# International Exchange Guide for Management Engineering Students

Document issued by the Management Engineering Internationalization Commission

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### 1 Introduction

Politecnico di Milano – as part of its internationalization strategy - offers students different exchange and international mobility opportunities, from the traditional Erasmus program (recently re-launched as Erasmus+), to Double Degrees in collaboration with prestigious foreign universities, to special programs (e.g. ATHENS, UNITECH, Alliance4Tech, GLOBALE3, etc.). The details of all the mobility programs are available on the Polimi website.

The Management Engineering degree program strongly supports the University strategy, by offering exchange and mobility programs to over 350 students per academic year at 200 universities worldwide, resulting as one of the courses with the highest level of exchanges within Politecnico.

Given these relevant numbers, the Course of Study Council (CCS) in Management Engineering has appointed a team (**Internationalization Commission**), in charge of managing the evaluation procedures, as well as planning and validating the mobility programs. The Commission carries out its activities under the mandate received from the CCS, in collaboration with the office in charge of international mobility programs (**International Mobility Unit**) that manage all administrative procedures, in compliance with the guidelines set by the School of Industrial and Information Engineering.

The Commission is comprised of six members, all CCS professors, organized in "Geographical Areas" and in "Subject Areas" of expertise:

- Sergio Terzi, Commission Coordinator, <u>"Special Programs"</u> (e.g., Double Degrees, ATHENS, UNITECH, Alliance4Tech, IdeaLeague, etc.) and <u>China</u> Geographical Area Contact Person, and also Discipline Area Contact Person, <u>sergio.terzi@polimi.it</u>, (2803.
- Cristina Di Stefano, **France** Geographical Area Contact Person, and also Discipline Area Contact Person, **gristina.distefano@polimi.it**.
- Melisa Lucia Diaz Lema, <u>Latinamerica</u> Geographical Area Contact Person and also Discipline Area Contact Person, <u>Fellisalucia.diaz@polimi.it</u>.
- Miriam Manchin, <u>Belgium, Ireland, Netherlands and United Kingdom</u> Geographical Area Contact Person and also Discipline Area Contact Person, **Fellow** miriam.manchin@polimi.it.
- Jacopo Manotti, <u>Germany and Switzerland</u> Geographical Area Contact Person and also Discipline Area Contact Person, <u>Fellipacopo.manotti@polimi.it</u>.
- Elisa Negri, **Japan, India, South Korea and Spain** Geographical Area Contact Person, and also Discipline Area Contact Person, **Formula Spain** Geographical Area Contact Person, **47** elisa.negri@polimi.it, **4** 3969.
- Giulia Piantoni, <u>Finland, Norway and Sweden</u> Geographical Area Contact Person, and also Discipline Area Contact Person, <u>Fig. giulia.piantoni@polimi.it</u>.

<sup>&</sup>lt;sup>1</sup> This document is a work in progress. For any feedback, comments, and suggestions on this guide, please email the Internationalization Commission Coordinator, Prof. Sergio Terzi: <a href="mailto:sergio.terzi@polimi.it">sergio.terzi@polimi.it</a>. This guide adapts to the specific context of the CCS of Management Engineering the broader regulations settled by the School of Industrial and Information Engineering, available at the following <a href="mailto:link">link</a> (in Italian only).

- Brendan Sullivan, <u>Austria, Africa, Middle East, North America and Oceania</u> Geographical Area Contact Person, and also Discipline Area Contact Person, <u>Formula Disciplinal Area Contact</u>
- Daniele Valenti, <u>Baltic Countries, Eastern Europe, Denmark, Portugal</u> Geographical Area Contact Person, and also Discipline Area Contact Person, <u>Fell daniele.valenti@polimi.it</u>.

### 2 The International Exchange and Mobility Process

Whatever the international exchange of interest to a student (Erasmus, Double Degree, special programs), the process does not change, and it is structured into four phases (Figure 1): (i) application to a mobility call and selection/admission, (ii) preparing the exchange (with the study plan processing), (iii) exchange period abroad, (iv) validation of the results achieved during the exchange period, upon the student's return.

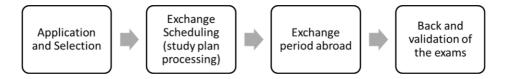


Figure 1 – International mobility process phases

### 2.1 Application to Mobility Calls, selection and admission

Mobility programs are managed by specific offices (through the International Mobility Unit operative structure). Each program is sponsored through a proper call, with its related deadlines.

The application to a mobility program is based on the rules described in the specific call. Approximately, the participation in a mobility call must take place a year prior to the period in which the student intends to go abroad. More information about the programs and their calls can be found <a href="https://example.com/here">here</a>.

The candidates' selection takes place based on merit points, as indicated in each call (usually inspired by the concept of "grade", a synthetic index able to evaluate the student's career, both in terms of time and achieved results). The overall responsibility of the selection and admission process is in the hands of the international mobility office. The Commission then adds the following rules for the selection of candidates admitted to the exchange programs:

- For students enrolled in the second year of BSc degree who intent to perform their mobility period during the third year of the BSc degree:
  - The inspiring principle behind the selection is to give access to the exchange to deserving students, able to schedule their activities and to keep on track with their studies, or who do not show consistent delays in their learning path. Hence, all the students that have acquired an average number of credits per semester equal or higher than 20, starting from their enrolment date, are admitted to the exchange project, whatever their average.
  - It is not possible to start an exchange abroad before the second year. In any case, the start for an international mobility is subject to the rules established by Politecnico di Milano. For further details, please see the international mobility call.
- For students enrolled in the third year of the BSc degree, intending to perform their mobility period during the future MSc degree:
  - As said before, all the students that have acquired an average number of credits per semester equal or higher than 20, starting from the enrolment date, are admitted to the exchange project, whatever their average.

- Furthermore again, to respect the principle previously described it is required that the student's academic performance is such as to give reasonable assurance that the student will meet all the requirements for admission to the next level of study, as set by Politecnico di Milano Admission Office. The Commission will evaluate at its discretion the entire history of the candidate, with the aim of assessing, with a certain level of confidence, the existence of this reasonable expectation, by verifying study times and credits earned. The opportunity to participate in the exchange program during the MSc degree will then eventually depend on the fulfilment of all enrolment requirements that will need to be accomplished by the Politecnico di Milano deadlines and, in any case, before the start of the student's mobility.
- The actual start of an international mobility is subject to the rules established by Politecnico di Milano. For further details, see the international mobility call.
- For students already enrolled in the MSc degree who intend to perform the mobility period during the MSc degree:
  - The CCS of Management Engineering defined very strict parameters to be admitted in the MSc program, evaluating the entire history of the candidate and his/her achievements, following merit-based criteria. Hence, a strong a-priori selection is applied during the admission process to the MSc degree. However, during the mobility call selection, the International Commission has the right to carefully assess the history of the candidate, taking also into consideration his/her most recent achievements (positive, negative and/or null) at Politecnico di Milano, with the aim of awarding the best students, while considering at the same time the student profile normally required by the partner universities selected by the student in his/her application to the mobility call.
  - Because of the timing of the call, due to its selection process and scheduling, those
    who participate in the call while already enrolled in the MSc degree, can perform
    their mobility period starting from the second year of the MSc degree. As said before,
    the actual start for an international mobility is subject to the rules defined by
    Politecnico di Milano. For further details, see the international mobility call.

