ADVISOR GUIDELINES

Master's Thesis Option Program (MTOP)

The Master's Thesis Option Program (MTOP) allows individual MSI or MHI students to work closely with a faculty advisor over the course of a full academic year to conduct original research, and write and defend a thesis based on that research. To be accepted into the MTOP, students must have a willing faculty advisor; that's where you may come in!

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ADVISORS

Eligibility to Advise:

An MTOP **advisor** / **co-advisor** is the faculty member who formally advises the MTOP student.

The requirements for faculty advisor eligibility depend on the student's degree program:

MSI Students: Primary advisor must be a UMSI faculty member.

MHI Students: Primary advisor must be a UMSI, SPH, or Medical School faculty member.

For the purpose of MTOP, "faculty member" is defined as anyone with one of the following job titles: Lecturer III, Lecturer IV, Clinical Associate Professor, Clinical Assistant Professor, Clinical Professor, Research Associate Professor, Research Assistant Professor, Research Professor, Associate Professor, or Professor. Chaired professorships are also included.

Excluded are any titles with "adjunct", "intermittent" or "visiting" applied to their affiliation.

Advisor Primary Responsibilities:

Being an MTOP advisor is a significant responsibility. Though not at the same magnitude, it is similar to taking on a PhD student, in that the advisor bears much of the responsibility for ensuring successful research, thesis, and defense.

The main responsibilities of an MTOP advisor are as follows:

- Advising the student through the research and writing required for a good master's thesis;
- Coaching the student on project management, research methodologies, defense preparation, and final revision of a public work.
- Offering guidance on the student's selection of courses toward the master's degree;
- Evaluating and communicating the progress of the MTOP advisee
- Ensuring that the main administrative milestones of the MTOP are completed in a timely manner
 - Students should take primary responsibility for this, but advisors will still need to confirm
 - Regular communication for deadlines and program milestones are sent to active students and advisors throughout the academic year

• Chairing the 90-minute thesis defense.

MTOP faculty advisors are also encouraged to be familiar with the MTOP guidelines and information provided to students: [FUBLIC] MTOP Guidelines & FAQs for Students If you notice any discrepancies between that document and this one, please inform umsi.MTOP@umich.edu

More detailed information for expectations and the process in each step of the program are provided below.

COMMITTEE MEMBERS

Committee Makeup:

The MTOP **committee** is a group of exactly two or three people, including the advisor(s) who decide whether the student passes based on the written thesis and thesis defense.

The first non-advisor committee member must be a faculty member, either affiliated with UMSI or another department at University of Michigan.

A second non-advisor committee member can be added if the student or faculty advisor would like; that member can be a faculty member at U-M, a faculty member at another university, a postdoctoral researcher at U-M, or a PhD student at U-M.

Committee Responsibilities:

Committee members are *required* to:

- read the thesis document before the scheduled defense
- attend a 90-minute defense
- participate in Q&A during the defense
- contribute to a discussion about whether the thesis should pass

Non-advisor committee members are not required to, but may also:

- meet with the student prior to the defense
- contribute to advising the student
- comment on drafts of the thesis

provide written feedback of any kind

Committee members are encouraged to be clear about the terms of their engagement with an advisee and the advisor(s) prior to joining an MTOP committee.

CONSIDERING ADVISEES

The program is ideal for students whose future interests include a doctoral program or a research-oriented career. Under the MSI mastery-course curriculum, there may be some students who opt for MTOP in order to avoid the pre-requisites of a mastery course. This is, of course, not an ideal reason to write a master's thesis, and students should be discouraged from this practice.

Faculty are not obligated to accept students as advisees. It is recommended that faculty consider students carefully before accepting an advisee. Decisions about accepting a student should be based on several factors, including...

- Ability and preparation of the student, especially with respect to basic skills necessary to carry out the research;
- Student's interest in and commitment to quality research and writing;
- Faculty member's time availability for the academic year;
- Topical fit of advisee's research interests with faculty member; and
- Faculty member's ability to advise the student on their course selection, as relevant to their desired career.

