

# WHY to Enroll?

The Master's Degree program in Mechanical Engineering for Design and Manufacturing (LM-IMPP) is aimed at the training of Mechanical Engineers with specific skills in the field of Mechanical Design and Production.

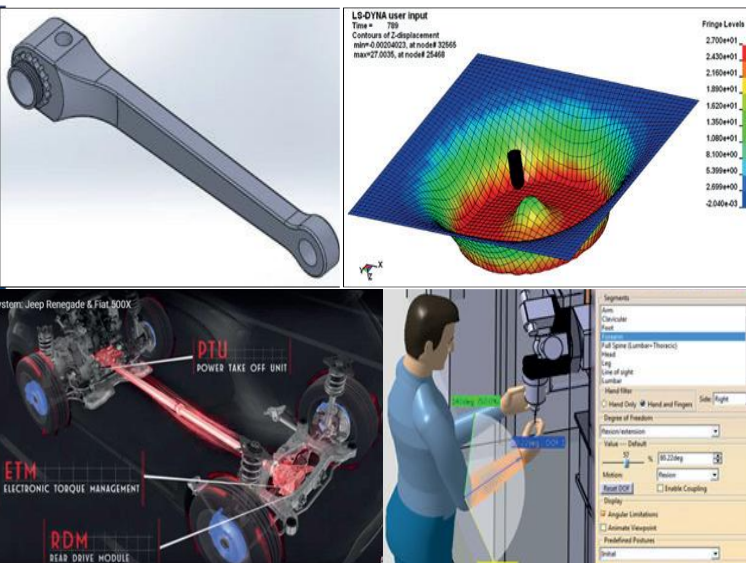
It is a path that ensures students acquire the high technical competencies demanded by the market, as evidenced by the employment rate three years after graduation, which is over 96% for graduates of this program (source: AlmaLaurea).

The strengths of the study program can also be found in the extensive range of courses offered (62 courses), the possibility for all students to undertake internships and thesis projects with companies and research institutions, both in Italy and abroad, through direct agreements and international exchange programs (ERASMUS+ agreements, bilateral agreements between universities).

## Coordinator

Prof. Enrico Armentani - enrico.armentani@unina.it

## Example applications related to IMPP program



## Links

General Info for International student mobility  
[www.international.unina.it/welcome-message/](http://www.international.unina.it/welcome-message/)

School «Politecnica e delle Scienze di Base»  
[www.scuolapsb.unina.it](http://www.scuolapsb.unina.it)

Department of Industrial Engineering  
Piazzale Tecchio, 80 – 80125 Napoli  
[www.dii.unina.it](http://www.dii.unina.it)

Masters' studies in Mech Eng for Design and Manufacturing  
<http://meccanica.dii.unina.it/it/info-lmpp>

Orientation contact person  
Prof. Alfonso William Mauro - wmauro@unina.it

Student's Guide  
<http://meccanica.dii.unina.it/it/info-lmpp>

Instagram Channel  
meccanica.uninaofficial



UNIVERSITÀ DEGLI STUDI DI NAPOLI FEDERICO II  
SCUOLA POLITECNICA E DELLE SCIENZE DI BASE

# ENGINEERING

## MASTER'S DEGREE IN MECHANICAL ENGINEERING FOR DESIGN AND MANUFACTURING IMPP



DIPARTIMENTO DI  
INGEGNERIA  
INDUSTRIALE

academic year  
2026-2027

## LEARNING OUTCOMES

The LM-IMPP path includes a common first year with 5 recommended exams (4 mandatory) to establish a solid basic preparation, and a second year in which the student follows a specialization path in design or production topics.

There are 5 training paths with study plans already approved: **Advanced and Smart Mechanical Design, Advanced and Smart Production, Road Vehicle Design, Technological Processes, Mechatronics**, and 1 curriculum in **Railway Mechanics**.

Internship opportunities are available to all graduating students. For example, some companies where curricular internships are carried out include: 3DNA, Abete, ADLER Plastic, Aerosoft, Blue Engineering, Dacca-i, DEMA, GE Avio, Hitachi Rail, LAER Aeronautica, Laminazione sottile, Leonardo, LMC, Nashira Harmetals, Officine Meccaniche Pontillo, OMPM, SophiaTech, Stellantis, Tecnosistem, etc.



