

economic contexts surrounding tourism in a natural resource setting. All students learn the processes and conceptual skills needed to determine alternative management strategies, make management decisions, and carry out management programs. Included are courses leading to an understanding of the basic ecological characteristics of recreational lands. Students also take courses dealing with human behavior and management. Emphasis is placed on presenting problems that would be encountered while managing national parks and forests, state and regional parks, wilderness areas, and other recreation resources of international and national significance.

## Bachelor of Science - Parks, Tourism & Rec Management

### W.A Franke College of Forestry & Conservation

Degree Specific Credits: 75

Required Cumulative GPA: 2.0

### Catalog Year: 2017-2018

**Note:** There are no longer "degree options". Students can design their own elective choices with an advisor.

## General Education Requirements

Information regarding these requirements can be found in the General Education Section (<http://catalog.umt.edu/academics/general-education-requirements>) of the catalog.

## Summary

Major Required Courses	15
Outside Major Required Courses	28-29
Major Required Courses	28
Writing Within Major	9
Math within Major	3
Exception to the Modern/Classical Languages Requirement	3-4
Expressive Arts Requirement	3
Social Science within Major	3
Ethical & Human Values Elective within Major	3
Natural Sciences within Major	6
Total Hours	101-103

## Major Required Courses

**Rule:** Must take all courses

NRSM 121S	Nature of Montana	3
NRSM 200	Nat.Resource Professional Wrtg	3
NRSM 210N	Soils, Water and Climate	3
PTRM 210S	Nature Tourism & Comm Rec	3
PTRM 217S	Parks & Outdoor Rec. Mgmt.	3
Total Hours		15

Minimum Required Grade: C-

## Outside Major Required Courses

**Rule:** Must take all courses

ACTG 201	Principles of Financial Accounting	3
ACTG 202	Principles of Managerial Accounting	3
Select one of the following:		3
BIOB 170N	Princpls Biological Diversity	
BIOE 172N	Introductory Ecology	3
BIOO 105N	Introduction to Botany	3
COMX 111A	Intro to Public Speaking	3
or THTR 120A	Introduction to Acting I	
ECNS 201S	Principles of Microeconomics	3
M 115	Probability and Linear Mathematics	3
PSYX 100S	Intro to Psychology	3
Select one of the following:		3-4
STAT 216	Introduction to Statistics	
SOCI 202	Social Statistics	
FORS 201	Forest Biometrics	
WRIT 101	College Writing I	3
Total Hours		33-34

Minimum Required Grade: C-

## Major Required Courses

**Rule:** Must take all courses

FORS 330	Forest Ecology	3
or NRSM 462	Rangeland Ecology	
NRSM 422	Nat Res Policy/Administration	3
or WILD 410	Wildlife Policy & Biopolitics	
PTRM 300	Recreation Behavior	3
PTRM 310	Nat Res Interp and Comm	3
PTRM 380	Rec Admin & Leadership	3
PTRM 482	Wilderness & Protctd Area Mgt	3
or PTRM 451	Tourism & Sustainability	
PTRM 484	PTRM Field Measurement Tech	3
PTRM 485	Recreation Planning	3
PTRM 495	Practicum in PTRM	4
Total Hours		28

## Skills Courses

Select at least 3 credits from the following: 3

ECP 120	Emergency Medical Responder Lecture	
& ECP 121	and Emergency Medical Responder Lab	
NRSM 379	Collab in Nat Res Decisions	
BMKT 325	Principles of Marketing	
FORS 250	Intro to GIS for Forest Mgt	
Total Hours		3

Alternatively, students can take two semesters of a foreign language.

Minimum Required Grade: C-

**Writing Within Major****Rule:** Must complete the following subcategories

9 Total Credits Required

**Lower Division Writing****Rule:** Must take all courses

NRSM 200	Nat.Resource Professional Wrtg	3
WRIT 101	College Writing I	3
Total Hours		6

Minimum Required Grade: C-

**Upper Division Writing****Rule:** Must take one of the following courses

PTRM 451	Tourism & Sustainability	3
or PTRM 482	Wilderness & Protctd Area Mgt	
Total Hours		3

Minimum Required Grade: C-

**Math within Major****Rule:** Must take all courses

M 115	Probability and Linear Mathematics	3
Total Hours		3

Minimum Required Grade: C

**Exception to the Modern/Classical Languages Requirement**

**Rule:** The Parks, Tourism, and Recreation Management major has been granted an exception to the Modern/Classical Language Requirement. Must take one of the following courses to will satisfy this requirement.

Select one from the following:		3
FORS 201	Forest Biometrics	
SOCI 202	Social Statistics	
STAT 216	Introduction to Statistics	
Total Hours		3

Minimum Required Grade: C-

**Expressive Arts Requirement**

COMX 111A	Intro to Public Speaking	3
or THTR 120A	Introduction to Acting I	
Total Hours		3

Minimum Required Grade: C-

**Social Science within Major****Rule:** must take the following course

PTRM 217S	Parks & Outdoor Rec. Mgmt.	3
Total Hours		3

Minimum Required Grade: C-

**Ethical & Human Values Elective within Major****Rule:** CAN take the elective course

NRSM 389E	Ethics Forestry & Conservation	3
Total Hours		3

Minimum Required Grade: C-

**Natural Sciences within Major****Rule:** Must take NRSM 210N and one of the biology courses

NRSM 210N	Soils, Water and Climate	3
Select one of the following:		3
BIOB 170N	Princpls Biological Diversity	
BIOE 172N	Introductory Ecology	
BIOO 105N	Introduction to Botany	
Total Hours		6

Minimum Required Grade: C-

**Tracks**

These are advising tracks only and not official programs as recognized by the University of Montana (UM) or the Montana University System. This information will not appear on your UM transcript, diploma, university lists, student data system, or university publication. You do not fill out a major change for a track.

**Nature Based Tourism Recommended Electives****Rule:** Can take these track courses

**Note:** Courses are not required in this track - please talk to a faculty advisor on what classes will be best for your area of interest.

ANTY 101H	Anthro & the Human Experience	3
BMKT 325	Principles of Marketing	3
BMKT 337	Consumer Behavior	3
COMX 220S	Intro to Organizational Comm	3
COMX 351	Principles of Public Relations	3
ECNS 202S	Principles of Macroeconomics	3
FORS 202	Forest Mensuration	3
FORS 320	Forest Environmental Economics	3
FORS 351	Env Remote Sensing	3
GEO 101N	Introduction to Physical Geology	3
GPHY 111N	Intro to Physical Geography	3
GPHY 311N	Biogeography	3
GPHY 433	Cultural Ecology	3
NRSM 121S	Nature of Montana	3
NRSM 379	Collab in Nat Res Decisions	3
NRSM 389E	Ethics Forestry & Conservation	3
NRSM 475	Environment & Development	3

PHL 112E	Intro Ethics and Environment	3
PTRM 150	Current Issues in PTRM	1

Minimum Required Grade: C-

### Outdoor Recreation Services

**Rule:** Can take these track courses

**Note:** Courses are not required in this track - please talk to a faculty advisor on what classes will be best for your area of interest.

BMGT 401	Event Management	3
COMX 115S	Introduction to Interpersonal Communications	3
COMX 220S	Intro to Organizational Comm	3
COMX 421	Comm in Non-Profit Organizatns	3
ENST 225	Community & Environment	3
ENST 230H	Nature and Society	3
GPHY 121S	Human Geography	3
NASX 180	Event Planning	3
NRSM 121S	Nature of Montana	3
NRSM 379	Collab in Nat Res Decisions	3
PSCI 460	Exp Offering: Public Admin	1-9
PSCI 467	Adv Nonprofit Adm	3
PTRM 150	Current Issues in PTRM	1
S W 300	Hum Behav & Soc Environ	3
SOCI 346	Rural Sociology	3
SOCI 350	The Community	3

Minimum Required Grade: C-

### Recreation Resource Management Track

**Rule:** Can take these track courses

**Note:** Courses are not required in this track - please talk to a faculty advisor on what classes will be best for your area of interest.

CHMY 121N	Introduction to General Chemistry	3
COMX 421	Comm in Non-Profit Organizatns	3
FORS 230	Fire Management & Environmental Change	3
FORS 240	Tree Biology	2
FORS 241N	Dendrology	3
FORS 250	Intro to GIS for Forest Mgt	3
FORS 331	Wildland Fuel Management	3
FORS 333	Fire Ecology	3
FORS 347	Multiple Resource Silviculture	3
GPHY 121S	Human Geography	3
GPHY 433	Cultural Ecology	3
NRSM 121S	Nature of Montana	3
NRSM 265	Elements of Ecological Restora	3
NRSM 379	Collab in Nat Res Decisions	3
NRSM 389E	Ethics Forestry & Conservation	3
NRSM 475	Environment & Development	3
PTRM 150	Current Issues in PTRM	1

Minimum Required Grade: C-

## Resource Conservation

**Laurie Yung, Associate Professor, Resource Conservation Program Director**

The challenging and rapidly evolving field of environmental conservation requires broad training and the ability to integrate and communicate across disciplines. Resource Conservation is an interdepartmental undergraduate major that prepares students for the diverse opportunities that now exist in environmental conservation, natural resource management, and sustainable livelihoods and communities. Students can choose a more structured area of study in the natural sciences, such as ecology or hydrology, or emphasize emerging sub-disciplines such as wildland fire management, natural resource economics, or climate and environmental change. Students can also integrate across disciplines and focus on environmental policy and natural resources planning, wilderness studies, sustainable livelihoods and community conservation, or international conservation. Please go to the Resource Conservation website (<http://www.cfc.umt.edu/rc>) for more information on different curricular tracks within the Resource Conservation major. In addition to degree requirements listed below, students selecting the Bachelor of Science in Resource Conservation should contact their faculty advisor to approve their curriculum.

### Undergraduate

- Resource Conservation B.S. (p. 123)

## Resource Conservation B.S.

*Laurie Yung, Associate Professor, Resource Conservation Program Director*

The challenging and rapidly evolving field of environmental conservation requires broad training and the ability to integrate and communicate across disciplines. Resource Conservation is an interdepartmental undergraduate major that prepares students for the diverse opportunities that now exist in environmental conservation, natural resource management, and sustainable livelihoods and communities. Students can choose a more structured area of study in the natural sciences, such as ecology or hydrology, or emphasize emerging sub-disciplines such as wildland fire management, natural resource economics, or climate and environmental change. Students can also integrate across disciplines and focus on environmental policy and natural resources planning, wilderness studies, sustainable livelihoods and community conservation, or international conservation. Please go to the Resource Conservation website (<http://www.cfc.umt.edu/rc>) for more information on different curricular tracks within the Resource Conservation major. In addition to degree requirements listed below, students selecting the Bachelor of Science in Resource Conservation should contact their faculty advisor to approve their curriculum.

## Bachelor of Science - Resource Conservation

**W.A Franke College of Forestry & Conservation**

**Degree Specific Credits:** 43

**Required Cumulative GPA:** 2.0

**Catalog Year: 2017-2018****General Education Requirements**

Information regarding these requirements can be found in the General Education Section (<http://catalog.umt.edu/academics/general-education-requirements>) of the catalog.

**Summary**

Professional Writing	3
Chemistry	3
Quantitative and Spatial Analysis	9-12
Biology	3-4
Communication	3
Physical Science	3
Ecology	3
Policy	3
Social Science	3
Ethics	3
Additional Required Courses	46
Writing	15
Math	3-4
Exception to the Modern/Classical Languages Requirement	3-4
Expressive Arts	3
Ethical & Human Values	3
Natural Sciences in Major	6
<b>Total Hours</b>	<b>115-121</b>

**Professional Writing**

**Rule:** Must take the following course

NRSM 200	Nat.Resource Professional Wrtg	3
<b>Total Hours</b>		<b>3</b>

Minimum Required Grade: C-

**Chemistry**

**Rule:** Must take the following course

CHMY 121N	Introduction to General Chemistry	3
<b>Total Hours</b>		<b>3</b>

Minimum Required Grade: C-

**Quantitative and Spatial Analysis**

**Rule:** Three courses are required

**Note:** FORS 250 is highly recommended

Select one of the following:	3-4
FORS 201	Forest Biometrics
STAT 216	Introduction to Statistics
SOCI 202	Social Statistics

Select two of the following: 6-8

FORS 250	Intro to GIS for Forest Mgt (highly recommended)
M 115	Probability and Linear Mathematics
M 121	College Algebra
M 122	College Trigonometry
M 151	Precalculus
M 162	Applied Calculus
<b>Total Hours</b>	<b>9-12</b>

Minimum Required Grade: C-

**Biology**

Select one of the following: 3-4

BIOB 160N	Principles of Living Systems
& BIOB 161N	and Prncpls of Living Systems Lab
BIOB 170N	Prncpls Biological Diversity
BIOE 172N	Introductory Ecology
BIOO 105N	Introduction to Botany
<b>Total Hours</b>	<b>3-4</b>

Minimum Required Grade: C-

**Communication**

COMX 111A	Intro to Public Speaking	3
or THTR 120A	Introduction to Acting I	
<b>Total Hours</b>		<b>3</b>

Minimum Required Grade: C-

**Physical Science**

**Rule:** Must take the following course

NRSM 210N	Soils, Water and Climate	3
<b>Total Hours</b>		<b>3</b>

Minimum Required Grade: C-

**Ecology**

Select one of the following: 3

BIOE 370	General Ecology	
FORS 330	Forest Ecology	
NRSM 462	Rangeland Ecology	
<b>Total Hours</b>		<b>3</b>

Minimum Required Grade: C-

**Policy**

Select one of the following: 3

NRSM 370S	Wildland Conserv Pol/Govrnance
NRSM 422	Nat Res Policy/Administration

WILD 410	Wildlife Policy & Biopolitics	
Total Hours		3

Minimum Required Grade: C-

### Social Science

Select one of the following: 3

NRSM 379	Collab in Nat Res Decisions	
NRSM 424	Community Forestry & Conservtn	
NRSM 426	Climate and Society	
NRSM 475	Environment & Development	
PTRM 300	Recreation Behavior	
Total Hours		3

Minimum Required Grade: C-

### Ethics

NRSM 449E	Climate Change Ethics/Policy	3
or NRSM 389E Ethics Forestry & Conservation		
Total Hours		3

Minimum Required Grade: C-

### Additional Required Courses

**Rule:** Must take at least 36 traditional letter-graded credits from the College of Forestry and Conservation (NRSM, WILD, FORS, PTRM, CCS 103X, CCS 352, CCS 391)

**Note:** In addition to the above requirements, Resource Conservation students are also required to take at least 10 additional credits in their area of emphasis. Students can choose courses from the following prefixes: BIOO, BIOE, CHMY, ENSC, FORS, GEOS, M, NRSM, PHSX, and WILD. Alternatively, students can take two semesters of a foreign language (or otherwise demonstrate foreign language proficiency).

