Curriculum and available concentrations, Advising, Course Registration and Other Procedures for the PhD in Management Science and Analytics (PhD-MSA) Program effective Fall 2023

Stuart School of Business,

Illinois Institute of Technology (Illinois Tech)

Chicago, IL 60661

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PhD-MSA program goals/objectives, and the Program's name change effective Fall 2023 semester

Effective Fall 2023 semester, the PhD program at the Stuart School will reflect a name change (from the previous title (PhD in Management Science or PhD-MSC) to PhD in Management Science and Analytics (PhD-MSA). The main impetus for this change many PhD-MSA courses already focus heavily on Analytics content that emphasize analytics-oriented learning insights. Furthermore, adding the word "Analytics" in the program title serves to acknowledge recent developments in analytics that have boosted career opportunities for our PhD graduates.

Stuart's PhD in Management Science and Analytics program offers comprehensive coverage on the application of quantitative methods, analytical tools, and computer models to decision-making problems in business from analytics or finance perspectives. These topics equip students to apply the tools of management science and analytics to any business problem. The program is research oriented and prepares graduates who are capable of initiating groundbreaking innovations in the field. Graduates of the program pursue successful careers in academia or business.
For academics, the program should lead to tenured positions at top-tier universities.
For graduates seeking a career in business, the program should lead to executive positions in technical analysis at leading corporations or entrepreneurial startups.

The PhD in Management Science and Analytics program prepares students and working professionals for careers in academia as well as executive and management positions in business, government, and consulting sectors. The learning content of this program exceeds expectations of potential employers worldwide in these sectors. This program emphasizes both analysis and synthesis. The required courses provide the tools to analyze business problems and to develop new systems or new solutions. Once students master these skills, their dissertation work involves structuring a problem, gathering data where appropriate, and solving it. The research methodologies of management science and analytics can be applied to any aspect of business.

The program's overall goal is to facilitate the contribution of new knowledge through academic or applied research to address important problems in analytics and/or finance.
To this end, the PhD in Management Science and Analytics requires a significant amount of course work and the completion of an original research-based dissertation.

PhD-MSA program related information

This PhD program in Management Science and Analytics is highly structured and tightly sequenced, where the courses you take in a given semester are often prerequisites for courses you take in subsequent semesters.

This document serves as a handy reference for PhD students because it explains the program in great detail, including the mandatory course sequence to be followed for each of the two concentration areas that are offered (Quantitative Finance or Analytics), as well as information on other policies and procedures.

Another source of general Information about the program may contain more updated estimates about the program such as tuition/fees etc. Please visit https://www.iit.edu/academics/programs/management-science-phd

Full time/Part time study opportunities

This program caters to both full time and part time PhD students. The latter group includes students who pursue full time careers in industry (because they are qualified to work legally in the US) while completing our PhD program on a part time basis.

Admission Process

Admission Pathways: There are three pathways for students to enter this doctoral program.

First, students who are currently pursuing the MS in Management Science and Analytics (MS-MSA) program at the Stuart School may apply for admission after successfully passing the PhD qualifying exam for the PhD-MSA program that is administered in the summer of each year. Such students are encouraged to take this qualifying exam in the summer following their first year of study; they may take the qualifying exam again in the summer following their second year of study as long as they have not filed for graduation with a MS in Management Science and Analytics degree; if they fail the second attempt also, they cannot apply for admission to the PhD in Management Science and Analytics program, but will continue to remain enrolled in the MS program in Management Science and Analytics. In other words, Stuart School will not entertain a petition requesting a third attempt to take the PhD qualifying exam. If admitted to the PhD-MSA program, credits for completed courses in the MS-MSA program will seamlessly transfer to the PhD-MSA program. The program director will work with such students to assure that they complete the required 72 credit hours needed to graduate with a PhD degree after the undergraduate degree.

