Master of Science in Health Sciences

The intent of the MS in Health Sciences program is to provide students with an opportunity to diversify or further enhance their educational foundation through graduate education that can be applied to any of several career paths in the health care field. The program supports and formalizes the educational endeavors of MSU graduates, Post Baccalaureate Pre-Medical Certificate (http://catalog.montana.edu/graduate/interdisciplinary-other-programs/post-baccalaureate-pre-med-certif/) students, and other students who attend MSU to better prepare for matriculation into health care-related professional schools. The MS in Health Sciences program was approved in early 2009 and the first students matriculated in August 2009. The program requires at least two consecutive semesters and the class size is capped at 30 students.

The MS in Health Sciences program can be combined with the Post Baccalaureate Pre-Medical Certificate program to provide a continuous and more in-depth degree program and educational experience. For those students applying to health professional school, the MS in Health Sciences can be completed during the application 'glide' year.

Additionally, students who have a solid science background, and thus do not qualify for the Certificate program, can be eligible to enter directly into the one year MS in Health Sciences program. The pre-requisites are such that students are able to build on a substantial foundation in the basic sciences and broaden their academic experience.

Coordinator:
Sheila Nielsen, PhD (http://www.montana.edu/hpa/drp.html)

Assistant:
Kathy Weaver
Health Professions Advising
308 Leon Johnson Hall, PO BOX 173075,
Bozeman, MT 59717
Tel: 406 994-1670 Fax: 406 994-6400
Email: hpa@montana.edu
Home page for HPA (http://www.montana.edu/hpa/)

How to Apply
1. An online application for the MS in Health Sciences can be found at PostBacCAS. (https://postbaccas.liaisoncas.com/applicant-ux/#/userAccount)
2. Applicants who have been accepted to the program through PostBacCAS will be invited to complete the MSU Graduate School application to complete the full admissions process.
3. Applications to PostBacCAS are accepted Oct 1- March 31. Applications are reviewed throughout the cycle by the admissions committee and decisions are made and communicated to the applicant as quickly as possible.
4. Pre-requisites include a year each of general chemistry, organic/biochemistry, biology, and physics. A year of math to include one semester of statistics is also required.

Program Specifics
- Available to students is a clinical observation course (HMED 540 Clinical Practicum) and a health-care focused, graduate-level journal club (HMED 594 Seminar).

- Students will choose an emphasis among Molecular Medical, Community Health, International, or Health and Medicine.
- Students will complete a scholarly project and present in a public forum and provide a written report (HMED 575 Professional Paper and Project).
- Students are encouraged to participate in a semester-long application preparation process (Prep2Apply) for health professional school, if appropriate.
- Students who successfully complete program will receive their degree during the spring graduation ceremony.

Recommended Courses:

