EXERCISE AND SPORTS SCIENCE

The Exercise and Sports Science Track at Mount Wachusett Community College provides students with the opportunity to earn an Associate Degree in Liberal Arts and Sciences. Upon completion of the program, students are prepared to transfer to a four-year institution to complete a baccalaureate degree. The Exercise and Sports Science Track offers a student the opportunity to explore fitness and wellness, while completing a core curriculum used for transfer. Students will gain knowledge in a variety of disciplines including math, science, the humanities and the social sciences.

Please click here for MassTransfer information (http://www.mass.edu/masstransfer)

EXERCISE AND SPORTS SCIENCE TRACK (LAX)

A Degree in Liberal Arts and Sciences

This program is for those students who would like to transfer to a four-year college or university to pursue a bachelor’s degree in exercise and sports science, exercise physiology, fitness management, or other health-related fields. With a bachelor’s degree, students may pursue fitness management careers at private and corporate fitness centers. Upon graduation from MWCC, students may pursue immediate employment at wellness or recreational agencies. In this program, students will learn in a state-of-the-art fitness and wellness center and gain in-depth knowledge of exercise science to increase their skills and make them more marketable to prospective employers.

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>Fall</strong></td>
<td></td>
</tr>
<tr>
<td>ENG 101</td>
<td>College Writing I</td>
</tr>
<tr>
<td>MAT 163</td>
<td>Pre-Calculus (or higher)</td>
</tr>
<tr>
<td>BIO 113</td>
<td>Life Science for Allied Health (formerly BIO 099)</td>
</tr>
<tr>
<td>PSY 105</td>
<td>Introduction To Psychology</td>
</tr>
<tr>
<td>PER 130</td>
<td>Health, Fitness, And Wellness</td>
</tr>
<tr>
<td><strong>Spring</strong></td>
<td></td>
</tr>
<tr>
<td>ENG 102</td>
<td>College Writing II</td>
</tr>
<tr>
<td>SPC 113</td>
<td>Speech (formerly THE113)</td>
</tr>
<tr>
<td>History Elective (see list below)</td>
<td>3</td>
</tr>
<tr>
<td>BIO 199</td>
<td>Anatomy and Physiology I (formerly BIO203)</td>
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<tr>
<th>Year 2</th>
<th>Credits</th>
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<tr>
<td><strong>Fall</strong></td>
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<tr>
<td>Art Elective (see list below)</td>
<td>3</td>
</tr>
<tr>
<td>EXS 201</td>
<td>Exercise Science And Nutrition</td>
</tr>
<tr>
<td>CIS 127</td>
<td>Computer Technologies</td>
</tr>
<tr>
<td>EXS 102 or PTA 104</td>
<td>Principles Of Anatomy And Kinesiology (or Applied Anatomy and Kinesiology)</td>
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<tr>
<td>Literature Elective (see list below)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Spring</strong></td>
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<tr>
<td>BIO 204</td>
<td>Anatomy and Physiology II</td>
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<tr>
<td>EXS 203</td>
<td>Exercise Testing And Program Design</td>
</tr>
<tr>
<td>Culturally Diverse History Elective (see list below)</td>
<td>3</td>
</tr>
<tr>
<td>ECO 102</td>
<td>Microeconomics</td>
</tr>
<tr>
<td>ENG 290</td>
<td>LAS Capstone: Advanced Writing and Research</td>
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Total Credits: 62-63

**Literature Electives**

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<tr>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG 213</td>
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<tr>
<td>ENG 214</td>
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<tr>
<td>ENG 224</td>
</tr>
<tr>
<td>ENG 261</td>
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<tr>
<td>History Electives</td>
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<tr>
<td>HIS 105</td>
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<tr>
<td>HIS 106</td>
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<tr>
<td>HIS 201</td>
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<tr>
<td>HIS 202</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Art Electives</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ART 101</td>
<td>Introduction To Painting</td>
</tr>
<tr>
<td>ART 105</td>
<td>Introduction To Drawing</td>
</tr>
<tr>
<td>ART 113</td>
<td>Introduction To Studio</td>
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</table>

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<thead>
<tr>
<th>Culturally Diverse History Electives</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>HIS 105</td>
<td>History Of World Civilization I</td>
</tr>
<tr>
<td>HIS 106</td>
<td>History Of World Civilization II</td>
</tr>
<tr>
<td>HIS 125</td>
<td>American Ethnic History</td>
</tr>
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</table>

See Exercise and Sports Science program student learning outcomes and technical standards.

**Helpful hints**
Focusing on a particular area of study in biological sciences and exercise skills may be helpful when pursuing a career. Students should have a commitment to their own physical fitness. Technology is integrated into all aspects of attending college in the 21st century. Students are expected to have proficient computer skills and the ability to access the internet via desktop/laptop computer or tablet. Internet access may be from home or through a public site such as a local public library, public college or at any Mount Wachusett Community College campuses.

