MIT MANAGEMENT
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MIT Sloan Educational Services
Massachusetts Institute of Technology
MIT Sloan School of Management

Thesis Handbook

2021-2022

This Handbook is available online, in the Files section of the Canvas Learning Management System (https://canvas.mit.edu/courses/5269) under 15.THG. Relevant forms may be downloaded there as well.

Thesis Timeline – Important Dates and Deadlines

DATES	Action Item
September 7, 2021	Registration begins for fall thesis units.
November 18, 2021	**Deadline to submit a thesis proposal. Deadline to complete registration change – add/drop thesis units for Fall 2020.**
January 3 - January 28, 2022 (IAP)	Deadline to add thesis units for IAP. You may add up to 12 units of thesis if you plan to work on your project over IAP. Those completing G-Lab may **not** add thesis units over IAP.
January 28, 2022 (Spring Registration Day)	You will be automatically registered for the remaining number of thesis units that you have left to complete. Submit your application online for your advanced degree and submit your thesis title at: (http://student.mit.edu/cgi-docs/student.html)
February 18, 2022	**Deadline to submit a progress report.**
April 1, 2022	Last day to submit a thesis title to MIT. Submitting your title after this date is subject to a late fee of $85. (http://student.mit.edu/cgi-docs/student.html) NOTE: You may make changes to your title online after this deadline without incurring fees. However, your final thesis title must be entered exactly as it will appear on the final version of your thesis. Suggested deadline to submit a complete draft to your thesis advisor.
April 19, 2022	Last day to add or drop thesis units. Please contact SES if you plan to do either. Suggested deadline to submit a final version to your thesis advisor for evaluation and approval.
May 6, 2022	**Deadline to submit original copies of the final version of your thesis, with signatures, to SES. This is a confirmed MIT deadline and is not subject to change.**

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Introduction

This guide is meant as a "road map" for MIT Sloan students who are writing a graduate-level thesis for any of our master's degree programs (MBA, LGO, MFIN, MSMS and Sloan Fellows). It will explain the thesis process in enough detail so that you can get started and take advantage of all available resources.

The guide will focus on developing a thesis topic and finding a faculty advisor. These are the earliest and most important steps in the process. At MIT Sloan, **faculty advisors are not assigned**. It is entirely up to you to develop a topic and find an advisor.

Although there is no single style, approach, or methodology to the actual presentation of a thesis, the guide does present the most popular genres for thesis listed under the chapter titled "Thesis Options". However, the final vision of the thesis should be your own and your imagination is the limit.

We would appreciate your feedback on the guide in general and/or any section in particular. We hope that the thesis process will open many doors and enable you to enjoy the satisfaction of in-depth, goal-oriented research in a business-related area.

Why Write a Thesis?

A Thesis...

Provides an opportunity to explore a topic in depth.

- The thesis serves as a vehicle for you to focus on a topic of your choice, to integrate what you have learned in courses at MIT Sloan, and to apply insights with a greater degree of detail and depth than coursework.

Encourages a rigorous, logical, systematic, and scholarly approach to problem-solving.

- The thesis utilizes research skills (e.g., interviewing techniques, survey design, literature review, etc.), managerial skills (planning and executing a project with a deadline), and analytical skills practiced at MIT Sloan through coursework and faculty interaction. The thesis encourages an independent, individually-oriented approach to problem-solving and develops useful skills for work situations with changing or unstructured environments.

Fulfills a requirement for Master of Science (S.M.)

- This is a requirement for all Master of Science degrees at the Massachusetts Institute of Technology, including the S.M. in Management and the S.M. in the Management of Technology (available to Sloan Fellows with departmental approval). This requirement for a top management school is unique to MIT Sloan, differentiating our students from those at other universities.

Fulfills a requirement for Master of Science in Management Studies (S.M. in Management Studies)

- Thesis is a requirement for the Master of Science in Management Studies (MSMS) Program. Students graduate with an S.M. in Management Studies degree.

Additional Benefits

Career Development

- You can develop job-oriented skills, learn more about a particular field, company or industry and may even find useful job contacts via research, interviews, or surveys. A number of MIT Sloan graduates have been offered exciting career opportunities based in part on the content and quality of their theses.

Personal fulfillment

- A thesis is best when it tackles a topic of great interest to the writer. Find something that inspires you. For the mathematically-inclined students, you gain an enjoyable excuse for tinkering with a model. For socially-inclined students, research allows you contact with a

variety of interesting professionals. Analysis and writing provide an exciting academic dialogue among faculty collaborators, fellow students, and professionals in the business world.

Real World Productivity

- Sponsored students (such as those in the LGO or Sloan Fellows Programs) have often used their theses to make meaningful contributions to their organizations while continuing their own education. These students often have interacted with different aspects or components of their organizations than their regular careers allowed.

- Sometimes, theses written at MIT Sloan yield model methods or plans that are ultimately sold to a company. A start-up company grew to approximately 15 employees in the first year after graduation, thanks, in part, to thesis research. A high-tech company in the Boston area uses a computer model developed by an MIT Sloan thesis writer for its strategic product decisions. The ability to positively affect the very topic, field, or company that engaged you certainly exists.

Approaching the Topic

Thesis writers at Sloan must make choices concerning form, approach, and type of collaboration for the thesis. The best way to proceed is not always clear. Therefore, we have provided the following examples of methodologies and genres for theses. However, you should not feel limited by this list. Feel free to combine multiple approaches (or even invent your own) to best serve your particular topic. To see more examples of previous thesis work, please visit DSpace (http://dspace.mit.edu/), a digital archive of Institute research that includes a complete listing of all thesis projects.

Business Plan: A business plan or feasibility study can include an industry analysis, a market assessment, and plans for product development, marketing, financing, and staffing.

Micronotes, LLC – Business Plan (Kinkead, 2008) determines if Micronotes, a startup company based on an electronic bill-pay service that enables customers to prepay and discount their bills, is a viable business proposition.

Developing a Private Equity Business in China (Gui, 2007) suggests three key investment strategies for creating a Chinese private equity business; a business that is a good complement to the public equity market and the debt market. As an art, rather than a science, there is no universal formula for doing this business.

InVivo Therapeutics Corporation (Reynolds, 2006) presents the first business plan to commercialize this innovative treatment option. Key components of the plan are: Introduction to InVivo Therapeutics, InVivo's business model, critical strategic analysis, functional strategies, financial analysis, and an integrative strategic framework.

Case Study: A case study uses a specific example to illuminate a theoretical approach, a general trend, or a variety of managerial problems

Activist Hedge Funds (Brecailo, 2008) discusses the attributes of activist hedge funds and how they differ from corporate raiders and private equity firms. The case study then maps the activist's most common mechanisms for accomplishing their goals.

Challenges Faced by a Global Team: The Case of the Tool Reuse Program at Intel (Communal, 2008) analyzes the challenges faced by the 6D Working Group (a global team) to influence and standardize local practices.

Overcoming the Challenges of Implementing Sustainability with an Eye on Innovation: Lessons from the Case Study of SAIN (Sustainable Agriculture Initiative Nestle) (Marmier, 2008) explores

the complexity of adapting current operations in the direct sourcing of agricultural raw materials to more sustainable practices.

Comparative Analysis: A comparative analysis can clarify the behavior or distinguishing characteristics of some phenomenon. It can be applied in a variety of contexts (e.g., comparing models or methods or trends at the national or corporate level, etc.).

Innovation among Japanese Telecoms in the Internet Era: A Comparison Based on Analysis of Successful U.S. Companies (Takei, 2008) compares the successfully implemented innovations of IBM, GE, 3M, and Procter & Gamble versus the need for innovation in NTT, Japan's leading Telecom Company in order to create a competitive breakthrough service.