At this stage – for each type of mobility – the Internationalization Commission aims at selecting suitable candidates for each path. The guiding selection criteria is related to merit: among the applications received, top students (defined by number of credits earned, academic achievements, timing, and study plan) should be given precedence. The Commission also has the mandate to ensure the consistency of the course of studies, as defined by the CCS, to produce competent graduates, in line with the Engineer profile that the ME CCS intends to graduate. Finally, the Commission has the duty to take adequately into account the prestige and the expectations of the international partners to which they will consequently direct the best students.

The indications above are also used to assess the candidates for other exchange programs, that are subject also to the requirements established by individual calls. Then, applicants that meet the criteria will be included in the ranking and will have the option of selecting the exchange location. The criteria with which the list of candidates are assigned a position in the ranking and a destination are established by each mobility call and the process is managed by the international mobility unit. Candidates who have accepted the destination assigned to them in the selection process, will be invited to draw up a Study Plan, according to the recommendations and the rules as follows. The application and selection processes are described in the following Figure 2.

		نين
Student	International Mobility Offices	CCS Gestionale International Commission
2) Participates to the mobility announcement	1) Emits the mobility announcement	
	3) Evaluate the define a ı	
4) Accepts the location where he/she results to be assigned.		

*Figure 2 – Synthetic scheme of the application and selection sub-process* 

WEBPAGE ON THE MOBILITY PROCESS

WEBPAGE ON THE MOBILITY INFO SESSIONS

FAQ

Useful links on how to take part to the Mobility Call

### 2.2 Scheduling the Mobility Exchange

Once admitted to an exchange program, it is up to the student to compile a Study Plan that is compatible with the Management Engineering degree (BSc or MSc), by following the International Commission's directions. The Study Plan Commission, established for both BSc and MSc degrees, must approve the plan too.

In order to support the selected students in the best possible way, the Management Engineering CCS has organized the duties of the International Commission members by Geographical Area. Each member acts as **Coordinator of a specific Geographic Area**. Each Coordinator is in charge of evaluating the courses proposed by the student who wishes to study abroad, approving in advance the equivalences between the courses that will be taken abroad and the courses in the ME study plan prepared by the student. The student is required to take part in the mobility by scheduling only courses equivalent to those included in the Study Track (PSPA – Piano di Studi Preventivamente Approvato) in which the student is enrolled and is required to choose these courses so as to respect the constraints imposed by the Academic Regulations for that Study Track (Major). If deemed necessary, in assessing the equivalences, the Geographical Area faculty advisor may direct the student to one or more **Disciplinary Area** 

**experts**, in order to have their opinion on certain course contents. The Disciplinary Area expert is identified in one of the members of the Internationalization Commission, that therefore operates as a dedicated task force.

Unlike what happened in the past - and still happens in other CCS - <u>it is not necessary to refer</u> to the specific Polimi professors, teaching the courses that students intend to enrol in when abroad; the evaluation of the course contents is left entirely to the members of the Commission, organized as Disciplinary Area experts following the tables in section 4 of this Guide. The details of the planning process are described in the sections below.

### 2.1.1 The exchange scheduling process and Study Plan preparation

The preparation of the mobility Study Plan has specific characteristics tied to whether the exchange is done during the BSc or the MSc degree. The double degree programs have additional requirements that must be taken into consideration, as do other special programs (e.g. TIME, UNITECH, Double Degrees, Alliance4Tech, GLOBALE3, etc.). Please read below for further details.

To facilitate the work of the CCS Internationalization Commission and to make the scheduling process (described in Figure 3) faster and more effective, the student is required to draw up a first hypothesis of Study Plan, in accordance with the chosen Study Track (PSPA) and according to the following rules (in particular regarding the maximum number of credits that can be replaced with foreign exams); this first proposal will be discussed later with the Geographical Area Coordinator. The student is asked to research and carefully study the educational offer of the host university, in order to identify a coherent set of courses, which require equivalences with the Polimi courses. In this search, the student can also refer to the list of courses that have been approved in the past for a specific institution.<sup>2</sup> available on-line in the international mobility application. However, it is important not to only take into account courses **previously taken and approved**; it often happens that courses accepted in the past for other students no longer exist or have been modified significantly in contents. Also, in some locations where students have gone in the past, the partner university's course offerings may result in being much broader than those previously selected by Politecnico di Milano students. In sum, experience shows that the host institution's website is the most updated and reliable source of information, to build the mobility study plan.

On the SoM <u>website</u>, specific information sheets are also available for the various exchange destinations, from which it is possible to gain further information on the courses and more. The page is regularly updated, therefore, it is suggested to view it periodically, to check for any additions.

In most cases, if the Study Plan has been well planned, the process resolves in a simple and quick interview with the Geographical Area Coordinator, who approves in advance the proposed plan (by signing the so-called Learning Agreement, a formal document which helps plan the exchange). If the Geographical Area Coordinator is not able to assess the equivalences with some exams, the student is sent back to another faculty member (Discipline Area Expert). The Discipline Area Expert - still a member of the Commission – evaluates the content of the course/s proposed by the student and – where appropriate – gives the student a first confirmation of the course equivalency. This activity can be performed asynchronously and through electronic media (e.g. e-mail), especially for situations (plans and/or approvals) that are simple and straightforward.

<sup>&</sup>lt;sup>2</sup> It is possible to look at the list of the courses on the Online Services in the International Mobility section > Course archive validated within international exchange Programmes. For better search results, it is recommended to not activate the filter on the specific Study Programme, but to leave the filter on 'all programmes', while filter on the School and the exchange program of interest. In this way, you will be able to see the list of exams offered at partner universities and the corresponding courses recognized at the Politecnico di Milano. This tool may help you choose a destination, but please note that the information provided is purely indicative as the courses offered by both universities may vary.

Once the student has collected course equivalencies, they asks the Geographical Area Coordinator for the final check and approval of the Learning Agreement, that is the official document that allows the student to begin the exchange, being an educational contract with the host institution. Starting from April 14, 2022, it is no longer possible to fill in **the paper version** of the Learning Agreement, but it is currently managed through the new **Online Learning Agreement application (OLA)**. All the students selected for an international exchange have to access the Online Services > International Mobility for Study > My Mobility and fill in their Online Learning Agreement (OLA). Students are entitled to access and complete the OLA from the day they are nominated to the host institution. At the following <u>link</u> students can access the Guide including details for using the OLA application and find out how and when to complete the OLA.

To facilitate the management of the process, the student is asked to prepare appropriate documentation, following the template posted on the Management Engineering website (Format Dossier for Exchange Programs>INTERNATIONAL EXPERIENCES>GET READY). This dossier is needed to manage the different course equivalency procedures and it is required that the student fills it out properly, then using it throughout the process.

#### 2.1.1.1 Exchange Scheduling Process: timing and deadlines

The definition of a Study Plan that is consistent and aligned with the regulations and the requirements of several university bodies is inherently a complex activity, that requires attention, time and effort, but it opens the door to a human, intellectual and professional experience that is no doubt going to be interesting and rewarding. In short, the time and energy spent to draw up a proper plan is worth the experience abroad!

The student is required to study carefully his/her exchange project, by considering that it must abide by legal and bureaucratic requirements (in Italy a degree is a legal title, and this requires to abide by rules defined by the State), that must be strictly followed. Politecnico, in all its operating units, both technical and academic, aims at ensuring a profitable experience, in compliance with the existing limitations. Everyone involved is required to operate both with flexibility and rigor (tied to the bureaucratic process that cannot be avoided).

