

# MEDICAL SCIENCES (B.S.)

To graduate in this program, students must earn a minimum grade of C in BIOL 1150 and BIOL 1150L. Required course work includes the university requirements (see regulation J-3 (<https://catalog.uidaho.edu/general-requirements-academic-procedures/j-general-requirements-baccalaureate-degrees/>)) and:

Code	Title	Hours
BIOL 1010	Opportunities in Biological Sciences	1
BIOL 1510	Intro to Health Professions	1
BIOL 1150 & 1150L	Cells and the Evolution of Life and Cells and the Evolution of Life Laboratory	4
BIOL 2227	Anatomy and Physiology I	4
BIOL 2228	Anatomy and Physiology II	4
BIOL 2500 & BIOL 2550	General Microbiology and General Microbiology Lab	5
BIOL 3100 & BIOL 3150	Genetics and Genetics Lab	4
BIOL 3120 & BIOL 3130	Molecular and Cellular Biology and Molecular and Cellular Laboratory	4
BIOL 3800	Biochemistry I	4
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Laboratory	4
CHEM 1120 & 1120L	General Chemistry II and General Chemistry II Laboratory	5
CHEM 2770 & CHEM 2780	Organic Chemistry I and Organic Chemistry I: Lab	4
MATH 1170	Calculus I	4
PHIL 1103	Introduction to Ethics	3
PSYC 1101	Introduction to Psychology	3
SOC 1101	Introduction to Sociology	3
STAT 2510 or STAT 3010	Statistical Methods or Probability and Statistics	3
Select one of the following Physics sequences:		8
PHYS 1111 & 1111L	General Physics I and General Physics I Lab	
PHYS 1112 & 1112L	General Physics II and General Physics II Lab	
OR		
PHYS 2110 & 2110L	Engineering Physics I and Laboratory Physics I	
PHYS 2120 & 2120L	Engineering Physics II and Laboratory Physics II	
Select 3 credits of Written Communication courses from the following:		3
ENGL 2020	Technical Writing I	
ENGL 2080	Personal and Exploratory Writing	
ENGL 3170	Technical Writing II	
ENGL 3180	Science Writing	
ENGL 3200	Grant Proposal Writing	
Select one of the following Senior Capstone courses:		2
BIOL 4010	Undergraduate Research (Max 8 credits)	
BIOL 4070	Practicum in Biology Laboratory Teaching	

BIOL 4080	Human Anatomy and Physiology Laboratory Pedagogy (Max 8 credits)	
BIOL 4110	Senior Capstone	
Select one of the following:		3
ANTH/SOC 4170	Social Data Analysis	
BIOL 4560	Computer Skills for Biologists	
BIOL 4460	Phylogenetics	
CHEM 3020	Principles of Physical Chemistry	
MATH 4370	Mathematical Biology	
STAT 4270	R Programming	
STAT 4310	Statistical Analysis	
Select 3 credits of Critical Thinking courses from the following:		3
ENGL 2070	Persuasive Writing	
PHIL 2010	Critical Thinking	
PHIL 2020	Introduction to Symbolic Logic	
PHIL 4170	Philosophy of Biology	
Select 2-3 credits of Leadership and Professional courses from the following:		2-3
BIOL 3980	Internship	
INTR 4920	College of Science Ambassadors (Max 8 credits)	
INTR 4960	Pre-Health Peer Mentors (Max 4 credits)	
MGT 3110	Introduction to Management	
PHIL 3610	Professional Ethics	
PSYC 4140	Traumatic Events: Preparation, Intervention, Evaluation	
Select 6 credits of Psychology courses from the following:		6
PSYC 3050	Developmental Psychology	
PSYC 3110	Abnormal Psychology	
PSYC 3250	Cognitive Psychology	
PSYC 3720	Physiological Psychology	
PSYC 4700	Introduction to Chemical Addictions	
PSYC 4720	Introduction to the Pharmacology of Psychoactive Drugs	
Select 6 credits of Global and Cultural Competence courses from the following:		6
ANTH 3270	Belief Systems	
ANTH 4440	Health, Illness, and Society	
COMM 3350	Intercultural Communication	
FN 4500	Global Nutrition	
HIST 3800	Disease and Culture: History of Western Medicine	
JAMM 3400	Media and Diversity	
POLS 3850	Political Psychology	
SOC 2010	Introduction to Inequity and Justice	
SOC 3400	Environmental Sociology and Globalization	
SOC 4270	Racial and Ethnic Relations	
Select 9 credits of Biomedical Sciences courses from the following:		9
BIOL 3140	Ecology and Population Biology	
BIOL 3400	Pathophysiology	
BIOL 4210	Advanced Evolution	
BIOL 4280	Microscopic Anatomy	
BIOL 4320	Immunology	
BIOL 4330	Pathogenic Microbiology	

