Master Degrees Graduate Student Handbook

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School of Planning, Design and Construction Home Page

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Forward

It is not expected that all answers will be found in this text. Unforeseen questions will arise and answers will be needed. Students should begin addressing their questions to the Graduate Secretary or assigned Major Professor. In most cases, the student's Major Professor, Associate Director or the Graduate Secretary will be able to provide the required information. Complex issues may require further advice or action from the SPDC faculty. Students have the option of following degree requirements set forth by the School of Planning, Design and Construction which are in effect during their first semester of enrollment or degree requirements which are published subsequent to their enrollment.

Updates and corrections to this handbook will be posted on the <u>School of Planning, Design and Construction</u> website. (This information is important in reading this document.)

General Graduate Program Requirements

Introduction to SPDC

The School of Planning, Design and Construction (SPDC), jointly administered by the College of Agriculture and Natural Resources and the College of Social Science, is composed of four major disciplines:

- Construction Management;
- Interior Design;
- Landscape Architecture;
- Urban & Regional Planning.

Through the College of Agricultural and Natural Resources the School offers graduate programs leading to:

- Master of Science in Construction Management;
- Master of Arts in Environment Design;
- Doctor of Philosophy in Planning, Design and Construction with transcriptable concentrations in:
 - o Construction Management;
 - Environmental Design;
 - Urban & Regional Planning.

Through the College of Social Science the School offers graduate programs leading to:

• Masters in Urban & Regional Planning.

The graduate student population of the School is characterized by diversity. There is a substantial representation of domestic and international students from a variety of countries in Asia, Europe, Africa, and the Americas. Many students, both domestic and international, have completed Undergraduate Degrees in Construction Management, Interior Design, Landscape Architecture, and Urban Planning or degrees in related disciplines such as Architecture, Engineering, Social Science, Business, and Environmental Design fields.

Students from Natural Science Degrees, along with Professional Degrees in Law, Medicine, and other fields are encouraged to apply. Graduates of the School of Planning, Design and Construction are sought by employers domestically and internationally. Graduates with Advanced Degrees are more likely to select Education, Research, or Management positions than those with Bachelor Degrees, and less likely to be placed in entry-level positions.

Facilities for advanced study and research are located on the top three floors of the Human Ecology Building, which is immediately East of the MSU Student Union. These facilities include multiple studio and computer laboratories, state of the art lecture halls, faculty offices, workrooms, and dedicated graduate student research and office space. Galleries for temporary displays and critique-presentations are located on two floors of the building.

Master Degree Components and Options

All graduate students engage in a combination of formal coursework as well as independent efforts that result in a Thesis, Plan B Report, or Exam. SPDC graduate degree programs are structured around the following components:

- Core courses;
- Elective courses;
- Research component, Plan A (Thesis) or Plan B (Non-Thesis).

Plan A – Thesis Option

Students will be required to prepare a Thesis. The Thesis, based on original research, is designed to demonstrate the student's familiarity with the tools of research and scholarship in the field, the ability to work independently, and the ability to orally defend the results of a significant research effort. The Thesis must be accepted and approved by the student's Guidance Committee in addition to passing an oral Thesis defense. The quality of the Thesis is expected to be comparable to Journal Publications within the student's area of study.

Plan B – Report Option

Complete a Plan B Report designed to demonstrate the student's familiarity with the tools of research and scholarship in the field, and the ability to orally present the results of a minor scholarly effort. The Plan B Report must be accepted and approved by the student's Plan B Guidance Committee in addition to passing an oral presentation. The quality of the report is expected to be comparable to Conference Presentations within the student's area of study.

Plan B - Exam Option

Take a set of approved courses in addition to successfully completing a final exam administered by the School of Planning, Design and Construction.

Options for Plan B differ by program, not every program offers both options.

Specific degree requirements for each major are defined in the program overview area of this handbook. (This information is important in reading this document.)

General Requirements

All on-campus graduate students are expected to attend the School of Planning, Design and Construction's new graduate orientation that's held at the beginning of your first fall semester. The orientation will include an overview of the graduate degrees as well as school policies and procedures. Most importantly we want to familiarize students with the school and provide an opportunity for them to meet their fellow graduate students. During orientation students will also be introduced to the graduate faculty within SPDC. The faculty will give an overview of their research interests and activities, as well as any special research opportunities that currently exist. The orientation session should help students develop a plan for their program and identify potential members for their Guidance Committee.

For all degree programs it is strongly suggested that graduate students map out their coursework and requirements early as many courses are taught only one semester per year and others may require prerequisites. Within the first academic year graduate students must submit an academic program of study to the Graduate Secretary. This must be approved and signed by their Major Professor and Guidance Committee (if relevant). Once submitted, any and all changes must be approved by the student's Major Professor and Guidance Committee. A new academic program of study must be initiated and circulated for signatures. The completed form should be submitted to the Graduate Secretary. Students in degrees administered by the College of Agriculture and Natural Resources must also have approval of the Dean. (This information is important in reading this document.)

Selection of Major Professor

Students should refer to the handbook specific to their degree for information on assignment and selection of a Major Professor.

Formation of Guidance Committee

A Guidance Committee is selected by the student with advice from the Major Professor. Members of the committee act as mentors, advisors, and evaluators for the student's program and research. They approve the students' academic program of study, Plan A Thesis, or Plan B Final Report, as applicable. All committee members are regular faculty of MSU or specialists that have been approved by the Graduate School to serve on Guidance Committees.

Masters students following a Plan A Thesis option should have a committee comprised of at least three members. The Committee Chair and at least one committee member must be faculty within the program. The third committee member must be faculty member from outside the program. Masters students following a Plan B Report option should have a committee comprised of at least two members. The Committee Chair must be a faculty member within the program. Masters students following a Plan B Exam will have a committee comprised solely of their Major Professor, which must be a faculty member within the program.

Changes to Guidance Committee or Major Professor

In the rare case when the student needs to make a change to his or her Guidance Committee or Major Professor, a written request must be addressed to the Associate Director explaining the reason for the change. The Associate Director will evaluate the request and determine the proper course of action. If the Associate Director is one of the committee members to be changed, then the request should be made to the Director and the Director will evaluate.

Academic Performance

Students will receive a written evaluation of their academic progress, performance, and professional potential at least once per academic year. This evaluation will assist students to define their strengths and weaknesses, allowing the student to work on improving the weaker performance areas (refer to Graduate Students' Rights and Responsibilities).

Guidelines for student's under Plan A – Thesis Option

Plan A – Thesis Proposal

The student must present to their Major Professor and Guidance Committee a proposal for their Thesis Research. Once the proposed research topic has been approved, the student will conduct research and begin writing the Thesis. The Thesis should be finalized in the layout specified by the Graduate School of MSU. Students should obtain a copy of the "Thesis and Dissertation Formatting Guide" from the Graduate School for details on the layout and other requirements. Students should also refer to the MSU Graduate School's "Guidelines for Integrity in Research and Creative Activities."

Plan A – Thesis Oral Defense

Plan A students are required to pass an oral defense given to their Major Professor and Guidance Committee that covers their Thesis topic. In order to pass, the student must receive positive votes from the majority of their Committee. The following items constrain the Thesis oral defense:

- The student must be registered during the semester in which the examination or evaluation is administered (see *Maximum and Minimum Credits*). This requirement may be waived if the examination is administered during the summer session immediately following a spring semester during which the student was registered and/or prior to a fall semester in which the student will be registered.
- The student MUST provide their Major Professor and Guidance Committee a copy of the Thesis at least two weeks prior to the defense.

• Once student has confirmed a date/time, they'll contact the Graduate Secretary to reserve a conference room. At this time the student will provide the title of his or her Thesis so the appropriate announcements can be sent out. This MUST be done at least two weeks prior to the defense, no exceptions.