For all these reasons, the time required to instruct this stage of the process can be long, and may actually take months. The documents must be completed and submitted before departure. Given the large number of students, it is necessary to have strict deadlines, which – even if not always totally met – allow for the process to flow in the appropriate way.

In the process, some of the actors (professors and researchers) involved are taken by many other institutional activities (teaching, meetings, projects, periods abroad, etc.), so their agendas are often very busy. For this reason, students must not show up at the last minute and cannot expect to solve complex issues in a few minutes. In peak periods, it is not uncommon that a faculty member is not able to receive a student before 2-3 weeks. The International Commission is organized in a task force equipped with all the necessary skills, although composed by people in charge of many other duties. Hence, it is very important that the student starts the process in a timely fashion and avoids last-minute situations. For each mobility call the timeline is more or less the following (as it changes on a yearly base, this information should be considered approximate and useful to provide a broad idea):

- November-January: the first call opens, and students apply by the deadline<sup>3</sup>
- January-March: Ranking of candidates that meet the requirements

<sup>3</sup>Starting from a.y. 2021-2022, a second mobility call was activated. The timeline for a second call will be different, and approximately as follows: a) April/May: the call opens, and students apply by the deadline b) May/July: Ranking of candidates that meet the requirements c) August/November: definition of the study plan to be taken abroad d) Up to December/Before departure: formalization and finalization of the OLA.

- March-June: definition of the study plan, including the courses to be taken abroad
- Up to September-Before departure: formalization and finalization of the Online Learning Agreement

Seeing that deadlines vary significantly from one mobility call to another, and that partner institutions have very different deadlines for submitting the required documents, students are prompted to refer to the Mobility Call they have applied for, reading it carefully and then, once they have obtained a destination, respecting all its deadlines. The Double Degree call will be included in the Mobility call, with its deadlines. Students must therefore refer to that document. For most of the locations and mobility projects, the International Mobility Unit requires that an OLA is compiled and delivered by the student. Experience shows that sometimes the student may have some difficulties to define the complete and final list of courses with all the equivalences confirmed. Usually, this is not a problem: the OLA application in fact allows modifications to the LA, until the Area Coordinator approves it definitively before departure. Any changes can also be made later but only after arrival at the host university<sup>4</sup>.

#### 2.1.2 Building the Study Plan for a mobility performed when pursuing a BSc Degree

Generally, students spend one semester abroad, earning 30 credits. A student cannot earn credits related to a course already attended in Milan, for which he/she has yet to take the final exam. A BSc student cannot study abroad before his/her second year (more typically, given the timing of the calls for mobility, students go abroad during their third year). For courses characterizing each Major (sectors ING-IND/16, 17, 35, ING-INF/05) "strict" matches (in terms of content) must be found with courses taken at the host university. For courses not characterizing each path, a matching at the level of the subject area is acceptable, should it is not possible to identify a close correspondence.

As an indication, the equivalence of a 10 credits course (equivalent to 10 ECTS) is accepted in correspondence with a teaching load at the host university of at least 7.5 ECTS, that can be earned also by completing more than one course. For courses that are worth 5 credits, generally it is required that students complete 4 ECTS abroad. Therefore, when replacing a 30-credit teaching load with foreign exams, the teaching load at the host university must be comprised between 27.5 and 32.5 ECTS credits (and in a similar way, in proportion, for higher loads required by special programs). Additional interviews to complete the course work done abroad will not be allowed; the equivalences with foreign courses must be achieved as indicated above. For the Double Degree projects, the constraints of the specific exchange program apply (usually 120 ECTS abroad, 60 of which are to be recognized among the Italian ones).

### 2.1.3 Building the Study Plan for a mobility performed when pursuing a MSc Degree

With the a.y. 2021-2022, the Master of Science in Management Engineering has been redesigned, as described in the table below reported.

The new structure presents a well-defined first year and a highly structured second year, organized in 14 "Majors". Students – within the Study Plan - must choose one of these Majors. In drafting a comprehensive plan of the courses that will be carried out abroad, the consistency with the Major should be thoroughly maintained, requesting the recognition of exams/courses very close in content to those included in the Italian degree. This is particularly relevant for the first-year subjects, which can be converted with courses taught abroad as long as the content of the courses largely overlaps with the Italian ones, being the latter the essential and fundamental courses of the degree (in general, they are frequently taught in foreign schools)<sup>5</sup>.

<sup>&</sup>lt;sup>4</sup> If necessary, students can modify the OLA within 5 weeks from the arrival at the Partner university.

<sup>&</sup>lt;sup>5</sup> In order to ensure the interdisciplinary vocation of the MSc programme, at least 10 ECTS should be obtained through subjects that belong to disciplinary sectors (SSD) other than characterizing sectors (ING-IND 35; ING-IND

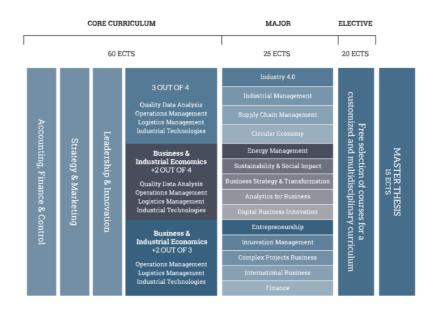


Figure 4 – Master of Science program structure synthetic scheme

The credits indicated in the plan as "Free" courses can be chosen – as per the degree requirements – among all the courses offered by Politecnico, as long as they are consistent with the program. To this aim, all of the educational courses of the MSc are considered valid, except for those already chosen before. For the recognition of the equivalences of these "Free" courses with foreign exams only a broad coherence is required, provided that students do not select courses that have already been completed in the past.

Given the new structure, the student is required to include in the mobility course schedule only courses that are equivalent to those in the Study Track (Major), in which the student is enrolled; he/she is also required to choose these courses respecting the constraints imposed by the Academic Regulations for his/her Study Track. If the student takes exams that do not meet the requirements of the Study Track he/she is enrolled in, these exams will be considered as "extra", thus they will not be used towards the completion of the 120 credits required to earn the Master degree<sup>6</sup>.

As for the Bachelor of Science, as an indication, the equivalence of a 10 credits exam (equivalent to 10 ECTS) is accepted in correspondence with a teaching load at the host university of at least 7.5 ECTS, that can be earned also by completing multiple courses. For courses that are worth 5 credits, generally it is required that students complete 4 ECTS abroad. Therefore, when replacing a 30-credit teaching load with foreign exams, the number of credits earned at the host university must be comprised between 27.5 and 32.5 ECTS (and in a similar way, in proportion, for higher loads required by special programs). **Additional interviews to complete the** 

<sup>17;</sup> ING-IND 16). This requirement derives from the general educational guidelines of Politecnico di Milano that ground on the so-called "T shaped" training model, whereby the Bachelor of Science is aimed at ensuring deep domain competence and the Master of Science is aimed at developing horizontal and broad competence. Exceptions to this are **exceptionally** given to Master's degree students who participate in international exchange projects (e.g. the Erasmus programme) and who are unable to meet this rule due to the exchange.

<sup>&</sup>lt;sup>6</sup> As regards courses that in most cases belong to different Laurea end/or previously approved student plan from the one in which the student is enrolled, but still count towards the credits required to obtain your qualification, their inclusion in the Plan must be approved by the Course Council. To enter them, select the icon with the red "Indipendent" trolley and in the bar that appears indicate the name of the course or the relevant code, which you can find in the Educational Rules – Regulations. The "Indipendent" Study Plan function makes it more flexible and easier to include courses in the plan. This can also be done whether the student has to select second-year exams for the first year and vice versa.

course work done abroad will not be allowed; the equivalences with foreign courses must be achieved as indicated above.

