

EXERCISE SCIENCE (BS)

Degree: Bachelor of Science

Major: Exercise Science

Program Code: 3138

About This Major . . .

Students enrolled in this concentration should have a strong interest in the sciences as this program applies science to human function. The student will begin studies with science courses such as physics, general chemistry, and human anatomy & physiology. Continued studies will include courses such as: exercise physiology, anatomical kinesiology, biomechanics, physical activity and aging, medical conditions and pharmacology, and sports nutrition, among other subject areas. This major is designed to prepare students for graduate programs such as: physical therapy, physician's assistant, occupational therapy, and exercise physiology.

Colorado Mesa students frequently continue their study for graduate or professional degrees at universities widely recognized as top programs in exercise physiology, physical therapy, occupational therapy, physical education and public health.

For more information on what you can do with this major, visit Career Services' *What to Do with a Major?* (<https://www.coloradomesa.edu/career/students/explore/major.html>) resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Evaluate the functions of the individual body systems. (Specialized Knowledge)
2. Identify risk factors associated with chronic disease. (Specialized Knowledge)
3. Identify the scope and definitions of health, fitness, and human performance with the ability to analyze the data critically. (Applied Learning, Quantitative Fluency)
4. Describe procedures and/or statistical analyses for physiological assessments. (Quantitative Fluency)
5. Apply biomechanical principles to movement and be able to communicate and formulate conclusions about the results. (Critical Thinking)
6. Demonstrate the ability to clearly communicate specialized knowledge. (Communication Fluency)

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).

- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English ¹		
ENGL 111	English Composition-GTC01	3
ENGL 112	English Composition-GTC02	3
Mathematics ¹		
MATH 113	College Algebra-GTMA1 ²	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences ³		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences ⁴		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		31

¹ Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

² This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

³ PSYC 233 is suggested.

⁴ 7 semester hours, one course must include a lab.
PHYS 111/PHYS 111L and PHYS 112/PHYS 112L are suggested.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course ¹		1
Select one Activity course		1
Essential Learning Capstone ²		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		7

¹ KINA 128 is suggested because it is a prerequisite for KINE 403.

² Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

Code	Title	Semester Credit Hours
STAT 200	Probability and Statistics-GTMA1	3
BIOL 209	Human Anatomy and Physiology	3
BIOL 209L	Human Anatomy and Physiology Laboratory	1
CHEM 131	General Chemistry I-GTSC1	4
CHEM 131L	General Chemistry Laboratory I-GTSC1	1
CHEM 132	General Chemistry II-GTSC1	4
CHEM 132L	General Chemistry Laboratory II-GTSC1	1
Select one of the following:		0-3
KINE 265	First Aid and CPR/AED for the Health Care Provider	
Current CPR card		
Total Semester Credit Hours		17-20

Program Specific Degree Requirements

(48-54 semester hours, must pass all courses with a grade of "C" or higher and maintain a 2.0 cumulative GPA or higher in coursework toward the major content area.)

Code	Title	Semester Credit Hours
Required Core Courses		
KINE 200	History and Philosophy of Sport and Physical Education	3
KINE 203	Human Nutrition	3
KINE 213	Applications of Physical Fitness and Exercise Prescription	3
KINE 301	Health and Fitness Assessment	3
KINE 303	Physiology of Exercise	3
KINE 303L	Physiology of Exercise Laboratory	1
KINE 309	Anatomical Kinesiology	3

KINE 370	Biomechanics	3
KINE 370L	Biomechanics Laboratory	1
KINE 403	Advanced Strength and Conditioning	3
or KINE 404	Clinical Exercise Physiology and Advanced Exercise Prescription	
KINE 405	Sports Nutrition	3
KINE 415	Physical Activity and Aging	3
KINE 494	Kinesiology Senior Seminar	1
KINE 499	Internship	3
Total Semester Credit Hours		36

Code	Title	Semester Credit Hours
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Restricted Electives

Select four courses from the list below. Courses listed with a lecture/lab and a lab are counted as one course.