**Transfer options**
For transfer options, please click here. (http://catalog.mwcc.edu/academicresources/#transferinformationtext) It is recommended that you also consult with your academic advisor.

**Special requirements**
Technical standards must be met with or without accommodations.

**Career options/Earning potential**
For career options, please click here. (https://mwcc.emsicareercoach.com/#action=loadSearchResults&Search=fitness+leadership+and+exercise&SearchType=occupation)
PROGRAM STUDENT LEARNING OUTCOMES FOR LAX

Upon graduation from this program, students shall have the ability to:

- Formulate clear and precise questions about complex problems and ideas relevant to a variety of disciplines—math, science, the humanities, and the social sciences—and gather, assess, and interpret information to arrive at well-reasoned conclusions and solutions.
- Demonstrate an understanding of complex written texts that demand an appreciation of subtext, irony, metaphor, and the subtlety and nuances of language.
- Successfully complete a substantial research paper that demonstrates the ability to formulate a research question, conduct research using the library’s databases, and synthesize information from a variety of sources into a cohesive and in-depth analysis of a topic.
- Demonstrate knowledge of historic, social, and cultural backgrounds necessary for understanding their own and other societies with an emphasis on important ideas and events that have shaped, and continue to shape, their world.
- Demonstrate scientific literacy, which can be defined as the matrix of knowledge needed to understand enough about the universe to deal with issues that come across the horizon of the average citizen, in the news or elsewhere.
- Demonstrate a broad exposure to, and an understanding of, the differences and similarities in the various academic disciplines within their Liberal Arts education.
- Successfully transfer to a baccalaureate degree granting institution if desired, with the proper educational foundation for transition into a chosen field of study.

ADDITIONAL PROGRAM COMPETENCIES FOR LAX

In addition to the above program student learning outcomes, upon graduation from the Exercise and Sports Science Track, students shall have the ability to:

- Demonstrate a basic knowledge of exercise physiology and kinesiology.
- Demonstrate a basic knowledge of nutrition and the guidelines.
- Demonstrate the ability to do a thorough client assessment for designing a complete exercise program.
- Demonstrate an understanding of the professional responsibilities surrounding safety, liability, and code of ethics.
- Demonstrate an understanding of the fitness leadership certifications and the need for continuing education.

TECHNICAL STANDARDS

For general information about technical standards and accommodation, see Technical Standards. (http://catalog.mwcc.edu/academicresources/academicandgradingpolicies/technicalstandards)

Students entering into this program must be able to demonstrate the ability to:

- Comprehend textbook material at the 11th grade level.
- Communicate and assimilate information in either spoken, printed, signed, or computer voice format.
- Gather, analyze, and draw conclusions from data.
- Exhibit social skills appropriate to professional interactions.
- Maintain cleanliness and personal grooming consistent with close personal contact.

EXS 102. Principles Of Anatomy And Kinesiology. 3 Credits.
This course is intended to provide the student with a detailed overview of musculoskeletal structure and function and its application to a more complex analysis of human movement and skill. Introduction of concepts concerning tissue and organ system organization, basic biomechanics, and the nervous system and its relationship to the musculoskeletal systems will be studied. Identification and detailed palpation of the bones and muscles of the human skeleton will be correlated with joint and muscle function. Prerequisites: ENG 098, FYE 101, MAT 092, RDG 098, or placement. Fall.

EXS 103. Strength and Conditioning. 3 Credits.
Through participation in lecture and lab, students will develop the skills and understanding of muscle physiology and its relationship to resistance training. The course will provide students with an understanding of required adaptations for proper training, correct form and technique. Prerequisites or Corequisites: BIO 199 or EXS 102 or PTA 104. Spring.
**EXS 201. Exercise Science And Nutrition. 4 Credits.**
This course will explore the scientific dimensions of fitness and nutrition. The course will be aimed at the function of exercise on the skeletal muscles, the organs, and the systems of the body; the relationship of activity and fitness to health; as well as an overview of nutrition, energy balance, and weight control as it affects health. Prerequisites: BIO 152 or BIO 199 (or co-requisite). Fall.

**EXS 203. Exercise Testing And Program Design. 4 Credits.**
This course introduces students to testing protocols for individuals and groups. Students will be instructed in various fitness programs for flexibility, strength, and cardiovascular exercises. Students will also learn weight management techniques, as well as safety aspects of fitness exercises. The principles of adherence and motivation as well as communication and teaching techniques will be discussed and evaluated. Students will develop an understanding of legal issues and business structures, as well as professional responsibility. Prerequisites: EXS 102 or PTA 104, EXS 201. Spring.

**EXS 210. Externship. 2 Credits.**
This externship experience involves direct observation and interaction at selected facilities. Placements include fitness centers, wellness centers, physical therapy clinics and rehabilitation centers. Students obtain a basic knowledge and understanding of the practical aspects of the fitness industry through participation. One seminar hour and several hours of field experience per week are required. Prerequisites: EXS 102 and EXS 201. Spring.