Generally, students stay abroad for one semester, earning the equivalent of 30 Italian credits. It is also possible to stay for a longer period, keeping in mind the indications below:

- If the student wishes to prepare his/her final thesis abroad, participation in programs lasting one year can be taken into consideration, but the number of credits earned abroad will still have to respect the constraints established by Politecnico di Milano (60 CFU, excluding those related to the thesis, must be completed at Polimi). Credits related to the thesis carried out abroad will not be directly transferred but will be earned only with the Polimi Graduation session. The thesis supervisor will have to be a Politecnico faculty member, while the professor that was the supervisor at the host university can result as cosupervisor, in which case he/she will send his/her evaluation in writing. For this reason, it is not possible to go on an exchange program solely for the purpose of pursuing the final thesis project.
- For students taking part in special programs that generally require spending a year abroad, the minimum number of credits to be acquired at Politecnico di Milano still remains
   60 (this does not include the final thesis work credits, just course credits). It is also still required that the student selects courses that are strongly aligned with the chosen Major.
- Students participating in Double and Dual Degree programs, must first of all abide by the double degree requirements. As a general rule, these agreements require that the students earns 180 credits (for a Master of Science in exchange), by selecting 60 credits at Politecnico di Milano and 120 abroad. From the perspective of the Italian degree, the student is required to select courses that are highly consistent with the chosen Major, by selecting 60 CFUs taken abroad that have a strict equivalency with the courses that are part of the chosen Italian PSPA (among these 60 CFU it is possible to consider the preparation of the thesis, corresponding to 15 Italian CFU).

Students who, when they first enrol, have transferred credits earned at another institution, will still have to complete **at least 60 credits at Politecnico di Milano** (these must be course credits and cannot include final thesis credits).

### 2.2 Period abroad

The proper exchange experience begins when students are abroad. The host university will welcome students in the best possible way. All the mobility projects (from Erasmus, to TIME, to Double Degrees) are based on the principle of welcoming the exchange students in the best possible way, and all the actors involved are available to make it the best experience possible. Of course, problems do exist and cannot be ignored, but must and can be taken care of. Below, a list of potential issues, with the first instructions on how to take action.

Sit.	Possible issues	How to manage them	
Α	One of the foreign exams	1) Promptly inform the Polimi professor	
	changed name.	(Geographical Area Coordinator). An email will	
		be enough.	
		2) Make the changes on the OLA application by	
		the first five weeks from the beginning of the	
		mobility.	
В	One of the foreign exams does	1) Inform the Geographical Area Coordinator	
	not exists anymore, but it is	immediately and, if needed (1.bis), contact the	

	possible to identify a new course equivalence for the same Italian course.	appropriate Discipline Area Expert, to show the contents of the new foreign course/s. The equivalence with the new course must be assessed. All this can be done simply by email. Be sure to keep all the information (e.g. emails, documents, etc.) so as to quickly solve the recognition of the exams upon your return, when you will meet with the Geographical Area Coordinator.
		2) Once the Area Coordinator has approved the change, modify the OLA. 3) Once the OLA has been modified, also proceed with the modification of the Study Plan. In the event that the Study Plan's submission window is closed, it will be necessary to submit request for a so called "istanza" to the Registrar's Office, through the Chatbot > University Career > Study Plan function by reporting the issue and the reason why you are requesting this change and attaching in support a copy of the email from the Geographical Area Coordinator in which the new course(s) and the modified OLA is approved. (If the OLA application does not immediately generate a new OLA that includes the changes
С	One of the foreign exams does	made, you can take a screenshot and attach that).  1) Promptly inform the Polimi Geographical Area
	not exists anymore, and there are no possible substitutes.	Coordinator. An email will be enough.  2) It is, then, possible to try to find a Polimi course, compatible with your Study Plan, that has similar/equivalent course/s at the host university. To obtain recognition of the equivalency, it is necessary to refer to the Geographic Area Coordinator, and to the Discipline Area Expert, if appropriate, following the procedure above. Be sure to keep all the information (e.g. emails, documents, etc.) so as to quickly solve the recognition of the exams upon your return, when you will meet with the Geographical Area Coordinator.  3) Once the Area Coordinator has approved the change, modify the OLA. Then, modify the Study
	V	Plan.
D	You cannot attend one of the foreign courses because of a relevant overlapping in the	When substitutes exist, please act as per situation B, described above.
	timetable.	When substitutes do not exist, please act as per situation C, described above.

Е	You cannot attend one of the	When substitutes exist, please behave as in	
	foreign courses because it is	situation B, described above.	
	held in a language that you do		
	not understand.	When substitutes do not exist, please behave as	
		in situation C, described above.	
F	Other difficulties	For all the other issues, it is best to immediately	
		notify the Geographical Area Coordinator at	
		Polimi and ask for advice on what to do.	
		The International Mobility Unit is also available	
		to help with any problems, especially the	
		bureaucratic ones.	

It may happen that you are not able to take all the exams abroad. It happens and it is not a big issue, you can always take the exam when you return to Italy.

### 2.3 Return and Validation of the Exams

Once your return, the validation of the exams is not an automatic process. You must upload in the online services, *International Mobility for Study> My mobility agreements:* the **final Online Learning Agreement** (it must be fully signed and include possible changes; it is essential for the validation of the exams taken at the host institution); the **Final Confirmation Letter** (the section Upon Departure must be filled out, signed and stamped by the host institution at the end of the mobility period); the **Document of Departure (travel proof) from the host Country**.

In addition, the host university must send to Politecnico di Milano the final certificate of the exams taken by the student abroad (the so-called **Transcript of Records**). It can be sent in the original paper version or in digital format (sent by the host institution directly or by the students only if provided with a certified digital signature or a verification code). This document is scanned and recorded by the appropriate office (International Mobility Unit) and uploaded on the Online services > My Mobility Agreements (IMU will write an e-mail to the students once done).

Once your ToR has been uploaded, you will have to make sure it is complete and correct, and then accept it. By doing so, your ToR will be final. Once uploaded in the system, the process requires that the student enter the Online services > International Mobility for Study > My mobilities > 2022 > Details > OLA and click on "Request validation" to let your mobility Referee know what courses you passed abroad and which ones you wish to validate (you may ask the professor not to validate one or more exams included in your ToR even though a correspondence with the Polimi teachings was included in your OLA). Here, the task of the coordinator is, in fact, to assess the level of the student's academic performance and to formalize the validation of the exams. Conversion rules have been defined by Politecnico di Milano and they are available <a href="here">here</a>.

Note that the exams not taken abroad (as per what was originally planned and indicated in the Learning Agreement) will not be considered in the conversion process (of course, the student will have to perform them as any missing exams in Italy). For Special Programs (eg. Double Degrees) the average will be calculated on the exams taken within the Politecnico di Milano Degree.

<sup>&</sup>lt;sup>7</sup> This regulation is also periodically reviewed. As far as possible, we will try to communicate through this guide any new versions of the School regulations, which in any case remain a higher-level document (being issued by the School). The updates should be made available <a href="here">here</a>.

### **Frequently Asked Questions**

## 2.4 I want to go on an Erasmus exchange. How does the international exchange program work?

To start with, please see the institutional <u>website</u> and refer to the International Mobility Unit structure. Read the first part of this document to better comprehend the process. For further information, please refer to the new <u>webpage</u> on International Mobility, where you will also find the FAQ.

