



**POLITECNICO
DI TORINO**

Scuola di Master
e Formazione Permanente

Albo n. 1250/2017

Call for applications

for the 2nd level Specializing Master Programme in

“Navigation and Related Applications”
(14th edition)

Academic Year 2017/2018

(Annex “A” - Executive Decision of the Head of the Division of Student Affairs no. 954/2017 of
20 July 2017)



ART. 1

Programme overview

The 14th edition of the 2nd level Specializing Masters Programme in “Navigation and Related Applications” (MNA) is offered by Politecnico di Torino for the academic year 2017/2018.

The administrative seat of this Specializing Master Programme is located at Politecnico di Torino – Office of Specializing Masters Programmes and Lifelong Learning (“Ufficio Master e formazione permanente”).

The programme is managed by the “Specializing Masters Programmes and Lifelong Learning School” (“Scuola di Master e Formazione Permanente”).

The Programme Director is Fabio Dovis, professor at the Department of Electronics and Telecommunications Engineering of Politecnico di Torino.

ART. 2

Training objective, learning contents and organization of the activities

The purpose of the programme is to provide young graduates with high quality training, professional knowledge and skills needed in the navigation sector.

The 2nd level specializing master is a full time programme of one academic year duration for a total of 66 ECTS; it will start in January 2018 and end in December 2018.

Lectures will be held in English at Politecnico di Torino premises – starting in January 2018 and ending in July 2018. An internship period offered by major companies/research centres operating in the Specializing Master field will follow.

The teaching programme includes 7 months of classroom activities with academic and corporate teaching staff and it is organized as follows:

- 13 courses divided in three terms (table n. 1)
- internships

Table n.1 – Organization of the courses

	ECTS
Winter term	
Communication Systems and DSP	6
Basics on Geomatics and Satellite Orbits	4
GNSS Introduction	5
Front-End Technologies and Antennas	3
Spring term	
Time Scales and Timing in GPS and Galileo	3
Augmentation Systems and their Applications	3
GPS and Galileo Receivers	5
Carrier Phase Positioning	4
Summer term	
Environmental Applications of GNSS Technologies	5
Integration of Satellite Navigation and other Positioning Technologies	3
Fundamentals of Time and Frequency Metrology	3
GNSS Applications and Market	3
Case studies of GNSS Applications	3

ART. 3

Admission requirements

In order to be enrolled at the 2nd Level Specializing Master Programme, applicants must have completed at least a 5-year (10 semesters) university career within the application deadline (September 27th, 2017 at 11:59 a.m. - Italian time).

The MNA programme is addressed to graduated students having completed a Master of Science Degree (or equivalent title) in one of the following areas of study or related subjects:



- LM-20 – Aerospace and Astronautical Engineering
- LM-25 - Automation Engineering
- LM-27 - Telecommunications Engineering
- LM-29 - Electronic Engineering
- LM-32 - Computer Systems Engineering
- LM-35 - Environmental Engineering
- LM-43 - Information Technology Methods for the Humanities

All candidates must prove to have a good knowledge of the English language, which must be certified by a language certificate included in the list of accepted certificates (see **Table n.2 English language certificates** at the end of this article in order to know the required level and accepted certificates).

Candidates who have a Bachelor's degree or a Master's degree from a University where English is the medium of instruction do not need to submit these certificates. In this case the University must issue a transcript of records which also states that "The medium of instruction is English".

Table n.2 – English language certificates

Examination Board	Certificate	Minimum score accepted
ETS http://www.ets.org/toefl	TOEFL (Test Of English ad a Foreign language) - ibt	62
	TOEFL (Test Of English ad a Foreign language) - cbt	210
	TOEFL (Test Of English ad a Foreign language) - pbt	547
	TOEIC (Test of English for International Communication)	Listening: 360 Reading: 350 Speaking: 150 Writing: 140
Cambridge English Language Assessment http://www.cambridgeenglish.org/exams/	Cambridge Preliminary English Test (PET)	Pass with Merit
	Cambridge English First (FCE)* *All higher Cambridge English certificates (ADVANCED/CAE and PROFICIENCY/CPE) are automatically accepted with any pass mark.	160 (for FIRST taken from Jan 2015) 60 (for FCE taken before Jan 2015) NB: see Statement of Results for scores
	Cambridge English Council of Europe Level B1	154 (for FIRST taken from Jan 2015) 55 (for FCE taken before Jan 2015) NB: see Statement of Results for scores
	BULATS	Reading & Listening: overall score 54 Writing e Speaking: overall score B2 NB: Certificate should state the name of authorized BULATS center where the exam was taken.
IELTS https://www.ielts.org/	IELTS (International English Language Testing System) – Academic or General training	5.0
Pearson http://pearsonpte.com/	Pearson Test of English Academic	51
LCCI / Pearson http://qualifications.pearson.com/en/qualifications/lcci.html	ELSA (English Language Skills Assessment)	At least THREE B2 between the Reading, Writing, Listening and Speaking tests
	JETSET	At least THREE "JETSET Level 5" between the Reading, Writing, Listening and Speaking tests.



