



Missouri State[™]
U N I V E R S I T Y

College of Natural and Applied Sciences

MNAS/PSM STUDENT MANUAL

Academic Year
2018-2019

INTRODUCTION

This manual is designed to provide MNAS/PSM (current and prospective) students and faculty with information, regulations and policies concerning graduate study in the College of Natural and Applied Sciences. Questions regarding information contained in this manual should be addressed to MNAS Program Director, the MNAS Coordinator of your primary area of study, or your Advisory Committee Chair. This graduate student manual is supplemental to the Missouri State University Graduate Catalog and does not replace it. Make sure that you read the Graduate Catalog at <http://graduate.missouristate.edu/catalog/> for requirements and policies that affect you and your graduate program.

The MNAS program is tailored to accommodate your academic interests and professional endeavors. This degree is designed to provide those working in an environment where scientific knowledge is a priority, such as science teaching and scientific applications, the opportunity to expand their knowledge and experiences consistent with their professional goals and objectives through an interdisciplinary program of study in the natural sciences. The curriculum will consist of formal courses in one or more areas of concentration which may be taken in the following departments in the College of Natural and Applied Sciences: Biology; Chemistry; Computer Science; Geography, Geology and Planning; Mathematics; Physics; Astronomy, and Material Science; as well as in the School of Agriculture. Students should refer to the Graduate Catalog for full information about this degree. The Professional Science Master's (PSM) program is a new option under the MNAS program approved the Council of Graduate Schools in 2011.

As representatives of the University, graduate students are expected at all times and in all aspects of their work to uphold the highest standards of professional ethics. These expectations and responsibilities include all academic work, research and thesis, and interactions with faculty, staff, and students. For further information on this topic, you may wish to review the section of the Missouri State University Faculty Handbook on professional ethics.

Degree Requirements (minimum of 32 hours)

1. **Advisory Committee.** Initially, each student will be advised by the MNAS coordinator of the department from the student's primary emphasis area. As soon as possible, the student will select a graduate faculty member from that department to chair a graduate advisory committee consisting of at least three faculty members that includes a faculty member from the student's second area of concentration. This committee will supervise the remainder of the student's program.
2. **Program of Study.** This unique interdisciplinary master's program requires a primary and secondary area of concentration. Each individualized program will be structured by the Advisory Committee in consultation with the student. The academic background, professional experience, academic objectives, and personal needs will be considered in establishing the individual's program. Students may select areas of primary emphasis in the following six departments in the College of Natural and Applied Sciences: Biology; Chemistry; Computer Science; Geography, Geology and Planning; Mathematics; and Physics, Astronomy and Material Science; and in the Darr School of Agriculture. In special cases, a "primary emphasis" may be a science topic that is interdisciplinary in itself (for example, Environmental Science), and the relevant course work will include more than one department; such a program of study must be approved by the student's Advisory Committee and MNAS Program Director. Students are to select a second area of concentration in one of the departments listed above, or, with approval of the Advisory Committee and MNAS Program Director, other possible outside areas may be pursued, such as education or business. This second area of concentration may also be inherently interdisciplinary as long as it is distinct from the primary area.
3. **Course Requirements.** Coursework in the primary emphasis area is to consist of at least 16 graduate credit hours. Coursework in the secondary area is to be 9-16 graduate credit hours approved by the student's Advisory Committee. In total, the student must complete at least 32 hours of course work, of which at least 16 must be in courses open only to graduate students (numbered 700 or above).
4. **Grade Point Average.** A GPA of at least 3.00 on a 4.00 scale for all graduate work at Missouri State and course work transferred from other institutions is required.
5. **Research Requirements.** Students are required to complete one of the following research requirements.

Thesis Option: The Thesis option requires the completion of a research thesis supervised by the student's Advisory Committee. The thesis shall be approved by the Advisory Committee and by the Dean of the Graduate College before the degree is granted. A maximum of six hours of thesis credit can be applied toward the minimum hours required for the master's degree.

Non-Thesis Option: The Non-Thesis option requires the completion of a minimum of one semester course which shall require an extensive research paper or creative work. The student's Advisory Committee must approve the final research paper and complete a Seminar Report form that is submitted to the academic department chosen as the major area of concentration and subsequently to the Graduate College for the approval of the Dean.

