## Chemistry Primary Emphasis

### Professional Science Masters (PSM)

**YEAR 1**

| Fall | | | Credit hours |
|---|---|---|---|
| | | Approved Business Course* *online* | 3 |
| CHM | 760 | Chemistry of Environmental Systems I *evening* | 3 |
| CHM | 796 | Science Internship *(arranged with supervisor)* | 3 |
| **Spring** | | | |
| | | Approved Business Courses* *online* | 6 |
| CHM | 740 | Seminar or CHM 798 Research *(arranged with advisor)* | 2 |
| | | | Year One Total 17 |

**YEAR 2**

| Fall | | | Credit hours |
|---|---|---|---|
| BIO | 794 | Scientific Writing *evenings* | 2 |
| | | Approved Business Course* *online* | 3 |
| CHM | 796 | Science Internship *(arranged with supervisor)* | 3 |
| **Spring** | | | |
| CHM | 761 | Chemistry of Environmental Systems II *evenings* | 3 |
| CHM | 762 | Chemistry of Environmental Systems Lab *evenings* | 2 |
| CHM | 740 | Seminar or CHM 798 Research *(arranged with advisor)* | 2 |
| | | | Year Two Total 15 |
| | | | Degree Total 32 |

*Approved courses offered through the College of Business Administration.

The approved courses are all 3 credit hour courses and offered in both the Fall and Spring semesters. Nine credit hours are required for the Professional Science Masters designation which can be taken from the following listing:

| | | |
|---|---|---|
| FIN | 600 | Managerial Finance |
| LAW | 600 | Legal Environment for Business Managers |
| ACC | 600 | Accounting Concepts for Managers |
| MGT | 600 | Administrative, Organizational and Operations Concepts for Managers |
| QBA | 600 | Statistical Methods in Business Research |
| CIS | 600 | Information Systems in Business Organizations |

EO/AA

## Contact Us

### Admissions Information
**Missouri State University ● Graduate College**

Office ..... Carrington Hall, Room 308
Telephone ..... (417) 836-5331
Toll-Free ..... (866) 767-4723
Fax ..... (417) 836-6200
Email ..... GraduateAdmissions@missouristate.edu
Website ..... http://graduate.MissouriState.edu/admissions.htm
Hours ..... 8am-5pm (M-F)

### Degree Program Information
**College of Natural and Applied Science (Interdisciplinary Program)**

Directors: ..... Dr. Xingping Sun
Dr. Daniel Beckman
Location: ..... Temple Hall, room 142
Phone: ..... (417) 836-5249
Emails: ..... XingpingSun@MissouriState.edu
DanielBeckman@MissouriState.edu
Website: ..... http://www.cnas.MissouriState.edu/mnas.htm

# Master of Natural and Applied Sciences

## Alternate Pathways


## Online, Summer, and Evening Degree Tracks

## College of Natural and Applied Sciences

www.cnas.MissouriState.edu/mnas.htm

Missouri State University
Springfield

# MNAS Program Overview

- For the graduate student who is looking for the professional edge. Many of our students plan to advance their education after the graduate level in post-graduate studies.
- 32 hour interdisciplinary program with a primary emphasis area of 16 credits and secondary emphasis of at least 9 credits.
- Work directly with an advisory committee dedicated to helping you meet your academic and professional goals.
- Increase your marketability by developing an advanced set of skills.
- Access state-of-the-art facilities for research and other academic endeavors.
- Enjoy multiple career opportunities in the sciences.

## Why Pursue the MNAS Degree at Missouri State?

The MNAS program is the only one of its kind in the southwest Missouri region. This unique program offers a wide spectrum of choices for selecting two areas of study in multiple departments or schools. This option typically requires that you complete a minimum of 32 credit hours and takes approximately two years to complete. You will select a primary emphasis to study, and you will be required to complete a minimum of 16 credit hours from one of the following areas:

- Agriculture
- Biology
- Chemistry
- Computer science
- Geography, Geology and Planning
- Mathematics
- Physics, Astronomy and Materials Science

- You will also select a secondary emphasis to study, which requires at least nine credit hours. You may select from the list above, or an advisor may assist you in tailoring a program that fits your career goals. Two common secondary emphasis areas include business and education.