All students must take at least 49 approved credits in the major.

Students double majoring with Resource Conservation and Ecological Restoration, Forestry, Wildlife Biology, and Parks, Tourism and Recreation Management must take an additional 9.0 credits in FORS, NRSM, PTRM, and WILD in addition to courses required by either of their majors. These additional 9.0 credits will be relevant to the student's track/emphasis with the major.

Minimum Required Grade: C-

### Writing

**Rule:** Must take both lower-division courses (WRIT 101 and NRSM 200) and at least 3 courses at the upper-division level listed below

**Note:** The following courses count for the entire upper-division writing requirement (only one course is required): PTRM 451, PTRM 482.

Select at least three of the following:		9
BIOE 428	Freshwater Ecology	
FORS 330	Forest Ecology	

FORS 341	Timber Harvesting & Roads	
FORS 347	Multiple Resource Silviculture	
FORS 349	Practice of Silviculture	
FORS 440	Forest Stand Management	
FORS 499	Senior Thesis	
NASX 403	Contmp Tribal Resource Issues	
NRSM 200	Nat.Resource Professional Wrtg	
NRSM 379	Collab in Nat Res Decisions	
NRSM 389E	Ethics Forestry & Conservation	
NRSM 426	Climate and Society	
NRSM 449E	Climate Change Ethics/Policy	
NRSM 462	Rangeland Ecology	
NRSM 475	Environment & Development	
NRSM 495	Ecosystem Science and Restoration Practicum	
NRSM 499	Senior Thesis	
PTRM 300	Recreation Behavior	
WILD 410	Wildlife Policy & Biopolitics	
WRIT 101	College Writing I	
Total Hours		9

Minimum Required Grade: C-

### Math

Select one of the following: 3-4

M 115	Probability and Linear Mathematics	
M 121	College Algebra	
M 122	College Trigonometry	
M 151	Precalculus	
M 162	Applied Calculus	
Total Hours		3-4

Minimum Required Grade: C-

### Exception to the Modern/Classical Languages Requirement

**Rule:** The Resource Conservation major has been granted an exception to the Modern/Classical Language Requirement. Must take one of the following courses to will satisfy this requirement.

Select one of the following: 3-4

FORS 201	Forest Biometrics	
SOCI 202	Social Statistics	
STAT 216	Introduction to Statistics	
Total Hours		3-4

Minimum Required Grade: C-

### Expressive Arts

COMX 111A	Intro to Public Speaking	3
or THTR 120A Introduction to Acting I		
Total Hours		3

Minimum Required Grade: C-

## Ethical & Human Values

NRSM 449E	Climate Change Ethics/Policy	3
or NRSM 389E	Ethics Forestry & Conservation	
Total Hours		3

Minimum Required Grade: C-

## Natural Sciences in Major

**Rule:** Must take all courses

CHMY 121N	Introduction to General Chemistry	3
NRSM 210N	Soils, Water and Climate	3
Total Hours		6

Minimum Required Grade: C-

## Tracks

These are advising tracks only and not official programs as recognized by the University of Montana (UM) or the Montana University System. This information will not appear on your UM transcript, diploma, university lists, student data system, or university publication. You do not fill out a major change for a track.

### Climate & Environmental Change

**Rule:** Can take these track courses

**Note:** More detailed information about the Climate & Environmental Change track can be found on our website (<http://www.cfc.umt.edu/rc>): [www.cfc.umt.edu/rc](http://www.cfc.umt.edu/rc) (<http://www.cfc.umt.edu/rc>). Students in this track typically complete the Climate Change Minor (<http://www.cfc.umt.edu/ccs>) ([www.cfc.umt.edu/ccs](http://www.cfc.umt.edu/ccs)) (<http://www.cfc.umt.edu/ccs>). Please talk with your faculty advisor about which courses to take in this track.

CCS 103X	Intro Climate Change:Sci & Soc	3
CCS 352	Climate Field Studies	3
CCS 398	Clmt Change Internship/SERV	2-4
COMX 349	Comm Consump & Climate	3
ECNS 445	Int Env Econ & Clim Change	3
FORS 232	Forest Insects & Diseases	2
FORS 333	Fire Ecology	3
GPHY 335	Water Policy	3
NRSM 379	Collab in Nat Res Decisions	3
NRSM 385	Watershed Hydrology	3
NRSM 408	Global Cycles and Climate	3
NRSM 415	Environmental Soil Science	3
NRSM 418	Ecosystem Climatology	3
NRSM 426	Climate and Society	3
NRSM 449E	Climate Change Ethics/Policy	3
PSCI 324	Climate Policies: China & U.S.	3
Total Hours		46-48

Minimum Required Grade: C-

## Ecology of Terrestrial Ecosystems

**Rule:** Can take these track courses

**Note:** Suggested courses for Ecology of Terrestrial Ecosystems. Please see more detailed description of this track online and talk with your faculty advisor about which courses to take in this track.

BIOB 170N	Princpls Biological Diversity	3
BIOB 272	Genetics and Evolution	4
BIOB 480	Conservation Genetics	3
BIOE 370	General Ecology	3
BIOE 428	Freshwater Ecology	5
BIOE 449	Plant Biogeography	3
BIOO 320	General Botany	5
BIOO 335	Rocky Mountain Flora	3
BIOO 433	Plant Physiology	3
CHMY 123	Introduction to Organic and Biochemistry	3
ECNS 201S	Principles of Microeconomics	3
FORS 240	Tree Biology	2
FORS 241N	Dendrology	3
FORS 330	Forest Ecology	3
FORS 347	Multiple Resource Silviculture	3
GEO 101N	Introduction to Physical Geology	3
M 162	Applied Calculus	4
NRSM 265	Elements of Ecological Restora	3
NRSM 385	Watershed Hydrology	3
NRSM 408	Global Cycles and Climate	3
NRSM 415	Environmental Soil Science	3
NRSM 418	Ecosystem Climatology	3
NRSM 455	Riparian Ecology & Management	3
NRSM 462	Rangeland Ecology	3
PHSX 205N	College Physics I	4
PHSX 206N	College Physics I Laboratory	1
STAT 216	Introduction to Statistics	4
WILD 275	Wildlife Conservation	2
Total Hours		88

Minimum Required Grade: C-

## Environmental Policy & Resources Planning

**Rule:** Can take these track courses

**Note:** Suggested courses in Environmental Policy and Resources Planning. Please see more detailed description of this track online and talk with your faculty advisor about which courses to take in this track.

ECNS 201S	Principles of Microeconomics	3
ECNS 202S	Principles of Macroeconomics	3
ECNS 433	Economics of the Environment	3
ENST 367	Environmental Politics & Policies	3
ENST 382	Environmental Law	3
FORS 320	Forest Environmental Economics	3
GPHY 335	Water Policy	3
GPHY 465	Planning Principles & Processes	3



GPHY 466	Environmental Planning	3
NRSM 121S	Nature of Montana	3
NRSM 379	Collab in Nat Res Decisions	3
NRSM 389E	Ethics Forestry & Conservation	3
NRSM 422	Nat Res Policy/Administration	3
NRSM 424	Community Forestry & Conservtn	3
NRSM 425	Nat Res & Envir Economics	3
NRSM 449E	Climate Change Ethics/Policy	3
PSCI 210S	Intro to American Government	3
PSCI 332	Global Environmental Pol.	3
PSCI 361	Public Administration	3
PSCI 461	Administrative Law	3
WILD 275	Wildlife Conservation	2
WILD 410	Wildlife Policy & Biopolitics	3
Total Hours		65

Minimum Required Grade: C-

## International Conservation

**Rule:** Can take these track courses

**Note:** Students in this track typically complete the International Development Studies Minor (<https://www.cas.umt.edu/IDS>) (<http://www.cas.umt.edu/IDS>). More detailed information about the International Conservation track can be found on our website (<https://www.cfc.umt.edu/rc>): [www.cfc.umt.edu/rc](http://www.cfc.umt.edu/rc) (<http://www.cfc.umt.edu/rc>). Please talk with your faculty advisor about which courses to take in this track.

ENST 225	Community & Environment	3
ENST 396	Supervised Internship (PEAS)	10
ENST 480	Food, Agriculture, Environment	3
ENST 487	Globalization, Justice & Environment	3
ENST 493	Study Abroad: Environmental Justice Latin America	3
GPHY 432	Human Role Environmental Change	3
GPHY 434	Food and Famine	3
NRSM 170	International Envir. Change	3
NRSM 379	Collab in Nat Res Decisions	3
NRSM 424	Community Forestry & Conservtn	3
NRSM 475	Environment & Development	3
PTRM 345X	Sustaining Human Soc & Nat Env	3-6
PTRM 353	Tourism, Livelihoods and Sustainability in Mountains	3
PTRM 451	Tourism & Sustainability	3
WILD 460	Internat Wildlife Cons Issues	2
Total Hours		51-54

Minimum Required Grade: C-

## Natural Resource Economics

**Rule:** Can take these track courses

**Note:** Suggested courses in Natural Resource Economics. Please see more detailed description of this track online and talk with your faculty advisor about which courses to take in this track.

ANTY 326E	Indigenous Peoples & the Ethics of Development	3
ECNS 201S	Principles of Microeconomics	3
ECNS 202S	Principles of Macroeconomics	3
ECNS 217X	Issues in Economic Development	3
ECNS 301	Intermediate Micro with Calc	3
ECNS 302	Intermediate Macroeconomics	3
ECNS 403	Introduction to Econometrics	4
ECNS 433	Economics of the Environment	3
ECNS 445	Int Env Econ & Clim Change	3
ENST 230H	Nature and Society	3
ENST 480	Food, Agriculture, Environment	3
FORS 320	Forest Environmental Economics	3
FORS 436	Project Appraisal	3
GPHY 323S	Economic Geography of Rural Areas	3
M 162	Applied Calculus	4
NRSM 121S	Nature of Montana	3
NRSM 379	Collab in Nat Res Decisions	3
NRSM 389E	Ethics Forestry & Conservation	3
NRSM 424	Community Forestry & Conservtn	3
NRSM 425	Nat Res & Envir Economics	3
SOCI 101S	Introduction to Sociology	3
SOCI 470	Environmental Sociology	3
SOCI 471	Gender and Global Development	3
WILD 275	Wildlife Conservation	2
Total Hours		73

Minimum Required Grade: C-

## Range Management & Grassland Ecology

**Rule:** Can take these track courses

**Note:** Suggested courses in Range Management & Grassland Ecology. Please see more detailed description of this track online and talk with your faculty advisor about which courses to take in this track.

BIOE 370	General Ecology	3
BIOE 447	Terrestrial Ecosystem Ecology	3
BIOE 458	Forest and Grassland Ecol	3
BIOO 105N	Introduction to Botany	3
BIOO 335	Rocky Mountain Flora	3
BIOO 433	Plant Physiology	3
ECNS 201S	Principles of Microeconomics	3
FORS 230	Fire Management & Environmental Change	3
FORS 250	Intro to GIS for Forest Mgt	3
FORS 333	Fire Ecology	3
GPHY 335	Water Policy	3
NRSM 121S	Nature of Montana	3
NRSM 265	Elements of Ecological Restora	3
NRSM 360	Rangeland Mgt (equiv 260)	3

NRSM 379	Collab in Nat Res Decisions	3
NRSM 385	Watershed Hydrology	3
NRSM 462	Rangeland Ecology	3
WILD 275	Wildlife Conservation	2

Minimum Required Grade: C-

## Sustainable Livelihoods and Community Conservation

**Rule:** Can take these track courses

**Note:** Suggested courses in Sustainable Livelihoods and Community Conservation. Please see more detailed description of this track online and talk with your faculty advisor about which courses to take in this track.

COMX 347	Rhetoric Nature & Environmtlsm	3
ECNS 433	Economics of the Environment	3
ENST 225	Community & Environment	3
ENST 480	Food, Agriculture, Environment	3
ENST 489S	Environmental Justice Issues & Solutions	3
GPHY 323S	Economic Geography of Rural Areas	3
GPHY 432	Human Role Environmental Change	3
GPHY 468	Community & Regional Analysis	3
NRSM 170	International Envir. Change	3
NRSM 379	Collab in Nat Res Decisions	3
NRSM 424	Community Forestry & Conservtn	3
NRSM 475	Environment & Development	3
PHL 422	Environmental Philosophy	3
PTRM 451	Tourism & Sustainability	3
SOCI 220S	Race, Gender & Class	3
SOCI 270	Intro Development Sociology	3
SOCI 350	The Community	3
SOCI 443	Sociology of Poverty	3
SOCI 470	Environmental Sociology	3
SOCI 471	Gender and Global Development	3
Total Hours		60

Minimum Required Grade: C-

## Water Resources

**Rule:** Can take these track courses

**Note:** Suggested courses in Water Resources. Please see more detailed description of this track online and talk with you faculty advisor about which courses to take in this track.

