



**POLITECNICO  
DI TORINO**

Scuola di Master  
e Formazione Permanente

## Call for applications

for the 2<sup>nd</sup> level Specializing Master's Programme in

“Sports Engineering”  
(1<sup>st</sup> edition)

Academic Year 2018/2019

(Annex “A” - Executive Decision of the Head of the Division of Student Affairs no. 359/2018)



## ART. 1

### Programme overview

The 1<sup>st</sup> edition of the 2<sup>nd</sup> level Specializing Master's Programme in "Sports Engineering" is offered for the academic year 2017/2018 by Politecnico di Torino in collaboration with "Scuola dello Sport – Coni Servizi S.p.A." and "Città Studi S.p.A". It is endorsed by "Città di Torino" and certified by "Johan Cruyff Academics International S.L."

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

The programme is managed by the "Specializing Master's Programmes and Lifelong Learning School" ("Scuola di Master e Formazione Permanente").

The Programme Director is Alessandro Pezzoli, professor at the Interuniversity Department of Regional and Urban Studies and Planning (DIST) of Politecnico di Torino. The Programme Vice-Director is Ada Ferri, professor at the Department of Applied Science and Technology (DISAT) of Politecnico di Torino.

## ART. 2

### Training objective, didactic contents and organization of the activities

The purpose of the programme is to train experts that can successfully face the multidisciplinary science represented by sports engineering.

This science requires expertises in different fields such as: material science, meteorology, ICT, biomechanics, sensor development, statics, nutrition and sports medicine.

The learning objectives of this programme can be classified in two main categories:

1. Material and processes: the students will learn how to select materials and processes for state-of-the-art sportswear and sportsgear and they will be able to identify new needs and develop new products and services to improve athletes performance and safety;
2. Products and services: the students will develop their skills for sports performance analysis. They will learn how to design data management and sports analysis systems to support managers, coaches and athletes with the most advanced training systems and to improve audiences experience.

The 2<sup>nd</sup> level specializing master is a full time programme of one academic year duration for a total of 60 ECTS; it will start in September 2018 and will end in September 2019.

Lectures will be held in English at Città Studi di Biella premises – starting in September 2018 and ending in January 2019. An internship period in sport performance analysis or in sport materials company will follow.

The teaching programme includes classes with academic and corporate teaching staff and it is structured as follows:

- 10 courses – compulsory (38 credits);
- Internships - compulsory (22 credits);
- 1 online course in "Sport Management Fundamenta" certified by Johan Cruyff Institute – optional (60 hours);
- 4 Top Seminars – optional (20 hours).

**Table n.1 – Organization of the programme**

	ECTS	HOURS
Sport Research Methods	4	40
Sport Psychology and Sport Development	4	40
Sensors and Measurements for Sport Engineering	2	20
Sport Biomechanics	4	40
Sport Physiology	2	20
Materials and Design for Sportswear and Sports Equipment	4	40
Sport Meteorology & Environmental Physics for Sports	3	30
Sport Bioengineering	4	40
Sport Performance Analysis	5	50



Bio-fluid Mechanics & Computational Fluid Mechanics for Sport	<b>4</b>	40
Internship	<b>22</b>	550
	<b>60</b>	

### ART. 3

#### Admission requirements

In order to be enrolled at a 2<sup>nd</sup> Level Specializing Master's Programme, applicants must hold a full degree (Master of Science degree/Laurea specialistica/Laurea magistrale).

The programme is addressed to graduate students having completed a Master's degree programme (or equivalent title) in the following degree classes (D.M. 270/2004):