BIOL 210 & 210L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory	
BIOL 241	Pathophysiology	
BIOL 301 & 301L	Principles of Genetics and Principles of Genetics Laboratory	
BIOL 341 & 341L	General Physiology and General Physiology Laboratory	
BIOL 409 & 409L	Gross and Developmental Human Anatomy and Gross and Developmental Human Anatomy Laboratory	
CHEM 311 & 311L	Organic Chemistry I and Organic Chemistry I Laboratory	
CHEM 312 & 312L	Organic Chemistry II and Organic Chemistry II Laboratory	
CHEM 315 & 315L	Biochemistry and Biochemistry Laboratory	
KINE 401	Organization/Administration/Legal Considerations in Physical Education and Sports	
KINE 403	Advanced Strength and Conditioning ¹	
KINE 404	Clinical Exercise Physiology and Advanced Exercise Prescription ¹	
KINE 420	Therapeutic Interventions	
KINE 487	Structured Research	
PSYC 340	Abnormal Psychology	
Total Semester Credit Hours		12-18

¹ Do not double count KINE 403/KINE 404 from the list of major requirements.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total hours to 120 hours. 8-17 semester hours. If you choose 200-level courses for the Restricted Electives above, make sure you choose 300 and above courses for electives to ensure having 40 hours of upper division courses for graduation.

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select additional electives		7-16
Total Semester Credit Hours		8-17

1. While the sequencing below culminates in a total of 116-124 semester credit hours, students must complete a minimum of 120 semester credit hours as required for completion of the degree. Plan to complete requirements with varying hour options accordingly.

Course	Title	Semester Credit Hours
First Year		
Fall Semester		
ENGL 111	English Composition-GTCO1	3
KINE 100	Health and Wellness	1
KINE 200	History and Philosophy of Sport and Physical Education	3
KINA Activity		1
Essential Learning - Natural Science with Lab		4
MATH 113	College Algebra-GTMA1	4
Semester Credit Hours		16
Spring Semester		
ENGL 112	English Composition-GTCO2	3
KINE 213	Applications of Physical Fitness and Exercise Prescription	3
Essential Learning - Social and Behavioral Science		3
Essential Learning - History		3
Essential Learning - Natural Science		3
Semester Credit Hours		15
Second Year		
Fall Semester		
KINE 203	Human Nutrition	3
STAT 200	Probability and Statistics-GTMA1	3
BIOL 209 & 209L	Human Anatomy and Physiology and Human Anatomy and Physiology Laboratory	4
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	5
Semester Credit Hours		15
Spring Semester		
Essential Learning - Social and Behavioral Science		3
Essential Learning - Humanities		3
Essential Learning - Fine Arts		3
KINE 265	First Aid and CPR/AED for the Health Care Provider	3
CHEM 132 & 132L	General Chemistry II-GTSC1 and General Chemistry Laboratory II-GTSC1	5
Semester Credit Hours		17
Third Year		
Fall Semester		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
KINE 303 & 303L	Physiology of Exercise and Physiology of Exercise Laboratory	4
KINE 309	Anatomical Kinesiology	3
Restricted Elective		3-5
Semester Credit Hours		14-16
Spring Semester		
KINE 415	Physical Activity and Aging	3
KINE 301	Health and Fitness Assessment	3
KINE 370 & 370L	Biomechanics and Biomechanics Laboratory	4

KINA Activity		1
Restricted Elective		3-5
Semester Credit Hours		14-16
Fourth Year		
Fall Semester		
KINE 403 or KINE 404	Advanced Strength and Conditioning or Clinical Exercise Physiology and Advanced Exercise Prescription	3
KINE 405	Sports Nutrition	3
Restricted Elective		3-5
Elective (if needed)		3
Semester Credit Hours		12-14
Spring Semester		
KINE 499	Internship	3
Restricted Elective		3-5
KINE 494	Kinesiology Senior Seminar	1
Electives (2 courses)		6
Semester Credit Hours		13-15
Total Semester Credit Hours		116-124

General Course Recommendations in Preparation for Graduate Study by Program:

Graduate or Professional Schools in Exercise Science and Professional Schools in Medicine (MD), Physical Therapy (PT), Occupational Therapy (OT), Physician Assistant (PA), and Chiropractic programs often have their own unique prerequisites that are not part of the Exercise Science major requirements. For example, two semesters of General Physics are required for most MD, PT, and Chiropractic programs. The following lists provide some guidance, but, because prerequisites vary significantly from school to school, students need to check specific requirements for schools where they are planning to apply for admission.