Plan A – Thesis Submission

After successful completion of the oral defense and upon the Guidance Committee's approval, a copy of the Thesis (with all corrections made) must be submitted to the Graduate School for approval via the <u>Grad School Process</u>. The Plan A – Thesis must be formatted according to the standards established in the <u>Thesis and Dissertation</u>
Formatting Guide published at the Graduate School.

When submitting an electronic Thesis or Dissertation to ProQuest, a student has the option to open the document to searches using Google, Google Scholar and Google Books. The option to block such searches continues to be available. The policy for embargos of Thesis/Dissertations has been changed, but continues to be restricted to requests involving potential patents. What is different is that the period of the embargo is restricted to six months and the holding of the document is now done by ProQuest after the electronic Thesis/Dissertation is submitted and after the approval of the Graduate School.

The Graduate School now permits the submission of supplementary materials to ProQuest. These supplemental materials will not be reviewed by the Graduate School for formatting requirements, but they must be acceptable by ProQuest and comply with ProQuest's criteria and storage limits. All supplementary materials need written approval of the Thesis Committee Chair.

The MSU Library may accept supplementary materials approved by the Thesis Committee Chair per their collection criteria. The Graduate School does not review these materials for formatting requirements. Questions about submission of these materials to the MSU Library should be directed to the assistant director for digital information, currently Shawn Nicholson. He can be reached via email at nicho147@mail.lib.msu.edu.

Guidelines for students under Plan B Report or Exam Option

Plan B Report Proposal

The student must present to their Major Professor and Guidance Committee a proposal for their report. After the proposed research topic has been approved, the student will conduct research and begin writing their report. The report should be finalized in the layout specified by the Graduate School of MSU. Plan B Report students should still obtain a copy of the "Thesis/Dissertation Formatting Guide" from the Graduate School for details on the layout and other requirements. Students should also refer to the MSU Graduate Schools "Guidelines for Integrity in Research and Creative Activities."

Plan B Report Presentation

Under this option students are required to give an oral presentation of their report to their Major Professor and Guidance Committee. In order to pass, the student must receive positive votes from the majority of their committee. The following items constrain the report presentation:

- The student must be registered during the semester in which the examination or evaluation is administered (see *Maximum and Minimum Credits*). This requirement may be waived if the examination is administered during the summer session immediately following a spring semester during which the student was registered and/or prior to a fall semester in which the student will be registered.
- The student MUST provide their Major Professor and Guidance Committee a copy of the report at least two weeks prior to the presentation.
- Once student has confirmed a date/time, they'll contact the Graduate Secretary to reserve a conference room. At this time the student will provide the title of his or her Thesis so the appropriate announcements can be sent out. This MUST be done at least two weeks prior to the defense, no exceptions.

Plan B Final Exam

Under this option students must successfully complete a final exam administered by their Major Professor. Successful completion is defined as a minimum of 80% score as determined by examining faculty, or passing the AIC exam (for Construction Management Plan B students).

Graduation Guidelines

Certification for Graduation

In order to be certified to graduate, students must verify their graduation status with the SPDC Graduate Secretary. Student should then proceed with applying for graduation with the Office of The Registrar by completing the <u>Application for Graduation Form</u>. If the student does not graduate during the intended semester, a new application must be submitted for the semester of intended graduation. Following is detailed information on the <u>Final steps to complete Graduate Degree</u>.

Commencement Ceremony

The Graduate Advanced Degree ceremonies will be held on the Friday of finals week, at 3:30 PM in the Breslin Center. Graduates and faculty should arrive one hour in advance, allowing time to put gowns on and be properly ordered for the procession. Students who will graduate in fall semester will participate in the December ceremony. Students who will graduate in spring or summer semesters will participate in the ceremony held at the end of spring semester. To be listed in the ceremony program students who will graduate in fall, should apply for graduation at the beginning of September and spring/ summer graduates should apply in January.

Student Responsibilities and Expectations

It is the responsibility of ALL graduate students to:

- Learn and adhere to University and academic unit rules, procedures and policies, including those outlined in this graduate handbook. The academic programs, Graduate Student Rights and Responsibilities, and The Academic Freedom for students at MSU are all available at the <u>Graduate School Website</u>.
- Select a Major Professor and form a Guidance Committee that meets University and school requirements.
 These committee members should remain informed of the students' academic progress throughout the length of their program.
- After consultation with the Major Professor a completed academic progress report/annual evaluation should be submitted to the Graduate Secretary at the end of each spring semester. This form is available at <u>Graduate School Website</u>.
- Follow disciplinary and scholarly codes of ethics in course work, research, and professional activities found online at MSU Student Rights and Responsibilities.
- Follow high ethical standards in accordance with University and federal guidelines in collecting and maintaining data, including seeking regulatory approval for research before any research project begins;
- Provide the school with copies of research-related documents (such as permits, approvals, grant proposals, research proposals) within the prescribed deadlines.

Academic Standards

Grades

The student must earn a grade of 2.0 or higher for each course on the approved academic program of study. Any course on the approved academic program of study for which the grade earned falls below the 2.0 requirement will need to be repeated. In addition, students in degree programs administered by the College of Social Science shall not have more than two 3-credit courses with grades below 3.0.

Cumulative Grade-Point Average

The student must maintain a cumulative grade-point average of at least 3.0 in all courses listed on all courses counting towards the master's degree, as approved on the academic program of study. This policy does not apply to courses taken below the 400-level unless the courses are required by the student's program.

Probation Status

A student is placed on probation status if their cumulative grade-point average for the courses on the approved Academic Program of Study fall below the 3.0 requirement. Once placed on probation students should meet with their chair to determine a feasible plan of action and review the mathematical probability of achieving a 3.0 after once semester of probation. Should a student's cumulative grade-point average fall below this requirement after completing half of the courses on the approved academic program of study, the student will be placed on probationary status for one additional semester. If at the end of the additional semester the student's cumulative grade-point average is 3.0 or higher, the student may continue to enroll in the master's degree program. If at the end of the probationary semester, the student's cumulative grade-point average is still below 3.0, the student will be dismissed from the program.

All students must meet the academic criteria set by the School of Planning, Design and Construction. In addition to meeting the grade criteria requirement, an annual evaluation for each graduate student is prepared during each spring semester. The Major Professor is responsible for the preparation of the evaluation along with the communication to the student using the following outline.

- Academic Ability:
 - o Individual grades and grade-point average;
 - o Progress on special problem topics, Thesis/Dissertation.
- Analytical Ability:
 - Student's initiative in the choice of a research topic;
 - o Students initiative in the analysis of a research topic;
 - o Student's performance in the execution of research.
- Communication:
 - Student's ability in oral communication;
 - o Student's ability in written communication.

When the student's performance or progress does not meet the School requirements, he or she shall be notified by the Associate Director. When the deficiencies affect the student's academic status, he or she shall be promptly informed. A student is placed on probation if their cumulative grade-point average for the courses on the approved academic program of study fall below 3.0.

Retention in and Dismissal from the Program

Should a student's cumulative grade-point average fall below 3.0 after completion of 16 or more credits of courses on the approved academic program of study, the student will be placed on probationary status for one additional semester. If at the end of the additional semester the student's cumulative grade-point average is 3.0 or higher, the student may continue to enroll in the master's degree program. If at the end of the additional semester the student's cumulative grade-point average is still below 3.0, the student will be dismissed from the program. In addition, students in degree programs administered by the College of Social Science shall not have more than two 3-credit courses with grades below 3.0 (including N grades in the P–N grading system).

Failure of meeting this requirement will result in the student being dismissed from the program; this policy does not apply to courses below the 400 level unless the courses are required for the student's program.