BIOE 428	Freshwater Ecology	5
GEO 101N	Introduction to Physical Geology	3
GEO 102N	Introduction to Physical Geology Lab	1
GEO 420	Hydrogeology	4
GEO 421	Hydrology	3
GEO 460	Process Geomorphology	4
GPHY 335	Water Policy	3
M 172	Calculus II	4
M 171	Calculus I	4

NRSM 385	Watershed Hydrology	3
NRSM 415	Environmental Soil Science	3
PHSX 205N	College Physics I	4
PHSX 206N	College Physics I Laboratory	1
PHSX 207N	College Physics II	4
PHSX 208N	College Physics II Laboratory	1

Total Hours 47

Minimum Required Grade: C-

## Wilderness Studies

**Rule:** Can take these track courses

**Note:** To complete this track students must enroll in the Wilderness and Civilization Program. For information and an application (<http://www.cfc.umt.edu/wc>) see [www.cfc.umt.edu/wc](http://www.cfc.umt.edu/wc) (<http://www.cfc.umt.edu/wc>). Please talk to a faculty advisor about additional coursework in this track.

ARTZ 394A	Seminar- Environmental Drawing	3
LIT 280L	Ecology of Literature	3
MUSI 304A	Sound in the Natural World	3
NASX 303E	Ecol Persp in Nat Amer Trad	3
NRSM 271N	Conservation Ecology	3
NRSM 273	Wilderness/Civ Field Stds	1-3
NRSM 370S	Wildland Conserv Pol/Govrnance	3
NRSM 371	Wilderness Issues Lect Series	1
NRSM 373	Wilderness and Civilization	3
NRSM 398	Internship	1-6

Minimum Required Grade: C-

## Wildland Fire Management

**Rule:** Can take these track courses

**Note:** Student in this track typically complete the Wildland Fire Sciences & Management Minor (<http://www.cfc.umt.edu/FireSciences>) ([www.cfc.umt.edu/FireSciences](http://www.cfc.umt.edu/FireSciences) (<http://www.cfc.umt.edu/FireSciences>)). Please see more detailed description of this track online and talk with your faculty advisor about which courses to take.

ECNS 201S	Principles of Microeconomics	3
ERTH 303N	Weather and Climate	3
FORS 202	Forest Mensuration	3
FORS 232	Forest Insects & Diseases	2
FORS 230	Fire Management & Environmental Change	3
FORS 241N	Dendrology	3
FORS 320	Forest Environmental Economics	3
FORS 331	Wildland Fuel Management	3
FORS 333	Fire Ecology	3
FORS 341	Timber Harvesting & Roads	3
FORS 347	Multiple Resource Silviculture	3
FORS 351	Env Remote Sensing	3
FORS 481	Forest Planning	3
FORS 495	Wildland RxFire Practicum	3



FORS 533	Use Fire Wildland Mgmt	3
GEO 101N	Introduction to Physical Geology	3
NRSM 265	Elements of Ecological Restora	3
NRSM 385	Watershed Hydrology	3
NRSM 422	Nat Res Policy/Administration	3
PHSX 205N	College Physics I	4
PHSX 206N	College Physics I Laboratory	1
Total Hours		61

Minimum Required Grade: C-

## Wilderness Studies

**Natalie Dawson, Director of Wilderness Institute**

Students who successfully complete the requirements of the Wilderness and Civilization Program are eligible for the Wilderness Studies minor. Wilderness and Civilization is an interdisciplinary campus and field-based program. Each year, 25 students investigate wildland conservation and the human-nature relationship through the lenses of policy, ecology, art, Native American Studies, and literature. Wilderness and Civilization combines the strengths of classroom and field learning, interactive classes, innovative faculty, and applied learning through internships. Field trips include extended backcountry trips as well as shorter field trips examining ecology, environmental issues, land use, and natural history. Wilderness and Civilization offers students the opportunity to explore contemporary conservation debates, make connections between disciplines, and learn how to work for positive change.

Wilderness and Civilization is an undergraduate, immersion program geared toward sophomore-, junior-, and senior-level students in any major. Students take 17.0 credits of campus and field-based courses during the fall, and then continue in the spring with an art course, an internship, a 1.0 credit field course, and a 1.0 credit lecture series. The Wilderness and Civilization program is administered by the Wilderness Institute of the W.A Franke College of Forestry and Conservation. The program is offered in collaboration with the College of Arts and Sciences, the College of Visual and Performing Arts, and the Davidson Honors College.

Students must apply for admission to the Wilderness and Civilization program, which is limited to 25 students each year. Applicants must have a cumulative GPA of 3.0 or higher for all college and university work. Applications are due by April 1 and are available at the Wilderness Institute, University Hall 303.

## Undergraduate Minors

- Wilderness Studies (p. 129)

## Wilderness Studies Minor

*Natalie Dawson, Director of Wilderness Institute*

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## Minor - Wilderness Studies (Minor)

### W.A Franke College of Forestry & Conservation

**Degree Specific Credits:** 24

**Required Cumulative GPA:** 2.0

**Catalog Year:** 2017-2018

**Note:** This minor can be completed during a fall semester plus one intersession course and four credits in the spring; Experiential learning credit for Honors will be completed with this minor.

## Summary

Required courses	6
Required Courses	19
Total Hours	25

## Required Courses

**Rule:** must take the following courses

**Note:** NRSM 271N is an Honors course; NRSM 273 will be taken two times fall for 2 credits and spring for 1 credit

NRSM 271N	Conservation Ecology	3
NRSM 273	Wilderness/Civ Field Stds	3
Total Hours		6

Minimum Required Grade: C-

## Required Courses

**Rule:** must take the following courses

LIT 373	Lit & Environment	3
MUSI 304A	Sound in the Natural World	3

NASX 303E	Ecol Persp in Nat Amer Trad	3
NRSM 370S	Wildland Conserv Pol/Govrnance	3
NRSM 371	Wilderness Issues Lect Series	1
NRSM 373	Wilderness and Civilization	3
NRSM 398	Internship	3
Total Hours		19

Minimum Required Grade: C-

## Wildlife Biology

**Chad Bishop, Wildlife Biology; Director**

The Wildlife Biology Program combines the best features of a liberal arts curriculum with scientific preparation in wildlife conservation. The Program provides students with an extensive knowledge in ecology, population biology, conservation biology, and critical thinking and quantitative skills. Our students receive a strong academic and scientific background with an emphasis on hands-on, experiential learning. The educational requirements for certification by The Wildlife Society can be met within the framework of the undergraduate program.

While some employment opportunities exist in wildlife conservation for students with the baccalaureate degree, we encourage students to continue their education through the master's degree to qualify for most state, federal, and private positions.

Two concentrations are offered in the Wildlife Biology Program: terrestrial and aquatic. They both follow the same schedule of courses for the freshman and most of the sophomore year and then pursue different curricula for the last two years. Each leads to a B.S. in Wildlife Biology. The University is well-suited for instruction in wildlife biology because of the excellent opportunities for field instruction and research at Lubrecht Experimental Forest, Flathead Lake Biological Station, and the Theodore Roosevelt Memorial and Bandy ranches. The Montana Forest and Conservation Experiment Station, the Division of Biological Sciences, and the Montana Cooperative Wildlife Research Unit facilitate research.

The honors curriculum is designed particularly for students with strong academic records who intend to do graduate work. Entrance into this emphasis is open only to students who, at the beginning of the junior year of the wildlife biology program, have a grade-point average of 3.5 or above and who petition the faculty for entrance.

**High School Preparation:** In addition to general University admission requirements, the student should elect four years of mathematics and three years of science, including biology, chemistry and physics.

Honors students must complete either WILD 370, WILD 470 and WILD 494 (terrestrial option) or BIOO 340, BIOE 428 and WILD 494 (aquatic option). Honors students are encouraged to enroll also in WILD 499. The balance of the coursework for the junior and senior years will be developed in consultation with the honors student's faculty advisor and committee.

All students in the honors emphasis are required to meet with their faculty advisor prior to autumn semester registration of their junior and senior years to work out their course schedules.

## Undergraduate

- Wildlife Biology B.S., Aquatic Wildlife Biology Concentration (p. 130)
- Wildlife Biology B.S., Terrestrial Wildlife Biology Concentration (p. 132)

## Undergraduate Minors

- Wildlife Biology (p. 134)

## Aquatic Wildlife Biology

*Chad Bishop, Wildlife Biology Director*

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While some employment opportunities exist in wildlife conservation for students with the baccalaureate degree, we encourage students to continue their education through the master's degree to qualify for most state, federal, and private positions.

Two concentrations are offered in the Wildlife Biology Program: terrestrial and aquatic. They both follow the same schedule of courses for the freshman and most of the sophomore year and then pursue different curricula for the last two years. Each leads to a B.S. in Wildlife Biology. The University is well-suited for instruction in wildlife biology because of the excellent opportunities for field instruction and research at Lubrecht Experimental Forest, Flathead Lake Biological Station, and the Theodore Roosevelt Memorial and Bandy ranches. The Montana Forest and Conservation Experiment Station, the Division of Biological Sciences, and the Montana Cooperative Wildlife Research Unit facilitate research.

**High School Preparation:** In addition to general University admission requirements, the student should elect four years of mathematics and three years of science, including biology, chemistry and physics.

## Wildlife Biology Honors Track

The honors curriculum is designed particularly for students with strong academic records who intend to do graduate work. Entrance into this emphasis is open only to students who, at the beginning of the junior year of the wildlife biology program, have a grade-point average of 3.5 or above and who petition the faculty for entrance.

Honors students must complete either WILD 370, WILD 470 and WILD 494 (terrestrial option) or BIOO 340, BIOE 428 and WILD 494 (aquatic option). Honors students are encouraged to enroll also in WILD 499. The balance of the coursework for the junior and senior years will be developed in consultation with the honors student's faculty advisor.

All students in the honors emphasis are required to meet with their faculty advisor prior to autumn semester registration of their junior and senior years to work out their course schedules.

# Bachelor of Science - Wildlife Biology; Aquatic Concentration

## W.A Franke College of Forestry & Conservation

Degree Specific Credits: 84

Required Cumulative GPA: 2.5

### Catalog Year: 2017-2018

**Note:** Experiential Learning is required - Students have several options to fulfill this requirement - list is available from the Wildlife Advisor in Forestry 103C

## General Education Requirements

Information regarding these requirements can be found in the General Education Section (<http://catalog.umt.edu/academics/general-education-requirements>) of the catalog.

## Summary

Major Required Courses	20-21
Outside Major Required Courses	24-26
Major Required Courses	46
Writing Requirement	12-18
Mathematics Requirement	4
Symbolic Systems	8
Expressive Arts	3
Natural Sciences Requirement	12
Total Hours	129-138

## Major Required Courses

**Rule:** Must take all courses

**Note:** Can take WRIT 325 (Honors) in place of NRSM 200

One out of the four is required: BIOE 406/BIOE 409, BIOM 427/BIOM 428, BIOO 462, WILD 485

Select one of the following:	3-4	
BIOE 406 & BIOE 409	Behavior & Evolution and Behavior & Evolution Discussion	4
BIOM 427 & BIOM 428	General Parasitology and General Parasitology Lab	4
BIOO 462	Entomology	4
WILD 485	Aquatic Invertebrate Ecology	3
BIOB 160N	Principles of Living Systems	1
BIOB 161N	Prncpls of Living Systems Lab	4
BIOB 260	Cellular and Molecular Biology	4
BIOB 272	Genetics and Evolution	3
NRSM 200 or WRIT 325	Nat.Resource Professional Wrtg Science Writing	2
WILD 180	Careers in Wildlife Biology	20-21
Total Hours		20-21

Minimum Required Grade: C-

## Outside Major Required Courses

**Rule:** Must take all courses

BIOE 406 & BIOE 409	Behavior & Evolution and Behavior & Evolution Discussion	4
BIOM 427 & BIOM 428	General Parasitology and General Parasitology Lab	4
BIOO 462	Entomology	4
WILD 485	Aquatic Invertebrate Ecology	3
CHMY 121N	Introduction to General Chemistry	3
CHMY 123	Introduction to Organic and Biochemistry	3
CHMY 124	Introduction to Organic and Biochemistry Lab	2
COMX 111A	Intro to Public Speaking	3
M 162	Applied Calculus	4
NRSM 200	Nat.Resource Professional Wrtg	3
STAT 216 or WILD 240	Introduction to Statistics Intro to Biostatistics	3-4
WRIT 101	College Writing I	3
Total Hours		39-40

Minimum Required Grade: C-

## Major Required Courses

**Rule:** Must take all courses

BIOE 370	General Ecology	3
BIOE 371	Gen Ecology Lab (equiv to 271)	2
BIOE 428	Freshwater Ecology	5
BIOM 427	General Parasitology	2
BIOM 428	General Parasitology Lab	2
BIOO 320	General Botany	5
BIOO 340	Biology and Mgmt of Fishes	4
BIOO 462	Entomology	4
NRSM 385	Watershed Hydrology	3
WILD 346	Wildlife Physiological Ecology	3
WILD 408	Advanced Fisheries	3
WILD 410 or NRSM 422	Wildlife Policy & Biopolitics Nat Res Policy/Administration	3
WILD 480	The Upshot--Appld Wildlife Mgt	3
WILD 485	Aquatic Invertebrate Ecology	3
WILD 494	Senior Wildlife Seminar	1
Total Hours		46

Minimum Required Grade: C-

## Writing Requirement

**Rule:** Must complete the following subcategories

12-18 Total Credits Required

### Lower Division Writing

**Rule:** Complete all of the following courses

WRIT 101	College Writing I	3
Select one of the following:		3
NRSM 200	Nat.Resource Professional Wrtg	
WRIT 325	Science Writing (honors)	
WRIT 201	College Writing II	
Total Hours		6

Minimum Required Grade: C-

### Upper Division Writing

BIOE 371	Gen Ecology Lab (equiv to 271)	2
Select two of the following:		4-10
BIOE 428	Freshwater Ecology	
BIOO 320	General Botany	
BIOO 470	Ornithology	
BIOO 475	Mammalogy	
WILD 408	Advanced Fisheries	
WILD 470	Conserv of Wildlife Populatns	
WILD 499	Thesis	
Total Hours		6-12

Minimum Required Grade: C-

### Mathematics Requirement

**Rule:** must take the following course

M 162	Applied Calculus	4
Total Hours		4

Minimum Required Grade: C-

### Exception to the Modern/Classical Languages Requirement

**Rule:** The Wildlife Biology major has been granted an exception to the Modern/Classical Language Requirement. Must take one of the following courses to will satisfy this requirement.