BIOL 4440	Genomics
BIOL 4470	Virology
BIOL 4540	Biochemistry II
BIOL 4610	Neurobiology
BIOL 4740	Developmental Biology
BIOL 4820	Protein Structure and Function
BIOL 4870	Cellular and Molecular Basis of Disease
CHEM 3720	Organic Chemistry II
CHEM 4720	Medicinal Chemistry
ENT 4110	Veterinary & Medical Entomology
ENT 4760	Medical Parasitology
FN 4150	Advanced Nutrition
ESHS 4500	Critical Health Issues
ESHS 4510	Psychosocial Determinants of Health
PLSC 4400	Advanced Laboratory Techniques
PSYC 4730	Blood and Airborne Pathogens: HIV/STDs/ Hepatitis/TB

**Total Hours** **102-103**

**Courses to total 120 credits for this degree**

## Four-Year Plan

Fall Term 1	Hours	
BIOL 1010	Opportunities in Biological Sciences	1
BIOL 1510	Intro to Health Professions	1
CHEM 1111	General Chemistry I	3
CHEM 1111L	General Chemistry I Laboratory	1
ENGL 1101	Writing and Rhetoric I	3
MATH 1170	Calculus I	4
PSYC 1101	Introduction to Psychology	3
<b>Hours</b>		<b>16</b>
<b>Spring Term 1</b>		
BIOL 1150	Cells and the Evolution of Life	3
BIOL 1150L	Cells and the Evolution of Life Laboratory	1
CHEM 1120	General Chemistry II	4
CHEM 1120L	General Chemistry II Laboratory	1
ENGL 1102	Writing and Rhetoric II	3
STAT 2510 OR STAT 3010		3
<b>Hours</b>		<b>15</b>
<b>Fall Term 2</b>		
BIOL 2227	Anatomy and Physiology I	4
CHEM 2770	Organic Chemistry I	3
CHEM 2780	Organic Chemistry I: Lab	1
BIOL 2500	General Microbiology	3
BIOL 2550	General Microbiology Lab	2
SOC 1101	Introduction to Sociology	3
<b>Hours</b>		<b>16</b>
<b>Spring Term 2</b>		
BIOL 2228	Anatomy and Physiology II	4
PHIL 1103	Introduction to Ethics	3
Oral Communication Course		3
ENGL 2020 OR ENGL 2080 OR ENGL 3170 OR ENGL 3180 OR ENGL 3200		3
PSYC 3050 OR PSYC 3110 OR PSYC 3250 OR PSYC 3720 OR PSYC 4700 OR PSYC 4720		3
<b>Hours</b>		<b>16</b>
<b>Fall Term 3</b>		
BIOL 3800	Biochemistry I	4
BIOL 3100	Genetics	3

BIOL 3150	Genetics Lab	1
ENGL 2070 OR PHIL 2010 OR PHIL 2020 OR PHIL 4170		3
(PHYS 1111 AND PHYS 1111L) OR (PHYS 2110 AND PHYS 2110L)		4