Grief Absence Policy

For Master's Plan A and Plan B that include research responsibilities, it is the responsibility of the student to:

- Contact their Major Professor and faculty of the course(s) in which they're currently enrolled, requesting the need for a grief absence in a timely manner, but no later than one week from the student's initial knowledge of the situation.
- Provide appropriate verification for the grief absence as specified by the Major Professor and faculty.
- Complete all missed work as determined in consultation with the Major Professor and faculty.

It is the responsibility of the Major Professor to:

- Determine with the student the allowable periods of absence it is expected that some bereavement processes may be more extensive than others depending on the individual circumstances.
- Receive verification of the authenticity of a grief absence request upon the students return.
- Make reasonable accommodations so that the student is not penalized due to a verified grief.

If employed as a Graduate Research or Teaching Assistant, the student must also notify their employer. Both employer and student will swiftly communicate to determine how the student's responsibilities will be covered during their absence. Graduate Teaching Assistants (TAs) should refer to the bereavement policy in the MSU GEU CBU Article 18. Students who believe their rights under this policy have been violated should contact the University Ombudsperson.

Course Waiver

Students requesting course waivers must compile suitable documentation for how the proposed course is comparable. Suitable documentation may include but is not limited to: course syllabi, examinations, term papers, bibliographies, textbooks, reading lists, and lecture notes. Lack of suitable documentation may result in a denied request. Once documentation is compiled, students will request written permissions from their Guidance Committee and the instructor of the course to be waived. After completing the preceding steps, students must submit all materials to their Major Professor.

<u>Transfer Courses</u>

Students may transfer no more than 9 approved semester credits of course work, excluding research and Thesis credits. Credits transferred are established through the Program of Study as agreed upon by the student's committee. Credits must be verified through official transcripts. Transferred credits must have been earned at a 3.0 or above, or equivalent as determined by chair (if not on a 4.0 scale), to be included.

Credit Sharing Policy

If your program includes more than 30 credits, then you may share up to 30% of the total credits with another Master's Program.

Annual Evaluation

Graduate students receive a periodic evaluation of their academic progress, performance, and professional potential. The Evaluation Form should be completed when the Major Professor meets with the graduate student at least once per year during spring semester to review the student's progress in regards to his or her research or creative activity as well as plans for work in the coming year (GSRR 2.4.8). A letter or written report on the results of this review will be signed by the student, Major Professor and Associate Director. The Major Professor should keep a copy of the completed report in addition to submitting one to the Graduate Secretary for the student's academic file.

Independent Study

At Michigan State University an independent study is a planned study that is highly individualized and not addressable through any other course format. In essence, a student must design a full course for his or her program with the help of a faculty member. Students electing to undertake an independent study must select a faculty member who agrees to supervise the project.

The student must complete and submit an <u>Application for Independent Study</u> to the Major Professor for approval. The application should then be submitted to the Graduate Secretary to obtain the Associate Director's approval. Once this has been completed, an override will be issued and the student may register for the course and the number of credits agreed upon.

The Independent Study must:

- Consist of work not described in the MSU description of courses book in any other format.
- Relate to a subject for which the student has adequate preparation.
- Be directed by a faculty member with whom they have periodic contact with throughout the study.
- Not exceed a maximum of 4 credits of independent study per semester or 8 credits in a single academic year, subject to the School, College and Graduate School restrictions.
- Be applied for on the application for independent study form.
- Be approved by the Major Professor and the department offering the course before the student may enroll.
- Enroll during the regular enrollment period.

Ideally a student should begin designing the independent study course with the prospective faculty member one semester prior to beginning the application process.

Study Abroad/Travel Abroad

Study Abroad Programs are designed to be of benefit to students of all disciplines. In some SPDC programs students can fulfill certain course requirements with Study Abroad credits; this fosters completion of the degree program while gaining valuable, overseas experience. SPDC offers a variety of Study Abroad options. For additional information contact:

MSU Office of Study Abroad

International Center 427 N. Shaw Lane, Room 109 East Lansing, MI 48824-1035 Phone: (517) 353-8920 Study Abroad Website

Academic Records

Each student will have an academic file on record containing application materials, grade reports, academic program of study materials, and copies of official letters from the school and faculty. Students have the right to challenge the accuracy of academic files. This challenge, correction or inaccuracy is addressed by the student writing a letter that is to be placed in his or her academic file. Students may examine their file by making an appointment with the Graduate Secretary. If a student is an employee of MSU, a separate employment file will be maintained by the employing office/program/department.

Time Limit to Complete Degree

It is vital that students make adequate progress in their graduate programs. Lack of satisfactory progress towards their degree may jeopardize their funding status, graduate student benefits, or it may lead to dismissal of the program. The Major Professor conducts an annual review and informs the student of his or her level of progress.

The time limit for completion of the requirements for the master's degree set by the University is:

- Five years for students in degrees administered by the College of Agriculture and Natural Resources.
- Six years for students in degrees administered by the College of Social Science.
- Applications for extension periods toward the degree must be submitted by the School for approval by the Dean of the College and the Dean of the Graduate School.

Completion is from the enrollment date of the student's first course of the master's degree program. (This information is important in reading this document.)

Polices Regarding Integrity and Safety in Research

Integrity in Research and Creative Activities

The conduct of research and creative activities by faculty, staff, and students is central to the mission of Michigan State University "Mission Statement" approved by the Board of Trustees on April 18, 2008, and is an institutional priority. Faculty, staff, and students work in a rich and competitive environment for the common purpose of learning, creating new knowledge, and disseminating information and ideas for the benefit of their peers and the general public. The stature and reputation of MSU as a research University are based upon the commitment of its faculty, staff, and students to excel in scholarly and creative activities at the highest standards of professional integrity.

As a partner in scholarly endeavors, MSU is committed to creating an environment that promotes ethical conduct and integrity in research and creative activities. Innovative ideas and advances in research and creative activities have the potential to generate professional and public recognition, and in some instances, commercial interest and financial gain. In rare cases, such benefits may become motivating factors to violate professional ethics. Pressures to publish, to obtain research grants, or to complete academic requirements also may lead to an erosion of professional integrity.

Breaches in professional ethics range from questionable research practices to misconduct (MSU Faculty handbook, chapter VI, "Research and Creative Endeavor—Procedures Concerning Allegations of Misconduct in Research and Creative Activities"). The primary responsibility for adhering to professional standards lies with the individual scholar. It is, however, also the responsibility of advisors and of the disciplinary community at large. Passive acceptance of improper practices lowers inhibitions to violate professional ethics.

Students should also refer to MSU Graduate School's "Guidelines for Integrity in Research and Creative Activities." Integrity in research and creative activities are based not only on sound disciplinary practice but also on a commitment to basic personal values such as fairness, equity, honesty, and respect. These guidelines are intended to promote high professional standards by everyone—faculty, staff, and students alike.

Key Principles

Integrity in research and creative activities embodies a range of practices that include:

- Honesty in proposing, performing, and reporting research;
- Recognition of prior work;
- Confidentiality in peer review;
- Disclosure of potential conflicts of interest;
- Compliance with institutional and sponsor requirements;
- Protection of human subjects and humane care of animals in the conduct of research;
- Collegiality in scholarly interactions and sharing of resources;
- Adherence to fair and open relationships between senior scholars and their coworkers.

Students are encouraged to read the complete text of "Integrity in Research and Creative Activities," which is available from the MSU Graduate Office.

Environmental Health & Safety (EHS)

The use of hazardous materials in research, teaching, or outreach activities are subject to State and Federal Laws and guidelines. The Vice President for research and graduate studies has been assigned responsibility to see that

appropriate practices are followed where hazardous materials are involved, to maintain a safe environment for campus personnel, to protect the surrounding community, and to assure that MSU meets its obligations under Law. Oversight of activities involving hazardous substances is provided by the EHS. EHS is assisted by faculty committees in the area of radiation safety, chemical safety, and biological safety. The radiation safety committee has responsibility and authority under Federal Law for specific actions.