### 2.4.1 What are the exchange programs and locations?

For information about the programs and the possible locations of the exchange, you can refer to the <u>Map of Partner Universities and Mobility Agreements</u>, as you will find there the list of exchange and double degree partners. Here you will also find a description of the partner school and access the partner's dedicated webpage (we suggest you filter by School and by Study Program).

For any information regarding the administrative processes and requirements of each partner school please refer to the partner university website, typically "exchange" webpage.

The Management Engineering CCS representatives might be available to provide some general guidelines, although it must be clear to the students, they can start building an exchange program only at the end of the mobility call selection process.

### 2.4.2 What are the differences between a double degree program and a simple exchange program?

The decision to take part in a double degree program is certainly more challenging and it will entail more flexibility and a stronger ability to adjust. On the other hand, it will provide you with a second degree, certainly a plus on the job market, also internationally, and with a topquality learning experience (in its broadest sense). Whereas a simple exchange mobility (especially if semester-long) will not delay your academic career, or significantly change it, a double degree will require you to extend your overall study period, as you will need to earn additional credits; it will also require for you to spend on average 12/18 months abroad, if not 24 (different programs have different requirements). There are four top-level double degree programs that are specifically for Management Engineering students, but the University offers many, many others; ME students who decide to enrol in a double degree program are carefully advised by the Academic Coordinator of ME International Mobilities, Prof. Sergio Terzi. A complete list of the Double Degree programs is available on the Polimi Map of Partner Universities; while a more detailed description of the four Management Engineering programs available on the Management Engineering website: INTERNATIONAL is EXPERIENCES>INTERNATIONAL DOUBLE DEGREES.

There is also another Double Degree program for ME students, with the University of Illinois at Chicago: this however does not fall under the Mobility Call and therefore has different deadlines, application processes and tuition fees, described below (par. 2.5.12)

### 2.4.3 What are the characteristics of the Alliance4Tech Special Program? How does the application process work?

Alliance4Tech is a Strategic Alliance between four prestigious European technical universities: CentraleSupélec Paris, TU Berlin, University College London, and Politecnico di Milano. The goal of this Alliance is to create a European Campus, allowing students to take part in exchange programs in these universities (UCL does not currently offer courses that are suitable for Management Engineering). The program offers students an international study path comprised of two semesters abroad and a *seasonal school*. At the end of the program students will earn a

degree from their home university and a Joint Programme Certificate from the Alliance4Tech partners. To take part in the program, students will have to apply to the autumn Polimi Mobility Call (they won't be able to apply through the Polimi Spring Mobility Call). For further information please check the following <u>link</u>.

### 2.4.4 Is the UNITECH Program open to Management Engineering students? How does the application process work?

Yes, this is a mobility program open to engineering students interested in deepening their technical and scientific knowledge, while also developing managerial skills in an international setting, combining a study abroad period with an internship in an international company. The study path lasts approximately one year and it comprises an exchange, an internship and three Joint Modules. Polimi students apply through a specific call (not the university-wide Mobility Call/s) and undergo a selection process. The internship takes place within one of the corporate partners, primarily multinationals, that offer internship opportunities in one of their branches across the world. For further information regarding the program and the application process please check the Polimi webpage as well as the UNITECH website.

#### 2.4.5 What is the GlobalE3 Program? How can I apply?

GlobalE3 is born with the aim of creating a network of prestigious universities all around the world, to promote international student mobility. The Global E3 consortium is made up of more than 70 universities in 20 different countries and is administered by the Institute of International Education (IIE) in New York. This network includes 37 universities in the United States and 39 universities in the rest of the world, including the Politecnico di Milano. Polimi students apply through a specific call (not the university-wide Mobility Call/s) and undergo a selection process in order to carry out a study period abroad in a University of the Network within the US or in another non-EU university. For further information regarding the program and the application process please check the Polimi website and the GlobalE3 website.

### 2.4.6 What are the selection criteria and how can I participate in a Mobility Call?

Please, refer to the Mobility Call/s issued by the mobility office (International Mobility Unit) and to the information given in this guide.

### 2.4.7 How does the call work? How can I define my "grade"?

Please, refer to the Call description, provided by the International Mobility Unit. The Management Engineering Internationalization Commission is not in charge of these aspects.

#### 2.4.8 What are the best locations for Management Engineers?

Politecnico has agreements with many universities, and many of these are proposed to Management Engineers, as they offer similar courses. Every year the list of proposed sites is available on the Polimi Map of Partner Universities and Mobility Agreements. However, no one is actually able to provide detailed information on each location: in theory, every exchange agreement has a promoter that should be familiar with that particular location, but no one has a complete 360-degree view. All locations with which we have agreements were carefully assessed and are considered at a good level in their respective countries. So, wherever one goes, the experience should be considered valid (obviously bad luck could occur, given that not all courses taught at a good institution have the same quality level). To make your choice, again we invite you to refer to the Map of the Partner Universities for detailed information on the opportunities available to ME students, by selecting the geographic area according to your preferences and interests; and to also look at the websites of the universities you identified to get an idea of the courses offered. On the SOM website you will also find some info sheets created for each university available to ME students and including additional information and details useful for your choice. Please note that, when applying to the Mobility Call, you must

indicate the universities you are interested in, in order of preference, and it is not guaranteed that you will be assigned your first choice (there is an algorithm that gives priority to top students in assigning them to their preferred location, if this still has available seats; if not, it moves to the second option, and so on...).

### 2.4.9 How do I choose the foreign university?

In general, what was said above applies also to this question. The call is complex, and the venues are many, all very interesting and valuable. The mobility call is very competitive, there is a strong selection. At the same time the call allows you to present a list of preferred destinations (the number varies from call to calls). So, the result of the selection is anything but obvious. To start with, your goal is simply to check on the type of university you are applying for (by browsing the website of the partner universities) to get an idea of the course offerings and understand if they are interesting and sufficiently aligned with your expectations, and then apply to the call. You should also reflect on what kind of experience you want and can do, also considering the costs (e.g., life in Northern Europe is very expensive and the Erasmus grant is not enough to survive, you will certainly have to consider a minimum budget support). Once accepted, you will have the opportunity and time to build your own study path.

### 2.4.10 What is the most suitable location to follow an academic path that better matches my Major?

See also the answers above. Politecnico offers many exchange opportunities, constantly reviewed, and updated. However, the foreign institutions – as does Politecnico - often modify their programs. Therefore, the best thing to do is to study the University website for which you want to apply and check for an appropriate curriculum alignment. If you pass the call, you will see how to build your own plan in the appropriate way, taking into account all the requirements and rules. Please, remember that the Management Engineering Majors offer a certain margin of flexibility (e.g., courses to select as FREE) that can be used to build your own exchange program.

### 2.4.11 What are the admissions requirements of the foreign universities? How can I know if my profile matches (e.g., language skills) with their programs?

For this information first check the website of the specific universities (on the pages dedicated to exchange/international students) where it is possible to verify potential constraints/requirements. For example, as regards language requirements, these are usually set by the partner university, therefore they are not necessary for the application to the Call; on the contrary, they are at a later stage known as application, which consists of sending to the partner university a series of required documents (including, precisely, a copy of the language certification). Politecnico and the mobility office cannot confirm the student's level of language proficiency. It is the student who will have to contact a Language School or a qualified teacher to certify their language proficiency or retrieve a copy of the language certificate submitted during the Master's degree application from the institution with which they took the test. Selected students attending a Master's degree program may also find in the **Sponsorship letter** that classes at Politecnico di Milano are delivered in English. The **Sponsorship letter** is available on the Polimi Online Services > International Mobility > My Mobilities).

