

Study Guide 2024-2025 Tinbergen Institute Research Master's Program

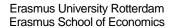




Study Guide 2024-2025

Tinbergen Institute Research Master's Program June 2024







University of Amsterdam Amsterdam School of Economics





Preface

It is a pleasure to welcome you to the Tinbergen Institute (TI) Research Master in Economics, run jointly by the schools of economics of the Erasmus University Rotterdam (EUR), University of Amsterdam (UvA) and Vrije Universiteit Amsterdam (VU).

The TI Research Master program is a two-year, research master in economics, econometrics and finance that endows students with the skills needed to write a PhD thesis. In the first year of the TI Research Master, students receive rigorous training in the core topics of microeconomics, macroeconomics, econometrics and, optionally, finance. Students with a strong background in econometrics can choose the advanced courses in econometrics. Students interested in finance substitute two core courses in micro- or macroeconomics with two core courses in finance. In the second year, students specialize in their choice from TI's many fields of research through field course work and a Research Master thesis.

Throughout both years students receive training in professional skills (how to write and present research, how to manage research data). They also familiarize themselves with ethical issues in education and research.

The three faculties participating in TI have PhD positions available for students who have completed the TI Research Master. Most students who perform well in the program find a supervisor at one of the three faculties (usually the Research Master thesis supervisor will act as PhD supervisor).

TI offers job market training to PhD students in the last year of their appointment. This training program consists of workshops where students learn how to prepare for the academic job market, followed by mock interviews in which students learn to present themselves and their research in front of a committee.

Finally, we would like to draw your attention to the annual TI Lectures Series in economics and econometrics. Each is a series of two- or three-day lectures by leading researchers. Detailed information can be found below.

Rotterdam, July 2024

Benoît S Y Crutzen
Director of Graduate Studies

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Tinbergen Institute research master's program

Study guide 2024-2025

Registration with the universities

The Tinbergen Institute (TI) research master is a joint program in economics, econometrics, and finance of Erasmus University Rotterdam (EUR), University of Amsterdam (UvA) and Vrije Universiteit Amsterdam (VU). Students are registered at three universities (EUR, UvA and VU). Erasmus University is the host university for the TI program and charges the tuition fee. The students' grades are registered by Erasmus University. The degree that is awarded after the final examination is a joint degree (MSc) of the three partners.

Tuition fees are due until the final examination, the thesis, has been passed. The tuition fees are determined annually by the Dutch government and the universities.

The TI research master program has its own Director of Graduate Studies (DGS), and Admission Board. The Examination Board and Educational Board serve both the BDS and Tinbergen Institute research master programs.

Intended learning outcomes

The purpose of the TI research master program is to prepare students for PhD research and an academic career in economics, econometrics, and finance. Structure and content of the research master program are derived from this objective. The research master program is connected to PhD research positions in the three participating faculties but also prepares for research positions or a PhD at highly ranked universities elsewhere.

The TI program offers a research training equivalent to training in the first two years of PhD programs at top US economics faculties. This implies a first year of rigorous and common training in core subjects of economics, econometrics, and finance. In the second year, students specialize in their choice TI's many fields of research through field courses and supervised research for a final thesis.

TI graduates are able to set up and conduct innovative academic research. They have profound knowledge and understanding of state-of-the-art theories and methods in their field of specialization. Furthermore, they are able to communicate their findings orally and in publishable research papers. Finally, students know what constitutes unethical and unacceptable behavior in the profession.

We list hereafter the intended learning outcomes for the program.

Intended learning outcomes for the Tinbergen Institute Research Master's Program

Research Master graduates are able to set up and conduct innovative academic research in their field of specialization. Furthermore, they are able to communicate their findings orally and in writing. They have a profound knowledge and understanding of state-of-the-art theories and methods in their field of specialization. Research Master graduates have the ability to write research papers, initially under academic supervision, that can be submitted to international, peer-reviewed journals for publication. The program focuses on Economics, Econometrics and Finance.

1. Knowledge and understanding

Research master graduates have

1.1 an overview of the core of economics/econometrics/finance that allows them to broadly read and understand the current scientific literature and follow scientific debates in their field of specialization.