The EHS provides live and on-line training classes throughout the year to educate the employees and students of Michigan State University on safe work practices. Completion of these courses by MSU personnel ensures that the University is fulfilling Local, State and Federal regulations in radiation, chemical, biological, hazardous waste, and environmental safety. For more information about courses available, contact the EHS at (517) 355-0153.

Human Subjects Research

A student whose research involves human subjects must receive approval for their project from the Human Research Protection Program (HRPP) prior to initiating data collection for their Master's Thesis, Pre-Dissertation Research, or Doctoral Dissertation. HRPP is an Institutional Review Board (IRB) and Federal and University regulations require that all research projects involving human subjects be reviewed and approved by an IRB before initiation.

Under the regulations, research is defined as a formal investigation designed to develop or contribute to general knowledge. A human subject of research is an individual (1) from whom an investigator obtains data by interaction or intervention or (2) about whom the researcher obtains confidential information.

Depending upon the level of risk to subjects in the protocol, HRPP assigns the student's application to one of three review categories (exempt from full review, expedited review, and full review) and sends it to one, two or five reviewers, respectively. If the reviewer(s) is satisfied that the rights and welfare of the human subjects are adequately protected, he or she approves it. However, if the reviewer has concerns, the reviewer returns written comments to the HRPP office for transmission to the investigator. The investigator must then send a response to each comment, in writing, to HRPP which will forward it to the reviewer(s). If the proposal is either an exempt or expedited proposal, an approval letter can be issued as soon as the reviewer(s) approves.

When a proposal receives full (five-member sub-committee) review, an approval letter is issued after the proposal is discussed and approved by vote of the full committee at its monthly meeting. More information can be found online at the Human Research Protection Program. Copies of the HRPP application form and the official notification of HRPP approval must be kept in the student's academic file maintained by the school's Graduate Secretary and in the files maintained by the student's Major Professor. The student also should keep copies in his or her own personal files. Failure to satisfy the University standards and HRPP regulations is considered grounds for dismissal from the program. A copy of the approval must be included as an appendix in the Thesis/Dissertation.

MSU Responsible Conduct of Research Training (RCR)

Background

Training in the Responsible Conduct of Research is essential in the preparation of future scholars and professionals. An understanding of the issues concerning the conduct of research in an increasingly complex world has become critical in successfully navigating the research landscape. To help prepare Michigan State University graduate students for their future scholarly work, a plan for providing the foundation of responsible conduct has been developed in coordination with the Graduate School, the Vice President for Research and Graduate Studies Office, and college associate deans for graduate education. The plan is predicated on the principles that a basic understanding of issues is necessary through didactic training and a periodic reinforcement of the principles through discussion. It is the belief that this plan will provide a foundation for all graduate students as well as others pursuing a career in research and will offer the basic information to meet most, if not all, federal agency granting requirements.

The plan below represents the minimum university-level and School requirements

The Graduate School RCR Workshop series may be used to help fulfill both the annual refresher and discussion-based training requirements.

*Students who are supported by NSF, NIH, or USDA grants may be required to complete additional specific training; they must meet the timeline and content requirements of training for that grant.

*Students engaged in research involving human subjects or animal use must complete the Michigan State University training modules for those subjects before submitting IRB or IACUC approvals. These modules may be completed as part of the training requirements below, or in addition to them, depending on the department/program or college plan.

Requirements

All Graduate Professional, Master's and Doctoral Students

1) Year 1

All new graduate students will complete 4 CITI online modules within the first year of enrollment in their program: Completion of this requirement will be tracked in SABA and included in the annual student progress review submitted to the School.

- Introduction to the Responsible Conduct of Research
- Authorship
- Plagiarism
- Research Misconduct

2) Discussion-Based Training

All graduate students must complete a minimum of 6 hours of discussion-based training prior to receiving their degrees. This is through completion of the required course:

IDES 892 for Environmental Design Masters

CMP 892 for Construction Management Masters

URP 814 for Urban and Regional Planning Masters

PDC 901 and PDC 992 for Planning, Design & Construction PhD

Master's Plan A and Doctoral Students

In addition to 1 and 2 above, master's plan A and doctoral students will complete:

3) Year 2

Within the first 2 years of enrollment in their program, master's plan A and doctoral students will complete 3 additional MSU online training modules, to be selected from the following list as determined by the instructor for the required research methods course: IDES 892/CMP 892/URP 814/PDC 992. Completion of this requirement will be tracked in SABA and included in the annual student progress review submitted to the School.

- CITI Collaborative Research
- CITI Conflicts of Interest
- CITI Data Management
- CITI Financial Responsibility
- CITI Mentoring
- CITI Peer Review
- IACUC Tutorial for Animal Care Training (in http://Train.ORA.msu.edu)

- Human Research Protection/ IRB Certification (in http://Train.ORA.msu.edu)
- Rigor and Reproducibility Course (in production)

Doctoral Students

In addition to 1, 2 and 3 above, doctoral students will complete:

4) Annual Refresher Training

Starting in year 3, all doctoral students must complete 3 hours of annual refresher training; this can include discussion-based training, CITI refresher training and online courses beyond the 7 required in basic training. Selection is in consultation with the Major Advisor. Completion of this requirement will be tracked in SABA and included in the annual student progress review submitted to the School.

* Doctoral students who have completed an MSU Master's degree which included the basic RCR training requirements: The required PDC 901 and PDC 992 RCR activities will meet the annual refresher training in the first two years of academic study.

Record-Keeping and Accountability

Written documentation of completion of RCR requirements should be included in the annual evaluation conducted between a student and their Major Professor, and once signed, submitted to the Graduate Secretary to be filed in the student's academic folder.

Links & Resources

SABA: https://train.ora.msu.edu/Saba/Web/Main

Office of Regulatory Affairs links to SABA and CITI: http://ora.msu.edu/train

RCR information through Office of Regulatory Affairs: http://ora.msu.edu/responsible-conduct-research

RCR information through Grad School: https://grad.msu.edu/researchintegrity

CITI Training: http://ora.msu.edu/citiprogramorg

Michigan State University Guidelines on Authorship

Adopted by the University Research Council on January 15, 1998, available online at Research Council Guidelines.

Authorship

A person claiming authorship of a scholarly publication must have met the following criteria:

- Substantial participation in conception and design of the study, or in analysis and interpretation of data;
- Substantial participation in the drafting of the manuscript or in the substantive editing of the manuscript;
- Final approval of the version of the manuscript to be published;
- Ability to explain and defend the study in public or scholarly settings.

Note: This criteria follows closely with those recommended by several Professional Associations. See especially the International Committee of Medical Journal Editors, Annals of Internal Medicine 1988; 108: 258-65. (This information is important in reading this document.)

Acknowledgment

Contributions that do not justify authorship should be acknowledged separately in the notes to the manuscript. These may include general supervision of a research group, assistance in obtaining funding, or technical support.

"Honorary Authorship"

A claim of authorship by, or assignment of authorship to, persons who may have been associated in some way with a study but do not meet the four criteria in item 1 may constitute an unethical research practice.

Graduate Student Authorship

"Faculty should be especially aware of their responsibility to safeguard the rights of graduate students to publish the results of their research." (MSU Research Handbook, 1985, p. 16, section 4.3.1.)

Senior Author and Order of Authorship

The senior author is generally defined as the person who leads a study and makes a major contribution to the work. All the authors at the outset of a project should establish senior authorship, preferably in a written memorandum of understanding. This memorandum of understanding should reference the authors' agreement to abide by their departments' policy on authorship or the University default policy on authorship. At the outset of the study the senior author should discuss the outline of work and a tentative order of authorship with the study participants. As projects proceed, agreements regarding authorship may need to be changed. It is the responsibility of the senior author to assure that the contributions of study participants are properly recognized.