UNINACORSE UniNa Formula Student racing team - **1st place overall at Italian edition of Formula SAE world championship 2023**  
Varano de' Melegari 16/7/2023

## access requirements

Enrollment in the LM-IMPP requires the possession of a three-year university diploma or other equivalent qualification obtained abroad. For registration, in compliance with art. 6 paragraph 2 of Ministerial Decree 270/04, specific access criteria are required concerning the possession of curricular requirements and prerequisites of adequacy of the student's personal preparation.

Details in:  
<http://meccanica.dii.unina.it/it/orientamento-lmpp>

## TRAINING PLAN

CFU = University Formative Credit

The training plan can be defined by choosing one of the **5 paths** or **2 curricula**.

For the **five paths**, the plan is structured as follows:

|                                                                                                                                                                                    |            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>FIRST YEAR</b> (4 courses among the following: )                                                                                                                                | <b>CFU</b> |
| Dynamics of Mechanical Systems, Industrial Production Management, Geometric Modeling and Virtual Prototyping, Computer-Aided Design of Mechanical Structures, Special Technologies | 36         |
| <b>Chosen by the students between the first and second year</b>                                                                                                                    | <b>CFU</b> |
| Curriculum-based                                                                                                                                                                   | 36         |
| Affine or integrative                                                                                                                                                              | 12         |
| Student's autonomous choice activities                                                                                                                                             | 9          |
| <b>Number of offered curricular courses (choose at least 3)</b>                                                                                                                    |            |
| <b>Advanced and Smart Mechanical Design path: 4 (*)</b>                                                                                                                            |            |
| <b>Advanced and Smart Production path: 7 (*)</b>                                                                                                                                   |            |
| <b>Mechatronics path: 5 (*)</b>                                                                                                                                                    |            |
| <b>Technological Processes path: 5 (*)</b>                                                                                                                                         |            |
| <b>Road Vehicle Design path: 5 (*)</b>                                                                                                                                             |            |

For the **Railway Mechanics curriculum**, the study plan is structured as follows:

|                                                                                                                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Mandatory Activities</b>                                                                                                                                                                                                           |
| Railway Constructions, Railway Vehicle Dynamics, Product Management Elements for Railways, Geometric Modeling and Virtual Prototyping, Organization and Safety of Railway Network Operation, Railway Propulsion, Railway Technologies |
| <b>Curricular Elective Activities</b>                                                                                                                                                                                                 |
| 3 further courses to choose from two tracks: <b>design (*)</b> and <b>production (*)</b>                                                                                                                                              |

For the **Sustainable Development curriculum**, the study plan is structured as follows:

|                                                                                                                                                                                                     |            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>FIRST YEAR</b> (4 courses among the following: )                                                                                                                                                 | <b>CFU</b> |
| Advanced and Resource Efficient Manufacturing, Advanced Structural Mechanics, Digital Modeling and Simulation for Industrial Engineering, Logistics and Operation Management, Mechanical vibrations | 36         |
| <b>Chosen by the students between the first and second year</b>                                                                                                                                     | <b>CFU</b> |
| Curriculum-based                                                                                                                                                                                    | 36         |
| Affine or integrative                                                                                                                                                                               | 12         |
| Student's autonomous choice activities                                                                                                                                                              | 9          |
| <b>SECOND YEAR</b> (activities common to the <b>5 paths</b> and the <b>2 curricula</b> )                                                                                                            | <b>CFU</b> |
| Internship                                                                                                                                                                                          | 9          |
| Additional knowledge                                                                                                                                                                                | 3          |
| Final exam                                                                                                                                                                                          | 15         |

**Minor in Applied Machine Learning (\*)** (CFU extra-curricular) 6

(\*) for additional details on the learning plan:  
<http://meccanica.dii.unina.it/it/manifesto-lmpp>

## JOBS AND CAREER OPPORTUNITIES

The Master's Degree in Mechanical Engineering for Design and Manufacturing enables you to have a profile as:

Mechanical Engineer specializing in design, finding employment in the field of product research and development (from simple components to complex machines) using advanced drafting techniques (CAD, virtual reality) and design (FEM) for mechanical and mechatronic components and general-use products in various industrial sectors (vehicles, manufacturing machinery, sports equipment, leisure, etc.).

Mechanical Engineer specializing in production, finding employment in various industries, focusing on the development of manufacturing and processing processes, particularly with a focus on cutting-edge technologies (such as additive technologies: 3D printing). Responsibilities may include managing production lines, planning manufacturing processes, and maintaining industrial facilities, among other tasks.

## CAMPUS AREA

The educational activities take place in various locations in Fuorigrotta (piazzale Tecchio, 80; via Claudio, 21; via nuova Agnano), where study rooms, libraries and laboratories are also available.