Second, students may enter the program after completing a master's degree. The PhD program requires completion of 60 credit hours of prescribed courses at the Stuart School. This includes 36 hours of PhD courses and 24 hours of PhD dissertation research credits. The PhD-MSA program structure allows the transfer of 12 credit hours from a previously completed master's degree, thereby enabling students to graduate with a PhD degree after earning 72 graduate credits since completion of the undergraduate degree.

Finally, students may enter the PhD-MSA program after graduating with a MS-MSA degree. In such cases, the program director will develop a customized set of graduate courses that the student should complete to substitute for courses (24 credits) that are common to both MS-MSA and PhD-MSA programs, in consultation with appropriate PhD faculty. In such cases, the program allows 12 transfer credits from the completed MS degree. When taken together, these 12 transfer credits, the 12 credits of PhD coursework that are not a part of the MS in Management Science and Analytics program, the customized set of 24 credits of substitution courses (developed by the program director as described above), and the requirement of 24 credits for dissertation research will account for the required 72 credit hours needed to graduate with a PhD degree after the undergraduate degree.

Admission Procedures: Given the tight course-sequence and structure of course prerequisites, this program only accepts incoming students who join at the beginning of the Fall semester. The online application process requires applicants to submit a copy of their vita, an essay describing why they chose the Stuart School and the PhD-MSA program; academic credentials including their undergraduate and graduate degrees. The vita should highlight their research qualifications and accomplishments; their educational background and related academic recognitions, if any; and their work experience with a comprehensive narrative of job titles, functions, responsibilities and achievements.

All international applicants are strongly encouraged to submit their application online in January/February for admission in Fall semester of that year. This helps a great deal with securing US visa and other required admission and travel documentation on a timely basis. For more current updates, please visit Please visit https://www.iit.edu/academics/programs/management-science-phd

Scholarship support/Graduate Assistant or Teaching Assistant Opportunities

For the PhD-MSA program, the school may offer the Dean's scholarship for admitted full time students; however, this scholarship is a small fraction of the total costs of attending the PhD-MSA program. Unfortunately, we do not offer other scholarships or additional financial support. At the beginning of each semester, PhD students may apply for one semester-long graduate/teaching assistantships, but those hiring decisions are made by our faculty who may or may not prefer to hire students who performed well in that course in a previous semester. Also, note that teaching assistant positions are paid on an hourly basis (about $15/hour) and represent only a semester-long appointment at any given time. So students wishing to continue in those positions will need to reapply for open positions each semester. Finally, teaching assistant positions do not carry any tuition waiver. In the first week or two of each semester, these positions are posted online on the Handshake portal by Stuart School's Career Management Center. Please email Shahzad Hussain at shussa18@stuart.iit.edu if you have questions about this.

Flexibility for students to Change from MS-MSA to PhD-MSA program and vice versa

For a variety of reasons, the career goals of PhD students may change while they pursue the PhD-MSA program. For example, a student may decide to graduate sooner with a master's degree in management science and analytics to pursue other career opportunities, instead of completing the PhD degree. To accommodate this, a PhD-MSA student may petition the school to terminate that program, and transfer all their PhD academic credits to graduate with a MS in Management Science and Analytics (MS-MSA) degree.

Advising Process and Course Registration Procedures

The PhD-MSA program director (Dr. Siva K Balasubramanian, sivakbalas@stuart.iit.edu) serves as the academic advisor for PhD students. Please review this document and other PhD-MSA program resources mentioned above carefully before directing your advising-related questions to him. If PhD-MSA students have program-related questions, they are encouraged to email Dr. Balasubramanian. In addition, Dr. Balasubramanian can be reached or consultations related to the PhD-MSA programs during his office hours posted each semester at his office in CLC campus during Fall and Spring semesters.

The university has implemented changes with regard to the advising and course registration process for MSA students. As a first step, please review your academic record in Graduate Degree Works to check if the area of concentration is already indicated there (Graduate Degree Works can be accessed through the myIIT portal). If it is not, this is a reminder that all PhD-MSA students must select an area of concentration using eforms in Graduate Degree Works. Please complete any such updating of concentration information by September 15, 2023.

