



POLITECNICO
DI TORINO



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Call for applications
for the 2nd level Specializing Master's programme in

“Manufacturing 4.0”
(2nd edition)

offered in apprenticeship format
(Art. 45 – D.Lgs. n. 81/2015)

Academic Year 2019/2020

(Annex “A”- Annex “A”- Rector's Decree no. 244/2020)

Politecnico di Torino
Corso Duca degli Abruzzi, 24 – 10129 Torino – Italia



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INIZIATIVA CO-FINANZIATA CON FSE



Art.1

(Programme overview)

The 2nd level Specializing Master's programme in Manufacturing 4.0 is offered by Politecnico di Torino, in accordance with D.M.270/2004, for academic year 2019/2020.

The Programme Coordinator is Luca Iuliano, professor at the Department of Management and Production Engineering (DIGEP) of Politecnico di Torino.

The duration of this 2nd level Specializing Master's programme is 2 years for a total of 72 ECTS.

Industry 4.0, considered as the fourth industrial revolution, is a term to describe a world in which machines interact and respond intelligently to the physical environment. It is the next phase in the digitization of the manufacturing sector and will have a deep impact on four main clusters of technologies:

- data, computational power, and connectivity (big data, the Internet of Things IoT, and cloud technology);
- analytics and intelligence (digitization and automation of knowledge work, advanced analytics);
- human-machine interaction (touch interfaces, virtual and augmented reality);
- digital-to-physical conversion (additive manufacturing i.e. 3D printing, advanced robotics e.g. human-robot collaboration, energy storage and harvesting, Machine-to-Machine)

The partner's companies, deeply involved in the Italian Industry 4.0, require young, highly motivated recent graduates in engineering that, through this 2nd level Specializing Master's programme, will become highly skilled engineers in the techniques of manufacturing engineering and its related technologies.

The Manufacturing 4.0 programme will provide effective careers for managers who can meet challenges in a rapidly changing global manufacturing industry with particular attention on technical as well as organizational and managerial skills.

A project proposal for this 2nd level Specializing Master's programme will be submitted for funding to Regione Piemonte in the framework of a specific regional call for proposals (Apprendistato di Alta Formazione e di Ricerca (Art. 45 - D. Lgs. n. 81/2015) – Aggiornamento dell'Avviso pubblico approvato con Determinazione n. 537 03/08/2016, Deliberazione della Giunta regionale n. 37-3617 del 11/07/2016 e n. 18/6767 del 20/04/2018" di cui alla D.D. n. 1486 del 17/12/2018).



In accordance with the above mentioned call for proposals, selected candidates will be hired by the partner companies and upon completion of the programme they will attain a 2nd level Specializing Master's diploma.

The partner companies have undertaken to recruit at least nineteen apprentices.

More information on the learning objectives, programme contents and possible career opportunities is available on the website of the 2nd Level Specializing Master's programme in Manufacturing 4.0 at: https://didattica.polito.it/master/manufacturing_4_0/2019/at_a_glance

Art. 2

(Educational objectives, learning contents and organization of the activities)

This Specializing Master's programme is an experiential learning path which combines educational activities at Politecnico and on-the-job training at the company's premises.

The 2nd Level Specializing Master's programme is organized as follows:

- 400 hours of training activities at Politecnico di Torino (classroom – laboratory – lecture- business case);
- 1100 hours of training activities, at the partner company, described below:
 - 100 hours focused on course contents
 - 700 hours related to the Project Work
 - 300 hours of self-learning activities

Table n.1 – Organization of the courses

COURSE	Training activities	Training activities (hours)	Training activities (hours)
	ECTS	Politecnico	Company
INDUCTION	4	40	0
DIGITAL TRANSFORMATION	3	30	0
INDUSTRY 4.0 ENABLING TECHNOLOGIES	18	160	50
APPLICATIONS FOR PRODUCT TRANSFORMATION	19	170	50
Project Work	28	0	700
TOTAL	72	400	800

The 2nd level Specializing Master's programme will start on May 2020 and will last 2 years and the apprentices will be recruited by the partner companies at the same time.

The official language of the programme is English.