Internship Option: The Internship option requires the completion of an internship with a discipline-related business, non-profit organization, or government agency (480 hours). This must include an extensive project that is approved and supervised by the student's on-site mentor and Advisory Committee. A maximum of six hours of Internship credit can be applied toward the 32 hours required for this degree.

6. Comprehensive Examination. After the course work has been completed, and upon approval of the Advisory Committee, a written comprehensive examination will be administered and evaluated by the Advisory Committee. This examination must be passed by the candidate before a degree will be given.

7. Time Limit. The student must complete all requirements within an eight-year period (exclusive of the time spent in the United States Armed Forces).

SCHEDULE

An MNAS degree can be completed in two calendar years, even if the student is employed as a teaching or research assistant. PSM students may use a flexible schedule catering to the requirements of their internships. A typical schedule for completing the degree in two years might resemble that given below. However, there is no requirement that the degree be completed in two years. Even though graduate assistantships are limited to two years, some students may require more time to complete a quality research project or to fulfill an internship requirement. A thesis/internship should be considered complete when the research question is sufficiently answered, or the requirement of an internship project is fulfilled, not when a pre-determined length of time has passed.

IDEAL TIMETABLE

- | | | |
|-----------------|---|--|
| Fall Semester | - | classes (graduate and necessary undergraduate), |
| | - | identify major advisor and advisory committee |
| | - | start thesis research or explore internship opportunities |
| Spring Semester | - | classes |
| | - | file "Advisor-Approved Program of Study" |
| | - | continue thesis research |
| | - | progress report on thesis research/internship to committee |
| Summer Semester | - | perform thesis research or start internships |
| Fall Semester | - | classes |
| | - | complete data collection or internship |
| | - | initiate writing of thesis or submit internship proposal |
| Spring Semester | - | take written comprehensive exam |
| | - | classes |
| | - | complete thesis writing (draft to advisor by mid-semester) |
| | - | OR write and defend internship report |
| | - | order academic regalia/pay graduate filing fee |
| | - | present thesis seminar to faculty/public - oral defense for a thesis, non-thesis seminar, or internship report to Advisory Committee |

See links below for deadlines to file forms for completion of Comprehensive Exams, submission of thesis, change of "Z" grades, Application to Graduate, etc.

GRADUATE CALENDAR

The current Graduate Catalog (<http://graduate.missouristate.edu/catalog/>) contains a full version of the Graduate Calendar for the current year. Important dates and deadlines vary from year to year. As such, make sure that you are reading the most current calendar. Some important events and their approximate range of timelines are listed below for your convenience.

For a full listing of drop deadlines and refund schedule, see <https://www.missouristate.edu/registrar/catalog/calendar.htm>

Applications for Graduation are due at the end of the first week of the semester for which you plan to graduate and must be submitted to the Graduate College. The forms are available at <https://graduate.missouristate.edu/currentstudents/> (under the Forms section).

Applications for Comprehensive Examinations (for applicable departments) should be submitted to the department during the first week of the semester for which you plan to complete your Comprehensive Exam. The forms are available at <https://graduate.missouristate.edu/currentstudents/> (under the Forms section).

GRADUATE ADVISOR AND ADVISORY COMMITTEE

The selection of an advisor, who will serve as Advisory Committee Chair, is one of the most important steps a student will take; it should be approached seriously and applicants are strongly encouraged to correspond directly with the faculty member whom they wish to have serve as their advisor and confirm their mutual interest before admission. Each applicant is required to supply with his/her application a "Statement of Interest" that will list Graduate Faculty who have been contacted and with whom the applicant would like to work with as a graduate student. More information about the faculty and their research is available at the faculty and staff website of the corresponding Department in CNAS.

The relationship between the advisor and the student should be based both on academic interest and personality traits, because the student and advisor must function well as a team for successful completion of the MNAS degree. However, students are allowed to transfer to a new advisor with the consent of the faculty member to whom they wish to transfer. In the event that a student is accepted without having selected an advisor, courses for the first semester may be selected in consultation with the MNAS Departmental Coordinator of the department of the primary emphasis area.

