



POLITECNICO
MILANO 1863

Academic Year 2020/2021

School of Industrial and Information Engineering

Courses offered by the programme

Mechanical Engineering (483)

Master of Science degree (Ordinamento 270/04)

Milano Bovisa campus


Class of degree

LM-33 - Mechanical engineering


Glossary

Course type (Type)	
I	Integrated Course
M	Mono-Disciplinary Course
V	Final Examination

Educational activities (Att Form)	
B	Identifying activities
C	Similar or integrative activities

Innovative teaching	
	<p>The credits shown next to this symbol indicate the part of the course CFUs provided with Innovative teaching. These CFUs include:</p> <ul style="list-style-type: none"> - Subject taught jointly with companies or organizations - Blended Learning & Flipped Classroom - Massive Open Online Courses (MOOC) - Soft Skills

Semester (Sem)	
1	First Semester
2	Second Semester
A	Annual course


Sequences	
	Teachings in Sequence

Alphabetical group (Students from ... to ...)	
Alphabetical groups are defined as FROM (included) TO (excluded)	

1st Year courses**Track NDE - Mechanical Engineering**

Campus: Milano Bovisa

Track offered in English

Code	Act type	SSD	Course Title	Language	Type	Sem	CFU	CFU Group
095837	B,C	ING-IND/13 ING-IND/32 ING-INF/04	CONTROL AND ACTUATING DEVICES FOR MECHANICAL SYSTEMS <i>Students form A to E - Bucca Giuseppe</i> <i>Students form E to P - Sabbioni Edoardo</i> <i>Students form P to ZZZZ - Braighin Francesco</i>	EN	M	1	9.0	9.0
095838	C	ING-IND/21	APPLIED METALLURGY <i>Students form A to E - Mapelli Carlo</i> <i>Students form E to P - Vedani Maurizio</i> <i>Students form P to ZZZZ - D'Errico Fabrizio</i>	EN	M	1	6.0	6.0
095839	B	ING-IND/09	ENERGY SYSTEMS LM <i>Students form A to E - Martelli Emanuele</i> <i>Students form E to P - Romano Matteo Carmelo</i> <i>Students form P to ZZZZ - Consonni Stefano</i>	EN	M	1	7.0	7.0
095840	B	ING-IND/16	ADVANCED MANUFACTURING PROCESSES <i>Students form A to E - Demir Ali Gokhan</i> <i>Students form E to P - Strano Matteo</i> <i>Students form P to ZZZZ - Annoni Massimiliano Pietro Giovanni</i>	EN	M	1	10.0	10.0
095841	B	ING-IND/14	MACHINE DESIGN 2 <i>Students form A to E - Vergani Laura Maria</i> <i>Students form E to P - Giglio Marco</i> <i>Students form P to ZZZZ - Beretta Stefano</i>	EN	M	2	10.0	10.0
095842	B	ING-IND/13	MECHANICAL SYSTEM DYNAMICS <i>Students form A to E - Corradi Roberto</i> <i>Students form E to P - Zasso Alberto</i> <i>Students form P to ZZZZ - Melzi Stefano</i>	EN	M	2	5.0	5.0
055852	B	ING-IND/12	MEASUREMENTS <i>Students form A to E - Manzoni Stefano</i> <i>Students form E to P - Tarabini Marco</i> <i>Students form P to ZZZZ - Cigada Alfredo</i>	EN	M	2	5.0 [1.0  Date: 14 Jul 2020 15:12	

2nd Year courses**Track ME1 - Production Systems**

Campus: Milano Bovisa

Track offered in English

Code	Act type	SSD	Course Title	Language	Type	Sem	CFU	CFU Group
051130	B	ING-IND/16	INTEGRATED MANUFACTURING SYSTEMS <i>Students form A to ZZZZ - Matta Andrea</i>	EN	M	1	8.0	8.0
051131	B	ING-IND/16	QUALITY ENGINEERING ME <i>Students form A to ZZZZ - Colosimo Bianca Maria</i>	EN	M	2	8.0	
097514	B	ING-IND/17	INDUSTRIAL RISK MANAGEMENT <i>Students form A to ZZZZ - Trucchi Paolo</i>	EN	M	1	10.0	10.0
097319	B	ING-IND/17	ASSET LIFE CYCLE MANAGEMENT <i>Students form A to ZZZZ - Macchi Marco</i>	EN	M	1	10.0	
097320	B	ING-IND/17	INDUSTRIAL PROJECT MANAGEMENT A <i>Students form A to ZZZZ - Mancini Mauro</i>	EN	M	1	10.0	
--	--	--	Courses to be chosen from Group OPEN_ME1 ^(a)	--	--	--	--	
054201	B	ING-IND/16	MANUFACTURING SYSTEMS ENGINEERING <i>Students form A to ZZZZ</i> - 054200 MANUFACTURING SYSTEMS ENGINEERING II - Tollo Tullio Antonio Maria - 054199 MANUFACTURING SYSTEMS ENGINEERING I - Tollo Tullio Antonio Maria	EN	I	1	10.0	10.0
051132	B	ING-IND/16	DESIGN AND ANALYSIS OF EXPERIMENTS B <i>Students form A to ZZZZ - Tsiamyrtzis Panagiotis</i>	EN	M	1	10.0	
097480	B	ING-IND/17	INDUSTRIAL PLANTS A <i>Students form A to ZZZZ - Calabrese Antonio</i>	EN	M	2	10.0	10.0
052444	--	--	THESIS PREPARATION: HORIZONTAL COMPETENCIES <i>Students form A to ZZZZ - Manzoni Stefano</i>	EN	V	1	2.0 [2.0 @]	20.0
052442	--	--	THESIS WORK AND FINAL DEFENCE <i>Students form -- to -- - Docente non definito</i>	EN	V	1	18.0	
052444	--	--	THESIS PREPARATION: HORIZONTAL COMPETENCIES <i>Students form A to ZZZZ - Caruso Giandomenico</i>	EN	V	2	2.0 [2.0 @]	
052442	--	--	THESIS WORK AND FINAL DEFENCE <i>Students form -- to -- - Docente non definito</i>	EN	V	2	18.0	