Art. 3

(Admission requirements)

The 2nd level Specializing Master's programme in Manufacturing 4.0 is intended for graduates who have to meet the following compulsory requirements:

- to be under the age of 30 on the date of recruitment;
- to have been awarded a full degree (Master 's degree/Laurea specialistica/Laurea magistrale) in one of the following areas of study within the deadline for enrolment in the 2nd Level Specializing Master's programme:
 - o LM-20 (Aerospace and Astronautic Engineering)
 - o LM-21 (Biomedical Engineering)
 - o LM-25 (Automation Engineering)
 - o LM-28 (Electrical Engineering)
 - o LM-29 (Electronic Engineering)
 - o LM-30 (Energy and Nuclear Engineering)
 - o LM-31 (Management Engineering)
 - o LM-32 (Computer Systems Engineering)
 - o LM-33 (Mechanical engineering)
 - o LM-44 (Physics of Complex Systems)
 - o LM-53 (Material engineering).
- High-level English language skills.

The Office of Specializing Master's Programmes and Lifelong Learning will examine the documentation received within the deadline. Only non-Italian university degrees will be evaluated by a specific board chaired by the Programme Coordinator of the 2nd Level Specializing Master's programme in Manufacturing 4.0.

If the application satisfy the admission requirements and is complete with mandatory supporting documents (art. 4) it will then be forwarded to the partner companies for their own selection process (art. 5).

The applications that do not meet the compulsory requirements will be excluded by the selection process



Art. 4

(Admissions, deadlines and supporting documents)

Applications for this 2nd Level Specializing Master's programme must be submitted on-line by filling out the Admission Request Form available on Politecnico di Torino website (*Apply@polito*) at the following link: https://didattica.polito.it/master/manufacturing_4_0/2019/at_a_glance

Applications by e-mail, fax or mail will NOT be considered.

Admission Request Forms must be submitted within the following deadline:

- April 16th, 2020 at 02:00 p.m. - Italian time

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

MANDATORY DOCUMENTS

- valid identification document (passport for extra-EU applicants)
- curriculum vitae (cv must include the authorization to the processing of personal data – in compliance with Legislative Decree no. 196/2003);
- Admission Request Form
- Exam transcripts for both Bachelor's and Master's degree programmes:
 - for applicants with degree(s) awarded by a **non-Italian University or by a private Italian University**: official transcript(s), issued by the University of origin, produced on letter 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, admitted students must provide 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 students can provide the "Diploma Supplement" instead of the "Dichiarazione di Valore".
 - or
 - for applicants with degree(s) awarded by an **Italian Public University**: self-certification ("dichiarazione sostitutiva di certificazione" - Art. 46 DPR 28 December 2000, n. 445) in which the students declare to have obtained both a Bachelor's degree and a Master's degree. The self-declaration must include: the name of degree programme, the name of the University, the date of degree conferral, the



graduation final grade, the full list of all the exams passed and the grades obtained (this information is required for both degrees). Upon enrolment admitted students must provide the original copy of the self-certification, 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.

OPTIONAL DOCUMENTS

- Cover letter
- Reference letter
- Italian language certificate (only for non-Italian applicants)
- English language certificate
- Residence Permit (only for non-EU citizens)

Giving false information, providing fake certificates and failing to attach even one of the above mandatory documents will result in the exclusion from the selection process.

Art. 5

(Partner companies selection process)

The partner companies will evaluate the applications which meet the compulsory requirements (*Art. 3 "Admission requirements"*), reserving themselves the right to contact only the candidates who meet their internal selection criteria. The selected candidates will be hired by the partner companies within the meaning of ex-art. 45 of D. Lgs 81/2015.

A good knowledge of the English language is considered an essential prerequisite for the final selection. The partner companies will assess the candidate's level of proficiency.

During the entire application period the partner companies can contact the applicants who satisfy both the compulsory requirements (art.3) and the corporate selection criteria.

Partner companies could refer to recruitment agencies authorized to collect and process personal data relevant to the selection criteria applied in the present call.

For further information refer to the website of the 2nd level Specializing Master's programme in Manufacturing 4.0: https://didattica.polito.it/master/manufacturing_4_0/2019/at_a_glance



Art.6

(Selection outcomes)

At the end of the selection process carried out by the partner companies and/or by recruitment agencies authorized to collect and process personal data, Politecnico di Torino will publish the list of the candidates admitted to the programme on the online University Bulletin and on the “Selection outcomes” section of the programme website:

https://didattica.polito.it/master/manufacturing_4_0/2019/at_a_glance

Art.7

(Enrolment)

The candidates who have been admitted to the programme will have to enrol at Politecnico di Torino before the starting date of the 2nd level Specializing Master’s programme. Further information about enrolment will follow by e-mail.

Admitted candidates are not allowed to be simultaneously enrolled in another Specializing Master’s Programme nor in any other university programme. Students enrolled in another programme must finish or suspend their career before enrolling at the 2nd Level Specializing Master’s Programme in Manufacturing 4.0.