1.2 in-depth and systematic knowledge of an area within economics/econometrics/finance that allows them to successfully embark on independent study of at least one specialized field of research.

2. Applying knowledge and understanding

Research master graduates are able

- 2.1 to outline a relevant research question in their field of specialization.
- 2.2 to operationalize the research question and to select and apply correctly complex and advanced techniques and methodology.

3. Making judgements

Research master graduates are able

- 3.1 to independently set up and carry out scientific research projects in the chosen field of expertise.
- 3.2 to critically evaluate research outcomes.

4. Communication

Research master graduates are able

- 4.1 to write research papers that are well structured; texts are written in a fluent and academic style.
- 4.2 to orally present research findings in a coherent and lively presentation and to give accurate and to the point response to comments and questions before an audience of academic researchers.

5. Learning skills

Research master graduates

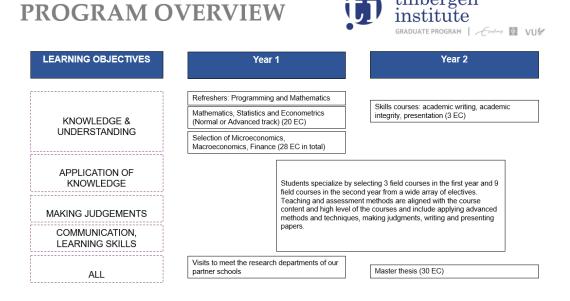
- 5.1 have the skills required for further study in a largely self-directed or autonomous manner.
- 5.2 respect and practice matters of scientific integrity, ethics, responsible data management and privacy.

Program structure

The first year of the program offers rigorous training in the core subjects and tools of economics, econometrics, and finance. This ensures that students embark on their PhD research and subsequent academic career with a sufficiently broad understanding of economics to follow academic discourse in economics. Knowledge of the core subjects is required as a foundation for specialized research in the domain of economics, econometrics, and finance and to initiate independent research.

In the second-year students develop their research skills and deepen their knowledge in the research areas they are interested in. They also write a thesis. Field courses and specializations reflect the researchers and research groups at the faculties participating in TI. This allows students to find a supervisor for their thesis and subsequently a PhD position at one of the faculties. Since TI is a joint program of three faculties, the program is able to offer a wide array of field courses and specializations.

The thesis (30 ECTS) is the final examination of the program and shows that the student is able to carry out independent research and can make a contribution to the scientific debate. TI aims at theses of exceptional quality such that, after further polishing, they can be published in an international, peer-reviewed scientific journal and be part of the student's PhD thesis. The defense of the thesis before an audience of experts is part of the final assessment.



Diversity

The diversity of TI's student body and teaching staff is one of the defining elements of the institute. TI aims to provide a welcoming environment in which all students can develop their full potential, both as individuals and as members of the academic community. All members of TI – students, staff, and faculty – strive for equal treatment of all, irrespective of ethnicity, nationality, gender and gender identity, sexual orientation, socioeconomic background and disability. TI actively takes steps to ensure that the diversity of the student body is respected by all members of the institute.

The Tinbergen Institute Research Master's program in 2024-2025

In case of any difference between this study guide and the Academic and Examination Regulations for 2024-2025 (AER), the AER prevails. The second-year requirements in the AER of 2024-2025 apply to the students who are in their second year in the program in 2024-2025.

Calendar for 2024-2025

All regular TI courses are taught in blocks of eight weeks, with lectures during the first six (core courses) or seven weeks (field courses); the eighth week of each block typically serves as an exam week. The exception is block V: to accommodate all field courses and the two lecture series, this block is extended by approximately two weeks. Core course teachers may not assign graded homework or set any type of work-related deadline in the week prior to the exam. For all courses, core or field, no work-related deadline can be set after the end of the block in which the course takes place.

Under normal circumstances and unless otherwise stated explicitly by the DGS, in-person, physical course attendance is mandatory; this applies to all core and field lectures, to the skills courses and to the Introduction to TI research groups (visits to the research departments of the schools). Attendance is registered. First-year (core) courses have weekly tutorials, taught by a teaching assistant, in which students work on and discuss homework assignments.