Early stage Innovation in Large Companies: Look for Opportunities, Not Ideas (Bardon, 2008) is a comparative analysis of the interactions between business opportunities and inventions in four different organizations: The Langer Lab at MIT, The MIT Innovation Ecosystem and LargeCo (name disguised).

Improving Producibility in Aerospace Engine Manufacturing: Process Automation vs. Process Reengineering (Hoopes, 2008) discusses two methods of process improvement, process automation, and process reengineering. It focuses on manufacturing process improvement as a solution to producibility issues.

Historical Study: An historical study describes and/or analyzes the history of a trend, industry, organization, etc.

Is There a Future? An Analysis of the Music Industry (Kejner, 2007) aims to introduce readers to the history of the so-called "music industry," analyze its growth and expansion throughout the 20th century, its crisis in the late 1990s as new technologies changed the playing field, and its struggle for survival in the new century.

The Human Element – The Impact of Mergers and Acquisitions on Organization and People (Faber, 2007) examines the difficulties of integration of one entity into another. The extremely high failure rate of more than 50 percent for mergers and acquisitions is a result of the negligence of a formal cultural and human due-diligence process.

The Transformation of the Japanese Commercial Code and its Impact on the Japanese Economy (Yoshida, 2007) discusses the history of fundamental Japanese laws, the steps and players in the legislative process, and presents details about the introduction of the share exchange system, which stimulated many more mergers and acquisitions in Japan.

Hypothesis Testing/Theory Development: This approach typically involves developing and/or testing a hypothesis with a set of data.

Leading for Learning: Behavioral, Educational, and Methodological Perspectives on Multicultural Team Learning Processes (Kanehira, 2008) identifies three team learning strategies: Inoculation, time out, and structure it away. The study involves the experimental setting of a 10-day intensive leadership workshop and applies wearable sensors that capture nonlinguistic social signals and visualize group interaction patterns.

Achieving Six Sigma Printed Circuit Board Yields by Improving Incoming Component Quality and Using a PCBA Prioritization Algorithm (Davis, 2008) develops a hypothesis using the Six Sigma DMAIC method and the TOPSIS algorithm to improve PCBA yields by optimally prioritizing manufacturing resources on the most important PCBAs first.

Investigating Late Stage Biopharmaceutical Product Loss Using Novel Analytical and Process Technology (Hunnicutt, 2008) designs and completes an experiment to jointly examine changes to manufacturing processes using novel filtration applications intended to reduce or remove protein particles from solution and analytical tools for improved characterization.

Industry/Competitive Analysis: An industry/competitive analysis can include an examination of industry structure, economics, market trends, and the positions of companies within the industry. Analyses can also focus on aspects of an industry, such as research and development, regulation, and labor.

Achieving Business and Operational Excellence in the Pharmaceutical Industry (Coffey, 2008) provides a deep analysis of the current state of the pharmaceutical industry and the operational inefficiencies inherent in regulated drug production. As a result of this analysis, a prioritized list of improvement ideas was generated and incorporated into a future vision.

Valuing the Premium in Chinese Stock Markets Using Exchange Options (Curley, 2008) examines the stock prices of Chinese companies dual-listed in the A and H share markets between January 2006 and March 2008. The current prices of dual-listed securities in Shanghai reflect both a fundamental value for the security and the expected value of arbitrage profits available by trading in Hong Kong.

Credit Derivatives in Brazil (Ruther, 2007) investigates why a credit derivative market has not developed in one of the largest economies in the world. It is found that the Central Bank of Brazil imposed restrictions to some market participants in the credit derivatives market and allowed only two products to be traded: CDs and total return swaps.

Marketing Study: A marketing study may involve a complete marketing plan, or it may focus on a particular aspect, such as product characteristics.

Targeting Online Advertising: Persuasion in an Era of Massless Communication (Baird, 2008) reviews past and current practices in targeted advertising, understands consumer motivations and attitudes about privacy and ubiquity of ads, and projects future trends and directions for designing and targeting personalized advertising content.

Improving Customer Experience through Advocacy and Morphing: A Web Application for Suruga Bank (Tokoro, 2008) explores two ideas to improve customer experience through a website – one is the "Customer Advocacy" and the other is the "Morphing Website." This research is a useful reference for companies who need effective web communication with customers.

Customer Research, Customer-Driven Design, and Business Strategy in Massively Multiplayer Online Games (Andrivet, 2007) gains a fine understanding of customer needs and the tools necessary to organize communication with, and among, customers. MMOGs combine aspects of particularly tough online community management, online customer service, and game design/content creation.

Method Design: This approach involves designing an analytic framework, a procedure or a process to address a problem.

Improving Leadership Capabilities for Young Employees at Kirin (Onuki, 2008) researches the concept of "leadership" using the MIT Leadership Model and examines the leader development system at General Electric. It is found that using Kirin's subsidiaries as a leadership platform for young employees at Kirin is one way to improve their leadership abilities.

In Vivo Research Scheduling and Coordination in the Pharmaceutical Industry (Hill, 2008) provides the framework for developing a centralized scheduling system. Based on research workflows, the proposed tool coordinates input from scientists and uses this information to schedule required resources.

A Study of Organizational Alignment at a Boston Area Hospital and Its Effects on Patient Throughput in the Peri-Operatives Area (Campbell, 2007) shows that applying a congruence model in evaluating the alignment of objectives, resources, critical tasks, and vision is useful in identifying potential areas of disconnect in the system.

Model Design: This approach involves creating a mathematical model or computer program to analyze or address a problem.

Development of a Total Landed Cost and Risk Analysis Model for Global Strategic Sourcing (Feller, 2008) develops a dynamic model that allows multi-variable scenarios to be assessed simultaneously, thus increasing the overall analysis efficiency for PerkinElmer, Inc. (PKI).

Demand Forecasting for Aircraft Engine Aftermarket (Ho, 2008) focuses on exploring alternative and innovative approaches to providing more accurate demand forecasts based on limited information. Approaches include application of fundamental sampling theorems, random walk simulations based on Markov Chain simplification, and a software tool based on sensitive analysis.

0 + 0 = 1: The Appliance Model of Selling Software Bundled with Hardware (Hein, 2007) analyzes the economic drivers and barriers for the appliance model for both the consumer and enterprise software industry segments. The possible implementation paths for software companies transitioning to the appliance model are proposed and the virtual appliance model as a next step is discussed.

Policy Study: A policy study involves defining a problem, analyzing why it is a problem, searching for and discussing a range of alternative solutions and recommending or describing the implementation of a specific solution. Policy studies are often applied to problems in the public or government domain, although they may be applied to problems in the corporate world or to those problems facing a specific organization.

Alternative fuels: How can Aviation Cross the "Valley of Death" (Harrison, 2008) explores the barriers and risks associated with the technology adoption life cycle for alternative aviation fuels as viewed through the lenses of the technology developer, the early adopter, the early majority user, and the financial community.

Implementation of the New FDA Quality by Design Guidance in the Pharmaceutical Production (Tozer, 2008) provides a background of the QbD/PAT (quality by design/process analytical technology) initiative and benchmarks the progress other pharmaceutical companies have made. It concludes with an analysis of barriers of implementation and provides recommendations for future implementations.

License to Change: The First Ninety Days as Head of an Organization (Liot, 2008) considers what decisions must a new CEO make to build a strategy that achieves the goal(s) set by the governance of the company. What will those first 90 days at the top of the organization be like? What is his or her "License to Change"?

Strategy Study: A strategy study can involve a complete strategic plan for a firm, or it can focus on other aspects, such as strategic planning trends in a particular sector.