# 2.4.12 Is it possible to study abroad as "free mover" for courses/credits, by enrolling in a University that does not have a partnership with Politecnico? And to be a Free Mover to work on the final thesis only?

Yes, it is possible to study abroad as a "free mover" student both for courses and for the thesis work. It is based on the evaluation of the student's CV and of the university the student is suggesting for the exchange; for the latter, the university must be highly ranked (for example, within the first 150 in the QS ranking). When looking at the candidate, the 3I School requires a minimum GPA of 24/30 for bachelor level students (with 60 credits earned) and for master

level students (with a minimum of 30 credits earned for students that completed their BSc at another university).

The candidate must present a formal request to the Management Engineering Programme Board (CCS) through the Coordinator of the Internationalization Commission (Professor Sergio Terzi). The request must be then submitted through the dedicated tool in the Online Services and supported by:

- A motivation for the request, including a description and demonstration of the high academic level of the proposed foreign university
- A list of courses (Learning Agreement) that will be taken at the foreign university, respecting the same limits and rules on institutional mobility established by the Politecnico di Milano. The maximum number of credits recognized for a semester-long mobility is normally fixed at 30, with a certain flexibility depending on the curricular credits of the Program for the semester of mobility. Credits validated with "Free Mover" mobility count towards the total credits that may be validated for a student taking part in international mobilities.

If the application meets the criteria mentioned above, the Coordinator of the Internationalization Commission will approve the request, following a pre-evaluation by the Polimi international offices in charge. **The request must be made before the international mobility begins, otherwise the experience will not be recorded in the student's educational career**. International activities such as summer schools, experimental workshops and/or laboratories, or internships cannot be considered as "Free Mover" mobilities.

It is important to keep in mind that top-universities tuition fees, even for single courses, are often very high and it is not guaranteed that an application will be accepted. Instead, with universities that have an exchange agreement with Politecnico (e.g. Erasmus) there are no extra tuition fees involved (however, in those destinations it is not possible to go as a Free Mover forc courses, since you have to go through the Polimi Mobility Call!). If you want to proceed with a Free Mover experience, it is appropriate and highly recommended to start building your plan and ask all authorizations in a timely fashion.

The new guidelines also allow for a Free Mover experience abroad to work on a final thesis (not for exams). Through the new procedure, thesis activities abroad may be formally recognized as an international experience. Students must apply for this type of mobility for their thesis to the Management Engineering Programme Board (CCS), through the Coordinator of the Internationalization Commission, seeking the approval of their thesis supervisor.

Differently from the "Free Mover" experience conducted for exam purposes, the "Free Mover" mobility for thesis may also be conducted at foreign universities with which the relevant School has exchange agreements in place.

The request should be presented through the designated tool in the Online Services and supported by the following information:

- Name of the foreign institution
- Provisional title of the thesis and brief description of the activities to be carried out abroad
- Name of thesis supervisor at Politecnico di Milano

If the request meets the criteria above, the thesis supervisor will approve the request. The application must be submitted and approved before the start of the period abroad. Please be aware that Politecnico di Milano does not accept incoming Free Mover students. For further information on the Free Mover mobility, we recommend you look at the Polimi guidelines, available at the following <a href="mailto:link">link</a>.

### 2.4.13 What are the characteristics of the Double Degree Program with the University of Illinois at Chicago (UIC)?

Thanks to an agreement with UIC, students admitted to this program will be able to earn a double degree (MSc in Management Engineering from Polimi and a MSc in Industrial

Engineering, Finance or Supply Chain and Operations Management from UIC), spending one or two semesters at UIC (the second semester is not mandatory, while it may offer interesting work opportunities in the US). Students <u>do not</u> take part in the Mobility Call to apply to this program and tuition is due to UIC (even if with a discounted fee). The minimum requirements pertain GPA (24/30 at the end of the BSc degree) and language skills. Applications to UIC are normally in October, and the program starts in February; for the first semester of enrolment students will be in Milan, the second one in Chicago, the third one in Milan or Chicago. Due to the structure of the program, it is ideal to apply during the first semester of the first year of the MSc degree in Management Engineering. For further information please contact the Management Engineering Office of International Relations: <a href="mailto:international-dig@polimi.it">international-dig@polimi.it</a>.

### 2.4.14 Is it possible to attend Summer Schools and/or workshops?

Yes, it is certainly possible, upon approval of the ME International Commission Coordinator, Prof. Sergio Terzi. Politecnico di Milano is promoting many of these initiatives. However, these experiences cannot be recognized and included in your study plan to replace your required courses. If approved before departure and validated officially upon your return, they may be considered in your academic records as extra credits (crediti in sovrannumero), showing that you took part in the initiative. For any doubts, please refer to the ME International Commission Coordinator, Prof. Sergio Terzi.

### 2.5 I passed the selection. What next?

First of all, please read the above guide carefully; consult the remaining FAQ. Then, begin to draw up your study plan and contact the proper Geographical Area Coordinator to receive confirmation of your proposed plan and eventually for the signature of the Learning Agreement.

### 2.5.1 What are the criteria to obtain approval for a course equivalency?

Courses can be converted as long as the contents of the foreign courses have a significant overlap with the Polimi ones and provided there is a reasonable match in the workload performed by the student (usually we accept the conversion of 10 (ECTS) credits with at least 7.5 (ECTS) credits earned abroad – and 5 ECTS for 4 ECTS credit earned abroad). Take into consideration also the number of total credits that you have to achieve in one semester (between 27.5 and 32.5 credits for the equivalency with one Polimi semester (30 credits).

### 2.5.2 There are no courses abroad offered in the same semester in which they are scheduled in Italy. How can I manage this issue?

This is not a problem. The student must define his/her own curriculum, indicating the courses to be taken in Italy. Then, he/she asks for the equivalence with a course to be taken abroad, in the period in which he/she will be in exchange. **This is a normal advance/postponement possible in the study plan, that allows for a good flexibility in the scheduling process**. Moreover, some courses in Italy – at least at the MSc level – will be offered twice per Academic Year, once per semester. This will give more flexibility to your plan.

#### 2.5.3 Is it possible to obtain the equivalence for MSc second year courses?

Certainly, this is possible, provided they fall within the area of the Major and provided they do not have significant overlaps with the other courses that the student completed in the first year or will take in the second year. The descriptions of the Master of Science Majors can be found on the Management Engineering website.

### 2.5.4 Is it possible to convert one of the Labs, characterising the selected MSc Major, with exams taking abroad?

Yes, it is possible. Since the LAB is distinctive, it calls for appropriate content matching, possibly considering all the aspects that contribute to the laboratory design within the Politecnico degree. It is preferable if the equivalences with Polimi laboratories are made with courses that include practical activities (e.g., Project work) or assignments that are a little more complex, with a final evaluation.

### 2.5.5 What is the course load that can be performed abroad?

As explained in the guide, the standard teaching load allowed for an exchange semester is 30 credits. There is a certain level of flexibility in achieving the 30 total credits (in the range of 27.5 to 32.5 credits mentioned in the guide) that can help the student in compiling the study plan. Obviously, a student can perform and require the validation of fewer than 30 credits. There can be exceptions for the double and dual degree programs and other special programs (e.g., UNITECH) and for situations of absolute singularity, occurring at prestigious universities.