The advisor shall advise the student in the planning and selection of courses for the remainder of his/her graduate work and will evaluate all coursework. The advisor may stipulate specific courses, graduate and undergraduate, in consideration of student deficiencies and weaknesses and in view of the specific objectives of the student seeking the degree. Before the completion of 12 credit hours of course work, the student shall be encouraged to complete the "Advisor Approved Program of Study" (<https://graduate.missouristate.edu/currentstudents/>) with his/her advisor. A copy of the form shall also be sent to the MNAS Program Director. The advisor and Advisory Committee must approve any changes after the "Advisor Approved Program of Study" has been approved. The advisor shall assist the student in the completion of departmental requirements for the degree and shall serve as the chair of the student's Advisory Committee.

During the first year and in consultation with the student, the advisor will name at least two other graduate faculty members to serve on the Advisory Committee to aid in thesis/internship evaluation and to evaluate the results of the comprehensive examination. Typically, the student, with the permission of their advisor, approaches prospective faculty members and gains their agreement in advance. The Advisory Committee must contain at least two faculty members in the Department housing the primary area of the student. PSM students are required to select their third Advisory Committee member from the College of Business. Changes in the composition of the Advisory Committee can be made at the discretion of the advisor in consultation with the student. The faculty members serving on the Advisory Committee at the time of its acceptance must sign the thesis approval form along with the advisor.

Following the final thesis defense or internship report, the advisor shall notify the Graduate College of the results of the Comprehensive Examination and record, on the proper form, whether that student has passed or failed the Comprehensive Examination. This form is then filed with the Dean of the Graduate College and a copy is filed in the CNAS office.

COURSEWORK

Course Load

The course requirements for the MNAS Degree are flexible and may vary in accordance with the student's field of interest and academic background. A graduate student is considered a full time student if he/she is enrolled for 9 or more hours of graduate credit during a regular semester and 6 or more hours of graduate credit during the summer. To hold an assistantship of any kind, a student must be enrolled in at least 6 graduate credits per semester (3 in the summer). Some of these course credits may be in research (XYZ 798), thesis (XYZ 799) or science internship (XYZ 796). However, no student can use more than 12 combined graduate credit hours from these courses toward their degree requirements.

Course Requirements

The program of course work is determined by the student in consultation with his or her Advisory Committee. In addition to research (XYZ 798), thesis (XYZ 799), or Science Internship (XYZ 796), students must take at least 20 graduate credits, or an average of 5 per semester. While graduate (and pertinent undergraduate) coursework is certainly important, students should be cautious about excessive coursework; combined with assistantship duties, it can leave little time for research or internship. In addition, there are limits on how many credits will be covered by fee waivers over the course of the Master's program. See the MNAS sections of the Graduate Catalog (<http://graduate.missouristate.edu/OnlineCatalog.htm>) for details of course requirements.

Undergraduate Courses

An MNAS student may take any undergraduate course (courses numbered 0-599) for either a grade or pass/not pass. These are usually taken in deficiency courses and do not count toward a degree. The decision to allow a grade of P/NP for a course is made by the advisor. Courses (graduate or undergraduate) taken upon recommendation of the Advisory Committee may or may not be covered by fee waivers that accompany assistantships (check with the Graduate College).

Transfer Credit

On a case-by-case basis, Missouri State University may accept credit earned at other accredited institutions. Acceptance of transfer credits on a graduate degree program occurs upon recommendation of the student's advisor and approval of the Graduate College. Discuss your desire to use transfer credits in your Program of Study with your advisor. Transfer hours may count for up to 30% of the Program of Study. The policy on transfer credit also applies to students who are currently enrolled in, but have not completed, a graduate degree program at another institution and wish to transfer up to 30% of the total hours required for the Missouri State University Program of Study. As with all credits applied toward a degree, transfer credits must have been earned within the eight-year time limit for a degree program and have been taken for graduate credit at a regionally credited university. Grades on transfer courses accepted in the degree program are included in the overall graduate grade point average.