**Hours** **15**

### Spring Term 3

BIOL 3120	Molecular and Cellular Biology	3
BIOL 3130	Molecular and Cellular Laboratory	1
Elective Course		1
(PHYS 1112 AND PHYS 1112L) OR (PHYS 2120 AND PHYS 2120L)		4
ANTH 3270 OR ANTH 4440 OR COMM 3350 OR FN 4500 OR HIST 3800 OR JAMM 3400 OR POLS 3850 OR SOC 2010 OR SOC 3400		3
BIOL 3980 OR INTR 4920 OR INTR 4960 OR MGT 3110 OR PHIL 3610 OR PSYC 4140		2

**Hours** **14**

### Fall Term 4

Humanistic and Artistic Ways of Knowing Course		3
BIOL 3140 OR BIOL 4210 OR BIOL 4280 OR BIOL 4320 OR BIOL 4330 OR BIOL 4440 OR BIOL 4470 OR BIOL 4540 OR BIOL 4610 OR BIOL 4740 OR BIOL 4820 OR BIOL 4870 OR CHEM 3720 OR ENT 4110 OR ENT 4760 OR FN 4150 OR ESHS 4500 OR ESHS 4510		3
BIOL 3140 OR BIOL 4210 OR BIOL 4280 OR BIOL 4320 OR BIOL 4330 OR BIOL 4440 OR BIOL 4470 OR BIOL 4540 OR BIOL 4610 OR BIOL 4740 OR BIOL 4820 OR BIOL 4870 OR CHEM 3720 OR ENT 4110 OR ENT 4760 OR FN 4150 OR ESHS 4500 OR ESHS 4510		3
ANTH 4170 OR BIOL 4460 OR BIOL 4560 OR CHEM 3020 OR MATH 4370 OR STAT 4270 OR STAT 4310		3
PSYC 3050 OR PSYC 3110 OR PSYC 3250 OR PSYC 3720 OR PSYC 4700 OR PSYC 4720		3

**Hours** **15**

### Spring Term 4

International Course		3
Elective Course		3
BIOL 4010 OR BIOL 4070 OR BIOL 4080 OR BIOL 4110		2
BIOL 3140 OR BIOL 4210 OR BIOL 4280 OR BIOL 4320 OR BIOL 4330 OR BIOL 4440 OR BIOL 4470 OR BIOL 4540 OR BIOL 4610 OR BIOL 4740 OR BIOL 4820 OR BIOL 4870 OR CHEM 3720 OR CHEM 4720 OR ENT 4110 OR ENT 4760 OR FN 4150 OR ESHS 4500 OR ESHS 4510		3
ANTH 3270 OR ANTH 4440 OR COMM 3350 OR FN 4500 OR HIST 3800 OR JAMM 3400 OR POLS 3850 OR SOC 2010 OR SOC 3400		3

**Hours** **14**

**Total Hours** **121**

## Five-Year Plan

Fall Term 1	Hours	
BIOL 1010	Opportunities in Biological Sciences	1
BIOL 1510	Intro to Health Professions	1
MATH 1143	Precalculus I: Algebra	3
ENGL 1101	Writing and Rhetoric I	3
MATH 1144	Precalculus II: Trigonometry	1
PSYC 1101	Introduction to Psychology	3
Oral Communication Course		3
<b>Hours</b>		<b>15</b>
<b>Spring Term 1</b>		
CHEM 1111	General Chemistry I	3
CHEM 1111L	General Chemistry I Laboratory	1
ENGL 1102	Writing and Rhetoric II	3
MATH 1170	Calculus I	4
Elective Course		1
<b>Hours</b>		<b>12</b>
<b>Fall Term 2</b>		
BIOL 1150	Cells and the Evolution of Life	3
BIOL 1150L	Cells and the Evolution of Life Laboratory	1
PHIL 1103	Introduction to Ethics	3