Must take one of the following:		3-4
M 162	Applied Calculus	
STAT 216	Introduction to Statistics	
WILD 240	Intro to Biostatistics	
Total Hours		3-4

Minimum Required Grade: C-

### Expressive Arts

**Rule:** Must take the following course

COMX 111A	Intro to Public Speaking	3
Total Hours		3

Minimum Required Grade: C-

### Natural Sciences Requirement

**Rule:** Must take all courses

BIOB 160N	Principles of Living Systems	3
BIOB 161N	Prncpls of Living Systems Lab	1
CHMY 121N	Introduction to General Chemistry	3
CHMY 123	Introduction to Organic and Biochemistry	3
CHMY 124	Introduction to Organic and Biochemistry Lab	2
Total Hours		12

Minimum Required Grade: C-

## Terrestrial Wildlife Biology

*Chad Bishop, Wildlife Biology, Director*

The Wildlife Biology Program combines the best features of a liberal arts curriculum with scientific preparation in wildlife conservation. The Program provides students with an extensive knowledge in ecology, population biology, conservation biology, and critical thinking and quantitative skills. Our students receive a strong academic and scientific background with an emphasis on hands-on, experiential learning. The educational requirements for certification by The Wildlife Society can be met within the framework of the undergraduate program.

While some employment opportunities exist in wildlife conservation for students with the baccalaureate degree, we encourage students to continue their education through the master's degree to qualify for most state, federal, and private positions.

Two concentrations are offered in the Wildlife Biology Program: terrestrial and aquatic. They both follow the same schedule of courses for the freshman and most of the sophomore year and then pursue different curricula for the last two years. Each leads to a B.S. in Wildlife Biology. The University is well-suited for instruction in wildlife biology because of the excellent opportunities for field instruction and research at Lubrecht Experimental Forest, Flathead Lake Biological Station, and the Theodore Roosevelt Memorial and Bandy ranches. The Montana Forest and Conservation Experiment Station, the Division of Biological Sciences, and the Montana Cooperative Wildlife Research Unit facilitate research.

**High School Preparation:** In addition to general University admission requirements, the student should elect four years of mathematics and three years of science, including biology, chemistry and physics.

### Wildlife Biology Honors - Track

The honors curriculum is designed particularly for students with strong academic records who intend to do graduate work. Entrance into this emphasis is open only to students who, at the beginning of the junior year of the wildlife biology program, have a grade-point average of 3.5 or above and who petition the faculty for entrance.

Honors students must complete either WILD 370, WILD 470 and WILD 494 (terrestrial option) or BIOO 340, BIOE 428 and WILD 494 (aquatic option). Honors students are encouraged to enroll also in WILD 499. The balance of the coursework for the junior and senior years will be developed in consultation with the honors student's faculty.

All students in the honors emphasis are required to meet with their faculty advisor prior to autumn semester registration of their junior and senior years to work out their course schedules.

## Bachelor of Science - Wildlife Biology; Terrestrial Concentration

### W.A Franke College of Forestry & Conservation

Degree Specific Credits: 74

Required Cumulative GPA: 2.5

### Catalog Year: 2017-2018

**Note:** Experiential Learning is required - Students have several options to fulfill this requirement - list is available from the Wildlife Advisor in Forestry 103C.

## General Education Requirements

Information regarding these requirements can be found in the General Education Section (<http://catalog.umt.edu/academics/general-education-requirements>) of the catalog.

## Summary

Major Required Courses	17
Outside Major Required Courses	21-22
Major Required Courses	35
Writing Requirement	12-18
Mathematics Requirement	4
Exception to the Modern/Classical Languages Requirement	8
Expressive Arts	3
Natural Sciences Requirement	12
Total Hours	112-119

## Major Required Courses

**Rule:** Must take all courses

**Note:** Can take WRIT 325 (Honors) OR WRIT 201 in place of NRSM 200

BIOB 160N	Principles of Living Systems	3
BIOB 161N	Prncpls of Living Systems Lab	1
BIOB 260	Cellular and Molecular Biology	4
BIOB 272	Genetics and Evolution	4
Select one of the following:		3
NRSM 200	Nat.Resource Professional Wrtg	
WRIT 325	Science Writing (honors)	
WRIT 201	College Writing II	
WILD 180	Careers in Wildlife Biology	2
Total Hours		17

Minimum Required Grade: C-

## Outside Major Required Courses

**Rule:** Must take all courses

CHMY 121N	Introduction to General Chemistry	3
CHMY 123	Introduction to Organic and Biochemistry	3
CHMY 124	Introduction to Organic and Biochemistry Lab	2
COMX 111A	Intro to Public Speaking	3
M 162	Applied Calculus	4
STAT 216	Introduction to Statistics	3-4
or WILD 240	Intro to Biostatistics	
WRIT 101	College Writing I	3
Total Hours		21-22

Minimum Required Grade: C-

## Major Required Courses

**Rule:** Must take all courses

BIOE 370	General Ecology	3
BIOE 371	Gen Ecology Lab (equiv to 271)	2
BIOO 335	Rocky Mountain Flora	3
Select two of the following:		8
BIOO 340	Biology and Mgmt of Fishes	
BIOO 470	Ornithology	
BIOO 475	Mammalogy	
NRSM 360	Rangeland Mgt (equiv 260)	3
or FORS 347	Multiple Resource Silviculture	
WILD 346	Wildlife Physiological Ecology	3
WILD 370	Wildlife Habitat Cons & Mgmt	4
WILD 410	Wildlife Policy & Biopolitics	3
or NRSM 422	Nat Res Policy/Administration	
WILD 470	Conserv of Wildlife Populatns	4
WILD 480	The Upshot--Appld Wildlife Mgt	3
WILD 494	Senior Wildlife Seminar	1
Total Hours		37

Minimum Required Grade: C-

## Writing Requirement

**Rule:** Must complete the following subcategories

12-18 Total Credits Required

### Lower Division Writing

**Rule:** Complete all of the following courses

WRIT 101	College Writing I	3
Select one of the following:		3
NRSM 200	Nat.Resource Professional Wrtg	
WRIT 325	Science Writing	
WRIT 201	College Writing II	
Total Hours		6

Minimum Required Grade: C-

### Upper Division Writing

**Rule:** Complete BIOE 371 and TWO of the other courses



BIOE 371	Gen Ecology Lab (equiv to 271)	2
Select two of the following:		4-10
BIOE 428	Freshwater Ecology	
BIOO 320	General Botany	
BIOO 470	Ornithology	
BIOO 475	Mammalogy	
WILD 408	Advanced Fisheries	
WILD 470	Conserv of Wildlife Populatns	
WILD 499	Thesis	
Total Hours		6-12

Minimum Required Grade: C-

### Mathematics Requirement

**Rule:** must take the following course

M 162	Applied Calculus	4
Total Hours		4

Minimum Required Grade: C-

### Exception to the Modern/Classical Languages Requirement

**Rule:** The Wildlife Biology major has been granted an exception to the Modern/Classical Language Requirement. Must take one of the following courses to will satisfy this requirement.

Select one of the following:		3-4
M 162	Applied Calculus	
STAT 216	Introduction to Statistics	
WILD 240	Intro to Biostatistics	
Total Hours		3-4

Minimum Required Grade: C-

### Expressive Arts

**Rule:** must take the following course

COMX 111A	Intro to Public Speaking	3
Total Hours		3

Minimum Required Grade: C-

### Natural Sciences Requirement

**Rule:** Must take all courses

BIOB 160N	Principles of Living Systems	3
BIOB 161N	Prncpls of Living Systems Lab	1
CHMY 121N	Introduction to General Chemistry	3
CHMY 123	Introduction to Organic and Biochemistry	3
CHMY 124	Introduction to Organic and Biochemistry Lab	2
Total Hours		12

Minimum Required Grade: C-

## Wildlife Biology Minor

*Chad Bishop, Director*

The Wildlife Biology Program combines the best features of a liberal arts curriculum with scientific preparation in wildlife conservation. The Program provides students with an extensive knowledge in ecology, population biology, conservation biology, and critical thinking and quantitative skills. Our students receive a strong academic and scientific background with an emphasis on hands-on, experiential learning. The educational requirements for certification by The Wildlife Society can be met within the framework of the undergraduate program.

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## Minor - Wildlife Biology

### W.A Franke College of Forestry & Conservation

**Degree Specific Credits:** 21

**Required Cumulative GPA:** 2.0

**Catalog Year:** 2017-2018

### Summary

Required Courses	15
Required Courses	6
Total Hours	21

### Required Courses

**Rule:** must take the following courses

BIOB 170N	Princpls Biological Diversity	3
BIOB 171N	Princpls Biological Dvrsty Lab	2
BIOO 101N	Survey MT Wildlife & Habitats	3
WILD 105N	Wildlife & People	3
WILD 180	Careers in Wildlife Biology	2
WILD 275	Wildlife Conservation	2
Total Hours		15

Minimum Required Grade: C-



## Required Courses

**Rule:** must take the following courses

BIOO 335	Rocky Mountain Flora	3
FORS 330	Forest Ecology	3
or NRSM 360	Rangeland Mgt (equiv 260)	
Total Hours		6

Minimum Required Grade: C-

## Graduate School

**Scott Whittenburg - Vice President for Research and Creative Scholarship & Dean of The Graduate School**

Graduate education explores and advances knowledge boundaries and re-defines the state-of-the-art in every discipline. A master's degree will improve a person's expertise in their given field while a doctoral degree will promote original research that advances the current knowledge in the field.

The mission of the Graduate School is to improve and advance graduate education at the University of Montana. Our graduate programs train the next generation of scholars and enable the generation of new knowledge that will contribute to the scientific, economic and cultural needs of the state, the nation and the global community in the 21<sup>st</sup> century. The Graduate School carries out its mission through student advocacy, promotion of diversity and inclusivity, promotion of research, and development of dynamic, synergistic paths for education.

The Graduate School administers admission to masters and doctoral graduate programs at the University of Montana. Questions about specific programs should be directed to the appropriate college or school. There are currently 83 different graduate programs at the University of Montana that provide curricula for Master's, Educational Specialist, and Doctoral degrees. A complete list of programs is found in the Graduate School webpage (<http://www.umt.edu/grad/Programs/default.php>) and on the Degree and Majors webpage (<http://www.umt.edu/academics/degrees-and-majors>). The Skaggs School of Pharmacy (<http://health.umt.edu/pharmacy>), the School of Physical Therapy and Rehabilitation Science (<http://health.umt.edu/physicaltherapy>), and the School of Law (<http://www.umt.edu/law>) administer the Professional Doctorates in Pharmacy, Physical Therapy, and Juris Doctor, respectively.

Applicants complete an online application, providing the information required by the graduate program of interest. Official test scores are sent to the Graduate School, while transcripts are sent to the program. Many, but not all, graduate programs have a specific application deadline. Each program has an admissions committee that evaluates the application, and the committee's final decision is forwarded as a recommendation to the Graduate School. The applicant then receives an electronic decision letter from the Graduate School.

Please refer to the graduate school website (<http://www.umt.edu/grad>) for degree programs offered. For further questions, please call us at 406-243-2572 or via email at [grad.school@umontana.edu](mailto:grad.school@umontana.edu).

## College of Health Professions and Biomedical Sciences

**Reed Humphrey, Dean**

**Howard D. Beall, Associate Dean for Pharmacy**

The College of Health Professions and Biomedical Sciences offers the

- Bachelor of Arts in Social Work degree,
- Bachelor of Science in Pharmaceutical Sciences
- Doctor of Pharmacy (Pharm.D.) degree;
- Master of Science degrees in
  - Neuroscience,
  - Pharmaceutical Sciences and Drug Design
  - Toxicology, and
  - Medicinal Chemistry;
- Master of Public Health degree;
- Master of Social Work degree;
- Doctor of Physical Therapy degree; and
- Doctor of Philosophy (Ph.D.) degrees in
  - Pharmaceutical Sciences and Drug Design
  - Neuroscience,
  - Toxicology,
  - Medicinal Chemistry, and
  - Public Health

The focus of these programs is to provide a composite of educational experiences that will produce a well-educated person and a highly trained, professional social worker, health care practitioner or scientist.