Delivery of documents

After the enrolment procedure has been completed, the selected candidates will have to hand over the original documentation uploaded in the application phase to the Specializing Master Office, within the starting date of the Master’s programme (please refer to art. 4).

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” relative to the degree, awarded by the Italian representation in the country in which the qualification or Statement of Comparability issued by the CIMEA Center was issued.

If the Master’s degree was awarded by a European university, participants can turn in the “Diploma Supplement” instead of the “Dichiarazione di Valore”.

Those who will not have the “Dichiarazione di Valore”/“Statement of validity” or the “Diploma Supplement”, can enrol in the Programme with a “provisional” status, but they will have to deliver the document by 6 months after the beginning of the academic activity.



If the aforesaid document won't be delivered within the deadline stated before (by 6 months after the beginning of the academic activity), the student will be unable to complete actions of career, until the document is actually delivered.

Non-EU nationals are required to comply with the norms on entry visa and residence permit and will have to submit:

- Visa for "D" type study for participants who are no – EU citizens and reside abroad;
- Valid residence permit for non-EU citizens residing in Italy.

The Administration reserves the right to carry out checks on what has been declared in the substitutive certification declarations (pursuant to Article 46 of Presidential Decree 28 December 2000, No. 445).

If the control reveals the non-correspondence of the content of the declaration, the position of the declarant shall be withdrawn from the ranking list.

Art.8

(Participation fee)

The participation in the 2nd level Specializing Master's programme is free of charge for admitted students, as provided for by the regional call "Apprendistato di Alta Formazione e di Ricerca (Art. 45 - D. Lgs. n. 81/2015).

In accordance with the "Tuition Fee Guide" of Politecnico di Torino, admitted students exempted from paying the participation fee, have to pay € 19,53¹ detailed as follow:

1. Premium for accident insurance: € 3,53
2. Enrolment revenue stamp: € 16,00

The issue of the diploma of the 2nd level Specializing Master's programme in Manufacturing 4.0 requires the payment of a revenue stamp.

¹The insurance premium may change due to new rules adopted by Edisu and to the stipulation of an insurance contract



Art. 9

(Qualification)

Upon successful presentation of the student's Project Work, Politecnico di Torino will confer the 2nd Level Specializing Master's diploma in Manufacturing 4.0.

Participants are required to:

- reach the total amount of 72 ECTS;
- attend at least 75% of Politecnico total classroom hours²

The issue of the diploma of the 2nd level Specializing Master's programme in Manufacturing 4.0 requires the payment of a revenue stamp.

Art. 10

(Competent office)

The competent office is the Office of Specializing Master's Programmes and Lifelong Learning of Politecnico di Torino, Tel. 0110905713 – e-mail: master.apprendistato@polito.it

Art.11

(Person responsible for the administrative procedure)

The person responsible for the administrative procedure is Mr. Alberto Pusceddu (Head of the Specializing Masters Programmes and Lifelong Learning Office).

Art. 12

(Privacy policy)

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 the purposes of the institution: for this reason, personal data are shared with various

² Absences must be communicated soon by e-mail to master.apprendistato@polito.it and to the person in charge of the company human resources



offices within the University (to carry out the activities within their competence) without further notification to the applicants.

The personal data included in the on-line application form are also forwarded to the partner companies by Politecnico di Torino for selection purposes.

In order to pursue the “Bando in Manufacturing 4.0” candidates agree that the Politecnico di Torino shares their personal data with the partner companies.

These organizations will use the information provided as autonomous controllers of personal data.

For the Politecnico di Torino the privacy policy is available at: <https://didattica.polito.it/privacy>

For the partner companies privacy policies are available at the following links:

Egea New Energy S.p.a. <http://www.egea.it/privacy-e-cookies/>

Egea Produzione e Teleriscaldamento S.r.l. <http://www.egea.it/privacy-e-cookies/>

Manitowoc Crane Group Italy S.r.l. <https://www.manitowoccranes.com/it-IT/privacy-policy>

Michelin S.p.a. <https://jobs.michelin.it/it/Privacy-policy>

M.T.M. S.r.l. <https://brc.it/privacy/privacy.pdf>

Saint Gobain Sekurit Italia S.r.l. <https://www.saint-gobain.it/informativa-privacy>

Tosa S.p.a. <https://www.tosagroup.com/privacy-policy/>

Electro – Parts S.p.a. will provide the privacy policy directly to candidates.

Art. 13

(Access to documents)

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

Art. 14

(Final provisions)

Politecnico di Torino 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.

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/manufacturing_4_0/2019/at_a_glance

Torino, 9 march 2020