CHEM 1120	General Chemistry II	4
CHEM 1120L	General Chemistry II Laboratory	1
<b>Hours</b>		<b>12</b>
<b>Spring Term 2</b>		
CHEM 2770	Organic Chemistry I	3
CHEM 2780	Organic Chemistry I: Lab	1
Elective Course		2
ENGL 2020 OR ENGL 2080 OR ENGL 3170 OR ENGL 3180 OR ENGL 3200		3
STAT 2510 OR STAT 3010		3
<b>Hours</b>		<b>12</b>
<b>Fall Term 3</b>		
BIOL 2227	Anatomy and Physiology I	4
BIOL 2500	General Microbiology	3
BIOL 2550	General Microbiology Lab	2
(PHYS 1111 AND PHYS 1111L) OR (PHYS 2110 AND PHYS 2110L)		4
<b>Hours</b>		<b>13</b>
<b>Spring Term 3</b>		
BIOL 2228	Anatomy and Physiology II	4
Psychology, Major Elective Course		3
Critical Thinking, Major Elective Course		3
Humanistic and Artistic Ways of Knowing Course		3
<b>Hours</b>		<b>13</b>
<b>Fall Term 4</b>		
BIOL 3800	Biochemistry I	4
BIOL 3100	Genetics	3
BIOL 3150	Genetics Lab	1
(PHYS 1111 AND PHYS 1111L) OR (PHYS 2110 AND PHYS 2110L)		4
<b>Hours</b>		<b>12</b>
<b>Spring Term 4</b>		
BIOL 3120	Molecular and Cellular Biology	3
BIOL 3130	Molecular and Cellular Laboratory	1
Global and Cultural Competence Elective, Major Elective Course		3
Leadership & Prof., 2- Major Elective Course		3
(PHYS 1112 AND PHYS 1112L) OR (PHYS 2120 AND PHYS 2120L)		4
<b>Hours</b>		<b>14</b>
<b>Fall Term 5</b>		
Biomedical, Major Elective Course		3
Biomedical, Major Elective Course		3
Analysis/Comp/Math Skills, Major Elective Course		3
Psychology, Major Elective Course		3
<b>Hours</b>		<b>12</b>
<b>Spring Term 5</b>		
Biomedical, Major Elective Course		3
Global and Cultural Competence Elective, Major Elective Course		3
International Course		3
1 credit Elective Course		1
BIOL 4010 OR BIOL 4070 OR BIOL 4080 OR BIOL 4110		2
<b>Hours</b>		<b>12</b>
<b>Total Hours</b>		<b>127</b>

The degree map is a guide for the timely completion of your curricular requirements. Your academic advisor or department may be contacted for assistance in interpreting this map. This map is not reflective of your academic history or transcript and it is not official notification of completion of degree or certificate requirements. Please contact the Registrar's Office regarding your official degree/certificate completion status.

to understand living systems from the molecular to population level with relevance to biomedical issues.

2. Think and create: Students will be able to use multiple thinking strategies to examine issues in biology, including the proposal of biological hypotheses and the design and analysis of biological experiments capable of testing hypotheses. Students will be able to apply biological knowledge to real world challenges, such as those that may be encountered in medicine.
3. Communicate: Students will be able to acquire and analyze biological information from the scientific literature. Students will be able to communicate biological information via verbal, written, and other non-verbal methods such as appropriate graphics.
4. Clarify purpose and perspective: The program will allow students to explore medical sciences and biology primarily in the context of a career in the biomedical sciences, as well as to apply a biomedical perspective to novel issues or problems within biology, medicine or other disciplines.
5. Practice citizenship: Students will understand and accept their roles as educated biologists and scientists in society. Students will be able to communicate with others, including non-scientists, from the special perspective of an educated biologist on issues related to medicine and other topics.

1. Learn and integrate: Through independent learning and collaborative study, students will attain, use, and develop knowledge in biology, chemistry, and related disciplines with specialization in biology. Students will be able to integrate biological and chemical information