ART. 4

Admission and Selection Procedures

The Specializing Masters Programme is open to a maximum of **30** participants.

Application for the Specializing Master Programme must be completed on-line by filling out the application form available on Politecnico di Torino website: https://didattica.polito.it/master/navigation_new/2018/how_to_apply

Application forms must be submitted within the following deadline:

- **September 27th, 2017** at 11:59 a.m. - Italian time

ALL the following supporting documents must be attached to the application form (in English or Italian only):

1. valid identification document (passport for extra-EU applicants)
2. curriculum vitae (cv must include the authorization to the processing of personal data – in compliance with the Legislative Decree no. 196/2003);
3. English language certificate (see table n. 2 “English language certificates”, art. 3);
4. list of exams of both Bachelor’s and Master’s degree programmes:
 - for applicants with degree(s) obtained from a non-Italian University or from a private Italian University: official transcript(s), issued by the University of origin, produced on headed paper, containing the full list of all the exams passed and the grades obtained. The transcript(s) must also include the date of the degree conferral.

Upon enrolment, the admitted candidates must submit the original copy of the “Dichiarazione di Valore”/“Statement of validity” (related to the Master’s degree) issued by the Italian Diplomatic Mission in the country where the qualification was awarded. If the Master’s degree was awarded by a European university, admitted candidates can turn in the “Diploma Supplement” instead of the “Dichiarazione di Valore”.

or

- for applicants with degree(s) obtained from an Italian Public University: self-certification (“dichiarazione sostitutiva di certificazione” - Art. 46 DPR 28 December 2000, n. 445) in which applicants declare to have obtained both a Bachelor and a Master’s degrees.
The self-declaration must include: the name of degree, the name of the University, the date of degree conferral and the graduation final grade, the full list of all the exams passed and the grades obtained (these information are required for both degrees).
In compliance with art. 75 of D.P.R. 445/2000, should the self-certification be found to be false or incorrect, the applicant loses any benefit which he/she might have acquired on the basis of the untruthful declaration.
5. Admission Request Form (available on the webpage of the Specializing Masters Programme https://didattica.polito.it/master/navigation_new/2018/documentation_required)
 6. Motivation letter: max 1 page (please, see the template available at the following link https://didattica.polito.it/master/navigation_new/2018/documentation_required)

Failure to attach even one of the above mandatory documents will result in the exclusion from the selection process.

After the application deadlines, the Selection's Commission will evaluate all the applications received.

Selections will consist in the evaluation of:

- Curriculum Vitae
- Academic Results
- Motivation letter



The Selection's Commission will assign a maximum of **100** points on the basis of the following criteria:

- Max 50 points for academic background;
- Max 40 points for the CV evaluation as follow:
 - Max 10 points for programming languages knowledge, in particular Matlab and C;
 - Max 10 points for telecommunication and geoscience knowledge;
 - Max 10 points for GNSS experience;
 - Max 10 points for experiences related to MNA programme's topic.
- Max 10 points for the motivation letter.

Candidates that:

- will not reach the minimum of **60** points;
- will not satisfy all the requirements;
- will not upload all the required documents;

will be considered "not suitable" and they will not be admitted.

The person responsible for the admissions administrative procedure is Mrs. Antonella Mina (Head of the Specializing Masters Programmes and Lifelong Learning Office at Politecnico di Torino).

ART. 5

Selection Outcomes

At the end of the selection process, the following lists will be published on the "Selection outcomes" page of the specializing master programme's website:

- the list of applicants admitted to the Specializing Master programme
- the reserve list

Candidates who attached all the required documents, who fulfills all the requirements, and who will reach the minimum score required will see their position in the ranking and their final score on the "Selection outcomes" page, where the official lists are published.

Please note: candidates who will not reach the minimum score of **60** points, who will not satisfy all the requirements or who did not attached all the required documents, will not be admitted.

ART. 6

Enrolment

Admitted candidates who accept the offer to participate in the programme will have to enrol at Politecnico di Torino by the starting date of Specializing Masters Programme (approximately in the middle of January 2018).

Upon enrolment, participants who hold a degree from a non-Italian University must submit the original copy of the "Dichiarazione di Valore"/"Statement of validity" (related to the Master's degree) issued by the Italian Diplomatic Mission in the country where the qualification was awarded.