PhD-MSA students are strongly encouraged to register for the required PhD courses at least two weeks before the beginning of each semester. The required PhD courses that students should register each semester appear in the PhD-curriculum section (see the next section) that is appropriate for their chosen concentration area. All PhD students should inform the PhD-MSA program director in a timely fashion if their university record includes any holds that prevent course registration.

Additionally, PhD students who have passed their PhD comprehensive exam should explore current research interests and journal publications of all PhD-qualified faculty in their area of concentration, and then discuss with a specific faculty member if they are willing to supervise their PhD dissertation work. If the faculty member accepts, they need to obtain their (PhD mentor or PhD committee chair) permission to register under their name for MSC 691 Dissertation Research credits in the Fall semester. After that, they need to inform the PhD-MSA program director and Justine Grant (jgrant2@stuart.iit.edu) about their chosen dissertation topic and their PhD committee chair with whom they wish to register for MSC 691 credits. Please note that PhD students are expected to register for 9 credits normally to maintain full-time status, but those who passed PhD comprehensive exams can register for anywhere between 1-9 credits. However, please note that if you register for 9 credits in a semester where one of the courses discussed in the section titled “Course audit opportunities…” below, then you may audit one of those courses to improve your understanding of technology developments in a manner that potentially strengths your PhD dissertation work. While corresponding with the PhD-MSA program director and Justine Grant about course registration, please indicate the number of MSC 691 credits you wish to register for in Fall 2023 semester.

Program Curriculum (required PhD coursework) for Quantitative Finance and Analytics concentrations

The PhD program in Management Science (PhD-MSA) offers two areas of concentration: Quantitative Finance and Analytics.

All full-time PhD-MSA students are required to take the courses and exams listed below depending on their area of concentration and their year in the program. PhD courses are taught at the CLC campus located in downtown Chicago. Offices of PhD faculty are also located at the CLC campus.

Quantitative Finance Concentration in PhD-MSA – Required First year courses

MSC 511 Mathematics for Management Science I (3 credits)	(Fall)
MSC 512 Statistics for Management Science I (3 credits)	(Fall)
MSC 631 Theory of Finance I (3 credits)	(Fall)
HUM 601 TA Seminar (required course in PhD-MSA program)	(Fall) This is a zero credit course so students do not pay tuition for HUM 601.Since this is a campus-wide course for graduate students that is (a) typically offered in Fall, and (b) has an upper enrollment cap of 95, it is recommended that you should register in Fall 2023 if possible. If not, please check if it is offered in Spring 2024 or Fall 2024 and register for HUM 601 at that time.
MSC 514 Mathematics for Management Science II (3 credits)	(Spring)
MSC 515 Statistics for Management Science II (3 credits)	(Spring)
MSC 633 Theory of Finance II (3 credits)	(Spring)

More detailed course descriptions for each PhD course listed above is available at https://bulletin.iit.edu/graduate/courses/msc/

Quantitative Finance Concentration in PhD-MSA – Required Second year courses

MSC 611 Philosophy of Management (3 credits)	(Fall)
MSC 621 Corporate Finance (3 credits)	(Fall)
MSC 614 Quantitative Investment Strategies (3 credits)	(Fall -cross listed with MSF 546)
MSC 612 Advanced Research Methods (3 credits)	(Spring)
MSC 623 Investments (3 credits)	(Spring)
MSC 613 Structured Fixed Income Portfolio (3 credits)	(Spring -cross listed with MSF 545)

More detailed course descriptions for each PhD course listed above is available at https://bulletin.iit.edu/graduate/courses/msc/

Analytics Concentration in PhD-MSA - First Year Required courses

MSC 511 Mathematics for Management Science I 3 credits	(Fall)
MSC 512 Statistics for Management Science I 3 credits	(Fall)
MSC 615 Predictive Analytics 3 credits	(Fall - cross listed with MAX 522)
HUM 601 TA Seminar (required course in PhD-MSA program)	(Fall) This is a zero credit course so students do not pay tuition for HUM 601.Since this is a campus-wide course for graduate students that is (a) typically offered in Fall, and (b) has an upper enrollment cap of 95, it is recommended that you should register in Fall 2023 if possible. If not, please check if it is offered in Spring 2024 or Fall 2024 and register for HUM 601 at that time.