(a) The OPEN_ME1 group is updated every year before the study plan presentation

Track ME2 - Mechatronics and Robotics

Campus: Milano Bovisa

Track offered in English

Code	Act type	SSD	Course Title	Language	Type	Sem	CFU	CFU Group
097519	B	ING-IND/13	MECHATRONIC SYSTEMS AND LABORATORY A <i>Students form A to ZZZZ - Braghin Francesco</i>	EN	M	1	10.0	10.0
097520	C	ING-INF/04	AUTOMATIC CONTROL A <i>Students form A to ZZZZ - Zanchettin Andrea Maria</i>	EN	M	1	10.0	10.0
097521	B	ING-IND/13	VEHICLE DYNAMICS AND CONTROL B <i>Students form A to ZZZZ - Cheli Federico</i>	EN	M	1	6.0	6.0
097502	B	ING-IND/14	MECHANICAL SYSTEMS RELIABILITY <i>Students form A to ZZZZ - Beretta Stefano</i>	EN	M	1	6.0	
097523	C	ING-IND/32	ELECTRICAL DRIVES FOR INDUSTRY AND TRANSPORT APPLICATIONS <i>Students form A to ZZZZ - Tarsitano Davide</i>	EN	M	2	6.0	
097499	B	ING-IND/13	FUNCTIONAL MECHANICAL DESIGN <i>Students form A to ZZZZ - Cinquemani Simone</i>	EN	M	2	6.0	
097502	B	ING-IND/14	MECHANICAL SYSTEMS RELIABILITY <i>Students form A to ZZZZ - Beretta Stefano</i>	EN	M	1	6.0	12.0
054362	B,C	ING-IND/13 ING-IND/32 ING-IND/33	HYBRID AND ELECTRIC VEHICLE <i>Students form A to ZZZZ - Tarsitano Davide</i>	EN	M	1	6.0	
051140	B	ING-IND/13 ING-IND/14	RAIL VEHICLE DYNAMICS AND TRAIN-TRACK INTERACTION <i>Students form A to ZZZZ - Beretta Stefano</i>	EN	M	2	6.0	
051137	B	ING-IND/13	WIND ENGINEERING <i>Students form A to ZZZZ - Rocchi Daniele</i>	EN	M	2	6.0	
097500	B	ING-IND/14	LIGHTWEIGHT DESIGN OF MECHANICAL STRUCTURES <i>Students form A to ZZZZ - Bernasconi Andrea</i>	EN	M	2	6.0	

097521	B	ING-IND/13	VEHICLE DYNAMICS AND CONTROL B <i>Students form A to ZZZZ - Cheli Federico</i>	EN	M	1	6.0	
053419	B	ING-IND/13	ROBOTIC SYSTEMS DESIGN <i>Students form A to ZZZZ - Giberti Hermes</i>	EN	M	1	6.0	
097560	B	ING-IND/13	NOISE AND VIBRATION ENGINEERING <i>Students form A to ZZZZ - Corradi Roberto</i>	EN	M	1	6.0	
097525	B	ING-IND/12	ADVANCED MEASUREMENT TECHNIQUES <i>Students form A to ZZZZ - Manzoni Stefano</i>	EN	M	1	6.0	
097617	B	ING-IND/15	HAPTICS <i>Students form A to ZZZZ - Ferrise Francesco</i>	EN	M	1	6.0	
095890	B	ING-IND/15	METHODS FOR VIRTUAL PROTOTYPING <i>Students form A to ZZZZ - Bordegoni Monica</i>	EN	M	1	6.0	
097524	B	ING-IND/17	INDUSTRIAL PLANTS C <i>Students form A to ZZZZ - Calabrese Antonio</i>	EN	M	2	6.0	
097523	C	ING-IND/32	ELECTRICAL DRIVES FOR INDUSTRY AND TRANSPORT APPLICATIONS <i>Students form A to ZZZZ - Tarsitano Davide</i>	EN	M	2	6.0	
097499	B	ING-IND/13	FUNCTIONAL MECHANICAL DESIGN <i>Students form A to ZZZZ - Cinquemani Simone</i>	EN	M	2	6.0	
094910	B	ING-IND/13	SMART STRUCTURES AND DEVICES <i>Students form A to ZZZZ - Erturk Alper</i>	EN	M	2	6.0	
--	--	--	Courses to be chosen from Group OPEN ^(a)	--	--	--	--	
054831	B	ING-IND/15	METHODS AND TOOLS FOR SYSTEMATIC INNOVATION C - INNOVATION AND INTELLECTUAL PROPERTY MANAGEMENT <i>Students form A to ZZZZ - Cascini Gaetano</i>	EN	M	1	6.0 [1.0 (E)]	
052444	--	--	THESIS PREPARATION: HORIZONTAL COMPETENCIES <i>Students form A to ZZZZ - Manzoni Stefano</i>	EN	V	1	2.0 [2.0 (E)]	20.0
052442	--	--	THESIS WORK AND FINAL DEFENCE <i>Students form -- to -- - Docente non definito</i>	EN	V	1	18.0	
052444	--	--	THESIS PREPARATION: HORIZONTAL COMPETENCIES <i>Students form A to ZZZZ - Caruso Giandomenico</i>	EN	V	2	2.0 [2.0 (E)]	
052442	--	--	THESIS WORK AND FINAL DEFENCE <i>Students form -- to -- - Docente non definito</i>	EN	V	2	18.0	