Retaking Courses

Graduate students who earned their undergraduate degree from Missouri State University will not be permitted to retake for credit any courses at the 500-level (or lower) that were previously credited on the undergraduate degree. Students from other colleges will have their undergraduate programs evaluated by the MNAS Departmental Coordinator of their primary department to prevent excessive overlaps with courses offered for graduate credit at Missouri State University. No graduate student may repeat a course for graduate credit without the written permission of his/her advisor.

Business Courses Offered for PSM Students through the College of Business

Each PSM student must select three from the following seven business courses offered through the College of Business.

FIN 600 Managerial Finance

Prerequisite: ACC 600 and ECO 600; and permission of a director of a COBA Graduate Program.

Comprehensive study of the finance function in the business enterprise, including financial analysis-planning-forecasting, capital budgeting, leasing, working capital management, capital structure, dividend policy, and multinational finance. Designed for graduate students who have not had an undergraduate course in financial management in the last five years. This course will not be counted in the hours required for a COBA undergraduate or graduate degree. 3(3-0), F,S

LAW 600 Legal Environment for Business Managers

Prerequisite: permission of a director of a COBA Graduate Program. Contemporary legal and ethical issues encountered by business managers will be discussed, including issues related to torts, vicarious liability, products liability issues; formation and enforcement of contracts and sale of goods; regulatory environment affecting employment practices/discrimination, product advertising and environmental responsibility; economic development issues associated with environmental sustainability, property rights, constitutional law and city planning. Agency liabilities and fiduciary responsibilities of agents and managers in business organizations will be examined. An overview of the court system and legal dispute resolution mechanisms will be integrated. This course is primarily intended for MBA students who do not have equivalent undergraduate business law course work, and this course will not be counted in the hours required for a COBA graduate degree. 3(3-0) F,SE

ACC 600 Accounting Concepts for Managers

Prerequisite: permission of a director of COBA graduate program or the director of the MS in Administrative Studies program. Comprehensive study of the fundamentals of financial and managerial accounting. Designed for graduate students who have not had an undergraduate course in accounting. Will not be counted in the hours required for a COBA graduate degree. 3(3-0), F,S

MGT 600 Administrative, Organizational and Operations Concepts for Managers

Prerequisite: permission of a director of a COBA graduate program. Comprehensive study of the fundamentals of the management function, organizational behavior and design, and production and operations management. Designed for graduate students who have not had undergraduate courses in management or organizational behavior and operations management. This course will not be counted in the hours required for a COBA graduate degree. 3(3-0), F,S

MKT 600 Marketing Concepts for Managers

Prerequisite: permission of a director of a COBA Graduate Program. Comprehensive study of the fundamentals of marketing. Designed for graduate students who have not had an undergraduate course in marketing. Will not be counted in the hours required for a COBA graduate degree. 3(3-0), F,S

QBA 600 Statistical Methods in Business Research

Prerequisite: permission of a director of a COBA Graduate Program. Comprehensive study of the fundamentals of statistics. Designed for graduate students who have not had an undergraduate statistics course. This course will not be counted in the hours required for a COBA graduate degree. 3(3-0), F,S

CIS 600 Information Systems in Business Organizations

Prerequisite: permission of a director of a COBA graduate program. Comprehensive study of the fundamentals of business information systems. Designed for graduate students who have not had undergraduate information systems courses. Will not be counted in the hours required for a COBA graduate degree. 3(3-0), F,S

GRADUATE ASSISTANTSHIPS

The College of Natural and Applied Sciences is committed to supporting as many MNAS students as possible via graduate assistantships. They are awarded in the Departments or through the MNAS Committee. Interested students should consult the Graduate Catalog (<http://graduate.missouristate.edu/OnlineCatalog.htm>) or see the MNAS Program Directors for details about eligibility for receiving and maintaining an assistantship and specific deadlines. These assistantships carry a nine-month stipend plus fee waivers, and generally require graduate assistants to teach (or assist to teach) freshman level classes (majors and non-majors). Normally assignments will include 6-8 hours/week of student contact plus 8-12 hours/week of preparation of labs, grading, and other assigned duties. Part of the prep time for first-semester teaching assistants (TA) will be to assist/observe a more experienced TA or the laboratory coordinator.

