STRENGTH AND CONDITIONING, M.S.

The **Strength and Conditioning (S&C) major** is designed to prepare students for careers in athletic performance enhancement through evidence-based training methodologies. This program integrates exercise science, biomechanics, and sports performance principles to develop highly skilled professionals in the field.

Students engage in advanced coursework and hands-on training, including strength and power development, conditioning strategies, athlete monitoring technologies, and program design. The curriculum emphasizes scientific analysis, data-driven decision-making, and practical coaching applications, ensuring graduates are prepared for careers in collegiate and professional athletics, tactical strength and conditioning, private sports performance facilities, and applied research.

This major is ideal for individuals seeking CSCS certification and aiming to work as strength coaches, high-performance specialists, or applied sports scientists within all sports settings. Additionally, the program provides a strong foundation for those pursuing advanced education in athletic training, physical therapy, or other healthcare professions, equipping them with the knowledge and experience necessary for success in rehabilitation, injury prevention, and return-to-play protocols.

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
DTS 671	Sports Nutrition	3
ESS 601 or HS 566	Adv Exercise Testing Biomechanical Analysis	3
ESS 621	Adv Exercise Physiology I	3
ESS 642	Devise Train & Cond Prog	3
ESS 650	Drug and Sport	3
ESS 670	Research Meth in Kinesiology	3
ESS 692	Strength & Condit Clin Fld Exp	3
HS 505	Sport Psychology	3
HS 510	Org and Admin in Kinesiology	3
HS 564 or HS 566	Professional Development (Pathomechanics) Biomechanical Analysis	3
STA 518	Biostatistics	3
ESS 681 Thesis or ESS 660 Internship		6
Total Credit Hours		**39**

Plan of Study

First Year

First Semester		**Credit Hours**
ESS 670	Research Meth in Kinesiology	3
ESS 621	Adv Exercise Physiology I	3
HS 564 Pathomechanics or HS 566 Biomechanical Analysis		3
	Credit Hours	**9**
Second Semester		
DTS 671	Sports Nutrition	3
HS 505	Sport Psychology	3
ESS 642	Devise Train & Cond Prog	3
STA 518	Biostatistics	3
	Credit Hours	**12**
Second Year		
First Semester		
ESS 601	Adv Exercise Testing	3
HS 510	Org and Admin in Kinesiology	3
ESS 692	Strength & Condit Clin Fld Exp	3
	Credit Hours	**9**
Second Semester		
ESS 681 or ESS 660	Thesis or Internship	6
ESS 650	Drug and Sport	3
	Credit Hours	**9**
	Total Credit Hours	**39**