## Health Sciences

Health science courses are concerned with fundamental issues in human health and disease and are, therefore, interdisciplinary in both scope and content. They have been designed not only for students anticipating careers in medicine, dentistry, nursing, public health, pharmacy, social work, medical technology, physical therapy, cytotechnology, and numerous other health care professions and services, but for all students interested in individual and community health, the clinical and paramedical arts, and the biomedical sciences. Health sciences courses are listed under two designations:

1. Allied Health: Health Sciences;
2. other disciplines.

## Health Sciences Courses

### Allied Health: Health Sciences

AHHS 191	Special Topics	1-6
AHHS 201	Living Well, Health & Disablil	2
AHHS 291	Special Topics	1-6
AHHS 325	Introduction to Gerontology	3
AHHS 327	MGS Meeting	1
AHHS 389	Rec Adv in Clin Med	1
AHHS 390	Research	1-4
AHHS 391	Special topics	1-12
AHHS 394	Medical Preparation	2

AHHS 395	Geriatric Practicum	1-3
AHHS 420	Geriatric Health Issues	3
AHHS 430	Health Aspects of Aging	3
AHHS 490	Research	1-4
AHHS 491	Special Topics	1-12

## Anthropology

ANTY 211N	Anthropological Genetics	3
ANTY 333	Culture and Population	3
ANTY 426	Culture, Health and Healing	3

## Economics

ECNS 310	Intro Health Economics	3
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## Health and Human Performance

NUTR 221N	Basic Human Nutrition	3
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## Microbiology

BIOM 250N	Microbiology for Hlth Sciences	3
BIOM 251	Microbiology Hlth Sciences Lab	1
BIOM 400	Medical Microbiology	3

## Social Work

S W 423	Addiction Studies	3
S W 455	Social Gerontology	3

## Pharmacy

PHAR 110N	Use & Abuse of Drugs	3
PHAR 320	Am Ind Health Issues	3

## Philosophy

PHL 321E	Philosophy & Biomedical Ethics	3
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# Pre-Medical Sciences

**Mark A. Pershouse (Director and Associate Professor)**

Health care continues to be one of the most rapidly expanding areas of our society. Careers in the health professions have expanded, both in numbers and in the variety of opportunities. The rewards of a career in health care include excellent salaries, stability of employment, geographic mobility, and the opportunity to help other people. The Pre-Medical Sciences Program is an advising program that helps students become well-informed, well-prepared applicants to programs in allopathic medicine, osteopathic medicine, chiropractic medicine, dentistry, naturopathic medicine, optometry, physician assistant studies, podiatry and veterinary medicine.

Pre-Medical Sciences is not a major at the University of Montana. The Pre-Medical coursework will help students to gain admission to a professional school or program while completing a degree in a field of study. Students may select any major as a field of study, but specific pre-professional courses must be completed. When selecting a major, remember that a science major is not required for admissions into professional schools. It is more important to perform well in your chosen major. Professional schools are most concerned with the overall quality, scope and difficulty of undergraduate work rather than the major.

Pre-professional courses are designed to provide a strong foundation in the sciences, highly developed communication skills, and a solid background in the social sciences and humanities. Curriculum guides outlining minimal course requirements established by professional schools are available from the Pre-medical Sciences office and from the Pre-Medical Sciences website (<http://umt.edu/premed>). Because many majors within the sciences, social sciences and humanities can provide strong preparation for medical school, the Pre-Medical Sciences Advising Program gives students the opportunity to interact with advisors from diverse disciplines in addition to their advisor for their major.

The minimal requirements for professional school should be completed by the end of the third year of study or prior to taking the admission test required by professional schools. Since specific subject requirements vary among institutions, students should discuss their academic plans with their Pre-Medical Sciences advisor.

Admission to a professional school is very competitive. Students must maintain a high grade-point average in college if they expect to be admitted. All required courses must be taken for letter grades. In addition, the applicant must score well on the appropriate professional admissions test. These tests are designed to measure basic academic ability in the natural sciences, reading ability and problem solving skills. These examinations are usually taken during the third year of study.

Besides academic accomplishments and admission exam scores, acceptance by a professional school is also dependent upon letters of recommendation, volunteer experience, job shadowing, and personal interviews conducted by the professional school. It is important that students consult with a Pre-Medical Sciences advisor and with an academic advisor in their major each year to make sure that they can satisfy the necessary requirements for graduation within the time available. The Pre-Medical Sciences Director will also discuss procedures, advise and assist the student during the process of applying to a professional school.

## High School Preparation

High school students contemplating a career in the health professions should have three to four years of mathematics, courses in chemistry and physics and a solid background in literature and social science.

# School of Physical Therapy and Rehabilitation Science

**Anita M. Santasier, Chair**

The professional program in physical therapy grants the Doctor of Physical Therapy (DPT) degree. The program has an entry-level DPT program, an entry-level DPT/MBA program, and a post-entry level transitional DPT curriculum leading to the DPT degree. The following section describes the profession and the pre-professional requirements and application procedures. This information also is available on the program website (<http://health.umt.edu/physicaltherapy>).

## The Profession

Physical Therapy is a health care profession concerned with the habilitation and rehabilitation of individuals with limitations resulting from pathological, surgical, or traumatic conditions. The profession is also concerned with health, wellness and prevention of disability in an effort to promote maximal use of an individual's capacities and reduce their risk of illness. Physical therapists are trained to

evaluate neurological, musculoskeletal, cardiovascular, respiratory, and integumentary disorders. Exercise and physical agents, such as heat, cold, light, electricity, and massage are used to promote healing, relieve pain, maintain or restore strength, and improve joint range of motion and functional capabilities. Physical therapists play key roles in:

1. the physical therapy diagnosis and treatment of musculoskeletal injuries,
2. wellness and injury prevention,
3. rehabilitating injured workers to return to their jobs,
4. rehabilitating senior citizens after debilitating disease to enable them to remain independent,
5. helping handicapped children to live within the least restrictive environment,
6. preventing and treating sports-related injuries, and
7. conducting research in basic and clinical sciences.

Knowledge of the psychological and social ramifications of disability affecting the individual and his or her family is an integral part of physical therapy intervention.

Physical therapy is practiced in diverse settings, including hospitals, clinics, skilled nursing facilities, sports medicine programs, public schools, and private practices. Legislation in Montana permits direct public access to physical therapists for evaluation and treatment without a physician referral. Even so, physical therapists remain committed to functioning as an integral member of the health care team.

The physical therapy educational program at the University of Montana seeks to prepare physical therapists who have a broad base of skills upon graduation, and who will be able to implement physical therapy services in many settings, especially rural environments. Rural settings require a physical therapist to serve not only as a provider of direct patient care, but also to fulfill the roles of administrator, supervisor, teacher, consultant, and researcher. Students successfully completing the professional program meet the competencies for physical therapy as determined by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association, receive a Doctor of Physical Therapy degree, and are prepared for state licensure.

The Physical Therapy Program is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association through 2018.

## High School Preparation

Specific high school courses are not required but a background is recommended in mathematics, chemistry, biology, physics, English, and communication skills.

## Pre-Professional Physical Therapy Curriculum and Application Process

Students wishing to apply to the professional physical therapy program at the University of Montana-Missoula may select any major for their undergraduate degree. While pre-physical therapy is not a degree-granting major at the University, prospective applicants should list pre-professional physical therapy (PPPT) as their second major. This will allow them also to receive advising from the School of Physical Therapy and Rehabilitation Science in order to assure adequate preparation for the professional program. In addition to completing a baccalaureate degree, applicants must take the prerequisite courses and

meet additional application requirements listed on our website (<http://health.umt.edu/physicaltherapy>). All prerequisite courses must be taken for a traditional letter grade and must be completed with a grade of "C" (2.00) or better.

## School of Public and Community Health Sciences

Located in Missoula, Montana, the University of Montana (UM), School of Public and Community Health Sciences (SPCHS) is housed within the College of Health Professions and Biomedical Sciences (CHPBS). The Montana Board of Regents approved the SPCHS administrative unit in March 2005, with its first class of students enrolled during the Fall 2006.

The SPCHS affords students three program opportunities: a 42-credit online Master of Public Health (MPH), a 12-credit online Certificate of Public Health (CPH), and a 90-credit campus-based PhD in Public Health (PhD).

We are the first and only Council on Education for Public Health (CEPH) accredited program in our state. The CEPH Board of Councilors approved the University of Montana's original application for accreditation on June 20, 2009. The CEPH Board of Councilors acted at its June 21-23, 2012 meeting to accredit our MPH Program for a five-year term, extending to July 1, 2017. Our PhD program in Public Health became CEPH accredited on December 20, 2016.

### What is public health?

Public health practitioners work to solve the world's most pressing health problems. They focus on preventing disease by promoting a healthier lifestyle, implement educational programs, develop policies, administer services, conduct research, and regulate health systems as a way to achieve these goals.

- What does public health encompass?
  - Public health practitioners work to improve the health of individuals and communities both locally and globally. They confront health issues such as controlling infectious disease and reducing environmental hazards. They also work to develop applications in prevention programs to improve health.
- What impact does public health have on our lives?
  - Public health impacts our lives by creating healthier communities, reducing the impact of natural disasters and global epidemics and addressing health disparities.
- What types of careers are available in the field of public health?
  - Public Health encompasses a wide variety of careers: Epidemiology, biostatistics, environmental health, health administration, community health, and preparedness or preventive medicine.

### Core Faculty

Tony Ward, Associate Professor, Chair, Ph.D.

Annie Belcourt, Associate Professor, Ph.D.

Kari Jo Harris, Professor, Ph.D., MPH

Erin Semmens, Assistant Professor, Ph.D., MPH

Curtis Noonan, Professor, Ph.D., MA

Erin Landguth, Research Associate Professor, Ph.D., MS

#### Website

www.health.umt.edu/publichealth (<http://www.health.umt.edu/publichealth>)

## School of Social Work

### Ryan Tolleson Knee, Chair

Social work is a human service profession concerned with the prevention of social problems, the maintenance of satisfying social relationships and the enhancement of human development. It focuses on people and their social environment. Social workers employ a range of knowledge and skills as the basis for constructive intervention on behalf of various client populations. The Bachelor of Arts and Master of Social Work degrees are offered. The Bachelor of Arts degree prepares graduates for generalist social work practice. The Master of Social Work degree prepares graduates for advanced integrated practice.

The undergraduate major in social work is available for those who wish to prepare for:

1. professional employment in the social services;
2. entry into a graduate school of social work;
3. graduate education in other helping service professions.

The graduate degree in social work prepares graduates for advanced social work practice. Students can enroll in a two year full-time program or in a part-time option. See the University of Montana Graduate Catalog for a description of the Master of Social Work program. Both the Bachelor of Arts degree and the Master of Social Work degree are fully accredited by the Council on Social Work Education.

## Undergraduate

- Social Work B.S. (p. 139)

## Undergraduate Minors

- Gerontology (p. 138)

## Gerontology Minor

Students in the Gerontology Minor program will study issues of aging from an interdisciplinary perspective and come to understand the interplay between them, including the health and medical as well as social and psychological needs of older persons. Although this interdisciplinary minor is housed in the School of Social Work, students in other majors may complete the minor in consultation with both the Chair of the Gerontology Minor and the students' academic advisors in their respective departments. Students must consult with their major advisor to select electives, practicum or volunteer experiences, and to integrate courses that will meet the requirements of the minor.

## Minor - Gerontology (Minor)

### College of Health Prof Biomed

Degree Specific Credits: 21

Required Cumulative GPA: 2.0

## Catalog Year: 2017-2018

## Summary

Lower Core Course	3
Upper Core Courses	9
Gerontology Electives	3
Integrating Courses	2-3
Practicum Courses	3
Total Hours	20-21

## Lower Core Course

**Rule:** Must complete the following:

PSYX 233	Fund of Psychology of Aging	3
Total Hours		3

Minimum Required Grade: C-

## Upper Core Courses

**Rule:** Must complete all of the following:

AHHS 325	Introduction to Gerontology	3
AHHS 430	Health Aspects of Aging	3
S W 455	Social Gerontology	3
Total Hours		9

Minimum Required Grade: C-

## Gerontology Electives

**Note:** A student must take a minimum of 3 elective credits with at least 25% of the content focused on gerontology. Students may petition for approval of another elective course.

Select one from the following:	3	
AHHS 201	Living Well, Health & Disabilil	
AHHS 327	MGS Meeting	
AHHS 420	Geriatric Health Issues	
ANTY 426	Culture, Health and Healing	
COMX 485	Communication and Health	
ECNS 310	Intro Health Economics	
PHL 321E	Philosophy & Biomedical Ethics	
S W 475	Death, Dying and Grief	
SOCI 332	Sociology of the Family	
Total Hours		3

Minimum Required Grade: C-

## Integrating Courses

**Note:** A course has been identified that will integrate the core course content with concepts within each student's major. A similar course can be identified in other majors if required. Students can also take NRS 377 through Montana State University with approval by advisor.

Select one of the following: 2-3

KIN 483	Exercise Disease & Aging
P T 520	Development Through the Life Span
PHAR 451	Therapeutics I
S W 300	Hum Behav & Soc Environ
SOCI 332	Sociology of the Family

Total Hours 2-3

Minimum Required Grade: C-

## Practicum Courses

**Rule:** Must complete 1 of the following courses

**Note:** Students can also take NRSRG 454 through Montana State University with approval by advisor. Students in majors that do not have access to a practicum course can enroll in AHHS 395 for up to 3 credits of service learning experience compatible with the student's major and interests.

Select 3 credits from the following: 3

AHHS 395	Geriatric Practicum
KIN 498	Internship
PHAR 585	Geriatric APPE
PSYX 398	Internship
S W 398	Internship
S W 495	Field Work Practicum
SOCI 498	Internship
WGSS 398	Coop Education/Internship

Total Hours 3

Minimum Required Grade: C-

## Social Work B.A. Bachelor of Arts - Social Work

### College of Health Prof Biomed

**Degree Specific Credits:** 65

**Required Cumulative GPA:** 2.75

### Catalog Year: 2017-2018

**Note:** A minimum of 40 social work credits are required for this degree. No more than 60 social work credits will count toward graduation. Admission into the School of Social Work requires a 2.75 overall GPA, a 3.00 in Social Work courses and completion of 5 of 8 extra departmental courses.