(a) The OPEN group is updated every year before the study plan presentation

Track ME3 - Virtual Prototyping

Campus: Milano Bovisa

Track offered in English

Code	Act type	SSD	Course Title	Language	Type	Sem	CFU	CFU Group
097598	B	ING-IND/15	VIRTUAL PROTOTYPING (C.I.) <i>Students form A to ZZZZ - 097597 VIRTUAL PROTOTYPING METHODS (I.C. MODULE) - Bordegoni Monica - 097596 HAPTICS (I.C. MODULE) - Ferrise Francesco</i>	EN	I	1	10.0	10.0
097497	B	ING-IND/14	MODELING OF MECHANICAL BEHAVIOUR OF MATERIALS A <i>Students form A to ZZZZ - Foletti Stefano</i>	EN	M	1	10.0	10.0
097451	B	ING-IND/15	HUMAN MODELLING IN ENGINEERING <i>Students form A to ZZZZ - Colombo Giorgio</i>	EN	M	1	6.0	6.0
054829	B	ING-IND/15	METHODS AND TOOLS FOR SYSTEMATIC INNOVATION B - PROBLEM SOLVING AND INVENTIVE DESIGN <i>Students form A to ZZZZ - Cascini Gaetano</i>	EN	M	1	6.0 [1.0 (E)]	
097450	B	ING-IND/15	DESIGN METHODS <i>Students form A to ZZZZ - Viganò Roberto</i>	EN	M	2	6.0	
097454	B	ING-IND/15	COMPUTER VISION AND REVERSE ENGINEERING <i>Students form A to ZZZZ - Guidi Gabriele</i>	EN	M	2	6.0	
051141	B	ING-IND/14	EXPERIMENTAL METHODS FOR STRUCTURAL DIAGNOSTIC <i>Students form A to ZZZZ - Carboni Michele Ezio Ruggero Maria</i>	IT	M	2	6.0	
097451	B	ING-IND/15	HUMAN MODELLING IN ENGINEERING <i>Students form A to ZZZZ - Colombo Giorgio</i>	EN	M	1	6.0	12.0
054829	B	ING-IND/15	METHODS AND TOOLS FOR SYSTEMATIC INNOVATION B - PROBLEM SOLVING AND INVENTIVE DESIGN <i>Students form A to ZZZZ - Cascini Gaetano</i>	EN	M	1	6.0 [1.0 (E)]	
054831	B	ING-IND/15	METHODS AND TOOLS FOR SYSTEMATIC INNOVATION C - INNOVATION AND INTELLECTUAL PROPERTY MANAGEMENT <i>Students form A to ZZZZ - Cascini Gaetano</i>	EN	M	1	6.0 [1.0 (E)]	
097620	B	ING-IND/16	ADDITIVE MANUFACTURING B <i>Students form -- to -- - Docente non definito</i>	EN	M	1	6.0	
097457	B	ING-IND/12	VISION BASED 3D MEASUREMENTS <i>Students form A to ZZZZ - Zappa Emanuele</i>	EN	M	1	6.0	
051141	B	ING-IND/14	EXPERIMENTAL METHODS FOR STRUCTURAL DIAGNOSTIC <i>Students form A to ZZZZ - Carboni Michele Ezio Ruggero Maria</i>	IT	M	2	6.0	

097450	B	ING-IND/15	DESIGN METHODS <i>Students form A to ZZZZ - Vigano' Roberto</i>	EN	M	2	6.0	
097499	B	ING-IND/13	FUNCTIONAL MECHANICAL DESIGN <i>Students form A to ZZZZ - Cinquemani Simone</i>	EN	M	2	6.0	
097454	B	ING-IND/15	COMPUTER VISION AND REVERSE ENGINEERING <i>Students form A to ZZZZ - Guidi Gabriele</i>	EN	M	2	6.0	
097500	B	ING-IND/14	LIGHTWEIGHT DESIGN OF MECHANICAL STRUCTURES <i>Students form A to ZZZZ - Bernasconi Andrea</i>	EN	M	2	6.0	
055861	C	ING-IND/21	FAILURE ANALYSIS E INGEGNERIA FORENSE <i>Students form A to ZZZZ - Boniardi Marco Virginio</i>	IT	M	2	6.0	
--	--	--	Courses to be chosen from Group OPEN	--	--	--	--	
052444	--	--	THESIS PREPARATION: HORIZONTAL COMPETENCIES <i>Students form A to ZZZZ - Manzoni Stefano</i>	EN	V	1	2.0 [2.0 @]	20.0
052442	--	--	THESIS WORK AND FINAL DEFENCE <i>Students form -- to -- - Docente non definito</i>	EN	V	1	18.0	
052444	--	--	THESIS PREPARATION: HORIZONTAL COMPETENCIES <i>Students form A to ZZZZ - Caruso Giandomenico</i>	EN	V	2	2.0 [2.0 @]	
052442	--	--	THESIS WORK AND FINAL DEFENCE <i>Students form -- to -- - Docente non definito</i>	EN	V	2	18.0	

Track ME4 - Internal Combustion Engines and Turbomachinery

Campus: Milano Bovisa

Track offered in English

Code	Act type	SSD	Course Title	Language	Type	Sem	CFU	CFU Group
054364	B	ING-IND/08	INTERNAL COMBUSTION ENGINES <i>Students form A to ZZZZ - D'Errico Gianluca</i>	EN	M	1	10.0	10.0
054827	B	ING-IND/08	TURBOMACHINERY A <i>Students form A to ZZZZ - Gaetani Paolo</i>	EN	M	1	10.0 [1.0 @]	10.0
097601	B	ING-IND/09	POWER PRODUCTION FROM RENEWABLE ENERGY B <i>Students form A to ZZZZ - Silva Paolo</i>	EN	M	2	6.0	6.0
091130	B	ING-IND/08	COMBUSTION AND SAFETY B <i>Students form A to ZZZZ - Cozzi Fabio</i>	IT	M	2	6.0	
091132	B	ING-IND/09	ADVANCED ENERGY SYSTEMS B <i>Students form A to ZZZZ - Chiesa Paolo</i>	IT	M	1	6.0	
097602	B	ING-IND/08	MODELING TECHNIQUES FOR FLUID MACHINES <i>Students form A to ZZZZ - Docente non definito</i>	EN	M	2	6.0	
083903	B	ING-IND/10	HEAT TRANSFER AND THERMAL ANALYSIS <i>Students form A to ZZZZ - Guilizzoni Manfred Gherardo</i>	EN	M	2	6.0	
097552	B	ING-IND/13	ROTOR DYNAMICS AND DIAGNOSTIC B <i>Students form A to ZZZZ - Pennacchi Paolo Emilio Lino Maria</i>	EN	M	1	6.0	12.0
097559	C	ING-INF/04	AUTOMATIC CONTROL B <i>Students form A to ZZZZ - Zanchettin Andrea Maria</i>	EN	M	1	6.0	
097502	B	ING-IND/14	MECHANICAL SYSTEMS RELIABILITY <i>Students form A to ZZZZ - Beretta Stefano</i>	EN	M	1	6.0	
091138	C	ING-IND/21	MATERIALS FOR ENERGY B <i>Students form A to ZZZZ - Gariboldi Elisabetta</i>	IT	M	1	6.0	
097450	B	ING-IND/15	DESIGN METHODS <i>Students form A to ZZZZ - Vigano' Roberto</i>	EN	M	2	6.0	
097671	C	ING-IND/33	ELECTRIC SYSTEMS FOR TRANSPORTATION C <i>Students form A to ZZZZ - Longo Michela</i>	EN	M	1	6.0	
097550	B	ING-IND/13	MECHATRONIC SYSTEMS AND LABORATORY B <i>Students form A to ZZZZ - Braghin Francesco</i>	EN	M	1	6.0	
097525	B	ING-IND/12	ADVANCED MEASUREMENT TECHNIQUES <i>Students form A to ZZZZ - Manzoni Stefano</i>	EN	M	1	6.0	
097560	B	ING-IND/13	NOISE AND VIBRATION ENGINEERING <i>Students form A to ZZZZ - Corradi Roberto</i>	EN	M	1	6.0	
054829	B	ING-IND/15	METHODS AND TOOLS FOR SYSTEMATIC INNOVATION B - PROBLEM SOLVING AND INVENTIVE DESIGN <i>Students form A to ZZZZ - Cascini Gaetano</i>	EN	M	1	6.0 [1.0 @]	
097524	B	ING-IND/17	INDUSTRIAL PLANTS C <i>Students form A to ZZZZ - Calabrese Antonio</i>	EN	M	2	6.0	
097523	C	ING-IND/32	ELECTRICAL DRIVES FOR INDUSTRY AND TRANSPORT APPLICATIONS <i>Students form A to ZZZZ - Tarsitano Davide</i>	EN	M	2	6.0	
097558	B	ING-IND/14	VEHICLE DESIGN (OPTIMAL DESIGN) <i>Students form A to ZZZZ - Gobbi Massimiliano</i>	EN	M	2	6.0	
097499	B	ING-IND/13	FUNCTIONAL MECHANICAL DESIGN <i>Students form A to ZZZZ - Cinquemani Simone</i>	EN	M	2	6.0	