MSC 514 Mathematics for Management Science II 3 credits	(Spring)
MSC 515 Statistics for Management Science II 3 credits	(Spring)
MSC 616 Social Media Marketing Analytics 3 credits	(Spring -cross listed with MAX 523)

More detailed course descriptions for each PhD course listed above is available at https://bulletin.iit.edu/graduate/courses/msc/

Analytics Concentration in PhD-MSA – Second Year Required courses

MSC 611 Philosophy of Management 3 credits	(Fall)
MSC 651 Quantitative Marketing Models 3 credits	(Fall)
MSC 652 Supply Chain Analytics 3 credits	(Fall)
MSC 612 Advanced Research Methods 3 credits	(Spring)
MSC 653 Current Topics - Marketing Analytics 3 credits	(Spring)
MSC 655 Advanced Analytics for Decision Making 3 credits	(Spring)

More detailed course descriptions for each PhD course listed above is available at https://bulletin.iit.edu/graduate/courses/msc/

Course Registration beyond Second Year for PhD-MSA students

Students who have successfully passed the PhD qualifying exam and PhD Comprehensive exam should register for MSC 691 Dissertation Research Credits under the supervision of a Stuart School faculty member who has agreed to chair their dissertation committee. The student works closely with the chair of this committee to decide on the PhD dissertation topic and to establish the scope of this dissertation. The PhD-MSA program requires students to complete 24 (MSC 691) dissertation credits hours prior to graduation.

Course Audit Opportunities for both Quantitative Finance and Analytics concentrations

Consistent with the PhD-MSA program's goal to improve the quality of PhD dissertations, the program seeks to increase student exposure to emergent technology developments. Such courses include MBA 532 - Artificial Intelligence, MBA 534 - Block Chain, MSF 547 - Machine Learning, MSF 577 - High Frequency Finance, MSF 591 - Global Financial Markets, MAX 506 - Database Design & SQL, and MAX 501 - Digital Marketing.

Given the tightly-sequenced PhD coursework as well as the desirability to retain 60 course credits (beyond a master's degree) as a requirement to graduate with a PhD degree, university rules allow PhD students to audit one of the above courses in any semester while they are enrolled for at least 9 credit hours in that semester. PhD students are encouraged to take advantage of this free course audit opportunity.

Graduate Degree Works as the official student record and Study Plan for PhD program

For the PhD-MSA program, Graduate Degree Works (an online database of students' academic records accessible to PhD students) serves as the official student record. Therefore, the Study Plan or student record that outlines all completed PhD coursework (including grades and GPA) and other remaining uncompleted courses serves as the official student record for the PhD-MSA program. Furthermore, the online procedures available at eforms (associated with Graduate Degree Works) serve as the mechanism for student petitions to submit their concentration information for the PhD-MSA program or other changes.

Note that the Stuart School does not issue separate letters about each PhD student's study plan or the student's academic records. The student should use a downloadable pdf copy of their academic record from Graduate Degree Works as their study plan and their official academic record at the University.

Mandatory participation in Friday Research Presentations at the Stuart School

All PhD-MSA students are required to attend the weekly Friday Research Presentation events during each semester that scheduled on the main campus. These presentations typically include research conducted by Stuart faculty in collaboration with other Stuart faculty or colleagues at other B-schools. Occasionally, the school invites leading scholars from other B-schools or IIT faculty outside of Stuart School to share their research findings. Similarly, business thought leaders and practitioners share their business acumen and insights with Stuart faculty and students. The primary intent of the Friday Presentation Series is to stimulate research endeavors at the Stuart School. The school seeks to acclimate PhD students early and strongly to the culture of collaborative and impactful research that is an integral part of Stuart School's mission.