Students are made aware that not everyone who is asked to be an advisor will accept. Interested students are encouraged to begin exploring faculty research and connecting with potential faculty advisors in their first Fall.

You may indicate initial willingness to be a student's advisor and begin preliminary discussion, but later decline if a satisfactory research project is not established. However, it is recommended that you

- indicate initial willingness *only if* you are fully prepared to take on the student and have reason to believe them capable of the MTOP.
- indicate clearly to the student that final approval is contingent on a satisfactory and mutually agreeable research plan.
- clearly express expectations and any specific parameters or restrictions for a research project and plan that you would be willing to approve

• share with the student as soon as possible if you decide you will not be advising their MTOP for any reason.

To be admitted to the MTOP, students must have a formal approval indicated by an advisor's approving signature on their complete application no later than May 15th.

STEP BY STEP

Application:

Advisors should review carefully and discuss each section of the application with the potential advisee prior to approving. This includes:

- The student's career goals;
- Completed, in progress, and future coursework, and the degree to which these courses appropriately support their MTOP and career goals.
- Resumé review for current and suggested experiences
- A detailed research plan

Fully completed applications, including research plan and advisor approval, are due by May 15th. The application can be found here: [5] [PUBLIC] MTOP Application

Deadline exceptions: Exceptions to the May 15 deadline can sometimes be made on a case-by-case basis; an example may be approving additional time to complete a satisfactory research plan. In such cases the student and advisor should jointly notify the MTOP Program (umsi.mtop@umich.edu) of the situation as soon as possible so that an alternative plan can be considered.

Registration & Grading:

Fall Term: Students who are approved for MTOP are issued permissions in July to register for SI 597 and for the section of SI 697 assigned to the primary advisor.

SI 697 (2 credits - S/U graded)

- At the end of the term, a Satisfactory (S) or Unsatisfactory (U) grade is entered based on progress toward completing the thesis project.
 - Satisfactory progress is defined at the discretion of the advisor based on the expectations and plan worked out with the student.

- If a satisfactory grade will be submitted, but the student will not be continuing with the MTOP, the student and advisor should jointly notify umsi.MTOP@umich.edu of this decision.
- An unsatisfactory grade is considered failing and students will not be permitted to continue with the MTOP.

SI 597 - Research Foundations for MTOP (2 credits - letter graded)

- This is a required course for all MTOP students.
- This is a course taught by a designated faculty member designed to teach students about the process of conducting research, give experience in writing literature reviews and outlining theses, and provide cohort-building experiences for all MTOP students.
- Student performance in this course will be graded by the instructor, not the MTOP advisor. This course must be completed with a C- or better for a student to continue with the MTOP.

Winter Term:

SI 698 (3 credits - letter graded)

- Permissions are issued mid-December to students who receive a passing grade in SI 597 AND a Satisfactory grade in SI 697 (unless the MTOP Program has been notified the student will not continue).
- Students are required to complete BOTH a successful defense and their final thesis submission *before* a final grade is entered.
 - After all revisions to the work are made, students will submit the file for deposit into Deep Blue using the <u>Deep Blue Deposit Information Form</u>. Students should forward a copy of the form responses to the advisor, indicating they've completed this step and a final grade can be entered.
- The advisor should record a letter (A-E) grade for the student on Wolverine Access, just as any grade would be entered in a course.
- Grading Scale:
 - Most passing theses will earn a B or above.
 - C- or above is technically a passing grade
 - Failure should be indicated with a D+ or lower grade.
- If an extension is approved, the advisor should enter an incomplete ("I") grade until all requirements have been completed.
 - Once the student has completed the required work, the advisor should <u>submit a</u> <u>grade change</u> for the "I" grade to be updated to the appropriate letter grade.

Should a student appear unlikely to pass at any point, it is the advisor's responsibility to discuss this with the student as soon as possible, so that alternate plans can be made. Advisors should also share this with the MTOP Program (umsi.mtop@umich.edu) who will communicate with the appropriate academic advisors.