In addition to teaching assistantships, a few research assistantships are available to assist certain professors. These are funded from research grants to the professors and also require approximately 20 hours/week. This time is used to assist the professor in his/her research, and is separate from (but maybe related to) the student's thesis research. Whenever possible, these research assistantships carry the same stipend/fee waiver as a teaching assistantship. The Bull Shoals Field Station (BSFS; <http://www.bullshoals.missouristate.edu>) and Ozarks Environmental and Water Resources Institute (OEWRI; <http://oewri.missouristate.edu/default.htm>) may also hire graduate assistants.

Summer assistantships may also be available on a limited basis for teaching (contact department of your primary emphasis) and research (contact individual faculty). Summer assistantships carry an additional stipend plus fee waivers for summer classes. Summer fee waivers are also granted to students supported on any graduate assistantship during the previous academic year, even if a summer assistantship is not obtained.

Students who accept assistantships agree that these duties will be their primary commitment, along with coursework and research. “Outside jobs” are discouraged and must not interfere with higher priorities. Further, it is expected that students with assistantships will maintain office hours and be regularly present on campus. Graduate students may be funded for a teaching or research assistantship for a maximum of four regular semesters (fall or spring) and two summer semesters. Summer graduate assistantships are required to complete a minimum of three hours of graduate course work during the summer session. Moreover, an MNAS student who has taken more than 35 graduate credit hours becomes ineligible for further assistantships.

THESIS (Option I)

If an MNAS student chooses the thesis option to fulfill the research requirement, then a maximum of 6 hours of research (XYZ 798) and a maximum of 6 hours of thesis (XYZ 799) can count toward the 32 hours required for the Master of Science degree. More credits can be taken if needed, but efforts should be made to limit these credits to just 6 of each. Grades for these credits are not typically given until the thesis is completed (until then they will be recorded a Z grades). A minimum of 16 credit hours must be taken at the 700 level. Direction of the research and thesis is to be determined by the advisor in consultation with the Advisory Committee. The thesis must be approved by the student’s Advisory Committee before the degree is granted.

Funding for research and travel may be available through the Graduate College (see <http://graduate.missouristate.edu/currentstudents/Funding.htm>), the College of Natural and Applied Sciences, the department of the student’s primary emphasis, and any additional external funds obtained by the advisor and/or student. Research materials are requested through the student’s advisor and research projects should be designed to demand no more resources than are available. The student should prepare a proposal with a budget for submission to the advisor. This proposal will be submitted by the advisor to the Department Head of the primary emphasis area for approval.

The thesis is typically written in the student’s final semester. However, if done thoroughly, the thesis proposal written in the first semester should require minimal revisions to serve as the Introduction and Methods sections for the first draft of the thesis. In addition, data analysis and statistical treatment can often be initiated before all data are collected. The CNAS computer labs are available for data analysis, graphics, word processing, etc., for the thesis or other projects. While parts of the written thesis should be reviewed by the advisor earlier, **a draft of the complete thesis should be submitted to the advisor at least two months prior to the thesis deadline set by the Graduate College for the semester the student intends to graduate.** This time is needed for the multiple drafts that will be required by the advisor and Advisory Committee.

The style and mechanics of the written thesis will follow the standards found in the thesis guidelines booklet published by the Graduate College (http://graduate.missouristate.edu/thesis_information.htm).

A “review copy” (both a hard copy and electronic) must be signed by the Advisory Committee and submitted to the Graduate College on normal paper. At least three of the final “official copies” submitted for binding must be on bond paper (100% rag content). An official electronic copy is also due to the Graduate College at the time of the official hard copy for later use by the library. Unofficial bound copies of the thesis may be desired by the student or members of the Advisory Committee. Minor changes and corrections should be anticipated by the student after the review copy is submitted to the

Graduate College. The photocopying/printing of all thesis drafts is the financial responsibility of the student.