Molecular Medicine

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCH 441</td>
<td>Biochemistry of Macromolecules</td>
<td>3</td>
</tr>
<tr>
<td>BCH 442</td>
<td>Metabolic Regulation</td>
<td>3</td>
</tr>
<tr>
<td>BCH 444R</td>
<td>Biochemistry &amp; Molecular Biology Methods</td>
<td>3</td>
</tr>
<tr>
<td>BCH 524</td>
<td>Mass Spectrometry</td>
<td>3</td>
</tr>
<tr>
<td>BCH 543</td>
<td>Proteins</td>
<td>3</td>
</tr>
<tr>
<td>BIOB 410</td>
<td>Immunology</td>
<td>3</td>
</tr>
<tr>
<td>BIOB 425</td>
<td>Adv Cell &amp; Molecular Biology</td>
<td>3</td>
</tr>
<tr>
<td>or BIOB 525</td>
<td>Adv. Cell &amp; Molecular Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOB 524</td>
<td>Ethical Practice of Science</td>
<td>3</td>
</tr>
<tr>
<td>BIOH 405</td>
<td>Hematology</td>
<td>3</td>
</tr>
<tr>
<td>BIOH 422</td>
<td>Genes and Cancer</td>
<td>3</td>
</tr>
<tr>
<td>BIOH 511</td>
<td>Advanced Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>BIOH 425</td>
<td>Sensory Neurophysiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOH 435</td>
<td>Cognitive Neuroscience</td>
<td>3</td>
</tr>
<tr>
<td>BIOH 445</td>
<td>Intro Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>BIOH 455</td>
<td>Molecular Medicine</td>
<td>3</td>
</tr>
<tr>
<td>BIOH 465R</td>
<td>Gene Expression Lab: From Genes to Proteins to Cells</td>
<td>3</td>
</tr>
<tr>
<td>or BIOH 565</td>
<td>Gene Expression Lab: From Genes to Proteins to Cells</td>
<td>3</td>
</tr>
<tr>
<td>BIOM 400</td>
<td>Medical Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOM 425</td>
<td>Toxicology: Science of Poisons</td>
<td>3</td>
</tr>
<tr>
<td>or MB 527</td>
<td>Toxicology</td>
<td>3</td>
</tr>
<tr>
<td>BIOM 431</td>
<td>Medical Bacteriology</td>
<td>3</td>
</tr>
<tr>
<td>BIOM 441</td>
<td>Eukaryotic Pathogens</td>
<td>4</td>
</tr>
<tr>
<td>BIOO 412</td>
<td>Animal Physiology</td>
<td>3</td>
</tr>
<tr>
<td>EMEC 424</td>
<td>Cellular Mechanotransduction</td>
<td>3</td>
</tr>
<tr>
<td>HSTR 417</td>
<td>Early Modern Science</td>
<td>3</td>
</tr>
<tr>
<td>HSTR 419</td>
<td>Modern Science</td>
<td>3</td>
</tr>
<tr>
<td>IMID 501</td>
<td>Exper Immunology/Pathology</td>
<td>3</td>
</tr>
<tr>
<td>IMID 505</td>
<td>Eukaryotic Gene Regulation</td>
<td>3</td>
</tr>
<tr>
<td>MB 505</td>
<td>Host-Associated Microbiomes</td>
<td>4</td>
</tr>
<tr>
<td>MB 520</td>
<td>Microbial Physiology</td>
<td>3</td>
</tr>
<tr>
<td>MB 525</td>
<td>Advanced Immunology</td>
<td>3</td>
</tr>
<tr>
<td>MB 528</td>
<td>Advanced Genetics</td>
<td>3</td>
</tr>
<tr>
<td>MB 530</td>
<td>Virology</td>
<td>3</td>
</tr>
<tr>
<td>BIOH 509</td>
<td>Advanced Human Torso Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>HMED 575</td>
<td>Professional Paper and Project</td>
<td>1-4</td>
</tr>
<tr>
<td>HMED 540</td>
<td>Clinical Practicum</td>
<td>1</td>
</tr>
<tr>
<td>HMED 594</td>
<td>Seminar</td>
<td>1</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>------------</td>
<td>-------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>BMGT 469</td>
<td>Community Entrepreneurship &amp; Nonprofit Management</td>
<td>3</td>
</tr>
<tr>
<td>CTHH 405</td>
<td>Caregiving &amp; Aging Families</td>
<td>3</td>
</tr>
<tr>
<td>CTHH 430</td>