Research:

Topic: Advisors have autonomy to designate acceptable research topics, though the topic should relate to information and, for MHI students, the topic must be specifically health-related.

Methodology:

- Faculty advisors are not expected to instruct students in basic research methodology, though they will definitely provide coaching!
- Research should be original and executed primarily by the student.
- Research should apply methodologies and practices acceptable to an existing research community.

Progress: The project timeline and benchmarks for satisfactory progress for the research portion of this project are agreed upon between the advisor and MTOP student.

Thesis Writing:

Though the advisor can provide a lot of feedback, this work must be authored primarily by the MTOP student.

Format:

- Master's theses have no specific length or formatting requirements, though such requirements may be imposed by the advisor. Many advisors will require that the thesis be formatted according to article submission templates used in their fields.
- Master's theses should be written as research papers, with sections/chapters that include, for example,
 - Abstract
 - Introduction
 - Related work
 - Methodology
 - Findings
 - Discussion
 - and conclusion.
- Specific criteria for acceptable quality are left to the discretion of the advisor/committee, but at a minimum the thesis should demonstrate
 - o familiarity with prior work related to the thesis topic
 - appropriate application of field-relevant research methods, including study design, execution, analysis, and reporting

- scholarly writing that is clear, grammatically correct, and consistent with norms in the field(s) of relevance
- For examples of successful MTOP works, you may log into <u>Deep Blue</u> and search for any of the <u>previously submitted MTOP Theses</u>

Progress:

- The project timeline and benchmarks for satisfactory progress for the thesis writing are agreed upon between the advisor and MTOP student.
- Drafts should be reviewed by the advisor for readiness prior to a defense being scheduled and may also be reviewed for comments by non-advising committee members, though that is not required.
- The thesis document must be provided to all committee members with sufficient time to review prior to the scheduled defense. This deadline should be established when the defense is scheduled - ideally at least two weeks prior to the defense date depending on committee involvement in research and prior drafts.

Defense:

Scheduling:

- Defenses are ideally scheduled to take place in late March or early April, no later than April 15. To be considered for graduation, the absolute deadline to hold a thesis defense is the last day of classes for the term.
 - Keep in mind that it is common for thesis committee members to request revisions to the thesis document after the defense but before it is accepted as final, so be sure to allow time for revisions as well.
- The advisee should work with their committee to identify a 90-minute slot for the defense that all committee members can attend.
- Defenses should occur on weekdays during business hours, though an evening defense is allowable if all committee members agree.
- It is recommended that the defense is scheduled *at least* a month in advance to ensure that there is a common time that accommodates the student, the committee members, and an appropriate room.

Location:

- Scheduling a room is primarily the student's responsibility
 - Once a date/time for the defense is finalized, discuss how long you would like the room to be held for, and how many people you may expect at the thesis defense.
 - The student should fill out the UMSI Facilities Request Form.
 - This should be done as early as possible to allow time for the request to be processed and to ensure room availability.
 - Defenses are typically held in classrooms or the Ehrlicher Room.

- There are also some rooms, like the Founders' Room (NQ 4310) that can only be reserved by faculty. If your student is having difficulty finding an available room, you are encouraged to explore these options.
- Typically a zoom link is also provided for general public attendance. It's recommended
 that at least the committee and MTOP student are in-person, though you may choose to
 hold the defense entirely virtually if all committee members agree.

Announcements:

- Master's thesis defenses are open to the general public, though actual attendance tends to be highly limited. All guests are welcome to attend, but only the MTOP student, advisor, and committee are required.
- Master's thesis defenses are announced quasi-publicly on UMSI mailing list-servs, typically about 10 days prior to the scheduled date and again one day prior.
- Once the defense is scheduled and a location is reserved, the student should complete
 the <u>MTOP Thesis Defense Information form</u>. Ideally this would be submitted at least two
 weeks prior to the defense to ensure a timely announcement.