PhD-MSA students who are very close to their PhD proposal defense or PhD dissertation defense events are encouraged to present their research results in the Friday Presentation Series.

The schedule of past (since 2008) and forthcoming Friday Research Presentations during an academic semester are available at https://www.iit.edu/stuart/research/friday-research-presentations

Collaboration with other PhD students and PhD faculty on Research Projects

Stuart School faculty and PhD-MSC students can access a comprehensive collection of advanced software and databases (such as Compustat, CRSP and other databases provided through WRDS). PhD students are encouraged to leverage their learning/training acquired through PhD coursework to collaborate on research projects with Stuart faculty and other interested PhD students. Several outstanding research projects involving faculty-student research teams at the Stuart School previously presented in the Friday Research Presentation Series have eventually appeared in leading academic business journals (those rated A* or A by ABDC ranking of business journals worldwide).

Transfer Credits/Course Waiver/Course substitution Requests

As part of advising consultations, students often ask about PhD-MSA program policy regarding transferring credits (from a previously earned graduate degree) or course substitution requests. As explained earlier, the university requires 72 academic credit hours of study beyond the student's undergraduate degree to complete the PhD degree requirements (or 60 credit hours beyond the student's master's degree). The PhD-MSA program already recognizes a PhD student's previously earned master's degree by allocating 12 credit toward the above 72 academic credit hours beyond the undergraduate degree. As a result, a PhD-MSA student is required to complete 60 academic credits to meet PhD degree requirements.

Additionally, the PhD-MSA program, as currently structured, reflects a tight sequence of courses, where courses taken in a given semester are required pre-requisites for courses that students enroll in the following semester.

For the two reasons described above, the PhD-MSA program requires PhD students to enroll in all required courses for their concentration area each semester as described in PhD curriculum section above. Furthermore, the PhD qualifying and PhD comprehensive exams offered during summer focus on the content of those program specific courses. Therefore, the PhD-MSA program does not entertain any requests from students for course transfers or course waivers, or course substitutions in place of the program's required PhD courses.

PhD Qualifying/PhD Comprehensive Exams

Students take the PhD Qualifying Exams and the PhD Comprehensive Exams in the summer of each year. The exams' schedule is available in April of each year. The PhD Qualifying Exams focus on academic learning content from all six first-year PhD courses. Similarly, the PhD Comprehensive Exams focus on content from all six second-year PhD courses. Both the PhD qualifying and PhD comprehensive exams entail significant additional

student preparation. They often include more detailed and thoughtful questions than is typical of say, the final exam of each PhD course that a student has previously taken.

Full-time PhD-MSA students who finished the first year courses listed above are required to take the PhD Qualifying exam in the summer in May. PhD-MSA students have a maximum of two opportunities to take the PhD Qualifying exam (they should pass this exam within those two attempts).

Full-time PhD-MSA students who successfully passed the PhD Qualifying exam and who finished all the second year courses listed above are required to take the PhD Comprehensive exam in the summer following their second year of study (this exam is usually administered in August). PhD-MSA students will have a maximum of two opportunities to take the PhD Comprehensive exam (they should pass this exam within those two attempts).

Communicating Results of the PhD exams to Graduate Academic Affairs (GAA)

Results of the written PhD Qualifying Exam are forwarded to GAA and they will be recorded in Banner (Graduate Degree Works) by GAA.

However, results of the written PhD Comprehensive Exam will not be communicated to GAA as soon as the results are known. This is because GAA considers the PhD comprehensive process as successfully completed only after a PhD candidate (defined as a student who has passed both the written PhD Qualifying and written PhD Comprehensive exams) has successfully completed their PhD proposal defense event. Students should contact the Program Director for the PhD program if their PhD comprehensive exam result does not appear in their Graduate Degree Works record after they have successfully completed their PhD proposal defense event.