Disputes over Authorship

Disagreements over authorship, e.g. who has a right to be an author or the order of authorship, should be resolved by the senior author in collegial consultation with the other authors. When this process cannot reach resolution, the senior author should arrange with his or her chairperson for arbitration by a knowledgeable and disinterested third party acceptable to all the authors. If the authors cannot agree on a mutually acceptable arbitrator, then the Vice President for research and graduate studies shall appoint an arbitrator. During the arbitration process all the authors are expected to refrain from unilateral actions that may damage the authorship interests and rights of the other authors.

Accountability

Every author listed on a publication is presumed to have approved the final version of the manuscript. Each author is responsible for the integrity of the research being reported.

<u>Plagiar</u>ism

The word plagiarism is derived from the latin plagiarist, an abductor, and plagiary, to steal. The expropriation of another author's text, and the presentation of it as one's own, constitutes plagiarism. Plagiarism, in turn, constitutes misconduct in scholarship under University policies and procedures. Plagiarism in scholarly projects should be reported to one's Chairperson, Dean, or the University Intellectual Integrity Officer (American Historical Association, Statements on Standards, 1993, p. 13).

Distribution

This policy should be widely distributed, especially to each new faculty, graduate student and research staff member in academic units. In many disciplines the content of one or more chapters of a Thesis /Dissertation comes directly from papers already published, often with multiple authors in addition to the author of the Thesis/Dissertation. In this context, graduate program faculty and Thesis/Dissertation committees and their chairs are urged to consider the appropriateness of including a chapter in a Thesis/Dissertation that is a multi-authored published paper not written by the author of record of the Thesis/Dissertation. If this is deemed appropriate, that practice must be described in the graduate handbook. Similarly, if not seen as an acceptable practice, that position must be part of the definition of what is acceptable or not as a Thesis/Dissertation by the department/program/school.

Student Conduct and Conflict Resolution

Student Conduct

The University expects student conduct and behavior to reflect qualities of good citizenship. The out-of-classroom activities of Michigan State University students should reflect favorably upon the institution and should indicate the personal integrity of the individual. See Spartan Life: student handbook and resource guide for specific policies, ordinances and regulations that define some of the relevant University expectations. Students planning to use the Human Ecology Building after normal building hours must sign a code of conduct agreement available at the SPDC school office, Room 101 Human Ecology.

Conflict Resolution

Conflicts involving a graduate student may be handled informally, or at the request of a party or parties, formally. Student's rights and responsibilities, including grievance procedures, are detailed in the document <a href="Student Student Stud

Procedures more specifically designed for Graduate students are to be found in the Publication Graduate Student Rights and Responsibilities available in the Graduate School Office in Chittenden Hall, 2nd floor. It can also be downloaded from the MSU Graduate School.

Grievance procedures outlined in these documents shall be followed and the College Advisory Council shall be responsible for the interpretation and execution of these procedures in the College. Students also have access to the University Ombudsman for help with conflict resolution. A template and additional information on grievance procedures and resources available to students may be found online at the MSU Office of the University Ombudsperson.

Assistantship Polices

Selection of Graduate Research and Teaching Assistants

Graduate Research and Teaching Assistants are appointed on a quarter-time, half-time, or three-quarter-time basis for 18-19 weeks each (depending on number of University holidays) for fall and spring semesters and 12-13 weeks (depending on number of University holidays) for summer semester. Graduate Research and Teaching Assistants are selected based on students' qualifications, background, and research or teaching needs of faculty and the school. Faculty members review application folders and make recommendations to the school's Director/Associate Director who makes the final appointment.

Graduate Research and Teaching Assistantships

Graduate Research and Teaching Assistantship support for students is determined on an individual basis depending upon recommendations, availability of funds, fellowship and scholarship support, and academic record. Assistantships are reviewed annually by the Associate Director of the school and may be renewed if satisfactory progress is being made and funds are available. Assistantship support will be limited to two years for master students, and four years for Ph.D. students. To request an extension of assistantship support, students may petition the Director/Associate Director of the school with an accompanying letter from the Major Professor.

If you have an assistantship, you are required to enroll for a minimum of 6 credits at the master's level and 3 credits at the Ph.D. level during fall and spring semesters and 3 credits in summer semester for both Master's and Ph.D. degrees. At the Ph.D. level, once you complete your comprehensive exams, the following semesters you need to only be enrolled for a minimum of 1 credit. (This information is important in reading this document.)

Expectations

Graduate Teaching Assistants (TAs) play a vital role in the educational mission of MSU. Disciplinary knowledge and instructional skills are key requisites for being a successful teacher, but TAs are also expected to conform to ethical

and professional standards described in the MSU code of teaching responsibility. TAs must treat students with respect, deal with conflict fairly and promote a classroom atmosphere that encourages free and meaningful exchange of ideas.

Graduate Research Assistants (RAs) at Michigan State University play a vital role in the research and outreach missions of MSU. Disciplinary knowledge and research/laboratory skills are key requisites for conducting research, but RAs are also expected to conform to ethical and professional standards described in the MSU faculty handbook section IV: Research and Creative Endeavors. This section includes information on working with animal and human subjects, radiation, chemical, and biological safety, and adherence to federal guidelines on data generation, management and control. Sections of the academic freedom report for MSU students and the graduate student Rights and Responsibilities document also contain valuable information.

Normal workload, averaged over the entire period of the appointment is:

- 10 hours per week for a quarter-time stipend;
- 20 hours per week for a half-time stipend;
- 30 hours per week for a three-quarter-time stipend.

Responsibilities

Graduate Research and Teaching Assistants are responsible for understanding the weekly workload expectations during the entire period of their appointments. This includes work assigned and the time frame within which the work must be completed, essential duties and responsibilities, work conditions and vacation opportunities, if any.

Appointed Levels

Level I

Students with less than one year of experience as a Graduate Research and Teaching Assistant or a full support fellow. They conduct research, perform administrative tasks or other supervised duties such as reading and grading papers.

Level II

Students with a master's degree or equivalent and/or one year of experience as a Graduate Research and Teaching Assistant or a full support fellow in the School of Planning, Design and Construction or in a department/unit considered relevant by the Director of the school. They conduct research, grade papers, or perform administrative tasks with moderate supervision. Advancement from Level I to Level II is usually routine. The advancement is accompanied by an increase in stipend at least to the minimum of the Level II range established by the University.

Level III

Successful completion of doctoral comprehensive exams, as defined by the School of Planning, Design and Construction in which the student is enrolled, and six semesters of experience as a Graduate Research and Teaching Assistant or a full support fellow in the School of Planning, Design and Construction or in a department/unit considered relevant by the Director of the school. The definition of equivalent experience is left to the discretion of the school Director, but it is expected that only experience in research-oriented or teaching-oriented assignments will count toward the six semesters of experience as a Graduate Research and Teaching Assistant or full support fellow. (Consistent with current practice, ¼ time and ¾ time appointments count the same as ½ time appointments, and summer semesters count the same as fall and spring semesters.)

Mandatory Training on Relationship Violence and Sexual Misconduct

All TAs and RAs must complete the on-line training about the Relationship Violence and Sexual Misconduct Policy. To access the training, login to the Office of Regulatory Affairs.

Click "Register," "Complete Registration" and then "Launch" to begin the Relationship Violence and Sexual Misconduct (RVSM) Policy - faculty, staff training. (If it indicates that you have already registered, use "In Progress Training", then "Launch."). You will want to reserve approximately 30 minutes to complete all assignments. If you need assistance, contact the Helpdesk at train@ora.msu.edu or call (517) 884-4600.

Evaluation

Graduate Teaching Assistants (TAs) are evaluated at the end of each semester by the faculty on record for the course to which the TA has been assigned. Graduate Research Assistants (RAs) are evaluated by the faculty member who hires the graduate student. Graduate Research and Teaching Assistants are given specific assignments by their Faculty supervisor for the semester for which the student is being funded. The faculty supervisor evaluates the student's performance based on assignments given at the beginning of the semester.