NTT DoCoMo's Competition Strategy (before and) after the Introduction of the Flat Rate (Yajima, 2008) analyzes NTT DoCoMo's strategy for dealing with the flat rate. NTT DoCoMo is trying to establish new business models within, as well as outside, the mobile telecommunications industry. In particular, the credit card business appears to hold considerable promise for the mobile telecom industry.

Developing a Global Strategy for a Brazilian Engineering Services Provider (Lima de Oliveira, 2008) uses the Delta Model framework to assess an engineering service provider's current and desired level of customer bonding and define a strategic plan towards a global operation.

Collective Innovation (Rivera and Slawsby, 2007) poses that an innovation strategy embracing the concepts of collective intelligence and openness may enable organizations to surmount psychological, structural, and procedural hurdles. Collective innovation is defined as a connected, open, and collaborative process that generates, develops, prioritizes, and executes new ideas.

Technology Study: A technology study can focus on the economics, strategy, development, engineering, and/or diffusion of a particular technology.

Consumer Internet in South Korea: An American's Perspective (Byun, 2008) explores the consumer internet identity in South Korea from the perspective of an American with Western values and sensibilities. The path to success for Internet firms in South Korea is often quite different than it is in the West, and foreign firms looking to establish a Korean presence need to adjust their strategies accordingly.

Evaluation of Drying Technologies for Storage and Shipment of Recombinant Protein Drug Substance (Vaudant, 2008) presents an evaluation of drying technologies as an alternative to cryo-preservation for recombinant protein drug substance storage and shipment and discusses implications for future process innovation.

Accelerating Time-to-Market in the Global Electronics Industry (Folgo, 2008) identifies process and organizational improvements that will eliminate product development waste in support of accelerating TTM (time-to-market) and TTP (time-to-profit) using an enterprise perspective.

Collaboration

Independent Collaboration means you work alone with a faculty member. Responsibility falls entirely on you to select a topic and arrange a schedule with your advisor.

Joint Collaboration means you work in conjunction with another student together with a faculty member. This occurs only in certain circumstances when, for example, the amount of work is clearly larger than normal, or when the two authors possess very different skills and/or backgrounds. Normally, a thesis should contain the original contributions of a single student and it is often difficult to receive approval for joint collaborations**. Potential collaborators for a single thesis must submit a "Request for Joint Thesis" petition with their thesis proposal**, which is available in the Canvas Learning Management System under 15.THG (https://canvas.mit.edu/courses/5269).

Petition forms must accompany your joint thesis request proposal form. All forms will be forwarded to the Office of the Dean for Graduate Education (ODGE) for approval. Petition forms are available upon request at Sloan Educational Services (SES), E52-133, edservices.mitsloan@mit.edu.

Credit

Students who complete a master's thesis receive a total of 24 units of academic credit that is spread over three terms. Typically, students register for three units in the fall term, up to 12 units over IAP, and the remaining units in spring. Due to the rigorous academic requirements of a thesis project, registering for all 24 units in a single semester is strongly discouraged.

Students enrolled in the MSMS program have the option of completing a 12 unit thesis or a 24 unit thesis and will indicate his or her choice on the thesis proposal submitted in November.

Thesis Procedure

Specific deadlines and administrative requirements can be found in the section titled "Administrative Matters." In this section, however, you will find a general, step-by-step description of the thesis process and advice on a number of issues you will want to think about as you navigate the process.

Select a Topic

The best topic is one which interests you and allows you to utilize your knowledge and analytical skills to the fullest. Some writers automatically know what topic they want to study. Many writers need some spark of inspiration first. For those looking for such insight, we recommend the following avenues of reflection:

- **Your classes**
  Not all questions are fully covered in the course of classroom study. Within your classes, you may find yourself disagreeing with accepted principles on the grounds of logic and available evidence. Perhaps you learned a tentative hypothesis or a suggested procedure which you want to test. These may be the sparks of a great thesis. Not all topics need to be entirely creative and original. Certainly, where human activities are concerned, the processes of critical review, analysis, measurement, and testing can never be completed. Even replication of the work of others, if it is done with appropriate skepticism and accompanied by original analysis, need not be redundant.

- **Past Theses**
  Reviewing topics others have done for their thesis project can help inspire you with your own. You may get a feel for the range of frequency of past topics, approaches, types of data, methods of analysis and writing styles. The Dewey Library archives all hard copies of Sloan theses and produces digital copies for the web. MIT thesis work from 1963 to the present can be found at DSpace.
  http://dspace.mit.edu/

- **Interests Outside of Academia**
  You may also consider extending a project that you have worked on (e.g., over the summer or prior to coming to MIT Sloan) with previous or current employers. Many company-sponsored students find it advantageous to choose a thesis topic related to their organization.

- **Recent Events**
  You may want to consider how recent events influence some aspect of management. The world is constantly changing, and even the daily newspaper could springboard you onto an engaging topic.

- **Company Projects through MIT Faculty Liaisons**
  A faculty member may have company contacts that offer projects. The projects may not, however, warrant formal structured thesis project status; the faculty member may merely

serve as a liaison between the company and the student. Students might even seek a faculty advisor from the initial faculty liaison. The types of company projects may, in some cases, be similar to those offered to students in project-oriented courses such as "Entrepreneurship Lab" and "Issues in Corporate Governance".

The Institute does not permit a student to embark on a thesis likely to be classified as "confidential" or "secret" for reasons of national security, or restricted for proprietary or other reasons. Additional information on this subject can be found in the Policies and Procedures pages of the Office of the Dean for Graduate Education (ODGE) website:

http://odge.mit.edu/gpp/degrees/thesis/

Find an Advisor

With topic in hand, the next step is to select an MIT Sloan School faculty member who will agree to serve as your thesis advisor. Some faculty may have time for only a limited number of theses, so be sure to make arrangements as soon as possible. Remember, even after an initial consultation with a faculty member, there is no commitment on either end. You do not need to stick with the first faculty member you speak to, nor does discussion about your topic lock in a faculty member as your advisor. You must make a clear, definitive arrangement with your advisor. It is up to you to make this arrangement.

If you are still unsure of your topic, you might talk to a faculty member and ask for suggestions. However, it tends to be more useful to have a list of possible topics to discuss with a potential advisor.

When looking for a faculty member who will help guide the thesis process and with whom you will be working closely for six months or more, consider the following:

- **Mutual Interest**
  Ideally your advisor should share your interest in your topic or field. The faculty Expertise Guide (available on the MIT Sloan website, in the Newsroom section) can be especially useful in making your selection.

  http://mitsloan.mit.edu/expertiseguide/

- **Degree of Interest**
  It is common sense that if a student chooses a topic directly in line with the faculty member's research interests, the faculty member is more likely to contribute a generous amount of their time, expertise, and knowledge to the thesis. This is not to say that a faculty member would be inadequate for a thesis project tangentially related to their field, but the amount of overlap is worthy of your consideration.

- **Working Styles**
  Given the magnitude of your interaction with your advisor, you definitely should come to terms on working styles and availability. In a sense, the writer and advisor should function as a team and avoid conflict. How much feedback should the advisor give?

How often? How thorough? How much direction should the advisor give? How much free reign? All of these questions should be discussed in order to make sure both of your working styles mesh.

You can contact recent Sloan graduates for perspective on the style and helpfulness of prospective faculty advisors. Appendix F lists recent thesis writers, titles, and their advisors.

- **Thesis Reader**
  You may also wish to have a thesis reader. Readers can provide additional expertise in your field of research and may possess complementary skills to those of your main advisor. You can also benefit from asking faculty members in other departments and/or members from the professional management community to be informal thesis readers. Thesis readers are an optional part of the thesis process.

