

ORIE Program Guide – Master’s Track
Graduate Program in Operations Research & Industrial Engineering

Summary: The program of work (POW) for a master’s in ORIE can be one of three different types: the coursework POW, the master’s report POW, and the master’s thesis POW. The requirements for each are described in detail below. In each case, a student must complete a total of 30 credit hours to obtain a master’s degree. These degree requirements apply to students entering the program in August 2017, or later.

In each of the three cases, a student can take a maximum of 3 credit hours using the Credit/No Credit (CR/NC) option. Furthermore, no ORI course included in the POW may be taken using the CR/NC option. The ORIE graduate seminar does not count for credit for any POW. Similarly, ORI 397M – Graduate Research Internship (which must be taken to obtain a CPT) does not count for credit for any POW. You may take up to six (6) hours of upper-division undergraduate courses in your degree program. Courses taken for your BS degree may not be included in this allowance of six upper-division hours. Only one of the two basic optimization classes (Linear Programming and Linear & Integer Programming) may be taken for program of work credit for the master’s degree.

Coursework POW: In this option, the 30 credit hours are divided as follows

- 1) (3 credit hours) ORI 391Q.5 – Linear Programming, or ORI 397 – Linear and Integer Programming
- 2) (3 credit hours) ORI 390R.1 – Applied Probability
- 3) (3 credit hours) Applied Projects in ORIE
- 3) (3 credit hours) A statistics elective approved by the Graduate Advisor (ORI or non-ORI)
- 4) (12 credit hours) ORI courses (must be listed or cross-listed as ORI)
- 5) (6 credit hours) Non-ORI electives, approved by the Graduate Advisor (cannot be listed solely as ORI)

Master’s Report POW: In this option, the 30 credit hours are divided as follows

- 1) (3 credit hours) ORI 391Q.5 – Linear Programming, or ORI 397 – Linear and Integer Programming
- 2) (3 credit hours) ORI 390R.1 – Applied Probability
- 3) (3 credit hours) Applied Project in ORIE
- 3) (3 credit hours) A statistics elective approved by the Graduate Advisor (ORI or non-ORI)
- 4) (9 credit hours) ORI courses (must be listed or cross-listed as ORI)
- 5) (6 credit hours) Non-ORI electives, approved by the Graduate Advisor (cannot be listed solely as ORI)
- 6) (3 credit hours) Master’s Report

Students pursuing this option must identify a master’s report advisor 6 months before their intended graduation date. This advisor, who must be on the ORIE GSC, needs to sign a report advising form. The student should submit the form to the Graduate Advisor before the 6-month deadline. In conjunction with your master’s report advisor, you must also select a reader for the master’ report. Usually, this is another professor at the University.

Master’s Thesis POW: In this option, the 30 credit hours are divided as follows

- 1) (3 credit hours) ORI 391Q.5 – Linear Programming, or ORI 397 – Linear and Integer Programming
- 2) (3 credit hours) ORI 390R.1 – Applied Probability
- 3) (3 credit hours) Applied Projects in ORIE
- 3) (3 credit hours) A statistics elective approved by the Graduate Advisor (ORI or non-ORI)
- 4) (6 credit hours) ORI courses (must be listed or cross-listed as ORI)
- 5) (6 credit hours) Non-ORI electives, approved by the Graduate Advisor (cannot be listed solely as ORI)
- 6) (6 credit hours) Master’s Thesis

Students pursuing this option must identify a master’s report advisor 10 months before their intended graduation date. This advisor, who must be on the ORIE GSC, needs to sign a report advising form. The student should submit the form to the GA before the 10-month deadline. In conjunction with your master’s thesis advisor, you must also select a reader for the master’ thesis. Usually, this is another professor at the University.

Courses and Satisfactory Progress

Grading standards are different in graduate courses from undergraduate courses. Satisfactory progress in our graduate program

If academic probation continues for two semesters, one would be dismissed from the Graduate School.

To graduate, all graduate students must have a graduate grade point average of at least 3.00. Additionally, candidates for the master's degree must also have a grade point average of at least 3.00 in courses included on the Program of Work (see Section 5) and any undergraduate courses taken for a letter grade to satisfy the MS degree requirements must have a letter grade equivalent above 3.0.

General Registration and TA/RA Information

If you are a full-time student, you must enroll in at least nine (9) credit hours for each long semester (fall & spring.) Full-time status in the summer is three (3) hours. Students who work as a TA or GRA in any semester must maintain full-time registration status. If you are working as TA or GRA in the summer, you must remain registered for 3 hours. The Research courses (180M/380M) and the Seminar courses (197K/397K) may all be used to fulfill your minimum registration requirement (to reach 3 or 9 hours), but they may not count toward the completion of your graduate degree.

In the fall and spring semesters, you may add or drop ORI and other departments' courses via the web during the first four class days. From the 5th until the 12th class days in each long semester, you may add or drop ME/OR courses in the ME Graduate Office. If you need to add/drop any non-ORI course from the 5th-12th class day, you must go to that department to do so. Add/drop after the 12th class day is strongly discouraged. You will be charged a penalty to drop a course after the 12th class day. Please see the Graduate Coordinator for add/drop after the 12th class day.

To be appointed as a TA/GRA, you cannot be on academic probation ($GPA > 3.0$). In order to be appointed for a TA or GRA, you may not have: more than two X's (incomplete) or more than one X and one I (permanent incomplete). Two I's are not allowed. If you are appointed as a TA or GRA, you must be registered full-time. An international student who is a TA must be certified as competent in the English language. The certification is done by the International Office (see Graduate Coordinator). You cannot be appointed as a TA and/or GRA for more than 14 long semesters.

GRA's are assigned by faculty members holding research grants or contracts. If you are interested in a particular research program, you must contact the faculty member directly. Students (including international) are permitted to work up to 40 hrs/week (100%) in the summer semester if the opportunity is available.

Important Deadlines and Paperwork

The actual deadline dates for these items are printed in the course schedule. The deadline dates are inflexible. File the online Application for Master's Candidacy. You will also need to file a paper Program of Work form in the ME/OR Academic Advising Office in ETC 5.224. In the event that you do not graduate when you plan, the online application must be submitted again the following semester. The *Copyright Information & Disclaimer, Signature Page* must be submitted by students to Graduate School who are writing a thesis or report (according to the rules listed on guidelines from the Graduate School website). Theses or reports submitted to the Graduate School according to the rules listed on guidelines from the Graduate School.

Continuing in the Doctoral Program

You must complete the appropriate internal form if you plan to continue from a Master's to a Ph.D. Please see the Graduate Coordinator for the form, which will ask you to list three faculty members who will be asked to provide recommendations in support of your request to enter the Ph.D. program.