The calendar for 2024-2025 is:

Block 0	August 26-August 30	Introduction and refresher courses in Programming and Mathematics	
Block I	September 2-October 18	Lectures	
	October 21-October 26	Exams	
Block II	October 28-December 13	Lectures	
	December 16-December 21	Exams	
	December 23-January 3	Christmas Holidays	
Block III	January 6-February 21	Lectures	
	February 24-March 1	Exams	
Block IV	March 3-April 17	Lectures	
	April 22-April 25	Exams	
Block V	April 28-May 2	Break	
	May 6-July 12	Lectures and Exams	

The course schedule is available on Erasmus University's <u>timetable</u> (login with ERNA account) or via the Erasmus University's <u>course guide</u> (select current academic year).

First year of the program

In case of any difference between the first-year requirements in this study guide and the first-year requirements as stipulated in the Academic and Examination Regulations for 2024-2025 (AER), the AER prevails.

For course descriptions we refer to the EUR course catalogue.

In the first year of the program students have to complete 60 ECTS: 12 core courses (48 ECTS), 3 field courses (12 ECTS), and the Introduction to TI research groups (visits to the research departments of the schools). We offer in the week preceding Block I refresher courses in Microeconomics, Mathematics and Programming in Econometrics.

Core courses in year one are:

- Mathematics Statistics Econometrics I-III (or the advanced versions of these courses)
- Microeconomics I-IV
- Macroeconomics I-III
- Finance: Asset Pricing and Corporate Finance Theory

Depending on their educational background, students decide whether they take the normal or the advanced versions of the courses in mathematics, statistics and econometrics. If a student wishes to take an advanced course, this decision must be explicitly discussed with and approved by the TI DGS.

In blocks III and IV, students have the option to replace a Micro or Macro course for a course in finance (Asset Pricing and Corporate Finance Theory).

In block V, students select three field courses out of a designated list of field courses. Please note that at least one first year field courses must be completed within the Macro field. First year field courses cannot be replaced by first year core courses, second year field courses or by a field paper. Students who fail first year field courses need to retake a first-year field course in the second year of the program.

Throughout the first year, students join organized visits to the research departments of the partner schools. During these visits, students are introduced to all research groups connected to the program, meet with scholars and learn about the ongoing research projects.

Osiris and Canvas

Study results are registered in Osiris. Students are encouraged to regularly check if all results in Osiris are up to date and correct.

Osiris is also used by students to register for courses, to address the Examination Board with individual requests and to apply for graduation.

Canvas is the digital learning environment for all courses in the curriculum. Teachers use Canvas for announcements, to publish course material, assignments and grades. Students upload their homework in Canvas. All assignments uploaded by students are automatically checked for plagiarism.

Students use their @student.eur account to access Osiris and Canvas.

The first-year curriculum

The following core courses are offered in the first year:

Course name	Instructor(s)	ECTS	Block
Microeconomics I	Karamychev/Crutzen	4	- 1
Microeconomics II	Moraga	4	П
Microeconomics III	Sloof/Onderstal	4	Ш
Microeconomics IV	Wakker/Offerman	4	IV
Macroeconomics I	Brügemann	4	П
Macroeconomics II	Stoltenberg	4	Ш
Macroeconomics III	Figuereido/Gautier	4	IV
Fundamental Mathematics	Wagener	4	1
Advanced Mathematics	Wagener	4	1
Statistics	Nunez Queija	4	1
Asymptotic Statistics	Khismatullina	4	1
Econometrics I	Artemova	4	П
Advanced Econometrics I	Bos/Koning	4	П
Econometrics II	V.d. Klaauw/Bloemen	4	III
Advanced Econometrics II	Kleibergen/Juodis	4	III
Econometrics III	Koopman	4	IV
Advanced Econometrics III	Koopman/Boswijk	4	IV
Asset Pricing	Laeven/Vellekoop	4	Ш
Corporate Finance Theory	Vladimirov/Gryglewicz	4	V