Decide on the Style and Form

With both topic and advisor ready, begin a preliminary analysis of the project and get your initial thoughts on paper. Start by reviewing information or literature on your topic. Formulate a problem statement and list some questions or hypotheses to return to again and again during the process. These are your initial ideas and they will trigger more questions or more avenues of research. You may even want to decide on the format or style of your approach, either from our list of suggested methodologies in Section III, "Thesis Options," or from your own logical and systematic insight. Your method and sketched-out framework may lead to even more possibilities for questions and hypothesis. You may even decide to follow the initial steps of an applied problem-solving technique, like the K-J method (used in quality improvement) or system dynamics.

After these initial meditations and conversations with your advisor, make sure that the scope of the topic is manageable. You need to ensure the topic can be covered in the time that you have. You also need to make sure that you can reach well-researched, well-explained, and defensible conclusions at the end of the thesis and the process. Reformulate your topic to avoid vagaries and clarify the focus of your study and argument.

When narrowing your topic and your format, read relevant past theses, consider your course schedules for the fall and spring terms, and talk to fellow students.

Write the Thesis Proposal

The thesis proposal is essentially a blueprint for the entire thesis project. The proposal should include a brief description of the topic, an explanation of why it is important, and a statement of the reason for undertaking the research. The proposal should also include a brief outline of the final form of the document, in addition to a description of data collection methods and analytical approaches.

Consult with your advisors heavily while devising your proposal. Advisors can help focus your proposal, which will ultimately yield a focused thesis.

More information on the proposal can be found in Section V, "Administrative Matters." The proposal form is available online in Canvas under Course 15.THG within the Forms section and the "Request for Joint Thesis" form is available at the same site.

Develop a Plan

With your proposal submitted and accepted, you should set a schedule with your advisor. You should also keep communication flowing between you and your advisor by scheduling regular checkpoints and milestones. Plan out the end of your research and data collection, the deadline for your initial analysis, due dates for each chapter or section and the scheduled completion for the final document. You can subdivide your tasks even further in order to plan your time best. Above all, make sure your advisor is available to offer feedback well in advance. Your plan may be rigid, or flexible and compatible with revision, but without it you risk lack of communication with your advisor and disorganization in terms of available time and resources.

An important note regarding COUHES and research involving human subjects

Federal mandate (The Common Rule 45 CFR 46) and longstanding MIT policy requires that the Committee on the Use of Humans as Experimental Subjects (COUHES) review and approve ALL research involving human subjects that is performed under the auspices of MIT.

Types of research that must be reviewed by COUHES include investigation of new drugs and medical, radiological, engineering, physiological, behavioral, sociological, and nutritional studies. This includes projects involving human tissues, blood, or images, and questionnaires, interviews, and other procedures.

Some categories of research are exempted from review by federal regulation. Regardless of this, ALL projects involving human subjects at MIT must be reviewed and approved by COUHES.

COUHES approval must be obtained BEFORE any human studies are begun.

For research involving minimal risk, approval is granted for one year and must be renewed annually. For research involving more than minimal risk, renewal frequency will be determined by the Committee upon approval.

Ethical and legal guidelines for conducting studies involving human subjects are explained in a training course. All personnel who participate in any way in studies involving human subjects must take and pass this course. Does your research require COUHES approval? Check here: http://web.mit.edu/committees/couhes/quickguide.shtml

From the MIT COUHES website http://web.mit.edu/committees/couhes/

Do the Thesis!

Easier said than done, right? Nonetheless, if well-scheduled and taken in bits rather than chunks, a thesis can be the apex of scholarly and practical achievement, as well as an exciting and engaging process. Having clear communication with your advisor, gusto in your studies, and proper time management, your thesis will surely be a success. Keep the following pointers in mind:

- **Pace Yourself**

  A common practice for successful writers is to schedule daily writing time, five to seven days a week, from two to four hours. Devoting regular and consistent blocks of time will lead to an effective and relatively pain-free path to completion. A common theme among thesis disaster stories is a marked irregularity in production, culminating in a nightmarish burst of stressful productivity. Theses involving outside companies or organizations can be more challenging to complete on schedule. Not everyone is as flexible or as motivated as you!

- **Be Systematic With Your Research**

  Data and research is the backbone of your thesis and they will take two forms: 1) information gathered by others, and 2) information collected directly by you from subjects and sample.

  Data produced by others can be found in books and articles, published reports, published surveys, census results, electronic databases (e.g., Compustat), etc. Data which you provide will come from surveys, interviews, responses to experimental situations (e.g., performance in a simulated game), etc. You must give full credit for the data you analyze, and you are expected to display integrity, candor, courtesy, and generosity when crediting sources of information.

  Your advisor can recommend what types of data or information would best support your proposition or hypothesis, especially in regard to what approaches would fit within your limited time. Your advisor can also give practical advice on the mechanics of data collection (e.g., how best to design a survey or a simulation).

  MIT Libraries offers ample resources for your research. Librarians and reference assistants are available to answer questions at the Dewey Library on the first floor of building E53. You can also get advice or answers to research questions via email. Go to the MIT Libraries homepage at http://libraries.mit.edu/ and click on the "Ask us!" link in the upper-right corner. Meeting with a librarian can be of greater assistance by providing

more in-depth advice on research and database searches. The telephone number for Dewey Library is 617-253-5676.

- **What Analysis Serves You Best?**

  When interpreting data, you will use either descriptive or statistical methods. A descriptive method opts for a logical, written interpretation based on your reading of patterns in the data (e.g., interpreting a trend by reading a graph, table or written accounts; developing a method or framework through your own synthesis of data). Statistical methods, on the other hand, involve the use of mathematical tools to help determine patterns in the data and the significance of factors. Talk with your advisor about a variety of methods and choose the method that works best and most convincingly.

- **Writing Expectations**

  Your thesis should be self-contained. A reader should be able to follow any references to other literature on the topic or information on a company or field without referencing material outside your work. Don't assume your readers have in-depth knowledge of the academic or managerial concepts behind your work.

- **Structuring Your Thesis**

  When reading through theses, note the overall structure and organization. Pay particular attention to chapters and subdivisions. Introductions with background, and a description of the problem, proposition, or hypothesis, in addition to a brief overview of the approach used to address the problem, are standard. You may also wish to devote a section to a description of your methods for collecting data, with a justification for those methods. In your results and analysis, you should include a description and interpretation of findings, as well as the analytical method or framework. Finally, make sure your conclusion contains a summary of findings, a critique of the methods used in the study, suggestions for further research, and recommendations for action or some insightful final words to end the project on a satisfactory note.

Navigating the Process

Roles, Responsibilities and Finding Help

Role/Resource	Specific Individual	Responsibilities/Description
Thesis Writer	Student	Selects thesis topic. Finds Faculty advisor and arranges meetings for guidance and consultation. Researches and writes thesis. Holds ultimate responsibility for thesis.
Faculty Advisor	Chosen by student	**Must be a member of the MIT Sloan Faculty**. Provides help and guidance to the student for formulating and executing the thesis research. Assigns the thesis grade.
Thesis Reader (Optional)	Chosen by student with help from advisor	Provides advice and counsel based on particular experience.
Dewey Library	Any Librarian	Offers individual consultation and group information sessions on library resources for research at MIT and in the Boston area.
Educational Services	TBD	Member of SES who can answer questions about requirements, specifications, formatting, thesis registration and policies.