097537	B	ING-IND/14	MECHANICAL DESIGN FOR HIGH TEMPERATURE ENGINEERING APPLICATIONS <i>Students form A to ZZZZ - Filippini Mauro</i>	EN	M	2	6.0	20.0
097657	B	ING-IND/08	DESIGN OF FLUID MACHINES FOR CLEAN POWER GENERATION B <i>Students form A to ZZZZ - Dossena Vincenzo</i>	EN	M	1	6.0	
055861	C	ING-IND/21	FAILURE ANALYSIS E INGEGNERIA FORENSE <i>Students form A to ZZZZ - Boniardi Marco Virginio</i>	IT	M	2	6.0	
--	--	--	Courses to be chosen from Group OPEN ^(a)	--	--	--	--	
052444	--	--	THESIS PREPARATION: HORIZONTAL COMPETENCIES <i>Students form A to ZZZZ - Manzoni Stefano</i>	EN	V	1	2.0 [2.0 @]	
052442	--	--	THESIS WORK AND FINAL DEFENCE <i>Students form -- to -- - Docente non definito</i>	EN	V	1	18.0	
052444	--	--	THESIS PREPARATION: HORIZONTAL COMPETENCIES <i>Students form A to ZZZZ - Caruso Giandomenico</i>	EN	V	2	2.0 [2.0 @]	
052442	--	--	THESIS WORK AND FINAL DEFENCE <i>Students form -- to -- - Docente non definito</i>	EN	V	2	18.0	

(a) The OPEN group is updated every year before the study plan presentation

Track ME5 - Advanced Mechanical Design

Campus: Milano Bovisa

Track offered in English

Code	Act type	SSD	Course Title	Language	Type	Sem	CFU	CFU Group
054833	B	ING-IND/15	METHODS AND TOOLS FOR SYSTEMATIC INNOVATION I.C. <i>Students form A to ZZZZ</i> - 054832 METHODS AND TOOLS FOR SYSTEMATIC INNOVATION C - INNOVATION AND INTELLECTUAL PROPERTY MANAGEMENT (I.C. MODULE) - Cascini Gaetano - 054830 METHODS AND TOOLS FOR SYSTEMATIC INNOVATION B - PROBLEM SOLVING AND INVENTIVE DESIGN (I.C. MODULE) - Cascini Gaetano	EN	I	1	10.0 [2.0 @]	10.0
097547	B	ING-IND/14	MODELLING OF MECHANICAL BEHAVIOUR OF MATERIALS B <i>Students form A to ZZZZ - Foletti Stefano</i>	EN	M	1	6.0	6.0
097502	B	ING-IND/14	MECHANICAL SYSTEMS RELIABILITY <i>Students form A to ZZZZ - Beretta Stefano</i>	EN	M	1	6.0	
051141	B	ING-IND/14	EXPERIMENTAL METHODS FOR STRUCTURAL DIAGNOSTIC <i>Students form A to ZZZZ - Carboni Michele Ezio Ruggero Maria</i>	IT	M	2	6.0	
097550	B	ING-IND/13	MECHATRONIC SYSTEMS AND LABORATORY B <i>Students form A to ZZZZ - Braghin Francesco</i>	EN	M	1	6.0	
097454	B	ING-IND/15	COMPUTER VISION AND REVERSE ENGINEERING <i>Students form A to ZZZZ - Guidi Gabriele</i>	EN	M	2	6.0	
054834	B	ING-IND/14	METHODS FOR ADVANCED MECHANICAL DESIGN <i>Students form A to ZZZZ - Guagliano Mario</i>	EN	M	2	10.0 [2.0 @]	10.0
097502	B	ING-IND/14	MECHANICAL SYSTEMS RELIABILITY <i>Students form A to ZZZZ - Beretta Stefano</i>	EN	M	1	6.0	12.0
051141	B	ING-IND/14	EXPERIMENTAL METHODS FOR STRUCTURAL DIAGNOSTIC <i>Students form A to ZZZZ - Carboni Michele Ezio Ruggero Maria</i>	IT	M	2	6.0	
051140	B	ING-IND/13 ING-IND/14	RAIL VEHICLE DYNAMICS AND TRAIN-TRACK INTERACTION <i>Students form A to ZZZZ - Beretta Stefano</i>	EN	M	2	6.0	
097552	B	ING-IND/13	ROTOR DYNAMICS AND DIAGNOSTIC B <i>Students form A to ZZZZ - Pennacchi Paolo Emilio Lino Maria</i>	EN	M	1	6.0	
097550	B	ING-IND/13	MECHATRONIC SYSTEMS AND LABORATORY B <i>Students form A to ZZZZ - Braghin Francesco</i>	EN	M	1	6.0	
097525	B	ING-IND/12	ADVANCED MEASUREMENT TECHNIQUES <i>Students form A to ZZZZ - Manzoni Stefano</i>	EN	M	1	6.0	
097547	B	ING-IND/14	MODELLING OF MECHANICAL BEHAVIOUR OF MATERIALS B <i>Students form A to ZZZZ - Foletti Stefano</i>	EN	M	1	6.0	
097592	C	ING-IND/04	AEROSPACE TECHNOLOGIES AND MATERIALS B <i>Students form A to ZZZZ - Bettini Paolo</i>	EN	M	1	6.0	
095890	B	ING-IND/15	METHODS FOR VIRTUAL PROTOTYPING <i>Students form A to ZZZZ - Bordegoni Monica</i>	EN	M	1	6.0	
097524	B	ING-IND/17	INDUSTRIAL PLANTS C <i>Students form A to ZZZZ - Calabrese Antonio</i>	EN	M	2	6.0	
097523	C	ING-IND/32	ELECTRICAL DRIVES FOR INDUSTRY AND TRANSPORT APPLICATIONS <i>Students form A to ZZZZ - Tarsitano Davide</i>	EN	M	2	6.0	
097535	B	ING-IND/14	GROUND VEHICLE ENGINEERING B <i>Students form A to ZZZZ - Mastinu Gianpiero</i>	EN	M	2	6.0	
097537	B	ING-IND/14	MECHANICAL DESIGN FOR HIGH TEMPERATURE ENGINEERING APPLICATIONS <i>Students form A to ZZZZ - Filippini Mauro</i>	EN	M	2	6.0	
097454	B	ING-IND/15	COMPUTER VISION AND REVERSE ENGINEERING <i>Students form A to ZZZZ - Guidi Gabriele</i>	EN	M	2	6.0	