## General Education Requirements

Information regarding these requirements can be found in the General Education Section (<http://catalog.umt.edu/academics/general-education-requirements>) of the catalog.

## Summary

Lower Division Core Courses	32
Social Science Requirements	

Economics Requirement

Human Population Requirement	
Biological Requirement	
Upper Core Courses	33
Total Hours	65

## Lower Division Core Courses

**Rule:** Take 32 Credits in the following subcategories

32 Total Credits Required

### Social Science Requirements

**Rule:** All of the following courses are required.

PSCI 210S	Intro to American Government	3
PSYX 100S	Intro to Psychology	3
PSYX 230	Developmental Psychology	3
PSYX 233	Fund of Psychology of Aging	3
S W 100	Intro Soc Welfare	3
S W 200	Intro Soc Wrk Pract	4
SOCI 101S	Introduction to Sociology	3
Total Hours		22

Minimum Required Grade: C-

### Economics Requirement

**Rule:** Choose 1 of the following courses

ECNS 101S	Economic Way of Thinking	3
or ECNS 201S	Principles of Microeconomics	
Total Hours		3

Minimum Required Grade: C-

### Human Population Requirement

Select one of the following: 3

ANTY 122S	Race and Minorities	
GPHY 121S	Human Geography	
SOCI 220S	Race, Gender & Class	
Total Hours		3

Minimum Required Grade: C-

### Biological Requirement

**Rule:** Choose 1 of the following courses

BIOB 101N	Discover Biology	3
or PSYX 250N	Fund of Biological Psychology	
Total Hours		3

Minimum Required Grade: C-

## Upper Core Courses

**Rule:** All courses listed are required

S W 300	Hum Behav & Soc Environ	3
S W 310	S W Policy & Services	3
S W 350	S W Interven Meth I	3



S W 360	S W Interven Meth II	4
S W 400	Social Work Research	3
S W 410E	Social Work Ethics	3
S W 487	Advanced Practice I	2
S W 488	Advanced Practice II	2
S W 495	Field Work Practicum (2 semesters)	10
Total Hours		33

Minimum Required Grade: C-

## Skaggs School of Pharmacy

Patient care is at the center of pharmacy practice. As the medication experts on the health care team, our students will be prepared to promote the health and well-being of individuals and communities. Our curriculum supports interprofessional education and focuses on the development of professional leaders engaged in service.

The Skaggs School of Pharmacy was established in 1907 at Montana State College, was transferred to the University of Montana in 1913, and resides in the College of Health Professions and Biomedical Sciences. The Skaggs School of Pharmacy consists of two departments, Pharmacy Practice and Biomedical and Pharmaceutical Sciences, and is a member of the American Association of Colleges of Pharmacy. The entry-level doctor of pharmacy program is fully accredited by the Accreditation Council for Pharmacy Education, 135 S. LaSalle Street, Suite 4100, Chicago IL 60603-4810, telephone (312) 664-3575, (800) 533-3606; FAX (312) 664-4652; Accreditation Council for Pharmacy Education website (<http://www.acpe-accredit.org>) (<http://www.acpe-accredit.org/>)

The curriculum offered by the Skaggs School of Pharmacy consists of a six-year program leading to the entry-level Pharm.D. degree. The first two years, or pre-professional portion of the curriculum, are spent in studies of the basic biological and physical sciences, and in course work necessary to satisfy the University general education requirements. During the first three years of the professional program, students devote their time to the study of the biomedical and pharmaceutical sciences and pharmacy practice. Areas of study include biochemistry, microbiology, medicinal chemistry, pharmaceuticals, pharmacology, social and administrative pharmacy, and therapeutics. The final professional year is entirely experiential and designed to fully prepare students to enter the profession as pharmacist patient care providers.

A program of selected electives allows the student to obtain further educational experience in specialized areas. Students in the professional program may choose elective courses in community pharmacy practice, management, research and teaching, hospital and institutional pharmacy practice, and a variety of therapeutic-based topics.

In addition to their formal educational program, to become registered pharmacists, students must complete practical experience under the direction of registered pharmacists and pass the NAPLEX and MPJE exams administered by the National Association of Boards of Pharmacy.

Career opportunities exist in the fields of community pharmacy, ambulatory care pharmacy, hospital and other institutional pharmacy, federal or state government service, public health agencies, and with the pharmaceutical industry. Those with advanced degrees or residency training are in demand for research positions and in pharmaceutical education.

High School Preparation: In addition to the general University admission requirements, algebra, trigonometry, biology, chemistry, physics and a course in computers are recommended.

Pre-pharmacy Program: The pre-pharmacy curriculum, which requires a minimum of two years of full-time study, may be taken at any accredited college or university. Students at the University of Montana-Missoula may enter the pre-pharmacy program during any semester. It is recommended that students considering pharmacy as a major declare a pre-pharmacy major as early as possible in order to receive appropriate advising. Upon designating pre-pharmacy as a major, students will be assigned an advisor within the pharmacy program.

Professional Pharmacy Program: Students must apply for admission to the professional program. Class size in the professional pharmacy program is restricted and admission to the program is competitive. For information on program requirements and the application procedure, refer to Prospective Students on the pharmacy program website (<http://health.umt.edu/pharmacy>)(<http://health.umt.edu/pharmacy/>)

## Department of Pharmacy Practice

Vincent J. Colucci, Chair

The Department of Pharmacy Practice provides academic course work for the Doctor of Pharmacy degree conducts research in the broad area of health care, and provides service to the profession of pharmacy and other health care disciplines.

## Department of Biomedical and Pharmaceutical Sciences

Elizabeth A. Putnam, Chair

The Department of Biomedical and Pharmaceutical Sciences offers a curriculum in support of the Doctor of Pharmacy (Pharm.D.) degree and graduate programs in the biomedical and pharmaceutical sciences. Degree programs include the M.S. in

- Neuroscience,
- Pharmaceutical Sciences and Drug Design
- Toxicology and
- Medical Chemistry;

and the Ph.D. in

- Neuroscience,
- Pharmaceutical Sciences and Drug Design,
- Toxicology, and
- Medical Chemistry.

These programs provide education and training in pharmacology, toxicology, neurobiology, neurochemistry, medicinal chemistry, and molecular genetics. Program graduates are well prepared for careers in academia, government and industry.

## B.S. Pharmaceutical Sciences

The Bachelor of Science in Pharmaceutical Sciences may be earned after a successful completion of a minimum of two years of required pre-pharmacy coursework and the first two basic science intensive years of the Pharm. D. curriculum. The B.S. Pharmaceutical Science degree is intended for students that enter the professional pharmacy program



without a prior four-year degree and/or who intend to pursue graduate studies.

## Pre-Pharmacy Curriculum

The courses shown here must be completed before entering the professional pharmacy program. The sequence of courses is illustrative and, if proper prerequisites are satisfied, the student may alter the order in which the courses are taken.

In addition, applicants to the professional pharmacy program must present proof of having completed at least 20 hours of volunteer or paid service in a pharmacy, other health care, or social field, a writing assignment about the experience, and one evaluation form from someone involved with the applicant in such an experience. The Pharmacy College Admission Test (PCAT) must be taken within two years of application.

### Pre-Pharmacy First Year

CHMY 141N & CHMY 142N	College Chemistry I and College Chemistry I Lab	5
CHMY 143N & CHMY 144N	College Chemistry II and College Chemistry II Lab	5
M 162	Applied Calculus (prereq. M 151 or appropriate placement score)	4
BIOH 112	Human Form and Function I	3
BIOH 113	Human Form and Function II	3
WRIT 101	College Writing I	3

### Pre-Pharmacy Second Year

BIOB 260	Cellular and Molecular Biology	4
CHMY 221 & CHMY 222	Organic Chemistry I and Organic Chemistry I Lab	5
ECNS 201S	Principles of Microeconomics	3
PHSX 205N & PHSX 206N	College Physics I and College Physics I Laboratory	5

Select one of the following: 3-4

STAT 216	Introduction to Statistics	
PSYX 222	Psychological Statistics	
SOCI 202	Social Statistics	

### Either Year, any semester- Required

PSYX 100S	Intro to Psychology	3
THTR 120A	Introduction to Acting I	3
or COMX 111A	Intro to Public Speaking	

### Either year, any semester - Recommended courses to fulfill UM General Education requirements<sup>1</sup>

ANTY 101H	Anthro & the Human Experience	3
or NASX 105H	Intro Native Amer Studies	
LIT 110L	Intro to Lit	3
or LIT 120L	Poetry	
Select one of the following:		3
ANTY 122S	Race and Minorities	
HSTR 101H	Western Civilization I	
HSTA 101H	American History I	

Total Hours 58-59

<sup>1</sup> Students must complete the University's General Education requirements. Due to the limitation of elective credits in the professional pharmacy curriculum, students are advised to complete the lower-division General Education requirement during the pre-pharmacy curriculum.

## Professional Pharmacy Curriculum

Students must apply for admission to the professional program (<http://health.umt.edu/pharmacy>). Students enrolled in the professional pharmacy curriculum are assessed a supplemental fee. This fee does not apply to pre-pharmacy students. Refer to the fees (p. 43) section of this catalog for details. Students must demonstrate proficiency in pharmaceutical calculation by successfully completing a competency assessment prior to entering the second professional year.

The Upper-Division Writing Requirement must be met by successfully completing PHAR 550 or an upper-division writing course from the approved list in the Academic Policies and Procedures (p. 7) section of this catalog. See index.

First Year		Hours
Autumn		
PHAR 381	Pharmaceutical Biochemistry	4
PHAR 341	Physiological Systems I	4
PHAR 361	Pharm Sci Lab I	1
BIOM 400	Medical Microbiology	3
PHAR 300	Pharmacy Practice I	3
PHAR 371	Integrated Studies I	1
		Hours 16
Spring		
PHAR 328	Antimicrobial Agents	3
PHAR 331	Pharmaceutics	4
PHAR 342	Physiological Systems II	4
PHAR 362	Pharm Sci Lab II	1
PHAR 310	Pharmacy Practice II	2
PHAR 363	Pharmaceutical Care Lab I	1
PHAR 372	Integrated Studies II	1
		Hours 16
Second Year		
Autumn		
PHAR 421	Medicinal Chem I	3
PHAR 432	Clinical Pharmacokinetics	3
PHAR 443	Pharmacol & Toxicol I	4
PHAR 451	Therapeutics I	3
PHAR 460	Pharmaceut Care Lab II	1
PHAR 471	Integrated Studies III	1

Electives		1
	Hours	16
<b>Spring</b>		
PHAR 412	Pharmacy Practice III	2
PHAR 422	Medicinal Chem II	3
PHAR 444	Pharmacology & Toxicol II	4
PHAR 452	Therapeutics II	3
PHAR 463	Pharmaceut Care Lab III	1
PHAR 472	Integrated Studies IV	1
Electives		2
	Hours	16
	Total Hours	64

Required credits: 120

## Doctor of Pharmacy Special Degree Requirements

Refer to graduation requirements (p. 28) listed previously in the catalog.

Degree candidates must:

1. Meet the general University requirements for graduation.
2. Earn a grade point average of 2.0 or higher in each of the following areas:
  - a. all courses attempted at The University of Montana-Missoula (cumulative GPA).
  - b. all courses which carry a pharmacy (PHAR) prefix (pharmacy GPA).
  - c. all required courses in the professional pharmacy curriculum (professional GPA).
3. Required pharmacy course work must be completed with a grade of C- or better.
4. Complete at least six full academic years, including pre-pharmacy instruction, and a minimum of eight semesters of professional instruction as a full-time student registered for a minimum of twelve credits per semester.
5. Complete not less than 200 credits of course work.

## Licensure in Montana

An applicant for licensure as a registered pharmacist in Montana must pass national examinations as required by the Montana State Board of Pharmacy. To qualify for the examinations, the applicant must be of good moral character and a graduate of an accredited school of pharmacy; however, an applicant will not receive a license until all requirements have been met.

## Pre-Pharmacy Curriculum

The courses shown here must be completed before entering the professional pharmacy program. The sequence of courses is illustrative and, if proper prerequisites are satisfied, the student may alter the order in which the courses are taken.

In addition, applicants to the professional pharmacy program must present proof of having completed at least 20 hours of volunteer or

paid service in a pharmacy, other health care, or social field, a writing assignment about the experience, and one evaluation form from someone involved with the applicant in such an experience. The Pharmacy College Admission Test (PCAT) must be taken within two years of application.

### Pre-Pharmacy First Year

CHMY 141N & CHMY 142N	College Chemistry I and College Chemistry I Lab	5
CHMY 143N & CHMY 144N	College Chemistry II and College Chemistry II Lab	5
M 162	Applied Calculus (prereq. M 151 or appropriate placement score)	4
BIOH 112	Human Form and Function I	3
BIOH 113	Human Form and Function II	3
WRIT 101	College Writing I	3

### Pre-Pharmacy Second Year

BIOB 260	Cellular and Molecular Biology	4
CHMY 221 & CHMY 222	Organic Chemistry I and Organic Chemistry I Lab	5
ECNS 201S	Principles of Microeconomics	3
PHSX 205N & PHSX 206N	College Physics I and College Physics I Laboratory	5
Select one of the following:		3-4
STAT 216	Introduction to Statistics	
PSYX 222	Psychological Statistics	
SOCI 202	Social Statistics	

### Either Year, any semester- Required

PSYX 100S	Intro to Psychology	3
THTR 120A	Introduction to Acting I	3
	or COMX 111A Intro to Public Speaking	

Total Hours 49-50

## Professional Pharmacy Curriculum

Students must apply for admission to the professional program (<http://health.umt.edu/pharmacy>). Students enrolled in the professional pharmacy curriculum are assessed a supplemental fee. This fee does not apply to pre-pharmacy students. Refer to the fees (p. 43) section of this catalog for details. Students must demonstrate proficiency in pharmaceutical calculation by successfully completing a competency assessment prior to entering the second professional year.