Termination

Graduate Research and Teaching Assistants can be terminated if:

- The student does not maintain an overall 3.0 GPA (or higher if set by Department).
- The student is not making satisfactory progress toward his or her degree.
- Work performance is determined to be inferior.
- Funding is no longer available.

Periods of Employment

Graduate Research and Teaching Assistants Employment are as follows:

- Fall semester: August 16 December 31;
- Spring semester: January 1 May 15;
- Summer session: May 16 August 15;

Stipends are compensation for completion of the entire body of work associated with a TA appointment, which includes through the submission of grades when that dates falls outside the employment period.

Health Coverage

Michigan State University offers Graduate Research and Teaching Assistants health insurance coverage. 'Student only' coverage is automatically provided at no cost to the students. Michigan State University will provide a full twelve month coverage for assistantship appointments of at least nine months. Students may also enroll a legal spouse, or other eligible individual (OEI), and/or children. Questions regarding enrollment, premium payment and coverage should be directed to the Aetna Student Health, (800) 859-8452. Questions or issues that cannot be resolved with Aetna Student Health may be directed to the MSU Benefits office at 1407 South Harrison Road, Room 140 Nisbet Building, (517) 353-4434 extension 170 or extension 144.

Right to Work

The payment of union dues and fees is now consistent with the Michigan Rights to Work legislation. Nothing in the application of Michigan Right to Works Laws impact the daily terms and conditions of employment of TA's. Union membership is voluntary; meeting the definition of a TA under the GEU contract is independent of union membership. One can be a TA covered by the contact and enjoy all the rights and responsibilities of the agreement but not be a member of the union. Union membership is not tied to the employment relationship and is a private matter between the employee and the union.

Leave Time

Article 18 now provides for possible medical disputes where TA's may not be able to perform their employment responsibilities due to physical or mental conditions. In addition, adoptions and parental leave time provides for pay during the first work week of applicable leave. The language on jury duty has been refined with regard to payment for lost time and reporting back to work after jury duty.

Additional Opportunities

Internships

The school believes that there is great advantage to our graduate students to seek additional professional opportunities. Internships for academic credit are allowed for students enrolled in the Urban & Regional Planning

program. Students registered for the masters in Construction Management, and the Masters in Environmental Design may not use an internship for academic credit.

Career Fairs

Construction Management holds a career fair during fall semesters. Urban Planning holds a speed networking event during fall semesters. Interior Design and Landscape Architecture hold career fairs during spring semesters.

Travel

All travel by graduate students for academic or research project purposes requires prior approval through submission and signing of a <u>Travel Authorization form</u>. Unapproved travel is not covered by University insurance. Rules regarding travel can be found at the <u>MSU Travel Office website</u>. Completed Travel Authorization forms should be completed with assistance from Pat Daughenbaugh in room 101 Human Ecology.

Students traveling internationally for MSU-related work (professional conferences, research data collection, or other academic business) must consult with Pat Daughenbaugh to be entered into the <u>Travelers Abroad Database</u> (even if they are not being reimbursed for travel). Registration in the MSU Travelers Database allows the University to share important health and safety information pre-departure, and to provide emergency services if necessary.

Funding Opportunities

Travel and Research Funding

Reimbursement for research-related travel expenses should be discussed with the student's major professor before any travel expenses are incurred.

If you are presenting your research at a professional conference, you may apply for a <u>Travel Funding</u> fellowship through the College of Agriculture and Natural Resources. There is a limit of ~\$400-600 approved during duration of a student's graduate program.

If need financial assistance with your research experience, such as data collection, short courses, attending a workshop for learning new techniques or ideas, you may apply for <u>Research Enhancement</u> funding through the Office of the Vice President for Research and Graduate Studies and administered by the Graduate School.

If you are confused about what funding to apply for, please contact the Graduate Secretary and she will help you through the process.

Scholarships and Fellowships

The School of Planning, Design, and Construction offers various competitive scholarships/fellowships for students, which encompass a range of different topics and requirements, including study abroad, financial need, leadership, and underrepresented students in a particular major.

Scholarships require a completed application submitted before the due date every spring semester. Awards are good only for the following school year. Students are expected to use the SPDC website to find the appropriate application and to watch for deadlines.

International students are taxed on fellowship funds and other awards that are above and beyond tuition and fees. More information on fellowships can be found at the Graduate School's website.

Other Financial Aid Resources

Students are encouraged to be proactive in searching for funding opportunities. Not all opportunities are presented in this document.

- The Graduate School maintains a website dedicated to funding opportunities for graduate students.
- The Office of Financial Aid
- The Council of Graduate Students (COGS) offers short-term interest-free loans

Departmental Facilities

Mailboxes, Addresses, and E-Mail

The School of Planning, Design, and Construction maintains a Graduate Student listserv which is used to send notices to graduate students by email. Official correspondence from MSU will be sent to your MSU email address so it is suggested that you check this email on a regular basis.

All Graduate Students are provided with an on-campus mailbox in room 111 Human Ecology. These mailboxes are for departmental correspondence. Personal correspondence should be directed to the student's home address. It is the student's responsibility to check their mailbox.

Research and Office Space

The School of Planning, Design, and Construction provides graduate students with a work/lounge space in Human Ecology room 405. It is the students' responsibility to keep this room clean. Drawers are available for students to store their materials in while not in use. Drawers must be kept locked while not in use. Students must provide their own locks. SPDC is not responsible for any missing possessions from unlocked storage drawers. Students may choose their own drawer from any unassigned/unlocked drawers available, but must inform Janelle Curtis which drawer they are using.

Keys to the Grad lounge/office are available from Janelle Curtis in 101 Human Ecology.

24/7 Access

Access to the Human Ecology building is available for students involved in studio, design, and research production courses, or employed on a graduate assistantship. Instructors will provide a list of names of those approved to have 24/7 access due to course enrollment. To be granted 24/7 access, students must sign a Code of Conduct form and turn it in to Janelle Curtis in 101 Human Ecology. You will use your MSU ID card to access the building outside normal building hours (excluding football Saturdays).

Computer Labs

Graduate students can use the computers in HE 105, 106, or 309 whenever the rooms are not being used for a class or other scheduled activities. Students are expected to clean up after themselves and not to cause any damage to the equipment.

Copies

Graduate students are not allowed to use the department copy machines. Graduate Assistants who require use of copy machines for their research activities should obtain a copy code from their supervising professor.

University Resources

The Graduate School

The Graduate School offers many resources for graduate students in a variety of areas including academic, career, funding, and student life. Some other Graduate School resources have been described in other sections of this document.

- MSU Graduate Student Career and Professional Development
- Graduate Student Rights and Responsibilities

Academic Resources

- Vice President for Student Affairs and Services
- Office for International Students and Scholars (OISS)
- Resource Center for Persons with Disabilities
- MSU Writing Center
 - o Multiple locations on campus, with the main office located in Bessey Hall.
 - Offers writing consultations, workshops, and writing groups related to papers, projects, even theses and dissertations.
- Career Services Network
- MSU Libraries
 - There are many branch libraries on campus, as well as a large number of electronic resources.
 Students are encouraged to familiarize themselves with the large number of available resources, which include periodicals, journals, computers, copying/scanning/printing, a Passport
 Acceptance Facility, study rooms, and research guides
- Technology at MSU
 - Offers a variety of services including <u>technology support</u> and the <u>MSU Tech Store</u>,
- Bookstores
 - o <u>Spartan Bookstore</u>, the on-campus book store, located in the International Center.
 - o Several off-campus bookstores are located in downtown East Lansing, across from campus.