<td>Mental Health &amp; Social Issues in Aging</td>
<td>3</td>
</tr>
<tr>
<td>CTHH 502</td>
<td>Theories and Models in Health</td>
<td>3</td>
</tr>
<tr>
<td>EIND 506</td>
<td>Healthcare Delivery Systems</td>
<td>3</td>
</tr>
<tr>
<td>or NRSN 608</td>
<td>Design H C Delivery Systems</td>
<td></td>
</tr>
<tr>
<td>EIND 511</td>
<td>Advanced Human Factors</td>
<td>3</td>
</tr>
<tr>
<td>EIND 513</td>
<td>Human Factors in the Safety of Complex Systems</td>
<td>3</td>
</tr>
<tr>
<td>EIND 514</td>
<td>Occupational Biomechanics</td>
<td>3</td>
</tr>
<tr>
<td>HADM 445</td>
<td>Managing Healthcare Organizations</td>
<td>3</td>
</tr>
<tr>
<td>HTM 455</td>
<td>The Ethic of Care</td>
<td>3</td>
</tr>
<tr>
<td>NRSN 418</td>
<td>Health Policy/Hlth Care Econ Clin</td>
<td>2</td>
</tr>
<tr>
<td>NRSN 489</td>
<td>Research &amp; Statistics to Support Evidence Based Practice</td>
<td>6</td>
</tr>
<tr>
<td>NRSN 601</td>
<td>Advanced Health Assessment</td>
<td>3</td>
</tr>
<tr>
<td>NRSN 604</td>
<td>Evidence Based Practice</td>
<td>4</td>
</tr>
<tr>
<td>NRSN 612</td>
<td>Ethics, Law, and Policy for Advocacy in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>NRSN 613</td>
<td>Finance &amp; Budget H C Systems</td>
<td>2</td>
</tr>
<tr>
<td>NUTR 401</td>
<td>Nutrition Assessment/Counsel</td>
<td>3</td>
</tr>
<tr>
<td>NUTR 425</td>
<td>Medical Nutrition Therapy I</td>
<td>3</td>
</tr>
<tr>
<td>NUTR 426</td>
<td>Medical Nutrition Therapy II</td>
<td>3</td>
</tr>
<tr>
<td>PSCI 520</td>
<td>Government Leadership &amp; Ethics</td>
<td>3</td>
</tr>
<tr>
<td>PSCI 554</td>
<td>Foundations of Public Administration</td>
<td>3</td>
</tr>
<tr>
<td>PSYX 481</td>
<td>Judgment &amp; Decision Making</td>
<td>3</td>
</tr>
<tr>
<td>HMED 594</td>
<td>Seminar</td>
<td>1</td>
</tr>
<tr>
<td>HMED 540</td>
<td>Clinical Practicum</td>
<td>1</td>
</tr>
<tr>
<td>HMED 575</td>
<td>Professional Paper and Project</td>
<td>1-4</td>
</tr>
<tr>
<td>AC 501</td>
<td>Chemical Dependency Counseling I</td>
<td>3</td>
</tr>
<tr>
<td>AC 503</td>
<td>Assessment, Treatment, Planning, and Ethics of Addiction Counseling I</td>
<td>3</td>
</tr>
<tr>
<td>AC 506</td>
<td>Group Counseling in the Addiction Setting I</td>
<td>3</td>
</tr>
<tr>
<td>AC 507</td>
<td>Group Counseling in the Addiction Setting II</td>
<td>3</td>
</tr>
<tr>
<td>AC 510</td>
<td>Chem Dependency Counseling II</td>
<td>3</td>
</tr>
<tr>
<td>AGSC 465R</td>
<td>Health, Agriculture, Poverty</td>
<td>4</td>
</tr>
<tr>
<td>CTHH 428</td>
<td>Health Disparities</td>
<td>3</td>
</tr>
<tr>
<td>HSCO 563</td>
<td>Multicultural Awareness</td>
<td>3</td>
</tr>
<tr>
<td>HSTA 407</td>
<td>Gender in US &amp; Canadian West</td>
<td>3</td>
</tr>
<tr>
<td>HSTA 416</td>
<td>Race and Class in America</td>
<td>3</td>
</tr>
<tr>
<td>NASX 405</td>
<td>Gender Issues in Native American Studies</td>
<td>3</td>
</tr>
<tr>
<td>NASX 515</td>
<td>Native Food Systems</td>
<td>3</td>
</tr>
<tr>
<td>or NASX 415</td>
<td>Native Food Systems</td>
<td></td>
</tr>
<tr>
<td>NASX 525</td>
<td>Indigenous Philosophies/Sacred Ecologies</td>
<td>3</td>
</tr>
<tr>
<td>NASX 550</td>
<td>Native Americans: Dispelling the Myths</td>
<td>3</td>
</tr>
<tr>
<td>NRSN 435</td>
<td>Spirituality in Healthcare</td>