In block V, students choose three field courses from the following list; at least one of the field courses is in Macro (these courses have an "M" between brackets next to their label):

Course name	Instructor(s)	ECTS	Block
Behavioral Macroeconomics and Complexity (M)	Hommes	4	V
Economics of Education	Plug/Oosterbeek	4	٧
Experimental Economics	Van de Ven/Dur	4	٧
Empirical Asset Pricing	Andonov/Eiling	4	٧
Empirical Corporate Finance	Eisert/Koudijs/Oberndorfer /Verwijmeren	4	٧
Financial Frictions in Macroeconomics (M)	Chen/Wang	4	٧

International Economics (IVI)	Klaassen/Emami Namini/Bosker	4	V
Investment Frictions in Macroeconomics (M)	Bartelsman	4	٧
Market and Systemic Risk Management	Cai/Zhou	4	٧
Spatial Economics	De Groot/Poelhekke/Verhoef	4	V
Topics in Organization and Markets	Delfgaauw, Ostendaal et al.	4	٧

On top of the above field courses, students can attend the TI lectures, an intense course taught by a leading researcher. The credits students get for passing the exam can count for the second year in the program. Attendance is highly recommended.

Scheduled for 2025:

TH Economics Lectures 2025	Peter Hull (Brown University) 26-28 May 2025	٧
TI Econometrics Lectures 2025	Isaiah Andrews (MIT) May 2025	٧
BDS Lectures 2025	TBD	

Program for year 1 in chronological order:

Period	Course code	Course name	Credits
0	TIC10001	Introduction Day	0
		Fundamental Linear Algebra	0
0	TIC10002	Refresher Course Principles of Programming in Econometrics	0
	TIC10003	Refresher Course Microeconomics	0
1		Lecture on plagiarism and ethical behaviour as a student	0
2/3/4	TIC10004	Introduction to Research Departments of the Schools	0
		One of the following courses:	
1	TIC10050	Fundamental Mathematics	4
	TIC10051	Advanced Mathematics	
		One of the following courses:	
1	TIC10052	Statistics	4
	TIC10053	Asymptotic Statistics	
1	TIC10100	Microeconomics I	4
		One of the following courses:	
2	TIC10040	Econometrics I	4
	TIC10041	Advanced Econometrics I	
		Both of the following courses:	
2	TIC10101	Microeconomics II	4
	TIC10150	Macroeconomics I	4

		One of the following courses:	
3	TIC10042	Econometrics II	4
	TIC10043	Advanced Econometrics II	
		Two of the following courses:	
3	TIC10301	Asset Pricing	
	TIC10103	Microeconomics III	8
	TIC10151	Macroeconomics II	
		One of the following courses:	
4	TIC10044	Econometrics III	4
	TIC10045	Advanced Econometrics III	
		Two of the following courses:	
4	TIC10104	Microeconomics IV	8
4	TIC10153	Macroeconomics III	0
	TIC10302	Corporate Finance Theory	
5	TIC10015	Workshop Research Idea Generation	0
		Select at least one course in Macro and two other field courses from	
		the list:	
	TIF10006	Behavioral Macroeconomics and Complexity	
	TIF10004	Economics of Education	
	TIF10009	Empirical Asset Pricing	
	TIF10011 TIF10005	Empirical Corporate Finance	
5	TIF10003	Experimental Economics Financial Frictions in Macroeconomics	
	TIF10007	International Economics	
	TIF10001	Investment Frictions in Macroeconomics	
	TIF10010	Market & Systemic Risk Management	12
	TIF10002	Spatial Economics	
	TIF10012	Topics in Distributional Macroeconomics	
	TIF10003	Topics in Organization and Markets	

All **core** courses will be concluded by a sit-in examination (not necessarily closed-book). Apart from the sit-in examination, results of homework assignments form part of the examination and contribute to the final grade for a course. The final grade for a core course is composed of the average grade for the homework assignments (15%) and the grade for the sit-in examination (85%).