Suggested library books include:

- *How to Complete and Survive a Doctoral Dissertation* by David Sternberg. There are many parallels between a dissertation and a thesis. This book elaborates on issues discussed in this thesis guide.
- *MBA Field Studies: A Guide for Students and Faculty* edited by E. Raymond Corey contains sections on project management, working with faculty advisors, and conducting interviews.
- *The Clockwork Muse: A Practical Guide to Writing Theses, Dissertations and Books* by Eviator Zerubavel is designed to help prospective authors develop a workable timetable for completing long and often formidable projects.

Pitfalls, Setbacks, and the Unexpected

The only things certain in life are death and taxes. A trouble-free thesis, sadly, doesn't fit into either category. Most snags and problems can be avoided through both good planning and contingency planning. In any problematic situation, asking for help and/or keeping yourself open-minded, realistic, creative, flexible, and persistent will usually steer you through.

The following are the three most vexing and typical problems:

I'm having difficulty finding a faculty advisor.

- Before you panic, consider the perspective of the faculty. Your intended advisor may already be advising five other thesis writers. More particularly, maybe your topic does not exactly match their research interests. If so, you may consider changing the focus of your topic to better appeal to a certain faculty member. Otherwise, you should get referrals from the faculty members who reject you. Just because they can't work on your thesis doesn't mean they can't provide valuable advice and/or direct you to a faculty member whose interests best parallel your own.

Research for my thesis is going to keep me busy full time for at least two months; I won't have another chance to socialize with my fellow students until graduation.

- In the spring term, you have the thesis, classes, job interviews, international field trips, etc. A social calendar may seem impossible. However, this might serve as an incentive to start and finish the thesis early, thereby taking one big pressure off your final two months at Sloan.

The deadline is approaching and there's no way I'll finish by then.

- The worst that can happen is that you will not finish and will have to pay extra tuition to complete the thesis over the summer term or drop your thesis to a 12-unit independent study project (as long as thesis is not part of your degree requirements). However, this situation can be avoided by setting realistic goals and planning ahead.

  Be sure to refer frequently to the thesis timeline at the beginning of this handbook, especially early in the year, to avoid unpleasant surprises. Note how soon after spring vacation comes the April suggested deadline to submit a complete draft to your advisor.

Failure to Meet the Final Submittal Deadline – May 6, 2022

This deadline is set by the Institute and is **NOT** subject to change. If you feel that you may not meet the final deadline, you are strongly urged to speak with SES to discuss an alternate plan of action. In many cases, if a thesis is not turning out as expected, the work can be shifted to a 12-unit independent study. Any student who fails to complete and submit his or her thesis on time is required to register for thesis again (one unit) in a subsequent term in order to receive a grade and the degree. Full tuition must initially be paid in the subsequent term regardless of the number of units of registration. For an explanation of the conditions under which a partial abatement of tuition is made, please refer to the MIT Office of the Registrar website at:

http://web.mit.edu/registrar/reg/costs/graduate/grad_fallspring.html

Administrative Matters

While writing your thesis, you must follow all of the policies and rules for the procedure. Some of these policies are set by MIT Sloan but most (including deadlines and format requirements) are set by MIT and enforced on an Institute-wide basis.

Administrative Procedures and Timeline

Registration and grading

- Register for a total of 24 units of credit distributed between fall, IAP and spring terms (typically 3 in the fall, up to 12 over IAP and the remainder in spring).
    - MSMS students have the option of choosing a 12 unit thesis or a 24 unit thesis and must be registered for all least 1 unit in the spring term.
- Your thesis will receive a letter grade assigned by the thesis supervisor in the spring term.
- Grades for the first term are based on the approved thesis proposal:
    - J – progress has been satisfactory on a thesis that is not yet complete
    - U – Progress has been unsatisfactory
- A letter grade for a completed thesis supersedes the "J" or "U" in the first term and is worth *24 units in the student's cumulative grade-point average.*

Thesis proposal form and registration – Due November 18, 2021 at 12:00 pm

- Proposal forms are available under 15.THG in the forms section of Canvas
- Write a brief overview of your proposed thesis project and obtain the signature of your thesis advisor on this form.
- Keep copies for yourself and your advisor.
- Submit your signed Proposal form to SES via email.
- Proposals for joint collaboration must also have the "Request for Joint Thesis" form accompanied by a signed petition form; joint thesis writers must also submit a petition to the OGE for approval.
- Add 15.THG for the correct number of units to your fall registration via the online add/drop site.
- Sample thesis proposals are in Appendix B

Progress Report – Due February 18, 2022 at 12:00 pm

- Progress report forms are available under 15.THG in the forms section of Canvas:
- Include a description of thesis methodology, a list of thesis accomplishments to-date and a plan for completion and obtain the signature of your thesis advisor.
- Keep copies for yourself and your advisor.
- Submit your signed Proposal form to SES via email.

Submit a Draft to your Thesis Advisor - Suggested date of April 1, 2022

- If you have been regularly submitting drafts and follow-ups to your advisor and incorporating feedback, this will be merely a formality. This will also give you three weeks to get your thesis into its final form.

Thesis Formatting Review

- It is strongly recommended that you bring your thesis to SES prior to the final deadline to have your formatting checked page by page for conformity to specifications.
- Specifications are set by MIT (in particular, the MIT Archives Department) and are strictly enforced by the MIT Sloan School of Management.
- To ensure all specifications have been met, check in with SES before printing the final version and obtaining your thesis advisor's signature. Theses that do not meet institute formatting standards will not be accepted until all corrections have been made.

Submit Final Version to your Thesis Advisor – Suggested date of April 19, 2022

- The end of the semester is a busy time for everyone, including faculty and staff. Please keep this in mind when submitting your final version to your advisor for review. The longer you wait to submit your final version, the less time your advisor will have to review your work thoroughly before the final deadline.
- Follow the formatting specifications and submittal requirements for your final version. Please see the MIT Archives Specifications for Thesis Preparation online at http://libraries.mit.edu/archives/thesis-specs/
- Your advisor will approve the final version of your thesis by signing the title page after it has been printed on the appropriate archival-quality paper.

Submit the Final, Approved/Signed Versions to SES - May 6, 2022 at 12:00 pm

- Submit two **fully signed** copies of your thesis to Sloan Educational Services (SES).
- **LGO Students**: If Sloan is your home department, submit three copies to SES, one of which will be sent to your joint department's library. Otherwise, submit all copies to your home department and none to SES.

Once Sloan Educational Services has reviewed and accepted your thesis, your active role in the process is over! SES Sends your thesis copies to the MIT Archives to have a microfiche copy made and to be book-bound. One copy of your thesis is then cataloged and put on the shelves at Dewey Library (and corresponding library for LGO Students' joint departments), where it is available for circulation; the other remains permanently in the Archives. Microfiche copies are also kept both in the Archives and in Dewey (and departmental libraries).

MIT's Library prepares a catalog record of your thesis, which appears in MIT's DSpace and Barton online catalog. It is accessible online and in the OCLC database, a national bibliographic system available to libraries and individuals throughout the world.

Before submitting your thesis to SES, you may also want to make your own personal copy for further academic and/or professional work or for your own personal use. Binding can be purchased at CopyTech or any commercial print shop. After your thesis has reached the library shelves, you may request additional copies from the MIT Libraries' Document services (Building 14-0551, 617-253-5668, docs@mit.edu).

We hope all of your objectives have been met and that, in addition to academic and professional satisfaction, you will have enjoyed the bonds of friendship and camaraderie formed over the process. You can rest easy knowing you have made a valuable contribution to your career, your professional contacts, your academic knowledge, your management skills, your field of research, and the MIT Sloan School of Management as a whole.

Congratulations!

