship	6
Total Credit Hours		36

Plan of Study

First Year		
First Semester		Credit Hours
ESS 621	Adv Exercise Physiology I	3
ESS 670	Research Meth in Kinesiology	3
Statistics BSC 517 or STA 518 or other equivalent		3
Credit Hours		9

Second Semester

ESS 578	Exercise Metabolism	3
ESS 601	Adv Exercise Testing	3
ESS 683	Cardiovascular Assessment	3
Credit Hours		9

Second Year**First Semester**

ESS 644	Cardio Exer Physiol	3
ESS 681 Thesis or ESS 660 Internship		3
ESS 623	Adv Ex Phys II	3
Credit Hours		9

Second Semester

Restricted Elective		3
ESS 681 Thesis or ESS 660 Internship		3
ESS 683 Cardiovas. Assessment or ESS 682 Prevention Rehab or Restricted Elective		3
Credit Hours		9
Total Credit Hours		36