Introduction to the research departments of the schools

Students visit the research departments of the schools supporting the TI research master program. These visits allow students to explore the research conducted in the schools, to meet their researchers and discover all their fields of specialization. These meetings also allow potential supervisors to scout talented students. Each faculty visit will entail meetings with multiple departments and research groups. Aim of the visits to the departments is to facilitate the matching process between students and prospective supervisors and to introduce researchers to students who they did not (yet) encounter in the classroom.

Workshop on Research Idea Generation

In the first two weeks of block V a 2X2-hour workshop on the basics of how to come up with a good research idea. This workshop is part of the Research Clinic (see second year, page 15).

Maintaining a healthy work-life balance

A research master program is very demanding, especially in combination with a change of country and (study) culture. To help you to recognize stress symptoms on time we refer to university student counsellors and to workshops that are offered by the universities for students looking for personal support. More information is available on our Intranet.

Registration for and withdrawal from courses

Students need to register for all courses by themselves at least three weeks before the start of the block. Registration is through <u>Osiris student</u> and is linked to the Canvas page for the course. Not registering for a course or registering beyond the deadline causes complications.

Assessment, grading, credits, and retakes

All courses are graded on a 1.0-10.0 scale, where 1.0 indicates very poor performance, 6.0 is the lowest passing grade, and 10.0 refers to outstanding performance. The final grade for a course block is rounded to the nearest multiple of .0 or .5, with the following exceptions: any grade between 5.0 and 5.5 (excluded) is rounded to a 5; any grade between 5.5 and 5.75 (excluded) is rounded to a 6; the lowest possible grade is 1.0. Grades for homework or midterm examinations are not rounded before computing a student's final grade.

Tinbergen Institute does not schedule retakes. Failed exams in the first year cannot be retaken in the same academic year. Instead, students should retake failed first year courses in their second year in the program. Students who miss an examination due to circumstances beyond their control (individual (public) transportation delays are not considered one such circumstance) may apply to the examination board for a retake in the same academic year. The procedure is described below and on the Intranet. Students cannot retake examinations that they have already passed or for which they have earned credits.

Right of inspection

As soon as possible and within 28 days of the announcement of the results of a written examination, the student can, by request, inspect his/her assessed work, the questions and assignments set, as well as the standards applied for marking. Inspection of the assessed work can only take place while the student is supervised by the examiner or an employee of the TI education office. A student may lodge an appeal against the way in which the result was reached within six weeks of the announcement of the result; see details below.

Transition to the second year of the program

Students need to have passed with a grade 6 or higher at least 48 ECTS from the first year curriculum and need to have completed the 'Introduction to TI research groups' in order to enter the second year and have access to the second year field courses. Moreover, additional, specific entrance requirements for each field course will be determined in the field course manual.

Compensation rule

For students who have passed with a grade six or higher at least 48 first year credits from the first year courses and have completed the 'Introduction to the Research Departments' within the first year of enrolment, a compensation rule applies. Under the compensation rule, students may compensate at most one 5 in the core course sequence A with a 7.5 or higher obtained within the same core course

sequence, and up to two courses in the core course sequence B with a 7.5 or higher obtained within the same core course sequence. The compensation rule applies across years.

Core course sequences are:

Course sequence A: (Advanced) Mathematics/Statistics/Asymptotic Statistics/(Advanced)

Econometrics I-III;

Course sequence B: Microeconomics I-IV, Macroeconomics I-III and the two Finance courses.

- Students taking all four courses in the microeconomics and all three courses in the macroeconomics core course sequence may compensate at most two fives by two grades seven and a half or higher within the core course sequences microeconomics/macroeconomics. These two fives can be in the same sequence.
- Students taking one or two finance courses, can compensate at most two fives by a grade seven and a half or higher in the microeconomics/macroeconomics/finance core course sequence, provided that they have at least one sufficient grade (six or more) within each of the course sequences they took an exam in.
- Students who do not meet the conditions under article 4.5 for entrance to the second year of the program within their first year of enrollment need to pass all core courses in the program with a grade six (6) or higher to complete their master successfully.

Any compensated grade still counts as a five (5) in the computation of the student's GPA.