Student Life

- Counseling Center
- Olin Health Center
- Center for Service-Learning and Civic Engagement
- Recreational Sports and Fitness
- MSU Student Food Bank
- MSU Safe Place
- Council of Graduate Students (COGS)
- The State News
- Spartan Student Life Handbook
- Parents Resource Center

Parking

Any vehicle parked on campus must be registered with the Parking Division of the MSU Police office.



Master of Science in Construction Management

Program Overview

The Master of Science in Construction Management is designed to provide breadth in the managerial, technological, economic, and environmental aspects of construction. The Program is also designed to provide depth through a systems approach encompassing project management, estimating, scheduling and project controls, housing, land acquisition, real estate, finance, business management, green buildings and marketing. In this major students have the opportunity to focus on topics including:

- Construction Project Management;
- Estimating, Scheduling, and Project Controls;
- Construction Management Information Systems;
- · Design-Build;
- Lean Construction;
- Construction Contracts and Legal Aspects;
- Housing;
- Construction Safety and Ergonomics;
- Land Development and Housing;
- Sustainable Built Environment;
- Energy Efficiency;
- International Project Management;

The major goals of the degree are:

- To expose students to the latest advancements in technology applications and project management systems.
- To enhance the decision making process by creating an innovation seeking and research "mind- set."
- To create an awareness of the global aspects of construction management.
- To prepare graduates to manage various functions of complex construction projects.

Program Components/ Plan Options

Both Thesis and Non-Thesis options are available. The Thesis option is generally suitable for students who are funded on research projects and for those who would like to pursue careers in research, consulting and academic areas. The Non-Thesis option is generally suitable for students who would like to pursue careers in industry. Most students complete the CM Degree in two years regardless of the option selected. The typical paths for the Master of Science in Construction Management are as follows:

Plan A - Thesis Option

Students choosing this option will be assigned a Major Professor and together, develop an academic program of study. The student will then present a Thesis proposal to their Major Professor and Guidance Committee. They will

complete all required course work, research and write the Thesis. To graduate, students are required to pass an oral defense covering their Thesis topic. A passing evaluation must be given by 2/3 of committee members in order for student to pass. Students who fail the initial evaluation may be re-evaluated the next semester after recommended changes are made. The student must meet the minimum enrollment requirement for the University during this additional semester. Students who fail a second attempt will be dismissed from the program.

Plan A students must complete a minimum of 6 Master's Thesis Research credits (CMP 899) in addition to 24 course credits for a total of 30 credits.

Plan B Report Presentation

Students choosing this option must select a Major Professor and another CM faculty member to serve as their committee and together, develop an academic program of study. The student will complete all required course work and research then write and orally present a report. The report and oral presentation will be evaluated by the two member committee. Passing will determined by consensus among the committee members. Students who fail the initial report presentation may be re-evaluated the next semester after recommended changes are made. The student must meet the minimum enrollment requirement for the University during this additional semester. Students who fail a second attempt will be dismissed from the program.

Plan B Report students must complete a minimum of 3 Master's Research credits (CMP 898) in addition to 30 course credits for a total of 33 credits. The program may not exceed six credits of research or special problems.

Plan B Exam Option

Students choosing this option will complete a total of 33 course credits for the degree. They will have their choice of completing a written examination composed of questions from the CM faculty, passing with at least an 80% or they may take the American Institute of Constructors Certification Exam (AIC Exam). Students taking the AIC Exam will take Level One, Associate Constructor. However, students who have previously taken and passed Level One may opt to take Level Two, Certified Professional Constructor. The AIC Exam is a nationally administered Exam and a fee is required.

Students who fail the AIC exam may opt to take the departmental exam or retake the exam the next semester. Students who fail a second attempt will be dismissed from the program.

Neither the AIC or departmental exam is given during the summer semester. Students planning a summer graduation must take the exam in advance. All students must be enrolled for at least 1 credit during the semester in which they take the exam.

Degree Requirements

The student must complete a total of 30 course credits for the degree under Plan A (Thesis) or 33 course credits for the Degree under Plan B (Report or Exam). For a student who elects independent study courses, no more than 6 credits under Plan A and 9 credits under Plan B may be counted toward the requirements for the degree. The student's academic program of study must be approved by the student's Major Professor, Guidance Committee, Associate Director and the Dean of the College. It's in the student's best interest to have a completed academic program of study submitted to the Graduate Secretary by the end of their first semester.

Requirements for Plan A – Thesis Option

- A minimum of 18 credits at the 800-900 level;
- All of the following courses:
 - o CMP 817: Construction Management Information Systems (3 credits);
 - o CMP 822: Legal Issues in Construction (3 credits);

- CMP 892: Research Seminar in Planning and Construction Management (2 credits);
- One additional 800-level construction management course, excluding CMP 890, 898, and 899. Students
 without a background in construction project scheduling and estimating must complete CMP 811 and 815
 in partial fulfillment of this requirement;
- One graduate course in research methods;
- One 400-level course or above in statistics if an approved statistics course was not completed as part of the undergraduate degree;
- Complete 6 credits in CMP 899, no more than 6 credits may be counted towards the requirements for the degree under Plan A;
- Complete and defend a Master's Thesis acceptable to the student's Major Professor and Guidance Committee.

Requirements for Plan B – Exam Option

- A minimum of 24 credits at the 800-900 level;
- All of the following courses:
 - o CMP 817: Construction Management Information Systems (3 credits);
 - o CMP 822: Legal Issues in Construction (3 credits);
 - CMP 892: Research Seminar in Planning and Construction Management (2 credits).
- One additional 800-level construction management course, excluding CMP 890, 898, and 899. Students
 without a background in construction project scheduling and estimating must complete CMP 811 and 815
 in partial fulfillment of this requirement;
- One graduate course in research methods;
- One 400-level course or above in statistics if an approved statistics course was not completed as part of the undergraduate degree;
- Completion of a written examination composed of questions from the CM faculty, passing with at least an 80% or completion of the American Institute of Constructors Certification Exam (AIC Exam).

Transfer Credits

Students may transfer no more than 9 approved semester credits of course work, excluding research and Thesis credits. To do so, access the "Transfer Credit Administrative Forms" online at the Office of the Registrar Online Forms Menu. Credits transferred are established through the Program of Study as agreed upon by the student's committee. Credits must be verified through official transcripts. Transferred credits must have been earned at a 3.0 or above to be included.

Sample Academic Program of Study

(Without collateral and prerequisite courses)

Fall Semester, Year I

Plan A and Plan B Students

- CMP 811: Advanced Project Scheduling (3 credits);
- CMP 815: Advanced Cost Estimating and Analysis (3 credits);
- CMP 892: Research Seminar in Planning and Construction Management (2 credits).

International Students Only

CMP 810: Construction Systems, (1 credit).

Spring Semester, Year I

Plan A and Plan B Students

- CMP 817: Construction Project Management & Information Systems (3 credits);
- CMP 822: Contracts & Legal Issues in Construction (3 credits);
- Approved Elective (3-4 credits).

Fall Semester, Year II

Plan A Students

- Approved Elective (2-3 credits);
- Approved Elective (3 credits);
- CMP 899: Master's Thesis Research (6 credits);
- Thesis Defense.

Plan B Students

- Approved Elective (3 credits);
- Approved Elective (3 credits);
- Approved Elective (3 credits).

Spring Semester, Year II

Plan B Students

- Approved Elective (0-3 credits);
- CMP 898: Master's Research (3 credits) or;
- Approved Elective (3 credits);
- Final Exam or Oral Presentation of Report.

Notes: Electives are CMP 831, 891, PDC 901, and approved 400, 800, and 900 level courses in SPDC or other departments for students without a statistics course, one of the electives must be from statistics.

