

# **AGREEMENT BETWEEN POLYTECHNIC OF BARI AND POLYTECHNIC INSTITUTE OF NEW YORK UNIVERSITY TO ESTABLISH A COMMON “DOUBLE DEGREE” GRADUATE CURRICULUM IN “MECHANICAL ENGINEERING INGEGNERIA MECCANICA” - “MANUFACTURING ENGINEERING – INGEGNERIA DELLA PRODUZIONE”**

The **Polytechnic of Bari**, represented by the President Prof. Nicola Costantino, via Amendola 126/b, 70126 Bari, Italy

**and**

The **Polytechnic Institute of New York University (NYU-Poly)**, represented by the Provost E. Dianne Rekow, 6 MetroTech Center, Brooklyn, NY 11201,

## **considering:**

1. The efforts to harmonize higher education and to establish international curricula that foster an international labour market and reinforce the competitiveness of Manufacturing Engineering education as well as improve students mobility;
2. The demonstrated interest by NYU-Poly to promote and initiate international curricula;
3. The DM 270/2004 (revision of the act 509/1999) of the Minister for Education, University, and Research, that allows Italian universities to independently develop their own curricula (according to the law 341 of the 19-11-1990, art.11);
4. The fact that the *Laurea Magistrale* Degree, of two year duration, is intended to further enhance students' training and background and that such degree can be administered in partnership with other Italian or foreign institutions;
5. That Polytechnic of Bari and NYU-Poly have already successfully established high-quality joint curricula;
6. The existing collaboration and the interest to further develop educational and research activities between Polytechnic of Bari and NYU-Poly and the common objective to establish a double '*Laurea Magistrale in Ingegneria Meccanica*' - *Master of Science Degree in Manufacturing Engineering – Ingegneria della Produzione*'

## **and further accounting for:**

1. The common objective to offer international degree programs with standardized credit transfer procedures;

## **establish the following:**

1. The introduction of a new graduate degree program 120 CFU for the Polytechnic of Bari and 30 credits for NYU-Poly. Details of the curriculum and obligations of students and faculty involved in the program are presented in the attached executive plan of this agreement.
2. The students from Polytechnic of Bari will earn 63 CFU from NYU-Poly (Table 1 and 3). The students from NYU-Poly will earn 9 credits from Polytechnic of Bari (Table 1 and 2); the corresponding specific courses (table 2) to be taken at Polytechnic of Bari have to be approved by the advisor from NYU-Poly prior to registration at Polytechnic of Bari.
3. The two Universities will provide the student two different diplomas (one from each partner institutions) as the student complies with all double degree requirements. The diploma from Polytechnic of Bari will show the academic title of "*Laurea Magistrale*" and the diploma released from the NYU-Poly will be a "*Master of Science*".
4. Students are granted full access to both the institutions' facilities (such as Library, Laboratories, etc.) during their studies. Health insurance is regulated by the rules of each University.
5. Students from Polytechnic of Bari will be charged NYU-Poly's regular tuition and fees while studying at NYU-Poly and students from NYU-Poly will pay Polytechnic of Bari's tuition and fees while studying at

Polytechnic of Bari. The students' tuition and fees will be covered by the students through fellowships or self support.

6. Access to the institutions' facilities is based on reciprocity criteria.

#### **Final regulations**

1. The present agreement is signed both in Italian and English languages. The agreement will be effective on the date of the last approval; it is valid for four years, but may be terminated by either party with six months written notice. If such termination is made, the program will be active until all students already enrolled in this double degree program complete their studies. The parties may also extend this agreement for any mutually agreed period of time.

2. The final regulations of this "Laurea Magistrale" for Polytechnic of Bari are approved by the Academic Senates. The final regulations of the "Master of Science" for NYU-Poly will be approved by its Graduate Curriculum and Standards Committee and its Faculty.

3. Resolution of conflicts is to be carried out through two arbitrates, each party selecting one arbitrate.

4. The two institutions establish a common intent to complete all the requested paperwork so that the "double degree" will be effective in the Fall Semester of the Academic Year 2011/2012. NYU-Poly faculty approved this program on February 2 2011 and the Polytechnic of Bari approved this program on December 28 2010.

5. The two institutions agree on the contents of this agreement and sign it in two copies, one in Italian and one in English.

<b>Polytechnic of Bari</b>	<b>Polytechnic Institute of New York University</b>
Bari, Italy,	Brooklyn, NY, USA,
Il Rettore Prof. Nicola Costantino	Provost E. Dianne REKOW

# EXECUTIVE DISPOSITIONS FOR A DOUBLE DEGREE BETWEEN POLYTECHNIC OF BARI AND POLYTECHNIC INSTITUTE OF NEW YORK UNIVERSITY

The partner institutions allow the establishment of a double degree program, comprising of the “*Laurea Magistrale*” (Italian degree) in Mechanical Engineering at the Polytechnic of Bari and the Master of Science (US degree) in “*Manufacturing Engineering – Ingegneria della Produzione*” at NYU-Poly. Students complying with the degree requirements of both institutions will be granted a double degree.