Process:

- Ideally, the student should submit a final draft of the thesis to their committee members
 two weeks before the defense date. Actual practice may depend on how closely
 committee members have been involved with the research or in earlier drafts of the
 thesis.
- The MTOP advisor will chair the defense.
- Master's thesis defenses are scheduled for 90-minutes, typically having the following parts:
 - The committee convenes privately for a few minutes before the presentation to discuss any concerns or issues that they would like to address during the defense.
 - The student presents the work. Typically the presentation lasts about 30 minutes.
 - The student presentation is followed by a 30 minute Q&A session.
 - The public may be invited to ask questions once the committee has completed theirs. This is done at the chair's discretion.
 - The committee then holds a closed session (only committee members) to discuss whether the student should pass or not, and to prepare any feedback for the student.
 - Finally, the student is called back in and informed of the result.
- Whether the student passes or fails should be determined by the committee by the end
 of the scheduled defense time.
 - If the thesis does not meet a passing standard, it is expected that the advisor would have informed the student of that danger well in advance and that it is not a surprise at the defense.
 - If the student passes, the advisor and committee members may request revisions to the written thesis before the student submits it for archiving. Any such

revisions should be relatively minor. Major revisions are discouraged given the limited time available within the semester.

Final Work:

- Master's theses should have single-authorship by the student.
- Master's theses (unlike pre-candidacy papers, field prelims, or dissertation proposals)
 will become archived, publicly available documents in the Deep Blue Repository. They should be thoroughly proofread and neatly formatted.
- If revisions were requested, the student and the advisor(s) are responsible for ensuring that the changes are made before the thesis is submitted. Other committee members need not review the final document.
- Once the thesis is in its final form, the student should submit it (in PDF form) by completing the MTOP Thesis Deep Blue Deposit Form.
 - The deadline for this submission without an approved extension is the last day of exams for the term.
 - A final grade should NOT be entered before a final work is submitted.
 Students will get a copy of their form submission and should forward it to you as confirmation that this step has been completed.
 - The UMSI Registrar will submit the final thesis to the <u>Deep Blue</u> repository a few weeks after the term is complete.
- The final work may also be submitted for publication. Please see additional details in the FAQ section below.

Extensions:

- It is encouraged that all requirements are completed within the registered term, however, you may agree to allow additional time to complete the final steps of an MTOP project.
- The length of extension is at the discretion of the advisor.
 - Typically extensions are expected to be fulfilled by the end of the Summer term (August), however some exceptions have been made for more time.
- According to UMSI policy, coursework for any "incomplete" grades must be completed
 within one year, so no extension may be granted beyond three additional terms
 (Spring/Summer, Fall, and Winter). After this point, the student will need to reapply to the
 program to finish their thesis.
 - When a student reapplies to the program after taking a full year extension, they will be required to fulfil the MTOP requirements as published at the time of the approved application. This includes registration in the MTOP advising courses.
 - Students who have been approved to re-enroll are not eligible for any further extensions. Failure to turn in a completed thesis within the timeframe agreed upon at the time of application will mean that the student is unable to complete the MTOP.
- If an extension is approved:
 - Please submit the MTOP Extension Request Form.

- The advisor should enter an incomplete ("I") grade until all requirements have been completed or the extension expires.
- o The student will NOT re-enroll for SI 698 during the extension period.
- In any term, the deadlines for the defense and final thesis submission are as follows:
 - Defend no later than the last day of classes.
 - Submit final thesis no later than the last day of exams.
- International students must also consult with the International Center before applying for an extension to determine if this action is allowable under their visa requirements given that they will not have met their graduation requirements BUT they will also not be actively enrolled in coursework while working to complete the requirement.