- Biology (LM 6)
- Industrial Biotechnologies (LM 8)
- Pharmaceutical, Veterinary and Medical biotechnologies (LM 9)
- Design (LM 12)
- Physics (LM 17)
- Computer Science (LM 18)
- Aerospacial and astronautic engineering (LM 20)
- Biomedical engineering (LM 21)
- Chemical engineering (LM 22)
- Civil engineering (LM 23)
- Construction engineering (LM 24)
- Automation engineering (LM 25)
- Safety engineering (LM 26)
- Telecommunications engineering (LM 27)
- Electrical engineering (LM 28)
- Electronic engineering (LM 29)
- Energy and nuclear engineering (LM 30)
- Management engineering (LM 31)
- Computer systems engineering (LM 32)
- Mechanical engineering (LM 33)
- Naval engineering (LM 34)
- Environmental engineering (LM 35)
- Mathematics (LM 40)
- Medicine (LM 41)
- Mathematical modelling for engineering (LM 44)
- Sport and leisure management (LM 47)
- Psychology (LM 51)
- Material engineering (LM 53)
- Chemistry (LM 54)
- Cognitive sciences (LM 55)
- Economics (LM 56)
- Sport science for prevention and rehabilitation (LM 67)
- Sport science (LM 68)
- Industrial chemistry (LM 71)
- Geology (LM 74)
- Environmental and land sciences (LM 75)
- Environmental and cultural economics (LM 76)
- Geography (LM 80)
- Statistics (LM 82)



All Master's degree programme belonging to equivalent LS (D.M. 509/1999) and foreign Master's degree programme in related areas of study will be accepted.

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** in order to know the required level and accepted certificates).

Candidates can be exempted from having the IELTS 5.0 certificates (or substitutes) by providing a stamped declaration/certificate written on official letter headed paper, which certifies that:

- a) They have attended at least one school year at a high school in which the medium of instruction is English. In this case the school must issue a certificate stating that "The medium of instruction is English".
- b) They have a foreign high school diploma which is recognized by the Italian Ministry of Education and Research as equivalent to the Italian high school diploma (diploma di maturità), or they have a higher qualification awarded by a higher education institution in which the medium of instruction is English.

In both cases the school must issue a certificate stating that "The medium of instruction is English".

With regard to points "a" and "b", please note that diplomas awarded by high schools (or higher education institutions) in the USA, UK, Canada, Ireland, Australia and New Zealand do not need to include the phrase "The medium of instruction is English".

**Table n.2 – English language certificates**

Examination Board	Certificate	Minimum score accepted
IELTS <a href="https://www.ielts.org/">https://www.ielts.org/</a>	IELTS (International English Language Testing System) – Academic or General training	5.0
Cambridge English Language Assessment <a href="http://www.cambridgeenglish.org/exams/">http://www.cambridgeenglish.org/exams/</a>	Cambridge English: PRELIMINARY (PET)	Pass with Merit
	BULATS	Reading & Listening: overall score 54 Writing & Speaking: at least one B2 in one of the tests
Cambridge Assessment English <a href="http://www.cambridgeenglish.org/exams-andtests/qualifications/general">http://www.cambridgeenglish.org/exams-andtests/qualifications/general</a>  <i>formerly known as:</i> Cambridge English Language Assessment <a href="http://www.cambridgeenglish.org/exams">http://www.cambridgeenglish.org/exams</a>	All certificates	Cambridge English Scale: score 154
	BULATS	Reading & Listening: overall score 54 Writing & Speaking: at least one B2 in one of the tests
ETS <a href="http://www.ets.org/toefl">http://www.ets.org/toefl</a>	TOEFL - ibt	62
	TOEFL - cbt	210
	TOEFL - pbt	547
	TOEIC	Listening: 360; Reading: 350; Speaking: 150; Writing: 140
Pearson <a href="http://pearsonpte.com/">http://pearsonpte.com/</a>	Pearson Test of English Academic	51
LCCI – EDI / Pearson <a href="http://qualifications.pearson.com/en/qualifications/lcci.html">http://qualifications.pearson.com/en/qualifications/lcci.html</a>	JETSET	JETSET Level 4 Reading, Writing, Listening e Speaking: pass with overall score ("total") "Distinction"
Trinity College London <a href="http://www.trinitycollege.com/">http://www.trinitycollege.com/</a>	Trinity ISE I	Reading, Writing, Listening, Speaking: pass with overall result "Distinction" in all the tests



**ART. 4  
Admission and Selection Procedures**

The Specializing Masters Programme is open to a maximum of **25** participants.