Required Academic Program of Study

All students are required to complete and submit a formal plan called the academic program of study. For Plan A students and Plan B Report students, The academic program of study with approving signatures from the Major Professor and all Guidance Committee must be submitted to Graduate Secretary, preferably by the end of their first semester. For Plan B Exam students, the academic program is developed with their assigned Major Professor and also signed by the Associate Director. It is strongly suggested and in the students best interest to develop their program of study as early as possible. Once submitted, any and all changes to the program must be approved by the student's Major Professor, Guidance Committee, Associate Director of SPDC and the Associate Dean of The College of Agriculture and Natural Resources.

Advising and Guidance Committees

Plan A students and Plan B Report students will be assigned a Major Professor. Plan A students may select a different Major Professor with consent. A Guidance Committee is formed for Plan A students and Plan B Report students. Members of the committee act as consultants, advisors and evaluators for the student's Program and research. They'll approve the academic program of study, and approve the Thesis or Report presentation. For Plan A students, the Guidance Committee consists of the Major Professor (CM faculty member), one committee member within CM in addition to one committee member outside the school. For Plan B Report students the Guidance Committee consists of the Major Professor and one additional committee member, both within CM.

It is in the student's best interest to compose a Guidance Committee by the end of their first semester of classes so that the committee may give advice concerning course work. In forming the committee, the student is encouraged to meet with their Major Professor and develop a list of potential committee members. Students should then set up a time to meet the potential committee members. The process involves the consensus of both the student and potential committee members. The composition of the Guidance Committee will be submitted to the Graduate Secretary for approval no later than the end of the second semester of study.

The composition of the Guidance Committee (excluding the Major Professor) can change providing a member is willing to step down and a new member is found. This should be accomplished with the approval of the student's Major Professor. A request to change the academic program of study must be submitted to the Graduate Secretary for approval from the Associate Director and the CANR Dean's Office.

If a student's Major Professor leaves the University or is unable to continue advising the graduate student, the student must search for a new Major Professor. If another faculty member in CM accepts the student, the student may continue their existing program of study. However, if a new Major Professor cannot be found, the student will be advised to complete their degree under the supervision of a CM faculty member assigned by the Associate Director.

Degree Calendar & Progress Checklist

Prior to attending the first semester of classes

- Activate your NetID and MSU E-mail account. MSU E-mail will be the official mode of communication.
 Students are advised against forwarding their MSU E-mail to other outside accounts. MSU uses e-mail for a variety of official communications related to employment, student, and safety concerns. For instance, notices regarding a tuition bill are sent to a student's MSU e-mail account. It is important to activate your NetID because your MSU account is the only e-mail account to which official notices are sent. Students use their PID and PAN for activation.
- Attend the required SPDC new graduate orientation. Students are encouraged to participate in orientation activities offered by the Graduate School (and for international students, by the Office of International Students and Scholars).
- Contact the Associate Director or assigned Major Professor when you arrive on campus to discuss Degree requirements, plan your courses (especially those for the first semester), and to discuss other studentrelated concerns.
- Register for classes, master's students must be registered for a minimum of 9 credits per semester 6 if hired as a Graduate Assistant) to be considered "full time". International students must register for a minimum of 9 hours to fulfill Visa requirements.

First Semester

- Select Guidance Committee members with your Major Professor.
- Schedule and hold a meeting with your Guidance Committee to discuss your academic and professional
 goals and the courses you intend to take. You may wish to discuss preliminary ideas for a Plan A Thesis or
 Plan B Report.
- Collateral Courses: complete all collateral courses as specified in admissions letter (and plan of study developed with your Major Professor).

Second Semester

Finalize your academic program of study and circulate for approval. Once you have signatures from your
 Major Professor and Guidance Committee the Program should be submitted to the Graduate Secretary. It

- will then be reviewed by the Associate Director and sent to the Dean of CANR for approval. The original form will be placed in your permanent academic file.
- Prepare a written draft of your Plan A Thesis or Plan B Report. Discuss with your Major Professor and secure his or her approval prior to submitting it to your Guidance Committee.

Second or Third Semester

- Revise your proposal based on the feedback from your Major Professor and schedule a meeting of your Guidance Committee to discuss your proposal. Provide each member of your Guidance Committee with a copy of your proposal at least two weeks prior to the committee meeting.
- Schedule and hold a meeting of your Guidance Committee to discuss and approve your proposal and review progress on your academic program.
- Secure approval from the Institutional Review Board (IRB), as appropriate to your research by submitting the application form found at the <u>Human Research Protection Program website</u>.

Last Semester

Prepare for Thesis defense, Report presentation or Exam:

- Check deadline dates for the semester as they pertain to completing the Master's Degree at The Graduate School website.
- Register for a minimum of 1 credit for the semester in which you plan to defend your Thesis, present your Report or take your Exam.
- Check STUINFO to be sure all DFs (deferred grades) have been converted to numerical grades and that your GPA is 3.0 or above.
- Complete and submit the <u>on-line application</u> for graduation at the beginning of the semester. You must apply for graduation even if you do not plan to attend the ceremony. This will circulate the appropriate paperwork to the Graduate Secretary that is needed to approve and confer your degree.
- Obtain a copy of the Thesis/Dissertation submission packets from <u>The Graduate School EDT website</u>.
 Although it is not required that the Plan B Report be submitted to the Graduate School, it should be formatted in the same manner as the Plan A Thesis.
- Plan B Exam students should register and take Exam.
- Prepare for commencements; see guidelines and checklist provided by the University.

Completion of Thesis/Report

- Complete all required forms in the <u>Thesis formatting guide</u> found online at The Graduate School website (Plan A students).
- Submit a draft of your Thesis or Report to your Major Professor and Guidance Committee at least two weeks before your defense.
- Edit your draft, as needed.
- Schedule a time with your Major Professor and Guidance Committee for defending or presenting your work. This will be an open session to which students and faculty in the School of Planning, Design and Construction may attend.
- Once student has confirmed a date and time that will work for their Major Professor and Guidance
 Committee they should contact the Graduate Secretary to reserve a conference room. At this time the
 student will also provide the title of their Thesis or Report so the appropriate announcements may be
 sent out to SPDC faculty and students.
- Provide your Major Professor and each member of your Guidance Committee a copy of your Thesis or Report at least two weeks prior to the defense or presentation.
- Orally defend Thesis or Report.

- Modify Thesis or Report as instructed by your Guidance Committee.
- Prepare an abstract of your Thesis to be filled with "Dissertation/Thesis Abstracts;"
 - Submit a copy of your Thesis to the Graduate School via the process described at <u>Theses and</u> <u>Dissertation Submissions</u>. If Plan B Report students do not need to send a copy to the Graduate School.
 - Distribute copies of the Thesis or Report to your Major Professor, and Guidance Committee.
 Individual committee members may request an alternative format, such as softbound, unbound, or digital.

Final Logistics:

- Read and comply with the MSU's Thesis/Dissertation electronic submissions to ensure that you have met
 all requirements and submitted all forms necessary, paperwork can be found at <u>Theses and Dissertation</u>
 <u>Submissions</u>.
- Pay all final fees and complete questionnaires required by the Graduate School.

Faculty available to act as a Major Professor

Dr. Tariq Abdelhamid, Construction Management – Associate Professor tariq@msu.edu

Dr. George Berghorn, Construction Management – Assistant Professor, LEED®AP BD+C, CGP berghorn@msu.edu

Dr. Mohamed El-Gafy, Construction Management – Associate Professor, PE elgafy@msu.edu

Dr. Sinem Mollaoglu, Construction Management – Associate Professor, LEED®AP korkmaz@msu.edu

Timothy Mrozowski, Construction Management – Professor, M.Arch, A.I.A., LEED®AP mrozowsk@msu.edu

Dr. Matt Syal, Construction Management – Professor, LEED®AP, CPC syalm@msu.edu

Dr. Dong Zhao, Construction Management – Assistant Professor, LEED®AP dzhao@msu.edu