APPENDICES

Appendix A: Resources

Appendix B: Frequently Asked Questions (FAQ)

Appendix C: Thesis Specifications Checklist

Appendix D: 2019-2020 Thesis Titles and Advisors

Appendix A: Helpful Resources

Sloan Educational Services (SES)
E52-144A located in Suite E52-133
SES is the MIT Sloan point-person for thesis support and all related administrative procedures. SES will be your first stop when you are ready to initiate the thesis process. SES provides the following services for thesis writers:

- Administrative support for the thesis process; all registration, proposal and progress forms are submitted to this office via Canvas or WebSIS.
- Email reminders with event information, due dates, important procedural information and updates for thesis writers will come from SES.
- SES will offer formatting reviews in the spring semester. Students may also request an appointment or simply email a draft document in Microsoft Word to edservices.mitsloan@mit.edu. Formatting reviews are strongly encouraged to avoid re-printing!

Writing Courses at MIT
Writing and Humanistic Studies Department (WHS) – Course 21W
http://student.mit.edu/catalog/m21Wa.html

- Consult with the Program in Writing and Humanistic Studies headquarters, 14E-303, for the most up-to-date information about requirements and subject offerings.
- Introductory subjects are designed for beginning college writers; advanced subjects are designed to develop greater competence in one or more special forms of writing.

15.THG Canvas Website
https://canvas.mit.edu/courses/5269

- Course website for Thesis (15.THG)
- Houses all of the necessary forms for the thesis process, such as the proposal form and progress report form, as well as a .PDF copy of this handbook. See the "Forms" section for more information.
- The course website also houses helpful templates and examples of title and abstract pages that will be essential when you start to pull your final version together in April.

MIT Archives Specifications for Thesis Preparation
http://libraries.mit.edu/archives/thesis-specs/

- Lists general MIT thesis information and procedure.
- Explains the archive process after your thesis is submitted.
- Lists specific MIT formatting specifications for all thesis work.
- Explains MIT Copyright policies and gives important information on patent claims and intellectual property.
- Discusses thesis distribution, privacy and security policies.

COUHES – Committee on the Use of Humans as Experimental Subjects
http://web.mit.edu/committees/couhes/index.shtml

- COUHES reviews and must approve ALL research involving human subjects that is performed under the auspices of MIT.

- If you will be doing any research involving human subjects (including surveys), you may need to acquire COUHES approval. To determine if your research requires COUHES approval, click on this link for a short questionnaire: http://web.mit.edu/committees/couhes/quickguide.shtml

DSpace
http://dspace.mit.edu/
- MIT's institutional repository built to save, share, and search MIT's digital research materials.
- Contains a digital archive of all MIT theses available for download.

MIT Writing Lab
http://writing.mit.edu/wcc
- The lab is located in building E39, room 115.
- You may schedule a free, individual consultation about any writing difficulty such as grammar, style, writer's block, organization, revision, and more.
- Consultations (in-person or online) are available by appointment.

Purdue Online Writing Lab
http://owl.english.purdue.edu/owl/
- Free, online writing resources and examples of correct style formatting from Purdue University
- Houses clear MLA and APA writing style guides and examples.
- Contains essential citation examples in a clear format organized by resource type.
- Full bibliography, reference and works cited page examples and clear explanations on how to organize them.
- Visitors can submit brief, writing-related questions to the OWL Mail Tutors: http://owl.english.purdue.edu/contact/owlmailtutors
- Purdue's helpful grammar blog: http://thegrammargang.blogspot.com/

Community Wellness at MIT
http://medweb.mit.edu/wellness/programs/stress.html
- Offers workshops and support for stress reduction, mindfulness, and relaxation.
- Support on-the-go: Call 617-253-CALM (x3-2256) for a guided three-minute relaxation recording.
- Download pre- recorded mindfulness and meditation guides: http://medweb.mit.edu/wellness/resources/downloads.html
- Student Support Services (S^3): http://web.mit.edu/uaap/s3/

MIT Copy Tech
http://copytech.mit.edu/
- Get your thesis printed here on MIT-approved archival quality paper.
- Provides the standard red pressboard covers required for final submittal.

Tips and Tricks

- Start early! The sooner you form a plan and organize a research schedule, the more time you will have at the end of the process for writing and fine-tuning your work.

- At the very beginning of the process, form a clear research question, indicate the available data, and decide on an analytical methodology.

- Discuss your research plan with your advisor at the beginning of the process and agree on a meeting schedule ahead of time that will work for both of you.

- Try to work on research or write every day. This method will keep you focused and involved with your topic throughout the process.

- Choose a writing style before you begin your research. This will help you take the appropriate notes for citations and will help you maintain consistent writing throughout your work. MIT does not have a preference when it comes to writing style, however, students often choose Modern Language Association (MLA) or American Psychological Association (APA) as these are the most common writing styles with easy to find resources.
  http://owl.english.purdue.edu/owl/section/2/

- Form study/writing groups with other thesis writers and meet regularly. A regular study group will help keep you accountable and focused.

- Peer review is a great way to get feedback on the cohesiveness and clarity of your writing.

- Set incremental goals and milestones at the beginning of the process to keep yourself on-track. Organization and effective time management will be crucial.

- Allow plenty of time for draft review with your thesis advisor. Having ample time to go over your work will be essential to the final project and you will receive better, more relevant feedback.

The MIT Libraries includes six subject libraries– Management and Social Sciences, Architecture and Planning, Engineering, Humanities, Science, and Music. The Dewey Library for Management & Social Sciences is the primary library supporting MIT Sloan.

This guide provides the essential starting points for tapping the resources available to you through the MIT Libraries. If you have any questions, please contact us at *http://libraries.mit.edu/ask*, or stop by any library (for library hours, see *http://libraries.mit.edu/hours*).

MIT Libraries' websites	MIT Libraries: http://libraries.mit.edu Dewey Library: http://libraries.mit.edu/dewey Study spaces & group study rooms: http://libraries.mit.edu/study
Ask a question or get help with research	Submit your question via Ask Us!: http://libraries.mit.edu/ask Visit or call Dewey Library (E53-100) at 617-253-5676
Contact a librarian	Identify a subject specialist and/or request a research consultation: http://libraries.mit.edu/experts/
Thesis Writer's Guide	A guide to research resources for thesis writers, citing & managing references, submitting a thesis, and getting help: http://libguides.mit.edu/diss
Choose a database and find information	Dozens of librarian-authored research guides with links to databases: http://libraries.mit.edu/research-guides *Management, Market Research, Finance, Economics, Biotech, & more…*
Find books, journals, articles, and theses	Search MIT's Barton catalog for books and journals: http://libraries.mit.edu/barton Search BartonPlus for books *plus* journal articles and other sources: http://libraries.mit.edu/bartonplus
Quick access to electronic journals and databases	E-Resources: http://libguides.mit.edu/c.php?g=175943&p=1160383. Search for the journal or database title (e.g. *Harvard Business Review*; *Business Source Complete*)
Renew books, review holds, or suggest a purchase	Use the "Your Account" feature in Barton: http://libraries.mit.edu/barton . Your MIT ID is your library card.
Get journal articles or books not available at MIT	http://mit.worldcat.org/

Appendix B: Frequently Asked Questions

How do I get permission to have my thesis non-disclosed to the public?

Under normal circumstances, all theses are open and available for public inspection once they have been received by Archives. When there is good reason for *delaying* the distribution of a thesis (author holds rights to intellectual property contained in the thesis, privacy or safety concerns), the author and the advisor should submit the thesis to the director of the student's program, who will prepare a recommendation for the Dean of Graduate Students. The dean will advise the Institute Archives of the restricted period. In most cases this is no more than 90 days. **No thesis may be permanently withheld.**

Do I have to have an Acknowledgements section? Where should I place acknowledgements?