Application to the Specializing Master's Programme must be made by completing the on-line application form available on the Politecnico di Torino website:

[https://didattica.polito.it/master/sports\\_engineering/2019/how\\_to\\_apply](https://didattica.polito.it/master/sports_engineering/2019/how_to_apply)

Application forms must be submitted within:

- **June 15<sup>th</sup>, 2018** at 11:59 a.m. - Italian time

**ALL** the following supporting documents must be upload to the application form on Politecnico di Torino website (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 Legislative Decree no. 196/2003);
3. English 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: official transcript(s), by 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 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 Master's degrees**.  
The self-certification 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 Master's Programme [https://didattica.polito.it/master/sports\\_engineering/2019/application\\_deadline\\_and\\_documentation\\_required](https://didattica.polito.it/master/sports_engineering/2019/application_deadline_and_documentation_required));
  6. Motivation Letter: max 1 page (see the template available on the webpage of the Specializing Master's Programme [https://didattica.polito.it/master/sports\\_engineering/2019/application\\_deadline\\_and\\_documentation\\_required](https://didattica.polito.it/master/sports_engineering/2019/application_deadline_and_documentation_required)).

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

After the application deadline, the Selection's Commission will evaluate all the applications received and the attached documentation.

Selections will consist in the evaluation of:

- CV;



- education 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 the academic results: max 40 point for Master's degree's final grade or average grade, max 10 points for the number of years needed to get the final degree;
- Max 40 points for CV evaluation;
- Max 10 points for the motivation.

In case of equal score, any competitive sporting activity or the possession of a coaching certificate (level 2 or above, i.e. from *Istruttore Nazionale* to *Direttore Tecnico*) shall prevail.

The person responsible for the admissions administrative procedure is Mr. Alberto Pusceddu (Head of the Specializing Master's 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's Programme's website:

- applicants admitted to the Specializing Master's programme;
- applicants on reserve list.

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

Please note that candidates who have not yet obtained the Master's degree will be provisionally accepted. In case they will not obtain the degree within the enrollment deadline they will not be admitted to the programme (approximately in the middle of September 2018).

#### **ART. 6 Enrollment**

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 Master's Programme.

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 Master's Programme requires the participants a full time commitment. Attendance to the activities is mandatory for at least 75% of the Programme.

Absences will be allowed up to a maximum of 25% of total classroom hours. Absences for more than 25% of total classroom hours will lead to exclusion from the Specializing Master's Programme.

Withdraw from the Programme must be put in writing.

Detailed rules about the exams will be provided during the opening day.



It is not possible to be enrolled in a Specializing Master's 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 and/or an oral evaluation test. At the end of the Programme the final presentation (dissertation of the thesis prepared during the internship) will allow to assess the student's skills.

### **QUALIFICATION**

After completing the programme, participants who have regularly attended the activities and reached the total amount of 60 ECTS required for graduation, will be awarded the "Sports Engineering" 2<sup>nd</sup> level Specializing Master's diploma by Politecnico di Torino. The diploma will be issued in Italian.

### **ART. 8**

#### **Participation and enrolment fee**

The participation fee is 7.000,00 Euro (five thousand/00) + an enrolment fee (enrolment revenue stamp + premium for accident insurance) to be defined within the enrolment deadline; the total amount shall be paid to Politecnico di Torino according to the following installments:

- 1.000,00 Euro (one thousand/00) within the deadline which will be defined by Politecnico for participants to accept the offer for the Specializing Master's Programme;
- 3.000,00 Euro (three thousand/00) + an enrolment fee at the time of enrollment
- 3.000,00 Euro (three thousand/00) as balance payment after six months

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

The participation fee paid by the participants to accept the offer for the Specializing Master's 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 programme will not be activated, which happens only if the minimum number of participants required will not be reached.

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

The programme will start only if the minimum number of 15 participants is reached.

FOR ANY INQUIRY OR ADDITIONAL INFORMATION PLEASE CONTACT:

Office of Specializing Master's Programmes and Lifelong Learning

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

Email: [master.universitari@polito.it](mailto: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 seat 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**

**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/](https://www.swas.polito.it/dotnet/albo_online/). The same can be found on <https://didattica.polito.it/master/>.