097500	B	ING-IND/14	LIGHTWEIGHT DESIGN OF MECHANICAL STRUCTURES <i>Students form A to ZZZZ - Bernasconi Andrea</i>	EN	M	2	6.0	20.0
095119	B	ING-IND/14	ADVANCED DESIGN OF MACHINE ELEMENTS <i>Students form A to ZZZZ - Stahl Karsten</i>	EN	M	2	6.0	
--	--	--	Courses to be chosen from Group OPEN ^(a)	--	--	--	--	
052298	B	ING-IND/14	GROUND VEHICLE ENGINEERING C <i>Students form A to ZZZZ - Mastinu Gianpiero</i>	EN	M	2	6.0	
055861	C	ING-IND/21	FAILURE ANALYSIS E INGEGNERIA FORENSE <i>Students form A to ZZZZ - Boniardi Marco Virginio</i>	IT	M	2	6.0	
055854	B	ING-IND/14	OPTIMAL MECHANICAL DESIGN AND FINITE ELEMENT METHOD <i>Students form A to ZZZZ - Bernasconi Andrea</i>	EN	M	1	6.0	
052444	--	--	THESIS PREPARATION: HORIZONTAL COMPETENCIES <i>Students form A to ZZZZ - Manzoni Stefano</i>	EN	V	1	2.0 [2.0 @]	
052442	--	--	THESIS WORK AND FINAL DEFENCE <i>Students form -- to -- - Docente non definito</i>	EN	V	1	18.0	
052444	--	--	THESIS PREPARATION: HORIZONTAL COMPETENCIES <i>Students form A to ZZZZ - Caruso Giandomenico</i>	EN	V	2	2.0 [2.0 @]	
052442	--	--	THESIS WORK AND FINAL DEFENCE <i>Students form -- to -- - Docente non definito</i>	EN	V	2	18.0	

(a) The OPEN group is updated every year before the study plan presentation

Track ME6 - Advanced Materials and Manufacturing

Campus: Milano Bovisa

Track offered in English

Code	Act type	SSD	Course Title	Language	Type	Sem	CFU	CFU Group
055855	C	ING-IND/21	MATERIALS ENGINEERING & ENVIRONMENTAL IMPACT <i>Students form A to ZZZZ - Mapelli Carlo</i>	EN	M	1	8.0	8.0
097482	B	ING-IND/16	DESIGN AND ANALYSIS OF EXPERIMENTS A <i>Students form A to ZZZZ - Tsiamyrtzis Panagiotis</i>	EN	M	1	8.0	8.0
055856	B	ING-IND/16	ADVANCED MANUFACTURING PROCESSES LAB A <i>Students form A to ZZZZ - Previtali Barbara</i>	EN	M	1	8.0	8.0
055857	B	ING-IND/16	ADDITIVE MANUFACTURING C <i>Students form A to ZZZZ - Colosimo Bianca Maria</i>	EN	M	1	8.0	
055858	C	ING-IND/21	INNOVATIONS IN METALLURGICAL PLANTS AND PROCESSES A <i>Students form A to ZZZZ - Barella Silvia</i>	EN	M	1	8.0 [8.0 @]	8.0
055859	C	ING-IND/21	MATERIALS FOR ENERGY B <i>Students form A to ZZZZ - Gariboldi Elisabetta</i>	IT	M	1	8.0 [2.0 @]	
051141	B	ING-IND/14	EXPERIMENTAL METHODS FOR STRUCTURAL DIAGNOSTIC <i>Students form A to ZZZZ - Carboni Michele Ezio Ruggero Maria</i>	IT	M	2	6.0	6.0
097547	B	ING-IND/14	MODELLING OF MECHANICAL BEHAVIOUR OF MATERIALS B <i>Students form A to ZZZZ - Foletti Stefano</i>	EN	M	1	6.0	
097457	B	ING-IND/12	VISION BASED 3D MEASUREMENTS <i>Students form A to ZZZZ - Zappa Emanuele</i>	EN	M	1	6.0	
054831	B	ING-IND/15	METHODS AND TOOLS FOR SYSTEMATIC INNOVATION C - INNOVATION AND INTELLECTUAL PROPERTY MANAGEMENT <i>Students form A to ZZZZ - Cascini Gaetano</i>	EN	M	1	6.0 [1.0 @]	
055860	C	ING-IND/21	INNOVATIONS IN METALLURGICAL PLANTS AND PROCESSES B <i>Students form A to ZZZZ - Barella Silvia</i>	EN	M	1	6.0 [6.0 @]	
055861	C	ING-IND/21	FAILURE ANALYSIS E INGEGNERIA FORENSE <i>Students form A to ZZZZ - Boniardi Marco Virginio</i>	IT	M	2	6.0	
052450	C	ING-IND/21	SOLIDIFICATION AND WELDING METALLURGY <i>Students form A to ZZZZ - Gruttadauria Andrea</i>	EN	M	1	6.0	
050870	B	ING-IND/16	ADVANCED MANUFACTURING PROCESSES LAB B <i>Students form -- to -- - Docente non definito</i>	EN	M	1	6.0	
055862	B	ING-IND/16	ADDITIVE MANUFACTURING B <i>Students form A to ZZZZ - Colosimo Bianca Maria</i>	EN	M	1	6.0	
055863	B	ING-IND/16	DE-MANUFACTURING B <i>Students form A to ZZZZ - Colledani Marcello</i>	EN	M	1	6.0	
052444	--	--	THESIS PREPARATION: HORIZONTAL COMPETENCIES <i>Students form A to ZZZZ - Manzoni Stefano</i>	EN	V	1	2.0 [2.0 @]	20.0
052442	--	--	THESIS WORK AND FINAL DEFENCE <i>Students form -- to -- - Docente non definito</i>	EN	V	1	18.0	
052444	--	--	THESIS PREPARATION: HORIZONTAL COMPETENCIES <i>Students form A to ZZZZ - Caruso Giandomenico</i>	EN	V	2	2.0 [2.0 @]	
052442	--	--	THESIS WORK AND FINAL DEFENCE <i>Students form -- to -- - Docente non definito</i>	EN	V	2	18.0	