## 1 – Executive and managing personnel

1. The two partner institutions will appoint program coordinators.
2. All the modifications or improvements in the double degree program are approved by the Academic Senates of the Polytechnic of Bari and by the Graduate Curriculum and Standards Committee along with the Faculty of NYU-Poly.
3. Student admission is separately conducted by each institution. The program coordinator of each Institution is responsible for student advising and continuous program administration.

## 2 – Admission requirements

1. Students from Polytechnic of Bari must have a ‘Laurea’ degree in Management Engineering, Mechanical Engineering or equivalent with a final grade higher than 100/110, a IBT TOEFL with a minimum grade of 79/120 and students from NYU-Poly must be admitted as matriculated students to the graduate program in Manufacturing Engineering.

## 3 – Language used for mutually transferred classes

1. Courses transferred between the institutions will be taught in English.

## 4 – Procedure for the admission

1. The admission procedures are regulated by each University.
2. Student selection is a responsibility of the Industrial Engineering Committee for Polytechnic of Bari and the Director of Manufacturing and Industrial Engineering Interdisciplinary Department of NYU-Poly.

## 5 – Beginning and duration of the studies

1. Student in the program can start in either the Fall (September) or Spring Term (January).  
The period abroad is expected to have a maximum duration of two semesters, excluding the Summer.

## 6 – Program content and structure

1. The double degree has 120 CFUs for the Polytechnic of Bari Curriculum and 30 credits for the NYU-Poly Curriculum, as shown in Tables 1, 2, and 3.
2. Passing grade and exam policies are exclusively those of the local institution that offer the course.
3. The double degree curriculum is unique to this program.

## 7 – Transfer credits

1. Transferring coursework between the partner institutions is possible through this program (see Tables 1÷3 ).
2. Courses transferred between the institutions must have minimum grades of B or equivalent (Table 4).
3. There will be no delay for the courses to be transferred, i.e., the courses can be transferred to the partner institution as soon as the grades in the granting institution are posted.

## 8 – Thesis and Thesis-committee

1. If the student elects to pursue the project option at NYU-Poly, a copy of the final manuscript will be submitted to both institutions. The manuscript has to be written in English and will be assessed by both institutions according to the local policies. The document should contain a summary in Italian whose length should not exceed ten pages or 20,000 characters. The project committee depends

on the local institution. Students will be covered by insurance by NYU-Poly while working outside campus.

2. If the student elects to only submit their thesis towards the Laurea Magistrale at the Polytechnic of Bari, their rules will prevail.

### 9 – Diploma, academic title, and general information

1. Upon completion of both the degree requirements, two separate diplomas are conferred to the student according to the local regulations.
2. The student will have two diplomas. The diploma from the Polytechnic of Bari will report the title of “*Laurea Magistrale*” and the diploma from NYU-Poly will report the ‘*Master of Science*’ Degree.
3. The two diplomas do not have to be conferred simultaneously. Each can be granted when the student satisfies local regulations.

### 10 – Student rights

1. Each student will be entitled to regular student rights and privileges at the host institution.

### 11 – Starting day

1. These regulations are effective along with the agreement between the institutions and are communicated to the faculty using local rules.

Polytechnic of Bari	Polytechnic Institute of New York University
<p>Bari, Italy,</p> <p style="text-align: right;">Il Rettore Prof. Nicola Costantino</p>	<p>Brooklyn, NY, USA,</p> <p style="text-align: right;">Provost E. Dianne REKOW</p>

**Table 1 – Double Degree Program ‘Laurea Magistrale in Ingegneria Meccanica – Master of Science in Manufacturing Engineering’**

Polytechnic of Bari ‘Laurea Magistrale’			CFU		Polytechnic Institute of New York University ‘ Master of Science’	Credits
<b>1<sup>st</sup> year</b>	Student with a 4 year Bachelor Degree in Mechanical Engineering or equivalent	Transferred courses from 4 year Bachelor Degree to Polytechnic of Bari	<b>30</b>		Transferred courses from Polytechnic of Bari to the Polytechnic Institute of New York University	<b>9</b>
		Courses offered by the Polytechnic of Bari transferred to Polytechnic Institute of New York University	<b>27</b>			
	Student with a 3 year Laurea Degree	Courses offered by the Polytechnic of Bari		<b>30</b>		
		Courses offered by the Polytechnic of Bari transferred to Polytechnic Institute of New York University		<b>27</b>		
<b>2<sup>nd</sup> year</b>	Student in the double degree program	Courses offered by the Polytechnic Institute of New York University transferred to Polytechnic of Bari	<b>45</b>	<b>45</b>	Courses offered by the Polytechnic Institute of New York University and transferred to the Polytechnic of Bari	<b>15</b>
		Final project and internship at Polytechnic Institute of New York University transferred to Polytechnic of Bari	<b>18</b>	<b>18</b>	Final project and internship at Polytechnic Institute of New York University transferred to Polytechnic of Bari	<b>6</b>
<b>Total</b>			<b>120</b>	<b>120</b>	<b>Total</b>	<b>30</b>