The following is a scheduling guide for a typical thesis:

Weeks before thesis due in Graduate College	Thesis Progress
16 weeks	Data collection complete
14 weeks	Drafts of tables and figures completed
12 weeks	Preliminary draft for advisor comments
10 weeks	First draft given to thesis committee
8 weeks	First draft returned from committee
6 weeks	Second draft given to thesis committee
4 weeks	Second draft returned from committee
2 weeks	Third draft given to advisor committee for final check
1 week	Third draft returned from committee
0	Submit to Graduate College ("review copy")
+2 (post deadline)	Complete corrections required by Graduate College

Conclusion of the Research Component

Conclusion of the research component will involve three parts: (1) a written thesis acceptable to the advisory committee, (2) an oral presentation of the research open to the department and the public, and (3) an oral defense of the research to the members of the student's Graduate Advisory Committee.

The Oral Defense must be scheduled through the advisory committee chair and must not precede the student's oral thesis presentation. The oral presentation is open to all students and faculty wishing to attend. The student's thesis advisor chairs the presentation, and all present are allowed to question the student. The oral defense of the thesis is chaired by the student's thesis advisor and attended by members of the thesis committee; other graduate faculty may also attend. During the oral defense, questions may be asked which may cover various topics in the student's primary and/or secondary emphasis areas, but the final evaluation is generally based on the student's research for his/her thesis. The advisor and committee determine if the student passes the exam, and the advisor notifies the student and MNAS Departmental Coordinator of the results. If the student fails the oral defense, he/she may repeat the oral defense upon recommendation of his/her advisor, the MNAS Departmental Coordinator, and the MNAS Program Director, with the approval of the Graduate Dean. When all portions of the research component are completed satisfactorily, the advisor will notify the MNAS Departmental Coordinator and submit the appropriate form to the Graduate College. The Graduate College must also approve the written thesis.

Research involving Human Subjects.

Missouri State University will conduct matters related to all research involving human subjects in compliance with federal and state laws and implementing regulations including, but not limited to, 45 CFR 46, also known as the Common Rule, and the Belmont Report.

Missouri State University will also assure that the University's faculty, staff, and students understand the

importance of protecting the rights of human subjects involved in research and the University will implement practices to reduce risks associated with human subjects' involvement in research. Issues pertaining to research involving human subjects are explained on the MSU Human Subjects web page (https://www.missouristate.edu/policy/Op4_01_6_IRBHumanSubjects.htm). In addition, all faculty, staff, and students involved in the design, collection and/or analysis of data in projects involving human participants must complete the online training through CITI (https://ora.missouristate.edu/irb_training.htm).

Use of Vertebrate Animals in Research

Federal law requires that all research involving live vertebrates be evaluated and approved by an institutional animal care and use committee (IACUC) before any data are gathered. Prerequisites for animal research include training, health screening, and formal approval of proposed research projects. Thesis funding requests will not be approved by the Graduate College unless the proposed research has been approved by the IACUC. Issues pertaining to animal research requirements are explained in detail on the MSU Animal Care and Use web page <http://www.srp.missouristate.edu/Animal.htm>. In addition, a workshop on animal care and use, including a tutorial on how to complete a protocol, is sponsored each fall semester by the Graduate College.

NON-THESIS OPTION (OPTION II)

With the permission of the student's Advisory Committee, an MNAS student may elect a non-thesis option. Under this option, an extensive degree papers must be completed. The student's Advisory Committee must approve the final research paper and complete a Seminar Report form that is submitted to the academic department of the primary emphasis area and subsequently to the Graduate College for the approval of the Dean. The student may earn a maximum of 4 credit hours under this option by enrolling in XYZ 790. Credit will not be given for work on degree papers for which research credit has already been given unless the topic is a valid extension of research work. No more than 4 hours of research credit (XYZ 798) can be applied toward the 32-hour M.S. degree for students electing the non-thesis option. For more information on the non-thesis option, contact the MNAS Departmental Coordinator, the Department Head, or the MNAS Program Directors.