Internship/externship Opportunities

After successfully completing the written PhD Comprehensive Exams at the end of their second year of study, PhD students may accept paid internship/externship opportunities at leading Chicago firms.

Specifically, such opportunities take advantage of the PhD student's coursework/concentration area in the PhD program and consider ways to leverage that for the benefit of both the student and the firm offering the internship/externship. Stuart School's Career Management Center coordinates all internships/externships. In some instances, such opportunities may arise from professional contacts of Stuart faculty members. All internships/externships are oriented toward the student's professional development and generate access to proprietary data that the firm offering those opportunities is willing to let the student use in order to pursue their PhD dissertation.

For all these reasons, PhD students who qualify for internship/externship opportunities (i.e., maintain good academic standing as documented in a satisfactory cumulative GPA above 3.0, passing the PhD qualifying and PhD comprehensive exams within two attempts in a timely manner) are generally encouraged to pursue these opportunities. However, all PhD students should note that internship/externship opportunities (via CPT documentation) are restricted to those that have completed 36 hours of PhD coursework and meet other internship/externship qualification requirements discussed above. PhD students are required to discuss and seek approval of such internships/externships from the PhD-MSA Program Director, prior to accepting any internship or externship. Additionally, international PhD students who wish to apply for such internships/externships should work with Stuart School's Career Management Center regarding mandatory paperwork to satisfy CPT (Curricular Practical Training) documentation requirements before accepting offers of employment from a firm about internship/externship opportunities.

PhD Dissertation topic/PhD Dissertation Committee

As described earlier, PhD-MSA students who successfully passed the PhD qualifying and PhD comprehensive exams should begin consultations immediately with a PhD faculty supervisor about their PhD dissertation topic. The PhD faculty supervisor will serve as the chair of the student's PhD dissertation committee.

This committee should include at least two other research-active faculty members (defined as PhD qualified faculty with an active record of published work in leading journals on topics related to the student's concentration area and PhD dissertation topic), and one external faculty member from another school/college at Illinois Tech (who is also PhD qualified).

PhD-MSA students should develop and defend a PhD dissertation proposal (named as a PhD Proposal Defense Event, as described next) within six months of passing the PhD comprehensive exams.

PhD Proposal Defense Event

Required steps for PhD Proposal Defense Event

A PhD candidate should complete the PhD Proposal Defense Event within six months of successfully passing the PhD comprehensive exam.

The PhD candidate will first establish a PhD dissertation committee within three months of passing the PhD comprehensive exam. This committee typically includes three faculty members at the Stuart School (a chair of the committee and two additional Stuart faculty) and an external faculty member from within IIT but outside of the Stuart School. The Student should consult with the chair of this committee to select a potential topic for the PhD dissertation and work with other committee members to prepare a PhD proposal document that essentially represents the first three chapters of the potential PhD dissertation. After this document is reviewed/approved by the student's PhD dissertation committee the student will forward this document to the PhD-MSA Program Director.

The PhD dissertation proposal document then undergoes anti-plagiarism checks, a process that will require at least two weeks. After successfully completing these checks, the student will reserve a conference room for the date/time/campus and room location when all members of the PhD dissertation committee can attend the PhD Proposal Defense event. The student should submit a template document to the PhD-MSA director to announce this event to the Stuart research community (see sample document in Appendix A). The student should also submit a signed/scanned form G301A (available for download at the Graduate Academic Affairs website) that contains the names of three Stuart School faculty members including the PhD committee chair (and one external member) who serve together on the student's PhD dissertation committee. At this point, the PhD-MSA Program Director will approve and forward the G301A form submitted by the student to GAA, and announce the PhD Proposal Defense Event to the Stuart research community a few days before this event.

Please note that all members of the PhD Dissertation Committee (including Stuart faculty on this committee and External members) should attend the PhD Proposal Defense event in person.