**Table 2 – Double Degree Program ‘Laurea Magistrale in Ingegneria Meccanica – Master of Science in Manufacturing Engineering’**

**Courses for the students originally enrolled both at Polytechnic of Bari and at Polytechnic Institute of New York University. First year courses held at Polytechnic of Bari and recognized by Polytechnic Institute of New York University.**

<b>Courses at Polytechnic of Bari</b>		<b>Courses transferred to Polytechnic Institute of New York University</b>	
Advanced Manufacturing Technology (ING-IND/16)	9 CFU	(MN course, or equivalent)	3 credits
Operations Management (ING-IND/17)	6 CFU	(IE / MN course, or equivalent)	3 credits 3 credits
Industrial Organizations (ING-IND/35)	6 CFU	(IE / MN course, or equivalent)	
Information Systems Management (ING-INF/05)	6 CFU		
Fluid Machinery II (ING-IND/08) and Energy Systems II (ING-IND/09)	12 CFU	Note for students enrolled at the Polytechnic of Bari: students are strongly encouraged to complete these courses prior to attending the second year at Polytechnic Institute of New York University	
Simulation and Prototyping (ING-IND/15)	6 CFU		
Applied Mechanics II (ING-IND/13)	6 CFU		
Machines and Electric Drives (ING-IND/32)	6 CFU		
Credits at Polytechnic of Bari	57 CFU	Total transferred credits from Polytechnic of Bari to Polytechnic Institute of New York University	9 credits

**Table 3 – Double Degree Program ‘Laurea Magistrale in Ingegneria Meccanica – Master of Science in Manufacturing Engineering’**

**Courses for the students originally enrolled both at Polytechnic of Bari and at Polytechnic Institute of New York University. Second year held at Polytechnic Institute of New York University and courses recognized by Polytechnic of Bari.**

<b>Manufacturing Engineering Core Courses</b>		
MN 7893 Production Science	3 credits	9 CFU
MN 7923 Design For Manufacturability	3 credits	9 CFU
MN 7993 Supply Chain Engineering	3 credits	9 CFU
MN 6113 Quality Control and Improvement	3 credits	9 CFU
<b>Elective courses &amp; MS Research Project</b>		
Choose one course from the list below offered by Polytechnic Institute of New York University during the 1st and/or 2nd semester. Note that the course list is subjected to periodic improvements and updates by the Polytechnic Institute of New York University.		
ING-IND/16 MN 6123 QUALITY ENGINEERING USING ROBUST DESIGN MN 7713 PRODUCT REALIZATION PROCESS MN 7853 COMPUTER INTEGRATED MANUFACTURING SYSTEMS MN 8643 NEW PRODUCT DEVELOPMENT  ING-IND/17 MN 6303 OPERATIONS MANAGEMENT MN 7763 MANUFACTURING RESOURCES PLANNING MN 7873 LEAN MANUFACTURING MN 7933 ENVIRONMENTAL HEALTH & SAFETY IE 6203 PROJECT PLANNING AND CONTROL IE 6113 FACILITY PLANNING AND DESIGN IE 6823 FACTORY SIMULATION  OTHER COURSES MAYBE SUBSTITUTED WITH THE APPROVAL OF THE PROGRAM COORDINATORS  • Other courses	3 credits	9 CFU
Master project in Manufacturing Engineering course (*)	6 credits	18 CFU
(*) Equivalent Option: 1 Course from the list above and 1 Research Project in the Manufacturing Engineering area	6 credits	18 CFU
<b>Polytechnic institute of New York University – credits</b>	<b>21 credits</b>	
<b>Politecnico di Bari – Numero totale di CFU trasferiti</b>	<b>Coursework: 45 CFU</b> <b>Final Project</b> <b>(or equivalent option):</b> <b>18 CFU</b> <b>TOTAL: 63 CFU</b>	

**Table 4 – Double Degree Program in Mechanical Engineering curriculum in “Manufacturing Engineering”**

**Equivalence between Italian CFU and American credits.**

<b>Italian CFU</b>	<b>American credits</b>
30-30/30	A
28-29/30	A-
26-27/30	B+
24-25/30	B
22-23/30	B-
20-21/30	C+
18-19/30	C