Second year of the program

The second year offers a broad range of field courses with a diversity in teaching and assessment methods. Students take courses for 27 ECTS from these field courses. Teaching occurs in working groups of usually 5-15 students, which stimulates active student participation. The final thesis (30 ECTS) is a research project, set up by the student under experts' supervision. The matching of students and supervisors, while largely the result of individual conversations between the two parties, is actively supported by the DGS.

Students have to comply with the requirements of the academic year that coincides with their second year in the program. Thus, the rules in this section apply to the 2023 cohort of Research Master students.

Field courses

Students have access to second-year field courses only after being granted access to year two of the program. Furthermore, students have to meet the entrance requirements specified for a course they want to register for.

The TI field courses for 2024-2025 are listed in the ERasmus <u>course catalogue</u>. Note that field courses with fewer than five registered students may be cancelled or turned into a reading group which entails more self-work and study by students.

Up to 9 ECTS can be obtained by taking courses not included in the TI curriculum. Students who want to take external courses for credits need permission from the Examination Board (see below). The TI lectures series can be taken for credits. The maximum number of ECTS obtained in the TI lecture series that may contribute to the 27 ECTS field course requirement is 6. With a few exceptions, students can take a TI core course as a field course (for 3 EC)

Skill courses

The following skills courses are part of the curriculum and are mandatory preparatory courses for the thesis writing:

- An academic writing course (1EC),
- An academic integrity course (1 EC),
- A presentation course (1 EC).
- Workshop on research idea generation (taking place in the first year, block V)

The purpose of the lectures on Academic Integrity is to stimulate students to think about professional behavior in science. The lectures on Academic Presentation and Writing and the research idea workshop provide skills that the students will need in their scientific career to present effectively at conferences and seminars and to write scientific papers to the highest standard.

Seminars

Research fellows organize a wide variety of seminar series and conferences. Student participation in seminars is highly recommended. However, no course credits are allocated. Seminar schedules can be found here.

Taking external courses

Students can take external courses for a maximum of 9 ECTS. Taking external courses for credits needs to be approved by the examination board (see below). Before June 30, students submit their study plan for the second year, including external courses, and apply for approval from the Examination Board to take these external courses for credit.

Please note that the university offering the course may charge a tuition fee for the course and additional requirements for participants may apply. Carefully check the university deadlines and inform the DGS if fees are required. Please note that it is the student's responsibility to register on time for the course. The schedule for external courses (exam weeks, lecture free week, starting date) may not be aligned with the TI schedule.

- Courses at Erasmus University Rotterdam: check here.
- Courses at Vrije Universiteit: check here.
- Courses at University of Amsterdam: check <u>here</u>.
- Courses of the national MasterMath program: check <u>here</u>.

Credits for field courses

TI allocates typically 3 credits to any field course, including external courses, irrespective of the number of credits allocated to the same course elsewhere (an exception is made for the MasterMath courses, which count for 6 credits). This also holds for TI core courses followed as field course by students for whom this course was not part of their core. The idea underlying this is that TI requires students to take nine different courses in their second year to specialize in their areas of interest as well as to broaden their perspective. To avoid any discussion about the relative load of different credits in different programs, TI adopts a simple uniform policy of allocating 3 ECTS to every field course.

Field papers or research internship

Students are allowed to replace at most one field course by a field paper or a research internship.

The **field paper** summarizes the literature on a particular topic, describes the major contributions and identifies the direction in which the literature is heading. The topic of the Field Paper should be related to a TI field course that the student has passed and the supervisor of the Field Paper is (one of) the teacher(s) of the course. The teacher of the field course grades the field paper. All field papers are checked for plagiarism.

Students ask the DGS for approval to write a field paper for credits after having found a supervisor. Students contact the supervisor and agree on a topic and deadline. The supervisor reports the grade for the field paper to courses@tinbergen.nl.

During a **research internship** a student contributes about 75 hours to an ongoing or starting research project of a TI research fellow at one of the TI departments. The student writes a maximum three-page research report (possibly using bullet points) including a brief self-evaluation section, which critically assesses the student's role. The research internship is graded with a fail or pass. The work for the research internship cannot be reused for the final thesis and students do not get any financial compensation for the research internship.