Track ME7 - Ground Vehicles

Campus: Milano Bovisa

Track offered in English

Code	Act type	SSD	Course Title	Language	Type	Sem	CFU	CFU Group
097557	B	ING-IND/13	VEHICLE DYNAMICS AND CONTROL A <i>Students form A to ZZZZ - Cheli Federico</i>	EN	M	1	10.0	10.0
054362	B,C	ING-IND/13 ING-IND/32 ING-IND/33	HYBRID AND ELECTRIC VEHICLE <i>Students form A to ZZZZ - Tarsitano Davide</i>	EN	M	1	6.0	6.0
097502	B	ING-IND/14	MECHANICAL SYSTEMS RELIABILITY <i>Students form A to ZZZZ - Beretta Stefano</i>	EN	M	1	6.0	
097558	B	ING-IND/14	VEHICLE DESIGN (OPTIMAL DESIGN) <i>Students form A to ZZZZ - Gobbi Massimiliano</i>	EN	M	2	6.0	
097556	B	ING-IND/14	GROUND VEHICLE ENGINEERING A <i>Students form A to ZZZZ - Mastinu Gianpiero</i>	EN	M	2	10.0	10.0
097559	C	ING-INF/04	AUTOMATIC CONTROL B <i>Students form A to ZZZZ - Zanchettin Andrea Maria</i>	EN	M	1	6.0	12.0
097550	B	ING-IND/13	MECHATRONIC SYSTEMS AND LABORATORY B <i>Students form A to ZZZZ - Braghin Francesco</i>	EN	M	1	6.0	
051141	B	ING-IND/14	EXPERIMENTAL METHODS FOR STRUCTURAL DIAGNOSTIC <i>Students form A to ZZZZ - Carboni Michele Ezio Ruggero Maria</i>	IT	M	2	6.0	
052079	B,C	ING-IND/13 ING-IND/33	MOBILITY: INFRASTRUCTURES AND SERVICES <i>Students form A to ZZZZ - 052078 MOBILITY: INFRASTRUCTURES AND SERVICES - APPLICATIONS - Longo Michela - 052077 MOBILITY: INFRASTRUCTURES AND SERVICES - GENERAL CONCEPTS - Longo Michela</i>	EN	I	2	8.0 [4.0 (d)]	
051140	B	ING-IND/13 ING-IND/14	RAIL VEHICLE DYNAMICS AND TRAIN-TRACK INTERACTION <i>Students form A to ZZZZ - Beretta Stefano</i>	EN	M	2	6.0	
051137	B	ING-IND/13	WIND ENGINEERING <i>Students form A to ZZZZ - Rocchi Daniele</i>	EN	M	2	6.0	
097502	B	ING-IND/14	MECHANICAL SYSTEMS RELIABILITY <i>Students form A to ZZZZ - Beretta Stefano</i>	EN	M	1	6.0	
097560	B	ING-IND/13	NOISE AND VIBRATION ENGINEERING <i>Students form A to ZZZZ - Corradi Roberto</i>	EN	M	1	6.0	
097450	B	ING-IND/15	DESIGN METHODS <i>Students form A to ZZZZ - Viganò Roberto</i>	EN	M	2	6.0	
054363	B	ING-IND/08	INTERNAL COMBUSTION ENGINES FOR AUTOMOTIVE APPLICATIONS <i>Students form A to ZZZZ - D'Errico Gianluca</i>	EN	M	1	6.0	
097547	B	ING-IND/14	MODELLING OF MECHANICAL BEHAVIOUR OF MATERIALS B <i>Students form A to ZZZZ - Foletti Stefano</i>	EN	M	1	6.0	
097550	B	ING-IND/13	MECHATRONIC SYSTEMS AND LABORATORY B <i>Students form A to ZZZZ - Braghin Francesco</i>	EN	M	1	6.0	
097525	B	ING-IND/12	ADVANCED MEASUREMENT TECHNIQUES <i>Students form A to ZZZZ - Manzoni Stefano</i>	EN	M	1	6.0	
097671	C	ING-IND/33	ELECTRIC SYSTEMS FOR TRANSPORTATION C <i>Students form A to ZZZZ - Longo Michela</i>	EN	M	1	6.0	
097524	B	ING-IND/17	INDUSTRIAL PLANTS C <i>Students form A to ZZZZ - Calabrese Antonio</i>	EN	M	2	6.0	
097500	B	ING-IND/14	LIGHTWEIGHT DESIGN OF MECHANICAL STRUCTURES <i>Students form A to ZZZZ - Bernasconi Andrea</i>	EN	M	2	6.0	
097523	C	ING-IND/32	ELECTRICAL DRIVES FOR INDUSTRY AND TRANSPORT APPLICATIONS <i>Students form A to ZZZZ - Tarsitano Davide</i>	EN	M	2	6.0	
097558	B	ING-IND/14	VEHICLE DESIGN (OPTIMAL DESIGN) <i>Students form A to ZZZZ - Gobbi Massimiliano</i>	EN	M	2	6.0	
097499	B	ING-IND/13	FUNCTIONAL MECHANICAL DESIGN <i>Students form A to ZZZZ - Cinquemani Simone</i>	EN	M	2	6.0	
091186	C	ING-IND/04	PASSIVE SAFETY <i>Students form A to ZZZZ - Anghileri Marco</i>	IT	M	2	6.0	
094910	B	ING-IND/13	SMART STRUCTURES AND DEVICES <i>Students form A to ZZZZ - Erturk Alper</i>	EN	M	2	6.0	
095119	B	ING-IND/14	ADVANCED DESIGN OF MACHINE ELEMENTS <i>Students form A to ZZZZ - Stahl Karsten</i>	EN	M	2	6.0	
055861	C	ING-IND/21	FAILURE ANALYSIS E INGEGNERIA FORENSE <i>Students form A to ZZZZ - Boniardi Marco Virginio</i>	IT	M	2	6.0	
--	--	--	Courses to be chosen from Group OPEN ^(a)	--	--	--	--	
054831	B	ING-IND/15	METHODS AND TOOLS FOR SYSTEMATIC INNOVATION C - INNOVATION AND INTELLECTUAL PROPERTY MANAGEMENT <i>Students form A to ZZZZ - Cascini Gaetano</i>	EN	M	1	6.0 [1.0 (d)]	