INTERNSHIP OPTION (OPTION III)

Students who chose the internship option are required to complete an internship project at a discipline-related business, nonprofit organization, or government agency. PSM students must choose this option. Staff at MSU's Career Center and the internship coordinators in students' home departments will assist to connect them to suitable internship providers. Students who are interested in finding a discipline-related internship via the Career Center are strongly encouraged to use the Job-Tracks software through the MSU Career Center (<http://careercenter.missouristate.edu/>). Uploading an eye-catching resume and utilizing a searchable customized field can increase your chances tremendously. Students can also (and are often encouraged to) obtain internship opportunities on their own. Internships can be paid or unpaid as long as they meet the objectives as above. Eighty internship hours will count for one credit hour.

While no more than six credit hours (via internship) may count toward an MNAS degree, a PSM student must take six hours of the internship course (XYZ 796) in her/his primary area. The goals of the internship courses are to encourage students to integrate elements of course work into the workplace and to enhance the learning experience through in-depth reflection and critical analysis of the work

environment; 2) to capitalize on the transitional aspects from university campus to the real world; 3) to facilitate the practical application of scientific and professional knowledge, behavior, and skills; 4) to provide students with an opportunity to get credit for working on a real-life project of significance to a discipline-related business, nonprofit organization, or government agency.

Within the first forty hours of an internship, students must submit a written proposal (3-5 pages) with the assistance of their internship supervisor (at the job site) and their graduate adviser who will be the instructor of the internship course as well as the chair of the student's three-person Advisory Committee. The proposal must include: a project description, learning objectives, a communication plan, and a clear articulation of all papers/projects required during and after the internship to earn the final grade. The proposal must be approved by the student's internship supervisor and graduate adviser. The entire internship process will be supervised by the internship supervisor at the job site, and by the student's graduate adviser. Clear and timely communication among students, their internship supervisors and graduate advisers is a key for a successful internship.

An internship project can be completed over a variable amount of time, depending on the needs of the internship provider and the other commitments of the student who is doing the internship. If deemed necessary, the adviser should not hesitate to make two or more on-site visits during the whole internship period. Two internship evaluations (one in the middle and the other at the end) must be done and forms filled out by the internship supervisor; see the Appendix of this Manual for the Intern Evaluation Form.

Upon completion of the project, students must submit a written report in the appropriate professional format, and give an oral presentation in a venue approved by the committee. The objectives of the report are to show the following: 1) Students can communicate by writing; 2) Students can integrate the internship experience with the discipline-related science course work; and 3) Students gained valuable workplace experience.

Responsibilities of a PSM student's Advisory Committee include but are not limited to the following: 1) to assist the student to find a discipline related internship; 2) to guide the student in designing a quality internship project; 3) to help the student fulfill the internship project; 4) to safeguard that the student learning outcomes set forth in the student's primary and secondary areas are achieved; 5) to offer critiques to the student's internship report and to approve the report.

The internship course is graded on the PASS / NOT PASS basis. For internship projects that take more than one semester to complete, a Z grade will be recorded until the projects are completed.

THE COMPREHENSIVE EXAM

The Graduate College requires all M.S. students to pass a Comprehensive Exam; the format of this exam varies according to the department that houses students' primary areas. The student initiates this process by filing (with the assistance of the advisor) a form with the Graduate College entitled "Comprehensive Examination Form" (available at <http://graduate.missouristate.edu/forms.htm>). This is usually done in

the second year of graduate study. The written exams are prepared by the advisor and the Advisory Committee or the graduate faculty who taught the courses in which the student chooses to be examined.

Written exams are administered at a time and place agreed upon by the student and advisor or MNAS Departmental Coordinator. The student should discuss the composition of the exam with his/her advisor and the Advisory Committee to be aware of the type of exam (objective, subjective, or essay) to expect and the areas to be covered; although Advisory Committee members often offer information about the exam, they are not required to do so. The advisor will notify the student and MNAS Departmental Coordinator of the results. If the student fails the exam (or any portion thereof), he/she may be allowed to retake all or a portion of the exam.

It is the responsibility of the student to schedule a time for the oral defense through the Department housing the student's primary area and must not precede the oral presentation of the student's thesis (or degree paper). The presentation is open to the public; however the examination is only open to all graduate faculty members wishing to attend. The student's advisor chairs the examination and all faculty members present are allowed to question the student. Only when all portions of the Comprehensive Exam are completed satisfactorily does the advisor notify the MNAS Departmental Coordinator and submit the appropriate form to the Graduate College. The Graduate College will also have to approve the written thesis.