Acknowledgements are not required, but many students find that they would like to include recognition and thanks for faculty, peers, and family who have supported them through the thesis process. Should you want to include this in your thesis, we recommend that you place the Acknowledgements after your Abstract page (*never before*: remember, the Abstract immediately follows the Title Page and before the Table of Contents).

Do I have to have a Table of Contents?

Yes – MIT Archives requires a Table of Contents page to make your thesis easier to navigate. It should be placed after all prefatory material (Title Page, Abstract, Acknowledgement and/or Biographical Note) and before the text body. If your thesis contains many charts or figures as appendices, you might want to include a contents page for those as well.

Does MIT require that I use a particular writing style?

MIT does not require that students adhere to any one writing style. However, following a particular writing style such as MLA or APA ensures that your thesis will remain consistent and well organized from start to finish. It is recommended that you choose a writing style early on in the research process as this will help you gather the all of the necessary information when you build your reference list.

Can I change the title of my thesis?

Yes, within limits. The thesis proposal form and Application for Advanced Degree (AAD) requires a preliminary title. The AAD, submitted online at the beginning of the spring term, conveys your title to the Registrar. You have until **April 2, 2021** to submit a thesis title on your online AAD form (http://student.mit.edu/cgi-docs/student.html), after which an $85 fee applies. Changes can be made after this deadline without incurring fees but an initial title must be submitted.

How long does it take for my thesis to arrive on the library shelf?

Given that the MIT Archivist receives more than 1,000 theses every June, it is not an immediate turnaround for the copy you submit to Sloan Educational Services to be scanned, cataloged and book-bound. Depending on how fast the process goes, it can take from two to three months. NOTE: *It will take longer if your thesis has any problems in regard to the specifications.*

What about charts and figures?

Pay particular attention to using clear images and text in charts and figures, keeping in mind that these will be scanned electronically. SES will look for these potential problems during your formatting review. If the MIT Archivist is unable to scan your charts and figures because they lack clarity, it will delay the binding, cataloging, and library shelving process. Some pointers:

1. **Print charts and figures as large as possible.**
2. **Try not to use colored ink: although it is more aesthetically pleasing, it does not copy or scan well; you are advised to use only black ink and grey shades.**
3. **Make sure charts and figures are within the one-inch margin requirement.**

Who should I list on the "Accepted by" line on my title page? Do I have to get their signatures before I turn in my thesis to Sloan Educational Services?

Your thesis is accepted by the people listed below, based on your program. You **MUST** obtain **all signatures** before submitting your final copies to SES.

- **Sloan Fellows:**
  Johanna Hising DiFabio, Director
  MIT Sloan Fellows and EMBA Programs
- **LGO and MBA:**
  Maura Herson, Director
  MIT Sloan MBA Program
- **MSMS:**
  Jacob Cohen
  Senior Associate Dean for Undergraduate and Master's Program
  MIT Sloan School of Management
- **MFIN:**
  Heidi Pickett, Director
  MIT Sloan Master of Finance Program

Can I print my thesis double-sided?

Theses should be prepared double-sided whenever possible. In a double-sided thesis, both sides of every page must be accounted for in the numbering sequence. Therefore, in a double-sided thesis, odd-numbered pages are always on the right and even-numbered pages on the left. Pages

with illustrations may be single-sided, but both sides should be counted. Refer to the Thesis Specifications Checklist, Appendix A, for proper pagination guidelines.

What is the Library Processing Fee?

All thesis writers must pay a library processing fee of $50 which covers the cost of scanning and binding your thesis. These charges will be added to your student bill during the semester, immediately preceding graduation.

May I submit my thesis electronically?

Yes, this is optional. If you would like to submit your thesis to the digital library of MIT theses, visit http://libguides.mit.edu/add-your-thesis. NOTE: This is **not** an alternative to submitting paper copies. Two paper copies must still be submitted as usual.

My faculty advisor or Program Director is out of the country and not able to physically sign my title page in person; can someone else sign in his or her place?

Yes, a proxy signature is acceptable. However, every effort to gain the faculty's true signature should be made before exploring the option of a proxy signature. This option is really reserved for extenuating circumstances such as extended travel, illness, etc. and must be approved by SES. It is best to make a plan for signatures well in advance of your deadline so you have plenty of time to prepare in case you, your advisor(s) or program director(s) will be traveling.

Proxy signatures must first be approved by SES and an email from your advisor or program director confirming the proxy must be sent to edservices.mitsloan@mit.edu. The signature can take one of two forms on the title page:

A. The proxy signs the professor's name and writes the statement "Jane Smith for Professor Mary Jones"
B. The proxy signs his or her own name and adds the statement "for Professor Mary Jones."

Appendix C: THESIS SPECIFICATIONS CHECKLIST

In addition to the highlighted list below it is recommended that you also consult the *MIT Archives Specifications Booklet* online: http://libraries.mit.edu/archives/thesis-specs/.

Paper

All copies should be printed on acid-neutral or acid-free paper. The following brands are acceptable:

- Xerox Image Elite or Archival Bond (available at CopyTech)
- Permalife
- Hollinger Acid-Free Bond
- Trojan Bond Technaclear
- Crane's Thesis Paper
- Gilbert Neu-Tech
- Hammermill Bond (not recycled)
- Strathmore Bond (not recycled)

Margins/Typeface

- Margins must be no less than 1 inch all around.
- No borders, headers, or footnotes outside of margins; page numbers may appear in the top or bottom margins.
- Typeface for the entire document must be no smaller than 11 point font and should not be script or italic.
- Typeface for charts, footnotes, and appendices must be no smaller than 10-point font.

Pagination

- The Title Page is always considered page 1, whether physically numbered or not (this is optional).
- The next sheet of paper, immediately following the Title Page, must be the Abstract.
- If you are submitting a **single-sided** copy of your thesis, the Abstract is page 2, with no blank pages between the Title Page and the Abstract.
- If you are submitting a **double-sided** copy of your thesis, then the Abstract is page 3. The back side of the Title Page is left blank (and is considered page 2).
- Biographical Notes and Acknowledgements are optional and should be placed after the Abstract and before the Table of Contents.
- Page numbering must be consecutive throughout (all charts/figures must be included in numbering sequence).

Title Page

Please see the sample title and abstract pages available on Canvas under the 15.THG Forms section for the appropriate format for your program.

- The title page is always considered to be page 1; physical numbering of the title page is optional. A blank page should follow the title page if you are printing double-sided.
- **The month and year listed on the Title Page should be the *month your degree is being conferred* (June, September, or February), <u>not the month you submit your thesis</u>.**
- The Copyright statement appears as follows:
    - **© Year Author's Full Name. All Rights Reserved.**
- Copyright is almost always held by the student; see the *MIT Archives Thesis Specification Booklet* for policies concerning Institute ownership of thesis copyrights.
- When Copyright is held by the student, the title page must include the following statement giving MIT royalty-free permission to reproduce and distribute copies of the thesis:

    The author hereby grants MIT permission to reproduce and to distribute publicly paper and electronic copies of this thesis document in whole or in part in any medium now known or hereafter created.
- Signature lines must include the formal name and title of your thesis advisor(s), reader(s), and program director(s). **If you do not know your advisor's preferred title, ask!**
- It is strongly recommended that you do not wait until the last minute to gather signatures. It is not uncommon for a faculty member or program director to be off-campus or unavailable close to the thesis deadline. **Make your signature appointments early!** A thesis will not be accepted without all proper signatures and Educational Services will not gather signatures on your behalf.

Abstract Page

Please see the sample title and abstract pages available on Canvas under the 15.THG Forms section for the appropriate format for your program.