If the Master's degree was awarded by a European University, participants can turn in the "Diploma Supplement" instead of the "Dichiarazione di Valore".

Participants who are non-EU citizens and reside in Italy must submit a valid Italian residence permit.

Participants who are non-EU citizens and reside abroad must submit an Italian VISA for study purpose "type – D".



ART. 7 Evaluation and qualification

STUDENTS' OBLIGATIONS

The Specializing Masters Programme requires the participants a full time commitment. Attendance to the activities is mandatory for at least 90% of the programme.

Absences will be allowed up to a maximum of 10% of total classroom hours, they must be certified and approved by the Master Coordinator. Absences for more than 10% of total classroom hours will lead to exclusion from the Specializing Master Programme.

Withdrawal from the programme must be put in writing.

For the purpose of obtaining the Specializing Master's degree, the Master Coordinator will also evaluate the student participation in the activities and the appropriateness of his/her behaviour.

Participation will be subject to performance evaluation throughout the programme. Detailed rules about the exams will be provided during the opening day.

It is not possible to be enrolled in a Specializing Masters Programme and in another University programme at the same time.

EVALUATION METHOD

For each course participants will have to take an exam consisting in a written or oral evaluation test.

QUALIFICATION

After completing the programme, participants who have regularly attended the activities and reached the total amount of 66 ECTS required for graduation, will be awarded the "Navigation and related Application" 2nd level Specializing Master's degree by Politecnico di Torino. The diploma will be issued in Italian

ART. 8

Tuition, enrolment fee and financial support

The tuition is 4.500,00 Euro (four thousand five hundred/00) + an *enrolment fee* (19,53 Euro) : the total amount shall be paid to Politecnico di Torino according to the following installments:

- 1.000,00 Euro within the deadline which will be defined by Politecnico for participants to accept the offer for the Specializing Masters Programme;
- 2.000,00 Euro at the time of enrolment + *enrolment fee*
- 1.500,00 Euro as balance payment after six months

The tuition and the enrolment fee can be paid by wire transfer through the "Apply@polito" procedure.

The tuition fee paid by the participants to accept the offer for the Specializing Masters Programme (1.000,00 Euro) will be refunded only in case of failure of VISA issuing by the Italian Embassy (for extra-EU citizens only) or in case that the course will not be activated, which happens only if the minimum number of 10 participants will not be reached.

In case of withdrawal or exclusion from the programme the tuition and enrolment fee won't be refunded under any circumstances.

The programme will start only if the minimum number of 10 participants is reached.

Thanks to the support offered by "Compagnia di San Paolo" and "Istituto Superiore Mario Boella / UN-OOSA", Politecnico di Torino offers to MNA programme's participants the opportunity to benefit of scholarships.

In order to know all the requirements and details, please refers to:

https://didattica.polito.it/master/navigation_new/2018/financial_support

FOR ANY INQUIRY OR ADDITIONAL INFORMATION PLEASE CONTACT:

Office of Specializing Masters Programmes and Lifelong Learning

Corso Duca degli Abruzzi, 24 - 10129 Torino (ITALY)

Email: master.universitari@polito.it



ART. 9

Privacy policy and access to documents

The information provided for in Article 13 of the "Code regarding the protection of personal data" (Legislative Decree No. 196 of 30th June 2003) is available at: <https://didattica.polito.it/privacy/>.

The personal data included in the on-line application form are treated for the selection and enrolment process only; the data are used by Politecnico di Torino within the institution itself, and exclusively for purposes of the institution: for this reason, personal data are shared with various offices within the University (to carry out the activities within their competence) without further notification to the applicants.

Owner of the database is Politecnico di Torino, represented by the Rector, with legal sat in Corso Duca degli Abruzzi, 24 - 10129 Torino.

The person in charge of the student data is the Head of the Division of Student Affairs.

Access to all documents is allowed in the forms provided for by current Legislation.

ART. 10

Selection's Commission

A Selection's Commission, nominated with a decree of the Rector, will evaluate all the application received within the given deadline (27th September 2017, 11:59 Italian time).

ART. 10

Final provisions

1. Communication with candidates will take place primarily through the "Apply@Polito" platform. Specific communications might be sent via email or SMS using the contact details provided by candidates during registration on the platform.
2. Politecnico does not take any responsibility in case of unavailability of recipients and for loss of communications due to inexact indication of a candidate's email address or telephone number or due to delay or failure to notify changes to the contacts provided during registration.
3. This Call is published on the online University Bulletin available at https://www.swas.polito.it/dotnet/albo_online/ . The same can be found on <https://didattica.polito.it/master/>.