### 2.5.6 How can I calculate the workload in universities that do not adopt the ECTS system?

To calculate the teaching load, it is necessary to check how many "work units" (those can be hours or "local credits" or other) full-time "local" students must complete in one year. The equivalence with our credit is obtained by establishing that the local annual workload equals our full-time workload (60 ECTS credits).

- **EXAMPLE 1**: In some universities the study cycle lasts three years and requires you to do 900 hours of classes overall. This means that, in a year, students have to complete 300 hours; therefore 300 hours = 60 credits (an exam of 10 credits in that case is equivalent to 50 hours).
- **EXAMPLE 2**: In some universities the study cycle lasts two years and requires you to complete around 50 "creditos". So, if in a year they must complete 25 hours, then 25 "creditos" = 60 credits (an exam of 10 credits in that case is equivalent to 4.16 "creditos")

In creating the study plan to be accomplished abroad, when meeting with the Geographical Area advisor, students who wish to study abroad at an institution that does not use ECTS credits, must attach (or bring with them) a document outlining how the teaching load is calculated. Some details about the credit recognition are available <a href="here">here</a>.

### 2.5.7 I need a reference letter from a Polimi professor, who can write it to?

If possible, it is better that a faculty member who knows the student well writes it. If not, it can be prepared by the ME International Exchanges Coordinator: of course, in the latter case, he/she can only include objective data, such as the average and the positioning based on the average in the ranking of the Politecnico students.

#### 2.5.8 Can I work on my MSc thesis abroad?

Yes, this is possible, and it can be also a reason to ask for an extension of the period abroad (read what is written in section 2.1.3 of the guide). What is important to understand is that the thesis must be submitted and discussed in Italy, with an Italian supervisor. The student who intends to carry out her/his thesis work abroad must, therefore, ensure that she/he has a Polimi thesis supervisor. It is up to the Polimi supervisor to decide whether and how (e.g. thesis or report) to admit the candidate to the final discussion.

There is, therefore, no automatic validation of credits eventually performed for the thesis abroad, but the credits are recognized if and only if the student is admitted to the final graduation session. Any foreign supervisor will appear as co-supervisor of the thesis and will send to the Italian colleague his/her assessment, to support the candidacy of the student to the discussion. Normally the thesis/report should be written in English, with a summary in Italian. Please be aware that, in addition to their thesis research efforts, Management Engineering

students are required to also take one course from the university's program offerings, to foster a greater inclusion and integration at the partner university. This measure is aimed at ensuring that Management Engineering students can fully benefit from the exchange experience, gaining additional knowledge and skills relevant to their field of study. It is therefore necessary that students include in their Learning Agreement also exam credits.

### 2.5.9 Can BSc students do their L.A.M.P. or their Project Work when on exchange abroad?

Yes, it will be possible to carry out LAMP and Project Work activities abroad. However, because of the complex procedure that leads to the assignment of a PW and because of the different options available, students must inform the Programme Office (management-engineering@polimi.it) of their intention as early as possible so as to receive the appropriate guidance and support.

### 2.6 I am abroad. And now?

Study and enjoy your experience! ©

#### 2.6.1 I am abroad and I have some problems. How can I handle these?

First of all, don't panic. Issues can be addressed and solved. For a few possible solutions to common issues, see section 2.3 of this guide. For any other problem, always refer to the Geographic Area coordinator for academic matters, and to the International Mobility Unit for other practical concerns.

#### 2.6.2 I am abroad and I must take my exams. What do I do?

Study and pass your exams there, nothing more than that. Then, when you will be back, you will have your results reported in a regular Transcript of Records sent by the partner institution. The ToR will be received and processed by the IMU, and the Geographic Area Coordinator will then use it to validate the courses/credits/grades you earned abroad.

### 2.7 I am back. And now?

Please see section 2.4 of this guide for a detailed description of how to formally end the exchange experience.

### 2.7.1 Who is going to check and validate my exams?

It must be done by the Geography Area Coordinator, the same that you approached to create your mobility plan and who approved your Online Learning Agreement. In fact, the coordinator will validate the credits taken abroad through the tool "My Mobilities" available on the Polimi Online Services, once you have returned and the host university has sent its Transcript of Records (the document that attests the exams taken abroad) and you have accepted it. It is an automated procedure, but it does involve the student and the lecturer seeing/hearing each other (at least by e-mail) to arrange registration. Conversions rules are described <a href="here">here</a>.

### 2.8 I am an incoming student. What do I have to do?

First of all, welcome! You are here to have a fantastic experience. Enjoy Milano and enjoy Politecnico. When you arrive, and after the Welcome Week, the IMU will be your reference point and will give you all the support and practical information you need.

### 2.9 Other questions

### 2.9.1 I was selected for an exchange program, but I have to withdraw. What should I do?

This can happen, do not worry. Just contact the IMU as soon as possible. In any case it is a pity, you are wasting an experience, but you are old enough to decide for yourself. If you decline just after the selection, it is not a big problem; somebody will take your spot. If you withdraw later, it will be a big waste, since nobody will have time to prepare his/her plan and your position will be lost. The world will not stop for this, but you see how this is a big waste.

### 3 Subject Area Experts

The professors that are members of the International Commission are organized both by geographical areas and discipline/subject area skills, to offer students an adequate support. As mentioned above, once selected for the mobility, first of all the student must refer to the Geographical Area Coordinator to define his/her own mobility curriculum following the process described in this guide. If the Geographical Area Coordinator is not competent enough to assess a specific course, he/she will refer the student to the colleague that, in the commission, is the expert on the subject. In fact, the Commission members are organized as per the chart below, divided by subject area expertise (for both MSc and BSc Degrees). Here below a list of ME courses, with the faculty member that a student can refer to, if prompted to do so by the Geographic Area coordinator. If you cannot find the course you are looking for, please contact the Coordinator, Prof. Sergio Terzi. He will oversee the possible equivalences.

Code	Bachelor of Science Degree in Management Engineering	Expert
054962	Analisi e Progettazione dei Processi Aziendali	Diaz
082919	Analisi Matematica I e Geometria	Terzi
052794	Analisi Matematica II	Terzi
052462	Applicazioni dell'Energia Elettrica	Terzi
052466	Business Data Analytics	Terzi
052463	Comportamento Organizzativo	Manotti
077933	Disegno e Fondamenti di Meccanica Applicata	Terzi
052454	Economia I (Microeconomia)	Manchin
052462	Economia II (Macroeconomia)	Manchin
052459	Elementi delle Macchine e Meccanica Applicata	Terzi
091104	Fisica Sperimentale	Terzi
052453	Fisica Tecnica	Terzi
077930	Fisica Tecnica e Sistemi Energetici	Terzi
072365	Fondamenti Chimici per le Tecnologie	Terzi
091105	Fondamenti di Automatica	Terzi
052452	Fondamenti di Elettrotecnica	Terzi
072366	Gestione degli Impianti Industriali	Negri
072363	Gestione dei Sistemi Logistici e Produttivi	Negri
051478	Gestione e Organizzazione Aziendale	Diaz
051479	Impresa e Decisioni Strategiche	Piantoni
091103	Informatica A	Terzi
085728	Laboratori di Impianti Industriali	Terzi
052467	Laboratorio di Analisi dei Processi Aziendali	Negri