<td>2</td>
</tr>
<tr>
<td>NRSN 614</td>
<td>Vulnerability and Health Care in Diverse Communities</td>
<td>4</td>
</tr>
<tr>
<td>PSYX 436</td>
<td>Politics of Food &amp; Hunger</td>
<td>3</td>
</tr>
<tr>
<td>PSYX 439</td>
<td>International Human Rights</td>
<td>3</td>
</tr>
<tr>
<td>PSYX 462</td>
<td>Psychology of Prejudice</td>
<td>3</td>
</tr>
<tr>
<td>SFBS 451R</td>
<td>Sustainable Food Systems</td>
<td>3</td>
</tr>
<tr>
<td>SFBS 551</td>
<td>Global Food Perspectives</td>
<td>3</td>
</tr>
<tr>
<td>SOCI 434</td>
<td>Sociology of Human Sexuality</td>
<td>3</td>
</tr>
<tr>
<td>WGSS 454</td>
<td>The Study of Men &amp; Masculinity</td>
<td>3</td>
</tr>
<tr>
<td>HMED 540</td>
<td>Clinical Practicum</td>
<td>1</td>
</tr>
<tr>
<td>HMED 575</td>
<td>Professional Paper and Project</td>
<td>1-4</td>
</tr>
<tr>
<td>HMED 594</td>
<td>Seminar</td>
<td>1</td>
</tr>
<tr>
<td>BIOH 440</td>
<td>Neuroscience of Mental Illness</td>
<td>3</td>
</tr>
<tr>
<td>CTHH 435</td>
<td>Human Response To Stress</td>
<td>3</td>
</tr>
<tr>
<td>CTHH 440</td>
<td>Principles Of Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>HEE 506</td>
<td>Exercise and Chronic Disease</td>
<td>3</td>
</tr>
<tr>
<td>KIN 515</td>
<td>Exercise Performance and Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>KIN 545</td>
<td>Graduate Exercise Physiology</td>
<td>3</td>
</tr>
<tr>
<td>NRSN 602</td>
<td>Adv Physio/Pathophysiology</td>
<td>4</td>
</tr>
<tr>
<td>NRSN 603</td>
<td>Advanced Pharmacology I</td>
<td>2</td>
</tr>
<tr>
<td>NRSN 610</td>
<td>Health Care Informatics</td>
<td>3</td>
</tr>
<tr>
<td>NUTR 411</td>
<td>Nutrition for Sports/Exercise</td>
<td>3</td>
</tr>
<tr>
<td>NUTR 421</td>
<td>Macronutrient Metabolism</td>
<td>3</td>
</tr>
<tr>
<td>NUTR 422</td>
<td>Micronutrient Metabolism</td>
<td>3</td>
</tr>
<tr>
<td>NUTR 511</td>
<td>Exercise Metabolism and Health</td>
<td>3</td>
</tr>
<tr>
<td>NUTR 526</td>
<td>Nutrition for Fitness/Perform</td>
<td>3</td>
</tr>
<tr>
<td>PSYX 463</td>
<td>Social Cognition</td>
<td>3</td>
</tr>
<tr>
<td>PSYX 477</td>
<td>Science of Psych Well-Being</td>
<td>3</td>
</tr>
<tr>
<td>PSYX 541</td>
<td>Cognitive Processes</td>
<td>3</td>
</tr>
<tr>
<td>PSYX 544</td>
<td>Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYX 546</td>
<td>Social Cognition</td>
<td>3</td>
</tr>
<tr>
<td>HMED 540</td>
<td>Clinical Practicum</td>
<td>1</td>
</tr>
<tr>
<td>HMED 575</td>
<td>Professional Paper and Project</td>
<td>1-4</td>
</tr>
<tr>
<td>HMED 594</td>
<td>Seminar</td>
<td>1</td>
</tr>
<tr>
<td>AC 502</td>
<td>Psychopharmacology and Addictions</td>
<td>3</td>
</tr>
<tr>
<td>AC 504</td>
<td>Alcohol and Drug Studies</td>
<td>3</td>
</tr>
<tr>
<td>HMED 594</td>
<td>Seminar</td>
<td>1</td>
</tr>
<tr>
<td>AC 502</td>
<td>Psychopharmacology and Addictions</td>
<td>3</td>
</tr>
<tr>
<td>AC 504</td>
<td>Alcohol and Drug Studies</td>
<td>3</td>
</tr>
</tbody>
</table>
Font Notice

This document should contain certain fonts with restrictive licenses. For this draft, substitutions were made using less legally restrictive fonts. Specifically:

Times was used instead of Adobe Garamond Pro.

The editor may contact Leepfrog for a draft with the correct fonts in place.