The Upper-Division Writing Requirement must be met by successfully completing PHAR 550 or an upper-division writing course from the approved list in the Academic Policies and Procedures (p. 7) section of this catalog. See index.

First Year	Autumn	Hours
PHAR 381	Pharmaceutical Biochemistry	4
PHAR 341 or PHAR 342	Physiological Systems I or Physiological Systems II	4

PHAR 361 or PHAR 362	Pharm Sci Lab I or Pharm Sci Lab II	1
BIOM 400	Medical Microbiology	3
PHAR 300	Pharmacy Practice I	3
PHAR 371 or PHAR 372	Integrated Studies I or Integrate Studies II	1
Hours		16

**Spring**

PHAR 328	Antimicrobie Agents	3
PHAR 331	Pharmaceutics	4
PHAR 341 or PHAR 342	Physiologicæ Systems I or Physiolo Systems II	4
PHAR 361 or PHAR 362	Pharm Sci Lab I or Pharm Sci Lab II	1
PHAR 310	Pharmacy Practice II	2
PHAR 363	Pharmaceutical Care Lab I	1
PHAR 371 or PHAR 372	Integrated Studies I or Integrate Studies II	1
Hours		16

**Second Year**

**Autumn**

PHAR 421 or PHAR 422	Medicinal Chem I or Medicine Chem II	3
PHAR 432	Clinical Pharmacokinetics	3
PHAR 443 or PHAR 444	Pharmacol Toxicol I or Pharmac Toxicol II	4
PHAR 451 or PHAR 452	Therapeutics I or Therapeutics II	3
PHAR 460 or PHAR 463	Pharmaceut Care Lab II or Pharmac Care Lab III	1

PHAR 471 or PHAR 472	Integrated Studies III or Integrated Studies IV	1
Electives		1
Hours		16

**Spring**

PHAR 480	Community Pharmacy IPPE	3
PHAR 421 or PHAR 422	Medicinal Chem I or Medicinal Chem II	3
PHAR 443 or PHAR 444	Pharmacol Toxicol I or Pharmac Toxicol II	4
PHAR 412	Pharmacy Practice III	2
PHAR 451 or PHAR 452	Therapeutic I or Therapet II	3
PHAR 460 or PHAR 463	Pharmaceutical Care Lab II or Pharmaceutical Care Lab III	1
PHAR 471 or PHAR 472	Integrated Studies III or Integrate Studies IV	1
Electives		2
Hours		19

**Third Year**

**Autumn**

PHAR 505	Pharmacy Practice IV	3
PHAR 550	Drug Literature Eval	3
PHAR 553 or PHAR 554	Therapeutics III or Therapeutics IV	4
PHAR 557	Public Health In Pharmacy	2
PHAR 560 or PHAR 563	Pharmaceutical Care Lab IV or Pharmaceutical Care Lab V	1

PHAR 571 or PHAR 572	Integrated Studies V or Integrate Studies VI	1
Hours		14
<b>Spring</b>		
PHAR 481	Hospital Pharmacy IPPE	3
PHAR 506	Pharmacy Practice V	3
PHAR 513	Pharmacoeoc	3
PHAR 514E	Case Studies Pharm Ethics	3
PHAR 553 or PHAR 554	Therapeutic III or Therapet IV	4
PHAR 560 or PHAR 563	Pharmaceutical Care Lab IV or Pharmaceutical Care Lab V	1
PHAR 571 or PHAR 572	Integrated Studies V or Integrate Studies VI	1
PHAR 578	Port Assess/ APPE Orient	1
Hours		19
<b>Fourth Year</b>		
<b>Autumn</b>		
PHAR 579	Comm Pharm APPE	4
PHAR 581	Inpatient APPE	4
PHAR Elective Pharmacy Practice Experience		8
Hours		16
<b>Spring</b>		
PHAR 580	Hosp Pharm APPE	4
PHAR 582	AMB Care APPE	8
PHAR Elective Pharmacy Practice Experience		8
Hours		20
Total Hours		136

Required credits: 200

## College of Humanities and Sciences

Christopher M. Comer, Dean

Jenny McNulty, Associate Dean

S. Melanie Hoell, Director of Advising

Homepage (<http://hs.umt.edu/hs>)

The College of Humanities and Science is the intellectual core of the University of Montana. We fulfill the central purpose for which the University was chartered in 1893: to provide a liberal education and integrated knowledge of the humanities and the sciences.

A liberal arts education gives students the means to think broadly and test the value of diverse ideas, beliefs and facts. It empowers them to continue the learning process throughout life. By studying the ways of thinking and expression that are characteristic of the humanities and the social and natural sciences, students will be educated citizens. They will be enabled to think critically about scientific methods and findings, social analysis, creativity in the arts and humanities, aesthetics and values. Equally important is effective expression of one's understandings. Clear thinking, cogent expression, and solid values provide the foundation of successful careers.

A particular strength of the College is the breadth of its disciplines and programs. This breadth makes possible a varied and flexible curriculum that advances both general programs and specialized education on the undergraduate and graduate levels. Another strength is the quality of the faculty. Its members have a distinguished record of teaching, research and creation of new knowledge, and service to our communities. Their commitment to undergraduate liberal arts education is demonstrated by the quality of the graduates the College has produced. The pre-professional education received here has enabled University of Montana graduates to compete successfully for admission to graduate schools across the nation. A third strength of the College is its commitment to students as they pursue their academic studies at the University. This is reflected in close student/faculty relationships and in the continuous attention given by the College to the effect that policies, procedures, and administrative practices have on students' educational experience.

## African-American Studies

Tobin Miller Shearer, Program Director

African-American Studies at the University of Montana connects African and African-American (including Latin America and the Caribbean) history, experiences, and perspectives with the 21st century. The goal of the African-American Studies curriculum is to develop basic knowledge of, and appreciation for, the diverse experiences of the African Diaspora, and their contributions to the nations into which they were incorporated. Through this study students will recognize that the African-American narrative connects to the core issues of nation formation, identity politics, social movements, and the liberal state. Those who take this minor will likewise be equipped to talk alongside, through, and in the midst of the racial fracture lines that mark this nation as a country where the color of one's skin is socially significant. In all these efforts, we promote scholarship that is driven first and foremost by an interest in creating knowledge and furthering our understanding of the African-American experience. The interdisciplinary curriculum of African-American Studies includes course offerings from the following academic disciplines: anthropology, economics, English, geography, history, music, political science, and sociology. Some topics of study include:

- African heritage and cultural continuity among African-Americans;
- African-American identity issues and cultural variation;
- the history of African-American protest and resistance, including the abolitionist, anti-lynching, and civil rights movements;
- the Harlem Renaissance;

- the social dynamics of integration and segregation; and
- the various circumstances of, and prospects for, African Americans in the 21st century.

## Undergraduate

- African-American Studies B.A. (p. 145)

## Undergraduate Minors

- African-American Studies Minor (p. 145)

# African-American Studies B.A. Bachelor of Arts - African-American Studies

## College Humanities & Sciences

**Degree Specific Credits:** 36

**Required Cumulative GPA:** 2.0

**Catalog Year:** 2017-2018

## General Education Requirements

Information regarding these requirements can be found in the General Education Section (<http://catalog.umt.edu/academics/general-education-requirements>) of the catalog.

## Summary

Core Courses	18
Elective Courses	15
Capstone	3
<b>Total Hours</b>	<b>36</b>

## Core Courses

**Rule:** Students must complete the following courses

AAST 141H	Black: From Africa to Hip-Hop	3
ANTY 122S	Race and Minorities	3
HSTA 343H	Afr Amer Hist Since 1865	3
SOCI 220S	Race, Gender & Class	3
SOCI 325	Social Stratification	3
HSTA 342H	Afr Amer Hist to 1865	3
<b>Total Hours</b>		<b>18</b>

Minimum Required Grade: C-

## Elective Courses

**Rule:** 15 Credits required, 6 of which must be at the upper division

**Note:** Capstone: Each student must also perform a 3-credit capstone project as an independent study in which they conduct a research project, service project, or artistic project focused on an issue pertinent to the African-American community. All projects must be approved by the AAS director.

Select 15 credits including 6 upper division credits from the following: 15

AASC 291	Special Topics
AAST 208H	Discovering Africa
AAST 260	African Americans and Native Americans
AAST 262	Abolitionism: The First Civil Rights Movement
ANTY 330X	Peoples and Cultures of World
ANTY 349	Social Change in NnWstrn Socts
CRWR 491	Special Topics
ECNS 217X	Issues in Economic Development
ECNS 312	Labor Economics
FILM 484	Film Directors
FRCH 339	Surv African Cinema
GPHY 141S	Geography of World Regions
GPHY 243	Africa
HSTA 262	Abolitionism
HSTA 347	Voodoo, Muslim, Church: Black Religion
HSTA 361	The American South
HSTA 382H	History of American Law
HSTA 391	Special Topics
HSTA 415	The Black Radical Tradition
HSTA 417	Prayer & Civil Rights
HSTA 491	Special topics
HSTR 262H	Islamic Civil: Classical Age
LIT 191	Special Topics
LIT 291	Special Topics
LIT 304	U.S. Writers of Color
LIT 343	African American Lit
LIT 391	Special Topics
LIT 420	Critical Theory
LIT 491	Special Topics
MUSI 130L	History of Jazz
PSCI 326	Politics of Africa
PSCI 348	US Multicultural Politics
PSCI 443	Politics of Social Movements
SOCI 441	Capstone: Inequal and Soc Just
SOCI 443	Sociology of Poverty
WGSS 363	Feminist Theory and Methods
<b>Total Hours</b>	<b>15</b>

Minimum Required Grade: C-

# African-American Studies Minor Minor - African-American Studies (Minor)

## College Humanities & Sciences

**Degree Specific Credits:** 24

**Required Cumulative GPA:** 2.0

**Catalog Year: 2017-2018****Summary**

African-American Studies Core Courses	9
African-American Studies Electives	6
Other Electives	9
<b>Total Hours</b>	<b>24</b>

**African-American Studies Core Courses**

**Rule:** All courses are require

AAST 141H	Black: From Africa to Hip-Hop	3
HSTA 342H	Afr Amer Hist to 1865	3
HSTA 343H	Afr Amer Hist Since 1865	3
<b>Total Hours</b>		<b>9</b>

Minimum Required Grade: C-

**African-American Studies Electives**

**Rule:** 6 credits required from the following electives, 3 of which must be in an upper division cours

Select 6 credits from the following:	6	
AAST 291	Special Topics	1-12
AAST 208H	Discovering Africa	3
AAST 260	African Americans and Native Americans	3
AAST 262	Abolitionism: The First Civil Rights Movement	3
AAST 372	African-American Identity	3
AAST 491	Special Topics	1-6
HSTA 347	Voodoo, Muslim, Church: Black Religion	3
HSTA 415	The Black Radical Tradition	3
HSTA 417	Prayer & Civil Rights	3
<b>Total Hours</b>		<b>29-45</b>

Minimum Required Grade: C-

**Other Electives**

**Rule:** 9 credits are required from the following courses. At least 2 of the courses must be from different disciplines.

**Note:** FRCH 391: must be African-American Literature.

Select 9 credits from the following:	9
ANTY 122S	Race and Minorities
ANTY 330X	Peoples and Cultures of World
ANTY 349	Social Change in NnWstrn Socts
ECNS 217X	Issues in Economic Development
FRCH 391	Special Topics (must be African-American Literature)
GPHY 243	Africa
HSTA 361	The American South
HSTA 382H	History of American Law

HSTR 262H	Islamic Civil: Classical Age
LIT 343	African American Lit
LIT 420	Critical Theory
MUSI 130L	History of Jazz
PSCI 326	Politics of Africa
SOCI 220S	Race, Gender & Class
SOCI 325	Social Stratification
SOCI 443	Sociology of Poverty
<b>Total Hours</b>	<b>9</b>

Minimum Required Grade: C-

**Anthropology**

**Tully J. Thibeau, Chair**

Anthropology is the study of people, both ancient and contemporary, in their biological, archaeological, cultural, and linguistic context. Anthropology uses a holistic approach to integrate findings from the social sciences, natural sciences, and humanities. The primary educational mission of the Department of Anthropology is teaching, research, and professional service in order to impart the critical importance of understanding the human condition and its relevance to an increasingly diverse world. To accomplish this task, the Department of Anthropology provides a curriculum that will help students understand and appreciate the range of human cultures as well as the significance of biological evolution of the human condition. Through our undergraduate and graduate programs, students not only achieve a broad cross-cultural education but also prepare to apply their anthropological knowledge in their chosen career paths. A minor, Bachelor of Arts, Master of Arts, and Doctor of Philosophy degrees are offered in Anthropology, with options or specializations available at every level. For undergraduates, the B.A. can include concentrations in Archaeology, Cultural and Ethnic Diversity, Forensic Anthropology, Linguistics, Medical Anthropology - or a general degree crafted to the interests of the student. Parallel missions to promote the study of human diversity and experience are advanced by the Linguistics Program, which is also housed in the Department. Additional offerings include certificates in Forensic Science and Historic Preservation; these certificates are interdisciplinary by nature, but are administered within the Anthropology Department.