TIPS & FAQ'S

Additional Tips for Advising MTOP Students

Faculty members are free to adopt their own advising styles. Here are some tips and suggestions:

- Faculty should be conscious that MTOP students tend to have a greater number of constraints on their time compared to PhD students, beginning with a 6-12 credit load of classes each term on top of the MTOP.
- Reasonable expectation-setting, advance planning, time management, and frequent check-ins on progress are essential.
- Work with an overall timeline for the <u>entire two-semester span</u> of the MTOP, starting even in the preceding Summer if the student wants to get started right away.
- It is useful to ask the student to plan backward to set their own milestones: starting with an anticipated early-April defense date; late March deadline for a good draft; etc.
- Experienced MTOP advisors note that the second semester of MTOP moves quickly, and that the earlier a student begins writing portions of their thesis, the better.
- Agree to very specific goals and/or deliverables for each meeting you have with your advisee. (These will probably be goals/deliverables you come up with together.)

Advisors should avoid taking on the responsibility of teaching substantial research or
writing methodology. At the point of accepting an MTOP advisee, it should be clear
whether the student will have reasonable preparation to undertake their research. As a
matter of practice, however, advisors should be prepared to offer considerable coaching,
and in some cases, outright instruction on specific methods.

Prerequisites

Are there prerequisites for doing an MTOP?

There are no enforced prerequisites for a student to do a master's thesis, however, faculty advisors are strongly urged not to provide *instruction* in basic research methodology themselves (though coaching on methodology is, of course, necessary and expected) so student courses should be reviewed from the lens of preparation for the MTOP project.

All students interested in MTOP are strongly encouraged to take:

- SI 623: Research Methods for Information Professionals
 Covers reading and critiquing research papers, and high-level overviews of qualitative and quantitative methods.
- SI 544: Introduction to Statistics and Data Analysis
 Gives an introduction to hypothesis testing, basic regressions, and exposure to
 R.

What other courses should advisors look for in a student's plan?

Potential advisors should ensure that students have taken, are taking, or will take, courses that would prepare them to undertake the research and the writing required for a master's thesis.

The following courses are suggestions for some potential "core" courses:

For all potential MTOP students:

- SI 623: Research Methods for Information Professionals
- SI 544: Introduction to Statistics and Data Analysis

For students hoping to perform qualitative research:

- SI 500: Problem-solving with People, Information, & Technology
- SI 622: Needs Assessment and Usability Evaluations

For students hoping to perform computing projects or quantitative research:

- SI 506: Programming I
- SI 507: Intermediate Programming
- SI 618: Data Manipulation

Faculty advisors should adapt and complement these lists with courses appropriate to the advisee's thesis topic.

Funding for Research:

- Students are encouraged to discuss potential funding options with their advisor.
- Students may apply for funding using the MTOP Funding Request Form
 - May qualify for up to \$1500 that can be used to directly support their research.
 - Must submit budget and indicate any other funding they are receiving.
 - Faculty advisors must endorse these requests for students to be considered.
 - This application should be submitted with at least two weeks for processing in advance of spending needs.
- It's acceptable to apply funding that you may have to a qualified MTOP project or to discourage students from taking on research projects that have dependencies outside of their control.

Collaborative Work:

Is it OK for an MTOP student to work on a research project led by someone else (e.g., the faculty advisor, a PhD student)? Is it ok for more than one MTOP student to work on the same research project?

Yes! As long as there is a clearly delineated part of the research that can be independently worked on and written up by each MTOP student as a separate, standalone thesis.

All of the text written toward a master's thesis should be the student's own writing. Each master's thesis should be authored alone by the student, though significant advising and feedback may have been provided by others.

Publication:

Can a master's thesis be submitted for publication to a conference or journal?

Yes! In the event that online publication of the thesis may conflict with a publication's author guidelines, it is possible to request a publication embargo from Deep Blue for up to one year.

Authorship of the submitted paper may differ from that of the thesis. While a master's thesis should be single-authored by the student, the submitted paper may list as co-authors anyone who has made meaningful contributions to the research.

The submitted paper may incorporate revisions beyond the archived thesis.

QUESTIONS?

Questions can be directed to umsi.MTOP@umich.edu at any point of the process. We're happy to help!