- Physical numbering of the abstract page is optional. A blank page should follow the abstract page if you are printing double-sided:
    - If you are submitting a **single-sided** copy of your thesis, the Abstract is page 2, with no blank pages between the Title Page and the Abstract.
    - If you are submitting a **double-sided** copy of your thesis, then the Abstract is page 3. The back side of the Title Page is left blank (and is considered page 2).

- Degree submission information should read as follows:

Submitted to the MIT Sloan School of Management *[and other MIT department, if relevant]* on *[date submitted]* in partial fulfillment of the requirements for the degree*[s]* of Master of Business Administration *[or other degree]*.

Covers and Labels

- All copies should be submitted unbound, with labeled pressboard covers (available from MIT CopyTech).
- Labels can be printed or handwritten with the following information:
  - ✓ Author's name
  - ✓ Thesis title
  - ✓ Program
  - ✓ Graduation date (month and year)

If you would like to see an example of how a completed thesis should look, please stop by E52-133 prior to printing.

Final Submission

- ✓ **2 copies of your thesis (3 for LGO) complete, signed, unbound and printed on archival quality paper.**
- ✓ **Deliver to SES by 12:00 pm on Friday, May 6, 2022.**

Student Name	Course	Advisor Name	Thesis Title
Addy,Robert	LGO	Spear, Steven	Cost of Complexity: Mitigating Transition Complexity in Mixed-Model Assembly Lines
Alrayes,Ali Said	LGO	Perakis, Georgia	Transmission System Overvoltage Mitigation Through the Use of Distributed Generation
Amlani,Ankur	LGO	Zheng, Yanchong	Floor Entry Task Prioritization for Highly Automated Fulfillment Centers
Baskerville-Bridges,Aaron Davis	LGO	Fogarty, Colin	Computation and predictive modeling to increase efficiency and performance in cell line and bioprocess development
Bazerghi,Audrey	LGO	Roemer, Thomas	Inventory Modeling for Active Pharmaceutical Ingredient Supply Chains
Boyle,Casey Alex	LGO	Roemer, Thomas	Process Enablers for Successful Reverse Engineering Inside Large Organizations
Butala,Caitlin M.	LGO	Spear, Steven	Connected Factory: Real Time Data Analysis for Manufacturing Efficiency
Chai,Lucia Y	MSMS	Cusumano, Michael	A new direction and business plan for developing and commercializing adult incontinence products in China
Chiu,Brendon W.	LGO	Barnett, Arnold	Additive Manufacturing Applications and Implementation in Aerospace
Chu,Jeffrey Bowen	LGO	Carrier, John	Investigating the Feasibility and Impact of Integrating Wire-Arc Additive Manufacturing in Aerospace Tooling
Coates,Donald Mateo	LGO	Graves, Stephen	Integrating Agile within Complex Hardware
Coleman,Ellen Marie	LGO	Welsch, Roy	Establishment of a Novel Pichia Pastoris Host Production Platform
Daigle,Lea A.	LGO	Spear, Steven	Organizational Architecture Design and Assessment of Statistical Feasibility for FSDA Implementation in an Airplane
Dan,Or	LGO	Levi, Retsef	Improving Prior Knowledge Assessment in Process Characterization
Danner,Kyle Ricardo	LGO	Spear, Steven	Utilizing Automated Inspection to Identify Surface Quality Defects within the Automotive Body Assembly Process
Das,Durgesh	LGO	Farias, Vivek	Assessing Sales Floor Capacity and Replenishment Strategy
Das,Shouvik	LGO	Graves, Stephen	Multi Echelon Supply Chain Design for Amazon Private Brands
Diallo,Fatima Zahraye	LGO	Barnett, Arnold	Using discrete-event simulation to increase system capacity: a case study
Gaudio,Brian Gabriel	LGO	Welsch, Roy	Assessing the Impact of Historical Operational Data from Complex Assets on Predictive Maintenance Models

Ghersin,Noa	LGO	Trichakis, Nikolaos	Improving Asset Utilization and Manufacturing Production Capacity
Goh,Nigel Min Feng	LGO	Trichakis, Nikolaos	Applications of Risk Pooling for the Optimization of Spare Parts with Stochastic Demand Within Large Scale
Guadiana Gomez,Gerardo	MBA	Sheilds, Ben Ryan	A Netflix Experience: Reimagining the Direct-to-Consumer Platform
Harnoto,Monica	LGO	Perakis, Georgia	Value of Distribution-Level Reactive Power
He,Denton Xiang	LGO	Jonasson, Jonas	Distribution and Replenishment Optimization between Locations of High and Low Real Estate cost
Unmingling	MSMS	Cusumano, Michael	Competitive Analysis of Digital Content and Knowledge Sharing Market for Continuing Education in China
Kahawatte,Nalaka K.	LGO	Roemer, Thomas	Digital Business Model Development and Validation for Real-Time Monitoring Solution for Electrical Power
Kek,Chee Swee	MSMS	Rigobon, Roberto	The Hidden Costs of Rapid Economic
Kumar,Ketan	LGO	Levi, Retsef	Product Management Framework for the Development of Automation Solutions
Landis,Jordan R.	LGO	Fine, Charles	Benchmarking Environmental Efficiency of Garment Factories to Understand the Value
Lawson,Angela Dawn	SFMBA	Sastry, Anjali	Deploying the right technology: a framework for digital strategy and selection at the United States Postal
Liu,Zihuai	LGO	Welsch, Roy	Artificial Intelligence Infrastructure into Material Attributes Insights
Lu,Yunxuan	MSMS	Noe, Christopher	Study of Non-Performing Loans in China
Markham,Randall Chase	LGO	Welsch, Roy	REDUCING INVENTORY THROUGH SUPPLY CHAIN COORDINATION AND
McIntyre,Colin Alex	LGO	Farias, Vivek	Optimizing Inbound Freight Mode
Montgomery,Dante Edward	LGO	Welsch, Roy	Project-Based Manufacturing: An Approach for Quote Developmen
Mou,Jessie	MSMS	Zhang, Juanjuan	Study on Social Media Marketing Campaign Strategy – TikTok and Instagram
Murphy,Lorcan Andrew	LGO	Graves, Stephen	Increasing E-commerce Distribution Center Capacity Through Slotting
Neff,Margaret	LGO	Willems, Sean	Evaluating Modeling Techniques for Quantifying Production Risk in Contact
Nowak,Hans Antoon	LGO	Welsch, Roy	Strategic Capacity Planning using Data Science, Optimization, and Machine
Phillips,Hannah	LGO	Graves, Stephen	A Data-Driven Approach to Continuous Improvement in Reverse Logistics

Poudyal,Bidusha	LGO	Golrezaei, Negin	Predictive Analysis of Installation and Operational Qualification Issues vs.
Regele,Oliver Brian	LGO	Roemer, Thomas	Applied Discrete Event Simulation for Root Cause Analysis and Evaluation of Corrective Process Change Efficacy
Robinson,Taylor Kirstyn	LGO	Willems, Sean	Leveraging Flexible Manufacturing to Streamline New Product Launch
Ross,Michael Columbus	LGO	Carrier, John	Reducing Variations in a Highly Constrained Environment in Order to Increase Production Capacity
Samaniego,Ponce Ernest Pineda	MSMS	Cohen, Jake	Analytics for Strategic Corporate Social Responsibility
Stein,Randy	LGO	Welsch, Roy	Process Intensification of Spodoptera frugiperda (Sf) Cell Growth via Multi-Parallel Bioreactor System
Tian,Yuan	MSMS	Noe, Christopher	Case Studies on Companies that Delisted from US and Relisted in China
Turner,Adriane Ann	LGO	Graves, Stephen	Evaluation of Automated Storage and Retrieval in a Distribution Center
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