052444	--	--	THESES PREPARATION: HORIZONTAL COMPETENCIES <i>Students form A to ZZZZ - Manzoni Stefano</i>	EN	V	1	2.0 [2.0 @]	20.0
052442	--	--	THESES WORK AND FINAL DEFENCE <i>Students form -- to -- - Docente non definito</i>	EN	V	1	18.0	
052444	--	--	THESES PREPARATION: HORIZONTAL COMPETENCIES <i>Students form A to ZZZZ - Caruso Giandomenico</i>	EN	V	2	2.0 [2.0 @]	
052442	--	--	THESES WORK AND FINAL DEFENCE <i>Students form -- to -- - Docente non definito</i>	EN	V	2	18.0	

(a) The OPEN group is updated every year before the study plan presentation

Track ME9 - Mobility Engineering

Campus: Milano Bovisa

Track offered in English

Code	Act type	SSD	Course Title	Language	Type	Sem	CFU	CFU Group
097671	C	ING-IND/33	ELECTRIC SYSTEMS FOR TRANSPORTATION C <i>Students form A to ZZZZ - Longo Michela</i>	EN	M	1	6.0	15.0
052711	C	ING-IND/35	INFRASTRUCTURE INVESTMENT AND PROJECT FINANCE <i>Students form A to ZZZZ - Panmolti Fabio</i>	EN	M	1	5.0	
052712	--	ING-INF/05	DATA SCIENCE FOR MOBILITY <i>Students form A to ZZZZ - Carman Mark James</i>	EN	M	1	5.0	
052713	C	ICAR/05	TRANSPORT PLANNING AND ECONOMICS <i>Students form A to ZZZZ - Borghetti Fabio</i>	EN	M	1	5.0	
052714	B	ING-IND/09	ENERGY AND EMISSIONS IN TRANSPORTATION SYSTEMS <i>Students form A to ZZZZ - Guandalini Giulio</i>	EN	M	1	5.0	
055653	--	IUS/20 M-FIL/02 M-FIL/03	ETHICS FOR TRANSPORTATIONS <i>Students form A to ZZZZ - Docente non definito</i>	EN	M	1	5.0 [5.0 @]	8.0
052079	B,C	ING-IND/13 ING-IND/33	MOBILITY: INFRASTRUCTURES AND SERVICES <i>Students form A to ZZZZ - - 052078 MOBILITY: INFRASTRUCTURES AND SERVICES - APPLICATIONS - Longo Michela - 052077 MOBILITY: INFRASTRUCTURES AND SERVICES - GENERAL CONCEPTS - Mazzoncini Renato</i>	EN	I	2	8.0 [4.0 @]	
051140	B	ING-IND/13 ING-IND/14	RAIL VEHICLE DYNAMICS AND TRAIN-TRACK INTERACTION <i>Students form A to ZZZZ - Beretta Stefano</i>	EN	M	2	6.0	6.0
097523	C	ING-IND/32	ELECTRICAL DRIVES FOR INDUSTRY AND TRANSPORT APPLICATIONS <i>Students form A to ZZZZ - Tarsitano Davide</i>	EN	M	2	6.0	6.0
052298	B	ING-IND/14	GROUND VEHICLE ENGINEERING C <i>Students form A to ZZZZ - Mastini Gianpiero</i>	EN	M	2	6.0	
052715	--	--	GRADUATION THESIS AND FINAL EXAM (MEC) <i>Students form -- to -- - Docente non definito</i>	EN	V	1	17.0	17.0
052715	--	--	GRADUATION THESIS AND FINAL EXAM (MEC) <i>Students form -- to -- - Docente non definito</i>	EN	V	2	17.0	

Track ME8 - Machine Tools Engineering

Campus: Piacenza

Track offered in English

Code	Act type	SSD	Course Title	Language	Type	Sem	CFU	CFU Group
054835	B	ING-IND/16	MACHINE TOOLS AND MANUFACTURING SYSTEMS LM B <i>Students form A to ZZZZ - Albertelli Paolo</i>	EN	M	1	8.0	8.0
097550	B	ING-IND/13	MECHATRONIC SYSTEMS AND LABORATORY B <i>Students form A to ZZZZ - Braighin Francesco</i>	EN	M	1	6.0	8.0
053419	B	ING-IND/13	ROBOTIC SYSTEMS DESIGN <i>Students form A to ZZZZ - Giberti Hermes</i>	EN	M	1	6.0	
097560	B	ING-IND/13	NOISE AND VIBRATION ENGINEERING <i>Students form A to ZZZZ - Corradi Roberto</i>	EN	M	1	6.0	
097525	B	ING-IND/12	ADVANCED MEASUREMENT TECHNIQUES <i>Students form A to ZZZZ - Manzoni Stefano</i>	EN	M	1	6.0	
055867	B	ING-IND/12 ING-IND/13	PROJECT WORK I <i>Students form A to ZZZZ - Corradi Roberto</i>	EN	M	1	2.0 [2.0 @]	
055854	B	ING-IND/14	OPTIMAL MECHANICAL DESIGN AND FINITE ELEMENT METHOD <i>Students form A to ZZZZ - Bernasconi Andrea</i>	EN	M	1	6.0	8.0