General Recommendations for Graduate Programs: Exercise Physiology

Code	Title	Semester Credit Hours
BIOL 409 & 409L	Gross and Developmental Human Anatomy and Gross and Developmental Human Anatomy Laboratory	4
CHEM 311 & 311L	Organic Chemistry I and Organic Chemistry I Laboratory	5
CHEM 312 & 312L	Organic Chemistry II and Organic Chemistry II Laboratory	5
KINE 487	Structured Research	1-3
Total Semester Credit Hours		15-17

Biomechanics

Code	Title	Semester Credit Hours
BIOL 409 & 409L	Gross and Developmental Human Anatomy and Gross and Developmental Human Anatomy Laboratory	4
PHYS 111 & 111L	General Physics-GTSC1 and General Physics Laboratory-GTSC1	5

PHYS 112 & 112L	General Physics-GTSC1 and General Physics Laboratory-GTSC1	5
MATH 151	Calculus I-GT-MA1	5
KINE 487	Structured Research	1-3
Total Semester Credit Hours		20-22

General Recommendations for Graduate Professional Programs:

Medicine

Code	Title	Semester Credit Hours
CHEM 311 & 311L	Organic Chemistry I and Organic Chemistry I Laboratory	5
CHEM 312 & 312L	Organic Chemistry II and Organic Chemistry II Laboratory	5
PHYS 111 & 111L	General Physics-GTSC1 and General Physics Laboratory-GTSC1	5
PHYS 112 & 112L	General Physics-GTSC1 and General Physics Laboratory-GTSC1	5
MATH 151	Calculus I-GT-MA1	5
SOCO 260	General Sociology-GTSS3	3
Total Semester Credit Hours		28

Physician's Assistant

Code	Title	Semester Credit Hours
Select one of the following options		
Option 1:		8
BIOL 341 & 341L	General Physiology and General Physiology Laboratory	
BIOL 409 & 409L	Gross and Developmental Human Anatomy and Gross and Developmental Human Anatomy Laboratory	
Option 2:		
BIOL 209 & 209L	Human Anatomy and Physiology and Human Anatomy and Physiology Laboratory	
BIOL 210 & 210L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory	
CHEM 311 & 311L	Organic Chemistry I and Organic Chemistry I Laboratory	5
CHEM 312 & 312L	Organic Chemistry II and Organic Chemistry II Laboratory	5
KINE 499	Internship	3-12
Upper level lab-based Biology courses		
Additional Psychology course		
Total Semester Credit Hours		21-30

Physical Therapy

Code	Title	Semester Credit Hours
Select one of the following options		
Option 1:		8

BIOL 341 & 341L	General Physiology and General Physiology Laboratory	
BIOL 409 & 409L	Gross and Developmental Human Anatomy and Gross and Developmental Human Anatomy Laboratory	

Option 2:

BIOL 209 & 209L	Human Anatomy and Physiology and Human Anatomy and Physiology Laboratory	
BIOL 210 & 210L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory	
PHYS 111 & 111L	General Physics-GTSC1 and General Physics Laboratory-GTSC1	5
PHYS 112 & 112L	General Physics-GTSC1 and General Physics Laboratory-GTSC1	5
PSYC 233	Human Growth and Development-GTSS3	3
PSYC 310	Child Psychology	3
or PSYC 340	Abnormal Psychology	
KINE 499	Internship	3-12
Total Semester Credit Hours		27-36

Occupational Therapy

Code	Title	Semester Credit Hours
BIOL 409 & 409L	Gross and Developmental Human Anatomy and Gross and Developmental Human Anatomy Laboratory	4
PHYS 111 & 111L	General Physics-GTSC1 and General Physics Laboratory-GTSC1	5
PSYC 233	Human Growth and Development-GTSS3	3
PSYC 340	Abnormal Psychology	3
KINE 499	Internship	3-12
Sociology and/or Anthropology courses		
Medical Terminology		
Total Semester Credit Hours		18-27

Chiropractic

Code	Title	Semester Credit Hours
CHEM 311 & 311L	Organic Chemistry I and Organic Chemistry I Laboratory	5
CHEM 312 & 312L	Organic Chemistry II and Organic Chemistry II Laboratory	5
PHYS 111 & 111L	General Physics-GTSC1 and General Physics Laboratory-GTSC1	5
PHYS 112 & 112L	General Physics-GTSC1 and General Physics Laboratory-GTSC1	5
Social Science and Humanities courses		
Total Semester Credit Hours		20

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements.

Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for her/his intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.