# MNAS Two-Year Tracks for Online/Summer/Evening

Three customized programs are presented that can be completed by taking courses online, in evening hours, and during the summer, without coming to campus during typical daytime class hours.

Note that these are just examples of three possible options. You will work directly with your advisory committee to develop your individualized program of study and complete a thesis, research paper, or internship project.

## Primary Emphasis
## Geography, Geology and Planning
### Biology Secondary Emphasis

#### YEAR 1

| | | | Credit hours |
|---|---|---|---|
| **Fall** | | | |
| GEO | 700 | Intro to Grad Study in Geospatial Science<br>*evenings* | 3 |
| BIO | 798 | Research (*arranged with advisor)* | 3 |
| **Spring** | | | |
| GEO | 675 | GPS Surveying and Mapping<br>*evenings* | 3 |
| GEO | 701 | Research Methods in Geospatial Science<br>*evenings* | 3 |
| **Summer** | | | |
| BIO | 627 | Field Biology (locations vary; e.g. Ecuador, Brazil or Jamaica) - *short-term study away*<br>or | 3 |
| BIO | 697 | Topics in Biology (topics vary; e.g. Riparian Ecology, Plants in Ozarks Culture, Botany for Educators)<br>- *at Bull Shoals Field Station* | |

Year One Total 15

#### YEAR 2

| | | | Credit hours |
|---|---|---|---|
| **Fall** | | | |
| BIO | 728 | Recent Advances in Biology<br>(topics vary; e.g., Turtle Biology, Mussel Biology)<br>*times vary* | 1 |
| BIO | 794 | Scientific Writing<br>*evenings*<br>*or* | 2 |
| BIO | 661 | Environmental Interpretation and Education<br>*evenings* | |
| GRY | 799 | Thesis (*arranged with advisor)*<br>*or* | 3 |
| GLG | 680 | Geochemistry<br>*evenings* | |
| **Spring** | | | |
| GRY | 731 | Environmental Assessment<br>*evenings* | 3 |
| GRY | 751 | Topics in Advance Physical Geography<br>(topics vary; e.g. Impacts on Ozark Watersheds)<br>*evenings* | 3 |
| GRY | 799 | Thesis (*arranged with advisor)* | 2 |
| **Summer** | | | |
| GRY | 779 | Research (*arranged with advisor)*<br>*or* | 3 |
| GEO | 770 | Advanced Field and Laboratory Methods<br>*(topics vary; e.g. Ozarks Watershed Monitoring)* | |

Year Two Total 17

**Degree Total 32**

## Primary Emphasis
## Biology
### Chemistry Secondary Emphasis

#### YEAR 1

| | | | Credit hours |
|---|---|---|---|
| **Fall** | | | |
| BIO | 794 | Scientific Writing<br>*evenings* | 2 |
| CHM | 760 | Chemistry of Environmental Systems I<br>*evenings* | 3 |
| BIO | 798 | Research (*arranged with advisor)* | 3 |
| **Spring** | | | |
| BIO | 616 | Evolution<br>*online evenings*<br>*or* | 3 |
| BIO | 670 | Water Resources<br>*blended, evenings* | |
| CHM | 762 | Chemistry of Environmental Systems Lab<br>*evenings* | 2 |
| BIO | 798 | Research (*arranged with advisor)* | 2 |
| **Summer** | | | |
| BIO | 627 | Field Biology (locations vary *e.g., Ecuador, Jamaica)*<br>*short-term study away* | 3 |

Year One Total 18

#### YEAR 2

| | | | Credit hours |
|---|---|---|---|
| **Fall** | | | |
| BIO | 728 | Recent Advances in Biology<br>(topics vary; e.g., Turtle Biology, Mussel Biology)<br>*evenings* | 1 |
| BIO | 799 | Thesis<br>*or* | 4 |
| BIO | 790 | Degree Paper (*arranged with advisor)* | |
| **Spring** | | | |
| CHM | 735 | Investigations in Chemistry for Teachers<br>*evenings* | 3 |
| CHM | 761 | Chemistry of Environmental Systems II<br>*evenings* | 3 |
| **Summer** | | | |
| BIO | 697 | Topics in Biology (topics vary; e.g., Ozark Lichens, Sustaining Life) -*at Bull Shoals Field Station*<br>*or* | 3 |
| BIO | 685 | Marine Conservation<br>online | |

Year Two Total 14

**Degree Total 32**