

# EXERCISE SCIENCE - B.S.

This B.S. degree requires 60 liberal arts credits out of the 120 credits required for graduation.

## Summary

Code	Title	Credits
	Exercise Science Major Requirements	72-87
	Integrative Core Curriculum and Electives <sup>1</sup>	33-48
<b>Total Credits</b>		<b>120</b>

<sup>1</sup> This major is approved to fulfill the Integrative Core Curriculum (https://catalog.ithaca.edu/undergrad/programsaz/integrative-core-curriculum/) requirement for the Natural Sciences perspective.

Code	Title	Credits
<b>Exercise Science Core Requirements</b>		
EXSS 12000	Anatomy and Physiology I	4
EXSS 12100	Anatomy and Physiology II	4
EXSS 12500	Foundations of Human Performance and Wellness	2
EXSS 20200	Sport and Exercise Psychology	3
EXSS 22000	Kinesiology	4
EXSS 24600	Prevention and Care of Athletic Injuries	3
EXSS 30600	Biomechanical Principles of Human Movement	4
EXSS 32000	Neuromuscular Control	3
EXSS 32100	Exercise Physiology	4
EXSS 37500	Research Methods in Exercise and Sport Sciences (ICC-WI)	3
Physics course:		
PHYS 10100	Introduction to Physics I	4
Nutrition course:		
HLTH 20200	Human Nutrition	3
Statistics course (choose one):		
MATH 14400	Statistics for Business, Economics and Management	3-4
MATH 14500	Statistics for the Health, Life, and Social Sciences	
MATH 15500	Basic Statistical Reasoning	
PSYC 20700	Statistics in Psychology	
<b>Total Credits</b>		<b>44-45</b>

## Medical Sciences Concentration

Code	Title	Credits
EXSS 47500	Research Team I: Exercise and Sport Sciences	3
EXSS 47700	Research Team II	3
Math Elective		4
MATH 10400	Finite Mathematics with Calculus	
MATH 10800	Applied Calculus	
MATH 11100	Calculus I	

Medical Science Electives	20
<b>Total Credits</b>	<b>30-42</b>

## Medical Science Electives

Code	Title	Credits
<b>Biology Elective</b>		
Biology Track 1		
BIOL 11900 & BIOL 12000	Fundamentals of Biology: Cells and Bodies and Fundamentals of Biology: Ecology and Evolution	8
Biology Track 2		
BIOL 12100 & BIOL 12200	Principles of Biology, Cell and Molecular and Principles of Biology, Ecology and Evolution	

Code	Title	Credits
<b>Chemistry Elective</b>		
Chemistry Track 1		
CHEM 12100 & CHEM 12200	Principles of Chemistry and Principles of Chemistry Laboratory	8
CHEM 11200 & CHEM 11400	Organic Chemistry and Biochemistry and Chemistry Laboratory	
Chemistry Track 2		
CHEM 12100 & CHEM 12200	Principles of Chemistry and Principles of Chemistry Laboratory	16
CHEM 22100 & CHEM 22300	Organic Chemistry I and Organic Chemistry I Laboratory	
CHEM 22200 & CHEM 22400	Organic Chemistry II and Organic Chemistry II Laboratory	
CHEM 23200 & CHEM 23300	Quantitative Chemistry and Quantitative Chemistry Laboratory	

Code	Title	Credits
<b>Physics Elective</b>		
Select one of the following options:		
PHYS 10200	Introduction to Physics II	4-8
PHYS 11700	Momentum, Energy, and Heat	
PHYS 11700 & PHYS 11800	Momentum, Energy, and Heat and Classical Fields: Gravity, Electricity, & Magnetism	

## Sport Sciences Concentration

Code	Title	Credits
EXSS 47500	Research Team I: Exercise and Sport Sciences	3
EXSS 47700	Research Team II	3
Math Elective		4
MATH 10400	Finite Mathematics with Calculus	
MATH 10800	Applied Calculus	
MATH 11100	Calculus I	
Restricted Electives or a Minor		18
<b>Total Credits</b>		<b>28</b>

## Restricted Electives

Code	Title	Credits
<b>Any Combination of 18 Credits:</b>		
EXSS 26200	Personal Training	3

EXSS 26400	Strength and Conditioning Foundations	3	EXSS 47300	Internship: Strength and Conditioning	6
EXSS 30200	Psychology of Injury in Sport and Exercise	3	<b>Total Credits</b>		<b>35</b>
EXSS 40400	Leadership and Team Building in Exercise and Sport	3			
EXSS 40500	Applied Techniques in Sport Psychology	3			
EXSS 42100	Advanced Study in Exercise Physiology	3			
EXSS 42200	Exercise and Rehabilitation Psychology	3			
EXSS 44700	Pathophysiology, Limited Capacity and Exercise	3			
BIOL 11900	Fundamentals of Biology: Cells and Bodies	4			
BIOL 12000	Fundamentals of Biology: Ecology and Evolution	4			
BIOL 12100	Principles of Biology, Cell and Molecular	4			
BIOL 12200	Principles of Biology, Ecology and Evolution	4			
CHEM 11200	Organic Chemistry and Biochemistry	3			
CHEM 12100 & CHEM 12200	Principles of Chemistry and Principles of Chemistry Laboratory	4			
CHEM 22100 & CHEM 22300	Organic Chemistry I and Organic Chemistry I Laboratory	4			
CHEM 22200 & CHEM 22400	Organic Chemistry II and Organic Chemistry II Laboratory	4			
CHEM 23200 & CHEM 23300	Quantitative Chemistry and Quantitative Chemistry Laboratory	4			
PHYS 10200	Introduction to Physics II	4			

## Strength and Conditioning for Performance and Wellness Concentration

Code	Title	Credits
EXSS 17300	Fieldwork in Exercise Science I	1
EXSS 26200	Personal Training	3
EXSS 26400	Strength and Conditioning Foundations	3
EXSS 26500	Practicum in Performance and Wellness I	1
EXSS 38400	Practicum in Performance and Wellness II	1
EXSS 38500	Practicum in Performance and Wellness III	1
EXSS 38600	Practicum in Performance and Wellness IV	1
EXSS 38700	Practicum in Performance and Wellness Testing	1
EXSS 39000	Advanced Strength and Conditioning	3
EXSS 42100	Advanced Study in Exercise Physiology	3
EXSS 42200	Exercise and Rehabilitation Psychology	3
EXSS 44700	Pathophysiology, Limited Capacity and Exercise	3
EXSS 46600	Administration, Mentoring, and Professional Preparation	3
EXSS 47000	Applied Practice in Strength and Conditioning and Wellness	2