Students ask the DGS for approval for a research internship after having found a supervisor. The research internship is assessed by the supervisor with the final approval resting with the TI DGS. The result (fail/pass) is reported by the supervisor to <u>courses@tinbergen.nl</u>.

Assessment, grading, credits, retakes and inspections in the second year

Assessment methods for field courses are a combination of class participation, presentations in class, essay assignments and take-home or sit-in examinations. No retakes are scheduled for field courses. The main means of assessment of students cannot be a standard closed-book, sit-in examination. Student assessment should be geared towards assessing the research qualities and potential of students.

Tinbergen Institute does not schedule retakes for field courses. Instead, students can take another field course or write a field paper or do an internship to replace the failed course.

Inspections follow the rules for the core courses explained above.

Registration for and withdrawal from courses

Students decide in June of their first year in the program on a full program of field courses amounting to a maximum of 27 ECTS including extra courses, TI lectures, a field paper or internship (if applicable) and external courses. Students need to register for retakes (if applicable) on top of the 27 ECTS. Changes in the selection of courses afterwards require explicit support in writing of the student's supervisor and needs the DGS' approval.

Important note: field courses may be cancelled or turned into a reading group in case fewer than five students sign up for a course. If a course is cancelled, an additional course can be selected by affected students.

Matching to a (PhD) thesis supervisor

Typically, second-year students match up with a thesis supervisor before the end of December in the second year. The matching is largely a result of individual conversations between the student and potential supervisors. While there is no formal registration process, the DGS supports the matching process by helping students identify faculty members who could be a good match for their research

interests. To achieve this, the DGS remains in close contact with each student until a match is found. The DGS keeps track of every student progress on this front.

The three faculties participating in Tinbergen Institute have PhD positions available for students who have completed the TI research master program. In many cases, the thesis supervisor will fulfill the role of PhD thesis supervisor. The DGS updates the students towards the end of the first year about the number of expected PhD positions at the three universities. Students are advised to check with their thesis supervisor under what conditions they can transfer to a paid PhD position with that same supervisor. Students are also encouraged to investigate externally funded PhD opportunities available at the schools. To facilitate this, potential supervisors present to TI students their externally funded PhD projects, typically in September.

Note that PhD positions are given by the faculties and that TI has no influence over the number of positions or the distribution of positions to specific supervisors. In a typical year, all students who perform well and pass the research master program can transfer to a PhD position. However, as the faculties and not TI provide PhD positions, TI cannot guarantee a PhD position for all students.

Students are strongly advised to complete all modules of the program before the end of the second academic year (i.e. in 24 months). Any extension beyond August 31 complicates the matching to PhD employment positions and involves the payment of tuition fees for (part of) the third academic year.

Thesis writing and graduation

The final thesis (30 ECTS) is an assessment in which students integrate all learning outcomes of the program. The thesis is the final examination of the program and shows that the student is able to carry out independent research and can make a contribution to the scientific debate.

The thesis manual published in Canvas gives details on requirements and assessment, the student's and the supervisor's responsibilities and procedures. The thesis procedure includes a pre-defense around the end of block V; this is a public event. The pre-defense can only take place once the student has obtained all course credits (with the possible exception of credits for TI lectures the student may want to take for credit in their second year) and with the approval of the thesis supervisor. The pre-defense should result in a to-do list for the student towards completing the thesis. The **final thesis** will be uploaded in Canvas and will be checked for plagiarism. The submission of the final thesis can only take place if and only if the student has earned the credits for all other study units. All theses are checked for plagiarism.

Assessment:

Weight pre-defense: 20%Weight final thesis: 80%

Students apply for graduation in Osiris two weeks before the submission of the thesis and always before August 1 if they want to graduate within the same academic year.

The timeline for students who wish to graduate before September 1 of the next academic year:

- Around the end of block V: pre-defense
- August 1 or at least 2 weeks before the final thesis is submitted: deadline to apply for graduation in Osiris
- August 15: deadline to submit the final thesis.

Not meeting the deadlines above may result in having to pay tuition fees for the following academic year.

TI organizes one graduation ceremony each year, usually in November.