055868	B	ING-IND/14	MECHANICAL SYSTEMS RELIABILITY <i>Students form A to ZZZZ - Beretta Stefano</i>	EN	M	1	6.0	
055869	B	ING-IND/15	METHODS FOR VIRTUAL PROTOTYPING <i>Students form A to ZZZZ - Bordegoni Monica</i>	EN	M	1	6.0	
055870	B	ING-IND/14 ING-IND/15	PROJECT WORK II <i>Students form A to ZZZZ - Bernasconi Andrea</i>	EN	M	1	2.0 [2.0 @]	
097539	C	ING-INF/04	AUTOMATIC CONTROL C <i>Students form A to ZZZZ - Zanchettin Andrea Maria</i>	EN	M	1	8.0	8.0
054840	B	ING-IND/13 ING-IND/14 ING-IND/16	MACHINE TOOLS DIGITAL LAB <i>Students form A to ZZZZ - Foppiani Giuseppe</i>	EN	M	2	6.0 [6.0 @]	6.0
052444	--	--	THESIS PREPARATION: HORIZONTAL COMPETENCIES <i>Students form A to ZZZZ - Manzoni Stefano</i>	EN	V	1	2.0 [2.0 @]	20.0
052442	--	--	THESIS WORK AND FINAL DEFENCE <i>Students form -- to -- - Docente non definito</i>	EN	V	1	18.0	
052444	--	--	THESIS PREPARATION: HORIZONTAL COMPETENCIES <i>Students form A to ZZZZ - Caruso Giandomenico</i>	EN	V	2	2.0 [2.0 @]	
052442	--	--	THESIS WORK AND FINAL DEFENCE <i>Students form -- to -- - Docente non definito</i>	EN	V	2	18.0	

Group list*Courses of the Group OPEN*

Code	Act type	SSD	Course Title	Language	Type	Sem	CFU
056083	B,C	ING-IND/12 ING-IND/13 ING-IND/14 ING-IND/15 ING-IND/16 ING-IND/21	EMERGING TOPICS IN MECHANICAL ENGINEERING <i>Students form A to ZZZZ - Docente non definito</i>	EN	M	1	6.0
053584	C	ING-IND/35	HIGH-TECH STARTUPS: CREATING AND SCALING UP I <i>Students form A to ZZZZ - Colombo Massimo Gaetano</i>	EN	M	1	6.0 [6.0 @]
095120	C	ING-IND/21	MATERIAL ENGINEERING FOR PRODUCT INNOVATION <i>Students form A to ZZZZ - Casati Riccardo</i>	EN	M	1	6.0
051143	B	ING-IND/16	ADDITIVE MANUFACTURING FOR SPACE AND AEROSPACE APPLICATIONS <i>Students form A to ZZZZ - Ghidini Tommaso</i>	EN	M	2	6.0
095119	B	ING-IND/14	ADVANCED DESIGN OF MACHINE ELEMENTS <i>Students form A to ZZZZ - Stahl Karsten</i>	EN	M	2	6.0
055932	--	M-FIL/02	CRITICAL THINKING <i>Students form A to ZZZZ - Chiffi Daniele</i>	EN	M	2	6.0 [6.0 @]
055931	--	SPS/07	EMERGING TECHNOLOGIES AND SOCIETAL CHALLENGES <i>Students form A to ZZZZ - Volonte' Paolo Gaetano</i>	EN	M	2	6.0 [6.0 @]
056083	B,C	ING-IND/12 ING-IND/13 ING-IND/14 ING-IND/15 ING-IND/16 ING-IND/21	EMERGING TOPICS IN MECHANICAL ENGINEERING <i>Students form A to ZZZZ - Docente non definito</i>	EN	M	2	6.0
056234	--	M-FIL/02	ETHICS FOR TECHNOLOGY B <i>Students form A to ZZZZ - Docente non definito</i>	EN	M	2	6.0 [6.0 @]
052448	C	ING-IND/35	MANAGING TECHNOLOGY DISRUPTION <i>Students form A to ZZZZ - Caio Francesco</i>	EN	M	2	6.0
094910	B	ING-IND/13	SMART STRUCTURES AND DEVICES <i>Students form A to ZZZZ - Erturk Alper</i>	EN	M	2	6.0
052447	C	ING-IND/35	STRATEGIC PLANNING IN REAL PRACTICE <i>Students form A to ZZZZ - Moretti Mauro</i>	IT	M	2	6.0
095118	B	ING-IND/15	TECHNOLOGY FORECASTING AND RESEARCHING FUTURE <i>Students form A to ZZZZ - Kucharavy Dzmirty</i>	EN	M	2	6.0

Courses of the Group OPEN_ME1

Code	Act type	SSD	Course Title	Language	Type	Sem	CFU
053583	C	ING-IND/35	HIGH-TECH STARTUPS: CREATING AND SCALING UP I <i>Students form A to ZZZZ - Colombo Massimo Gaetano</i>	EN	M	1	5.0 [5.0 @]
052449	C	ING-IND/21	MATERIAL ENGINEERING FOR PRODUCT INNOVATION <i>Students form A to ZZZZ - Casati Riccardo</i>	EN	M	1	5.0
051144	B	ING-IND/16	ADDITIVE MANUFACTURING FOR SPACE AND AEROSPACE APPLICATIONS <i>Students form A to ZZZZ - Ghidini Tommaso</i>	EN	M	2	5.0
098506	B	ING-IND/14	ADVANCED DESIGN OF MACHINE ELEMENTS <i>Students form A to ZZZZ - Stahl Karsten</i>	EN	M	2	5.0
055806	--	M-FIL/02	CRITICAL THINKING <i>Students form A to ZZZZ - Chiffi Daniele</i>	EN	M	2	5.0 [5.0 @]
055807	--	SPS/07	EMERGING TECHNOLOGIES AND SOCIETAL CHALLENGES <i>Students form A to ZZZZ - Volonte' Paolo Gaetano</i>	EN	M	2	5.0 [5.0 @]
056233	--	M-FIL/02	ETHICS FOR TECHNOLOGY B <i>Students form A to ZZZZ - Docente non definito</i>	EN	M	2	5.0 [5.0 @]
052320	C	ING-IND/35	MANAGING TECHNOLOGY DISRUPTION <i>Students form A to ZZZZ - Caio Francesco</i>	EN	M	2	5.0
098503	B	ING-IND/13	SMART STRUCTURES AND DEVICES <i>Students form A to ZZZZ - Erturk Alper</i>	EN	M	2	5.0
052321	C	ING-IND/35	STRATEGIC PLANNING IN REAL PRACTICE <i>Students form A to ZZZZ - Moretti Mauro</i>	IT	M	2	5.0
098504	B	ING-IND/15	TECHNOLOGY FORECASTING AND RESEARCHING FUTURE <i>Students form A to ZZZZ - Kucharavy Dzmirty</i>	EN	M	2	5.0