PhD Dissertation Defense Event

Required steps for PhD Dissertation Defense Event

A PhD candidate should successfully complete the PhD Dissertation Defense Event between 12 to 18 months after successfully completing the PhD Proposal Defense Event. If a PhD candidate wishes prefers to schedule the PhD Dissertation Defense six months after their PhD proposal defense date, the student should submit a petition to request this using the 701 form. GAA has indicated that this gap period cannot be less than six months. Please note that such requests are very unusual and will require extensive review and prior approval from the student's PhD committee, the PhD-MSA program director and GAA.

Students will consult with their PhD dissertation committee prepare a draft PhD dissertation document (that essentially represents the first three chapters of their final PhD dissertation) to be reviewed by their PhD dissertation committee. Once approved, the student will forward this document to the PhD-MSA Program Director.

The draft PhD dissertation document then undergoes anti-plagiarism checks, a process that will require at least two weeks. We do not want content submitted by students to show up as plagiarism based on the student's

previous publications/submissions, or based on the work of another published author. In other words, the content covered in the anti-plagiarism checks include self-authored work and co-authored work, in addition to work of other authors. The rationale for these checks is that the University requires each student to declare (while submitting your PhD dissertation for graduation) that the contents of the entire PhD dissertation represent the student's own work. Clearly, if a student has previously published content that is also included in his/her submission for anti-plagiarism checks that content will attract attention and scrutiny. Please know that after you graduate with a PhD degree, you can always publish your PhD dissertation at any time. Of course, you are encouraged to co-author papers based on your dissertation project with members of your PhD committee after you graduate.

After the anti-plagiarism checks are completed, the student should reserve a conference room with Lyzzette Rodrigeuz (ltoresrodriguez@stuart.iit.edu) for the date/time/campus and room location that all members of the PhD dissertation committee are available to attend the PhD Dissertation Defense event. The student will convey this reservation to the PhD-MSA program director along with a template document for announcing this event (see sample document in Appendix B). The student will also submit to the PhD Program Director a signed/scanned form G301B (available for download at the Graduate Academic Affairs website) that contains the names of Stuart School faculty members (and external member) who serve on the student's PhD dissertation committee.

The PhD-MSA Program Director will then announce the PhD Dissertation Defense Event to the Stuart research community a few days before this event. Please note that all members of the PhD Dissertation Committee (including Stuart faculty on this committee and External members) should attend the PhD Dissertation Defense event in person. At the PhD Dissertation Defense event is successfully completed, the PhD candidate should request their PhD supervisor to complete the G501 form and forward it to the PhD-MSA program director.

Graduation Process

PhD Graduation Checklist

1. Review your record on Graduate Degree Works with the Program Director (MSA) at least 18 months prior to the date you expect to graduate to assure that you have satisfied all academic degree specific requirements for graduation.
2. Meet with the University thesis examiner (Dr. Jonathan Harmon) at least three months in advance of your expected PhD dissertation defense date to assure that the PhD dissertation satisfies all University requirements and that you have completed the G501 form.
3. File for graduation and register for graduation/hooding ceremony well before the announced deadlines.

Student Placements

With regard to placements, several of our recent PhD graduates have assumed academic positions (as Assistant Professor in a business school) or appropriate positions in leading financial or related institutions (typically in Banks and other firms in the financial sector). As described earlier, prior to assuming positions in the financial or analytics sector after PhD study, our PhD candidates typically accept paid internships/externships at major firms for one or more semesters during the PhD program after completing the comprehensive exam offered in the summer of the second year of full time study

PhD alumni involvement at Stuart School

PhD-MSA program graduates are encouraged to stay in touch with Stuart faculty about their professional career developments and to explore research collaborations with Stuart faculty. They are also encouraged to attend the Friday Research Presentations as their schedules allow.