098474	Metodi di Ottimizzazione della Ricerca Operativa	Terzi
091112	Metodi e Modelli Matematici per l'Ingegneria (C.I.)	Terzi
052451	Probabilità e Statistica Matematica	Diaz
060124	Scienza delle Costruzioni	Terzi
052460	Sistemi Energetici	Terzi
085630	Sistemi Informativi	Terzi
072371	Sistemi Integrati di Produzione	Negri
061407	Sistemi Organizzativi	Piantoni
082923	Tecnologia Meccanica e Qualità	Terzi
085758	Tecnologie dell'Informazione per l'Impresa	Negri
052458	Tecnologie Digitali	Terzi

Code	Master of Science Degree in Management Engineering	Expert
096078	Accounting, Finance & Control	Piantoni
097313	Additive Manufacturing	Terzi
055893	Advanced Mathematical Models in Finance	Piantoni
057045	Advanced Performance Measurement	Diaz
056984	Advanced Modeling for Operations	Negri
057301	Advanced Supply Chain Planning Lab	Negri
057044	Agile Innovation	Negri
057072	Agile Project Management	Negri
055771	Agri-Food Supply Chain Perspectives	Negri
057054	Analytics for Business Lab	Terzi
052911	Applied Statistics	Manchin
052909	Business & Industrial Economics	Di Stefano
057042	Business Design and Transformation Lab	Manotti
097362	Branding and Communication	Diaz
057016	Circular Economy Lab	Sullivan
057018	Circular Economy Business Models	Sullivan
057017	Circular Industrial Systems	Sullivan
057026	Collaborative Innovation for Sustainability And Impact	Piantoni
057049	Complex Projects Lab	Negri
056994	Corporate Finance	Piantoni
055806	Critical Thinking	Manotti
057289	Data-Driven Modelling of Dynamical Systems and Optimal Control	Terzi
052557	Data Intelligence Applications	Terzi
097314	De-Manufacturing	Terzi, Sullivan
056982	Design of Experiments and Data Analysis	Diaz
057028	Design Thinking for Business	Piantoni
097386	Development Economics	Manchin
056993	Digital Business	Manotti
057065	Digital Business Lab	Manotti
056954	Digital Factory	Terzi, Sullivan
056949	Digital Manufacturing	Terzi, Sullivan
055892	Digital Security Management	Piantoni

097384	Digital Technology	Di Stefano
057554	Digital Twin for Industrial Systems Management	Terzi Sullivan
051509	Diritto dell'Energia	Terzi, Sullivan
097370	Economics and Management of Multinational Enterprises	Di Stefano
057253	Economics and Performance of The Healthcare Sector	Di Stefano
058223	Economics for Development	Manchin
057046	Economics Of Innovation and New Technologies	Piantoni
052589	Electricity Markets	Terzi
057202	Electronic Systems and Technologies	Terzi
055807	Emerging Technologies and Societal Challenges	Manotti
057905	Energy Accounting and Impact Assessment Methods	Piantoni
)52398	Energy Conversion B	Terzi
)55634	Energy Economics	Manchin
)52896	Energy Management Lab	Piantoni
97381	Engineering and Cooperation for Development	Terzi
)56620	Enterprise Transformation Projects	Piantoni
)97388	Entrepreneurial Finance	Manotti
)57047	Entrepreneurship Economics	Manotti
057068	Entrepreneurship Lab	Valenti
)58059	ESG Principles in The Transition Economy	Piantoni
)57073	Estimation and Learning in Industrial Engineering	Terzi
056233	Ethics for Technology B	Terzi
)54136	Family Business	Manotti
)57093	Finance Lab	Valenti
097387	Financial Econometrics	Valenti
)55645	Financial Markets and Institutions	Manchin
)97355	Financial Risk Management	Valenti
)57029	Financing Complex Projects	Valenti
)51113	Fundamentals of Energy Technologies	Terzi
)95917	Fundamentals of Oil and Gas Engineering	Terzi
)94785	Fundamentals of Signals and Transmission	Terzi
058355	Game Theory	Di Stefano
057020	Global Environmental Challenges	Piantoni
057012	Global Supply Chain Planning	Negri
057013	Green Logistics	Negri
)56512	High-End and Luxury Industries Management	Terzi
)59149	Human-System Interaction in Operations	Manotti
055016	Industrial Asset Management	Terzi
)56950	Industrial Automation and Robotics	Terzi
058369	Industrial Management Lab and Toolbox	Negri
)97404	Improvement and Innovation Toolbox	Negri
96090	Industrial Technologies	Terzi, Sullivan
)52711	Infrastructure Investment and Project Finance	Valenti
057071	Innovation in Action Lab	Piantoni

057036	Innovation In Health and Social Care	Piantoni
057878	Integrated Manufacturing Systems B	Terzi
097316	International Distribution	Negri
057125	International Economics I	Manchin
057161	International Economics II	Manchin
097316	International Distribution	Negri
097374	International Markets and European Institutions	Manchin
051112	Introductory Econometrics	Valenti
057035	Invest in Foreign Markets Lab	Di Stefano
097391	Investment Banking	Di Stefano
057051	Knowledge Management in Infrastructure Projects	Terzi
052796	Leadership & Innovation	Di Stefano
096088	Logistics Management	Negri
058324	Machine Learning (Market & Technological Forecasting)	Terzi
057031	Macroeconomics of Finance	Valenti
057021	Management for Sustainability and Impact	Piantoni
057019	Management of Energy	Piantoni
054202	Manufacturing Systems Engineering I	Terzi, Sullivan
054952	Manufacturing Systems Engineering Ii	Terzi, Sullivan
057027	Marketing Analytics	Diaz
056818	Methodologies for Life Cycle Thinking	Sullivan
057203	Methods for Engineering Design	Sullivan
055895	Metodi e Modelli Matematici per l'ingegneria	Terzi
052079	Mobility: Infrastructures and Services	Negri
090037	Model Identification and Data Analysis	Terzi
056988	New Forms of Organization	Manotti
057055	Omnichannel Marketing Management	Manotti
096088	Operations Management	Negri
097321	Operations Risk Management and Resilience	Terzi
056992	Patents and Intellectual Property Management	Terzi
058359	Platform Thinking	Manotti
057022	Policy Design and Evaluation	Manotti
097394	Power Production from Renewable Energy	Terzi
097357	Power Production from Renewable Energy C	Terzi
097327	Product Life Cycle Management	Terzi
057030	Project Management	Negri
059115	Public Management	Manotti
053729	Purchasing and Supply Management	Negri
054697	Quality Data Analysis	Terzi
097323	Quality Management	Negri
057108	Regulation of Digital Innovation on Payments and Finance	Piantoni
057048	Service Design and Innovation	Terzi
057039	Smart Cities and Urban Innovation	Piantoni
056985	Smart Maintenance Management	Terzi

056948	Smart Manufacturing Lab	Terzi
057614	Social Entrepreneurship	Piantoni
056829	The Social Shaping of Technology	Piantoni
057043	Strategic Innovation	Manotti
052321	Strategic Planning in Real Practice	Manotti
052795	Strategy & Marketing	Manotti
052816	Supplier Relationship Management LAB	Negri
056989	Supply Chain Innovation	Negri
056999	Supply Chain Management	Negri
057034	Sustainable and Social Innovation Lab	Piantoni
054954	Sustainable Manufacturing	Sullivan
052537	Technologies for Information Systems	Terzi
057252	Technology Risk Governance	Terzi
059116	Transdisciplinary Projects for Health and Social Challenges	Piantoni
057050	Vision and Change	Manotti