FINAL SEMESTER DEADLINES

The student should be aware of important deadlines which must be met during the last semester before graduation including the "Application for Graduation" and the "Comprehensive Examination Form" (both available at <http://graduate.missouristate.edu/forms.htm>) and degree paper and thesis submission dates. These dates are normally listed on a sheet available from the Graduate College and found in the current issue of the Graduate Catalog (<http://graduate.missouristate.edu/OnlineCatalog.htm>)

All thesis students will be required to do the online thesis video tutorials, and verification of completion will be required when theses are initially submitted to the Graduate College. Instructions for accessing these tutorials, the schedule of workshops on thesis preparation and formatting, and other thesis resources can be found at <https://graduate.missouristate.edu/currentstudents/ThesisResources.htm>. A thesis that is poorly formatted or sourced/cited may not be accepted, which would result in the delay of graduation by at least one semester.

Time Limit for Courses to be counted toward the Master's Degree

A student must complete all requirements for the degree within an 8 year period exclusive of time in the United States Armed Forces. "Z" grades (deferred grades used for research (XYZ 798) and thesis/internship (XYZ 799/796) are automatically changed to "N" grades (withdrawn) in two years if not changed by the advisor to a letter grade or a "pass" grade. Candidates for the degree must have at least a 3.0 GPA on all graduate work. Graduate Students may become ineligible to continue their graduate studies if the student earns more than 9 credit hours of a "C" or lower grade. Any course earning a "D" grade or lower may not count toward a graduate degree.

See the Graduate Catalog for time limits for completing the M.S. degree (<http://graduate.missouristate.edu/OnlineCatalog.htm>).

APPENDIX

FORMS

**Missouri State University
College of Natural and Applied Sciences**

Appointment of Graduate Advisory Committee

Name _____

Social Security Number _____

Date _____

Title of Graduate Research Project (attach a brief description of the proposed project [total of two pages, including proposed budget]). See Appendix II for budget guidelines.

Research Director _____

Thesis Advisor (if different) _____

Committee Member _____

Committee Member _____

Committee Member _____

The individuals whose signatures appear below have agreed to serve on the committee in the capacity designated.

Approved:

Graduate Program Coordinator

Department Head

EMPLOYER'S EVALUATION OF INTERNS

Please mail or FAX completed form to: 417-836-6934 Attention: Xingping Sun
 (417) 836-5249 Email: xsun@MissouriState.edu

Temple 142, CNAS
Missouri State University
901 S. National
Springfield, Missouri 65897

Student Name			
Place of Employment			
Avg # hrs worked (hrs/wk)		Since (starting date)	
Job Title:			
Other positions and/or areas work experience:			

1. Would you hire this student as a permanent employee? (Why or WhyNot??)
2. Please state the progress or improvement that the student made in their position by assuming more responsibility, learning new skills or progressing to another position.
3. Please state the major strengths of this employee
4. Please state the major weaknesses of this employee.
5. How was this person's attendance? Punctuality?

On a scale of 1-10 with 10 being the highest score, how would you rate this person on the job?

Judgment	10	9	8	7	6	5	4	3	2	1
Attitude	10	9	8	7	6	5	4	3	2	1
Dependability	10	9	8	7	6	5	4	3	2	1
Ability to learn	10	9	8	7	6	5	4	3	2	1
Communication Skills	10	9	8	7	6	5	4	3	2	1
Quality of Work	10	9	8	7	6	5	4	3	2	1
Quantity of Work	10	9	8	7	6	5	4	3	2	1
Leadership	10	9	8	7	6	5	4	3	2	1
Motivation	10	9	8	7	6	5	4	3	2	1
Teamwork	10	9	8	7	6	5	4	3	2	1
OVERALL GRADE:	A	A-	B+	B	B-	C+	C	C-	D	F

May we share this evaluation with the student: YES _____ NO _____

Signature of Employer _____ Date _____

Title of Employer _____ Contact Information _____