The Academic and Examination Regulations

The Academic and Examination Regulations (AER) for the TI research master program are published on the Intranet. The AER lists the requirements for the program, rules for cum laude, has an extensive chapter on plagiarism and defines the rights of the students.

Plagiarism

Students are strongly advised to carefully study the chapter in the AER that defines plagiarism. Plagiarism is considered as a serious offense. The DGS gives a lecture on ethics and plagiarism in the first week of the program, followed by an extensive course on Integrity in the second year of the program.

The Examination Board

The Examination Board serves two research master programs: the TI program and the Business Data Science program. The Examination Board is responsible for the quality of examinations and diplomas. The Examination Board consists of four members, one of each faculty participating in the research master programs and one external member. The responsibilities and tasks of the Examination Board are explained in the Rules and Regulations for the Examination Board (available upon request). The Annual Report of the Examination Board is also available upon request.

Students may contact the Examination Board for the following reasons:

- The Examination Board decides on deviations from the curriculum that may have a bearing on the diploma. Therefore, any requests for items such as taking courses provided by third parties for credits and exemptions from mandatory courses in the curriculum must be approved by the Examination Board.
- Students who miss an examination due to e.g. illness may ask for a re-sit in the same academic year.
- The Examination Board will rule on requests for adaptations with regard to examinations for students with a disability.

Requests must be submitted in Osiris. Instructions on how to submit a request to the Examination Board can be found on the <u>Intranet</u>. The Examination Board will decide within three weeks of receiving the request.

The Examination Board may take measures against a student in case of fraud, plagiarism or misbehavior.

Lodging an Appeal

An appeal may be lodged against the way in which the result for an examination was reached or against any Examination Board decision. A detailed notice of appeal should be submitted to the Examination Appeals Board (CBE) of the Erasmus University. The procedures of the Appeal Board need to be followed carefully. Please read the instructions and deadlines on the Intranet. In general, the appeal must be lodged within six weeks after the decision which is appealed has been made.

Educational Board

The Educational Board serves the same two research master programs as the Examination Board.

The Educational Board consists of six members. Three members are from the programs' teaching staff and/or research fellows; three members are research master students in one of the programs. Student members are nominated by the students after elections and are appointed by the Faculty Board of the university of enrolment. Student members are appointed for two years. Members are listed on the website. The rules and regulations as well as the annual report of the Educational Board are available on the Intranet.

The Educational Board issues advice, both solicited and unsolicited, to the Directors of Graduate Studies on all matters concerning the educational program, with the objective to maintain or improve the quality of the program. The Educational Board's advice may concern all aspects of the program including composition of the curriculum, student facilities and teacher quality.

The student members organize an annual comprehensive program evaluation, the outcome of which is discussed in the Educational Board meeting.

Students are free to contact Educational Board members with any concerns they may have about the program.

Student Council

The <u>Student Council</u> is an independent student body that both informs and advises students and organizes regular social events. For composition and agenda see the website.

Facilities

The institute supports students with various facilities, such as <u>office space</u> and reimbursement of travel expenses between Amsterdam and Rotterdam for coursework (<u>see Intranet</u>).

Admission

The TI research master program is a selective program. Selection of students is done in a careful selection process. <u>Admission requirements</u> are listed on the website.

Funding

Tinbergen Institute awards <u>scholarships</u> to selected students based on individual merit. Scholarships are granted by Tl's Admission Board. Students who accept a Tl scholarship are obliged to sign and thereby accept Tl's scholarship regulations.

For second-year students, additional funding is offered by the institute and the faculties through research and/or teaching assistantships. These jobs offer valuable teaching and research experience. Students are encouraged to check job openings at the three faculties. Open positions are also advertised on the Intranet.

Job market training

Tinbergen Institute supports PhD students in preparing for the international (academic) job market by organizing presentation sessions (PhD presentation afternoons and an annual PhD Jamboree), by providing information sessions and by offering mock interview sessions. Requirements and details are announced in the Institute's Intranet.

The graduate school and institute for economic research of the Erasmus University Rotterdam, University of Amsterdam and VU University Amsterdam.

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