APPENDIX A

See the PhD Proposal Defense Announcement template document below:

Student Presenter: Joseph D. Cursio
Proposal Title: CR-CS Hypothesis for industrial & financial firms, & Director Tenure, Tobin's Q and Endogeneity
Proposal Defense Time/Date: 9:30 - 10:30 AM, April 6th, 2022 (CST)

Join Zoom Meeting
https://us05web.zoom.us/j/82535851343?pwd=ei8xdSt1cTV1YVByQ3dzRFh5a1NOQT09

Meeting ID: 825 3585 1343
Passcode: 511891
One tap mobile
+13126266799,,82535851343#,,,,*511891# US (Chicago)
+19294362866,,82535851343#,,,,*511891# US (New York)

Dial by your location
+1 312 626 6799 US (Chicago)
+1 929 436 2866 US (New York)
+1 301 715 8592 US (Washington DC)
+1 346 248 7799 US (Houston)
+1 669 900 6833 US (San Jose)
+1 253 215 8782 US (Tacoma)
Meeting ID: 825 3585 1343
Passcode: 511891
Find your local number: https://us05web.zoom.us/u/lb7yfjYCUe

Committee: Professor Wang (Chair), Professor Fang (member), Professor Cai (member), Professor Argamon (non-Stuart member)

Proposal abstract: The Credit Rating – Capital Structure Hypothesis (Kisgen 2006 JoF) is half-correct: Firms will adjust their capital structure to avoid a potential credit rating downgrade, but not to achieve a potential credit rating upgrade. Speculative grade firms will issue adjust their capital structure than investment grade firms, financials and utilities adjust less than industrial firms, firms near the investment grade/speculative grade boundary will adjust more, and the level of moderation is moderated by credit spreads. How firms adjust according to credit ratings affect the Shyram-Sunder and Myers (1999) tradeoff and pecking order capital structure theory tests.

Endogeneity is endemic in corporate financial research and reliable inference nearly impossible. A dynamic panel GMM estimator can address both unobserved heterogeneity and simultaneity.

APPENDIX B

See the PhD Dissertation Defense Announcement template document below:

Student Presenter: Yue Chen

Thesis Title: CONTRACT ROLLOVER AND VOLATILTY

Final Defense Time/Date: Aug. 11th 2022 (Thursday), 12:30am to 13:30pm CST

Zoom Link:

https://iit-edu.zoom.us/j/82066844908?pwd=VW4wMXJ0aFo1ZmYxNXZCUTBYR1hKdz09

PhD Committee:

Professor Ricky Cooper, Ph.D. (Chair)

Professor Ben Van Vliet, Ph.D. (Member)

Professor Sang Baum Kang Ph.D. (Member)

Professor Igor Cialenco Ph.D. (External Member)

Thesis Abstract:

In futures markets, approaching the expiration days, most market participants close out existing positions of front month contract and open new positions of next month contract. Contract rollover is a unique characteristic of derivatives markets and plays a role on the volatility behavior dynamics. The object of this dissertation is to evaluate the impact of contract rollover activities on unconditional volatility and conditional volatility modeling. First, two contract rollover measures, volume ratio and open interest ratio of front contract over next contract are created. Second, this study investigates the impact of contract rollover measures on both unconditional volatility estimation models and conditional volatility estimation models. Third, it examines the roles of contract rollover activities in unconditional volatility prediction models. Last, to further explore the relationship between contract rollover measures and unconditional volatilities, the vector autoregressive model is conducted to test granger causality. The findings show that the volume ratio and open interest ratio have significant impact on unconditional volatilities and conditional volatility in soybean, wheat, gold, copper, crude oil, and natural gas futures markets, except on conditional volatility in silver futures market. Alternative models that incorporate contract rollover measures outperform benchmark models that do not incorporate contract rollover measures in both estimation models and prediction models. Moreover, the findings provide the strong evidence that there is significant bidirectional granger causality among volume ratio, open interest ratio and unconditional volatilities in all investigated futures markets. The empirical results confirm the important role of contract rollover on volatility behavior and are beneficial to futures exchanges to set and monitor margins precisely for their customer's trading accounts in commodity futures markets.