**Undergraduate**

- Anthropology B.A. (p. 147)
- Anthropology B.A., Archaeology Concentration (p. 149)
- Anthropology B.A., Cultural and Ethnic Diversity Concentration (p. 151)
- Anthropology B.A., Forensic Anthropology Concentration (p. 154)
- Anthropology B.A., Linguistics Concentration (p. 157)
- Anthropology B.A., Medical Anthropology Concentration (p. 160)

**Undergraduate Minors**

- Anthropology Minor (p. 148)
- Linguistics Minor (p. 159)



## Undergraduate Certificates

- English as a Second Language Certificate of Art (p. 153)
- Forensic Studies Certificate of Art (p. 156)
- Historic Preservation Certificate of Applied Science (p. 157)

## Anthropology B.A.

Anthropology is an interconnected discipline and majors are urged to acquire a broad background especially in the natural and social sciences and the humanities. Recommended areas of study are biology, economics, English, geography, geology, history, communication studies, linguistics, Native American studies, philosophy, political science, psychology, religious studies, and sociology.

## Bachelor of Arts - Anthropology

### College Humanities & Sciences

Degree Specific Credits: 36

Required Cumulative GPA: 2.0

### Catalog Year: 2017-2018

**Note:** There are no prerequisites to the undergraduate major. The major requires 36 credits in Anthropology, Linguistics, or Native American Studies, 12 of which must be the core offerings. In addition to the core courses, students are required to have a course in quantitative methods. Students must complete the core courses and the quantitative course with a letter grade of C- or better.

## General Education Requirements

Information regarding these requirements can be found in the General Education Section (<http://catalog.umd.edu/academics/general-education-requirements>) of the catalog.

## Summary

Lower Division Core Courses	12
Anthropology or Cognate Electives	12
Upper Division Writing Requirement	3
Subarea I-Theory and Methods	6
Anthropological Theory	
Anthropological Methods	
Subarea II, III, IV	6
Subarea II: Human Adaptation and Diversity	
Subarea III: World Societies and Cultures	
Subarea IV: Concepts and Issues	
Total Hours	39

### Lower Division Core Courses

**Rule:** Complete all courses

ANTY 210N	Intro to Physical Anthropology	3
ANTY 220S	Culture & Society	3
ANTY 250S	Intro to Archaeology	3

LING 270S	Intro to Linguistics	3
Total Hours		12

Minimum Required Grade: C-

## Anthropology or Cognate Electives

**Rule:** Complete 12 credits.

**Note:** Speak to your academic adviser for a full list of approved Anthropology or Cognate electives.

Minimum Required Grade: C-

12 Total Credits Required

## Upper Division Writing Requirement

**Rule:** Complete either an upper-division writing course from approved list in catalog, or one of the following courses listed below.

Select one of the following:	3
ANTY 402	Quan Ethnographic Field Methds
ANTY 408	Advanced Anthro Statistics
ANTY 450	Archaeological Theory
ANTY 455	Artifact Analysis
LING 473	Language and Culture
LING 484	NA Indigenous Lang & Ling

Total Hours 3

Minimum Required Grade: C-

## Subarea I-Theory and Methods

**Rule:** Complete 3 credits in Theory and 3 credits in Methods

Minimum Required Grade: C-

6 Total Credits Required

### Anthropological Theory

**Rule:** Complete one of the following

Select one of the following:	3
ANTY 312	Human Evolution
ANTY 400	History of Anthropology
ANTY 403	Public Anthropology
ANTY 404	Anthropological Museology
ANTY 415	Emergence Modern Humans
ANTY 430	Social Anthropology
ANTY 450	Archaeological Theory
ANTY 456	Historical Archaeology
ANTY 458	Arch of Hunter-Gatherers
LING 470	Linguistic Analysis

Total Hours 3

Minimum Required Grade: C

### Anthropological Methods

**Rule:** Complete one of the following

Select 3 credits from the following: 3

ANTY 402	Quan Ethnographic Field Methds
ANTY 408	Advanced Anthro Statistics
ANTY 412	Osteology
ANTY 413	Forensic and Mortuary Arch
ANTY 416	Dental Anthropology
ANTY 431	Ethnographic Field Methods
ANTY 451	Cultural Resource Management
ANTY 454	Lithic Technology
ANTY 455	Artifact Analysis
ANTY 466	Archaeological Survey
ANTY 467	Archaeological Field School
ANTY 476	Methods for Native Languages
ANTY 495	Field Experience:
LING 474	Historical Linguistics
LING 475	Linguistic Field Methods

Total Hours 3

Minimum Required Grade: C-

## Subarea II, III, IV

**Rule:** Complete 6 credits from 2 of 3 Subareas

Minimum Required Grade: C-

6 Total Credits Required

### Subarea II: Human Adaptation and Diversity

**Rule:** Complete one of the following

Select one of the following: 3

ANTY 122S	Race and Minorities
ANTY 133X	Food and Culture
ANTY 211N	Anthropological Genetics
ANTY 310	Human Variation
ANTY 333	Culture and Population
ANTY 418	Evolution and Genetic Variation in Human Populations
ANTY 426	Culture, Health and Healing
LING 375X	Linguistic Ecology and Language Endangerment

Total Hours 3

Minimum Required Grade: C-

### Subarea III: World Societies and Cultures

**Rule:** Complete one of the following

Select one of the following: 3

ANTY 141H	The Silk Road
ANTY 241H	Central Asian Culture and Civ
ANTY 251H	Foundations of Civilization
ANTY 254H	Arch Wonders of the World
ANTY 323X	Native Peoples of Montana
ANTY 330X	Peoples and Cultures of World
ANTY 351H	Archaeology of North America

ANTY 352X	Archaeology of Montana
ANTY 353	PaleoIndian Archaeology
ANTY 354H	Mesoamerican Prehistory
ANTY 442	Cities/Landscapes Central Asia
ANTY 444	Artistic Tradtns Central Asia
ANTY 457	Arch of the Pacific Northwest
ANTY 459	Archof the Arctic/Subarctic
ANTY 465	Arch of the SW United States
ANTY 494	Seminar/Workshop

Total Hours 3

Minimum Required Grade: C-

### Subarea IV: Concepts and Issues

**Rule:** Complete one of the following

Select one of the following: 3

ANTY 216	Primates in Peril
ANTY 314	Principles of Forensic Anthro
ANTY 326E	Indigenous Peoples & the Ethics of Development
ANTY 336	Myth, Ritual and Religion
ANTY 349	Social Change in NnWstrn Socts
ANTY 422	Mind, Culture and Society
ANTY 423	Culture and Identity
ANTY 427	Anthropology of Gender
ANTY 435	Drugs, Culture and Society
ANTY 440	Cont. Issues of SSEA
LING 473	Language and Culture
LING 477	Bilingualism
LING 484	NA Indigenous Lang & Ling
LING 489	Morphology
NASX 306X	Contemp Global Iss Indg People

Total Hours 3

Minimum Required Grade: C-

# Anthropology Minor

## Minor - Anthropology (Minor)

### College Humanities & Sciences

Degree Specific Credits: 18

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

## Summary

Lower Core Courses	12
Subarea 1 Elective	3
Subareas 2,3 and 4 Electives	3
Total Hours	18

## Lower Core Courses

**Rule:** Must complete all of the following:

ANTY 210N	Intro to Physical Anthropology	3
ANTY 220S	Culture & Society	3
ANTY 250S	Intro to Archaeology	3
LING 270S	Intro to Linguistics	3
Total Hours		12

Minimum Required Grade: C-

## Subarea 1 Elective

**Rule:** Must complete 1 of the following:

**Note:** If ANTY 466 or ANTY 495 are taken, they must be taken for 3 credits

Select 3 credits from the following: 3

ANTY 312	Human Evolution
ANTY 400	History of Anthropology
ANTY 402	Quan Ethnographic Field Methds
ANTY 404	Anthropological Museology
ANTY 403	Public Anthropology
ANTY 408	Advanced Anthro Statistics
ANTY 412	Osteology
ANTY 413	Forensic and Mortuary Arch
ANTY 415	Emergence Modern Humans
ANTY 416	Dental Anthropology
ANTY 430	Social Anthropology
ANTY 431	Ethnographic Field Methods
ANTY 450	Archaeological Theory
ANTY 451	Cultural Resource Management
ANTY 454	Lithic Technology
ANTY 455	Artifact Analysis
ANTY 456	Historical Archaeology
ANTY 458	Arch of Hunter-Gatherers
ANTY 466	Archaeological Survey
ANTY 467	Archaeological Field School
ANTY 476	Methods for Native Languages
ANTY 495	Field Experience:
LING 472	Generative Syntax
LING 475	Linguistic Field Methods

Total Hours 3

Minimum Required Grade: C-

## Subareas 2,3 and 4 Electives

**Rule:** Must complete 1 of the following:

Select one of the following: 3

ANTY 216	Primates in Peril
ANTY 310	Human Variation
ANTY 314	Principles of Forensic Anthro
ANTY 323X	Native Peoples of Montana

ANTY 326E	Indigenous Peoples & the Ethics of Development
ANTY 330X	Peoples and Cultures of World
ANTY 333	Culture and Population
ANTY 336	Myth, Ritual and Religion
ANTY 349	Social Change in NnWstrn Socts
ANTY 351H	Archaeology of North America
ANTY 352X	Archaeology of Montana
ANTY 353	PaleoIndian Archaeology
ANTY 354H	Mesoamerican Prehistory
ANTY 418	Evolution and Genetic Variation in Human Populations
ANTY 422	Mind, Culture and Society
ANTY 423	Culture and Identity
ANTY 426	Culture, Health and Healing
ANTY 427	Anthropology of Gender
ANTY 435	Drugs, Culture and Society
ANTY 440	Cont. Issues of SSEA
ANTY 442	Cities/Landscapes Central Asia
ANTY 444	Artistic Tradtns Central Asia
ANTY 457	Arch of the Pacific Northwest
ANTY 459	Arch of the Arctic/Subarctic
ANTY 465	Arch of the SW United States
HSTA 415	The Black Radical Tradition
LING 375X	Linguistic Ecology and Language Endangerment
LING 473	Language and Culture
LING 477	Bilingualism
LING 484	NA Indigenous Lang & Ling
LING 489	Morphology
NASX 306X	Contemp Global Iss Indg People

Total Hours 3

Minimum Required Grade: C-

## Archaeology

### Bachelor of Arts - Anthropology; Archaeology Concentration

#### College Humanities & Sciences

**Degree Specific Credits:** 36

**Required Cumulative GPA:** 2.0

#### Catalog Year: 2017-2018

**Note:** For a degree in Anthropology with a concentration in Archeology, student must complete all the general major requirements, including a total of nine credits of Archeology Concentration core requirements. Note that in addition to fulfilling concentration requirements these ANTY courses also fulfill certain major requirements.

## General Education Requirements

Information regarding these requirements can be found in the General Education Section (<http://catalog.umd.edu/academics/general-education-requirements>) of the catalog.

### Summary

Lower Division Core Courses	12
Anthropology or Cognate Electives	12
Upper Division Writing Requirement	3
Subarea I-Theory and Methods	6
Subarea II, III, IV	6
Subarea II: Human Adaptation and Diversity	
Subarea III: World Societies and Cultures	
Subarea IV: Concepts and Issues	
Archeology Core Courses	9
Area	
Theory	
Methods	
Total Hours	48

### Lower Division Core Courses

**Rule:** Complete all courses

ANTY 210N	Intro to Physical Anthropology	3
ANTY 220S	Culture & Society	3
ANTY 250S	Intro to Archaeology	3
LING 270S	Intro to Linguistics	3
Total Hours		12

Minimum Required Grade: C

### Anthropology or Cognate Electives

**Rule:** Complete 12 credits.

**Note:** The student must complete six credits from **one** of the following allied disciplines (Biology, Geography, Geology) and six credits from **one** of the following allied disciplines (Computer Science, Environmental Studies, Forestry, History, Mathematical Sciences, or Native American Studies).

Minimum Required Grade: C

12 Total Credits Required

### Upper Division Writing Requirement

**Rule:** Complete either an upper-division writing course from approved list in catalog, or one of the following courses listed below.

Select one of the following:		3
ANTY 402	Quan Ethnographic Field Methds	
ANTY 408	Advanced Anthro Statistics	
ANTY 450	Archaeological Theory	
ANTY 455	Artifact Analysis	
LING 473	Language and Culture	

LING 484	NA Indigenous Lang & Ling	
Total Hours		3

Minimum Required Grade: C-

### Subarea I-Theory and Methods

**Rule:** Complete 3 credits in Theory and 3 credits in Methods

Minimum Required Grade: C

6 Total Credits Required

### Anthropological Theory

Select one of the following:		3
ANTY 312	Human Evolution	
ANTY 400	History of Anthropology	
ANTY 403	Public Anthropology	
ANTY 404	Anthropological Museology	
ANTY 415	Emergence Modern Humans	
ANTY 430	Social Anthropology	
ANTY 450	Archaeological Theory	
ANTY 456	Historical Archaeology	
ANTY 458	Arch of Hunter-Gatherers	
LING 470	Linguistic Analysis	
Total Hours		3

Minimum Required Grade: C

### Anthropological Methods

Select 3 credits from the following:		3
ANTY 402	Quan Ethnographic Field Methds	
ANTY 408	Advanced Anthro Statistics	
ANTY 412	Osteology	
ANTY 413	Forensic and Mortuary Arch	
ANTY 416	Dental Anthropology	
ANTY 431	Ethnographic Field Methods	
ANTY 451	Cultural Resource Management	
ANTY 454	Lithic Technology	
ANTY 455	Artifact Analysis	
ANTY 466	Archaeological Survey	
ANTY 476	Methods for Native Languages	
ANTY 495	Field Experience:	
LING 474	Historical Linguistics	
LING 475	Linguistic Field Methods	
Total Hours		3

Minimum Required Grade: C

### Subarea II, III, IV

**Rule:** Complete 6 credits from 2 of 3 Subareas

Minimum Required Grade: C

6 Total Credits Required