INDUSTRIAL STRUCTURE MECHANICS

MSI

The Industrial Structure Mechanics (MSI) specialization is a Master's-level engineering program that trains field engineers via apprenticeship, in mechanics, piping, pressure vessel design and manufacturing, welding, and metalwork. It prepares them for jobs such in manufacturing, business management, engineering services & methods, inspection & control...

KEYWORDS

PRESSURE VESSEL PIPING
ENERGY
MECHANICS
METALWORK
INDUSTRIAL INSTALLATION AND MAINTENANCE
NUCLEAR
WELDING

ALL OF POLYTECH'S PROGRAMS LEVERAGE A SOLID PARTNERSHIP NETWORK WITH:

- *The industrial world (800 internships, 200 industry projects, and 50 apprenticeship contracts per year)*
- *Academic research (14 associated research laboratories)*
- *International partners (over 100 partner universities around the world)*

TRAINING THROUGH APPRENTICESHIP

- *Alternating work-study.*

COURSES ARE GIVEN IN NÎMES

- *At the IUT site in Nîmes.*

FORMERLY "FQSC MECHANICS"

- *MSI, previously the Mechanics specialization, Manufacturing and quality of pressure vessel structures*

TARGET PROFESSIONS

When MSI engineering students graduate:

- they have acquired a scientific and technical foundation in the field of mechanics applied to mechanical-welded structures.

- they possess knowledge in pressure vessel design and manufacturing and metalwork, piping, welding, and related techniques.

- they are able to design, manufacture, and maintain industrial installations.

Graduates are ready to:

→drive and monitor projects.
→organize, optimize, and manage production and industrial workflows.
→ensure human and material safety, respect for the environment, regulations, and product quality
→innovate and industrialize by designing and developing products and processes.
→organize and supervise maintenance activities and jobs.

TARGET ACTIVITY SECTORS

- Companies involved with metal maintenance, production, and transformation (sheets, tubes, extrusions) for a variety of industries, including nuclear, chemical, petrochemical, agri-food, pharmaceutical, transport, storage, energy, and environmental.
- Engineering firms.
- Control organizations.

POLYTECH
MONTPELLIER

MAIN PROGRAM TOPICS

→mathematics
→physics
→chemistry
→electricity
→mechanics
→materials
→quality
→computer science
→human and social sciences
→modern languages
→metallurgy
→welding
→quality (NDT)

A complete list of courses offered at POLYTECH, and total hours, is available on **www.polytech-montpellier.fr**

PROFESSIONAL PROGRAMS

Company training (work-study) is supervised by an industry advisor, the apprenticeship director, and monitored by an educational director, the professor. The program is organized into five professional modules:

→Company knowledge (MP1)
→Technical environment (MP2)
→Scientific and/or technical application (MP3)
→Business management (MP4)
→End-of-year industry project (MP5)

"MSI" GRADUATES

Régis Bernhard, Welding-manufacturing Manager, Eiffel Industries (Mechanics FQSC 2010)*

Sébastien Bully, Project Manager, Air Liquide (Mechanics FQSC 2002)*

Julien Chapuis, Director of Welding Processes, Areva (Mechanics FQSC 2007)*

** MSI = formerly "Mechanics FQSC".*

CALENDAR

→Program duration: 3 years
→Program start: early October
→70 weeks in school + 72 weeks in company + 5 weeks paid vacation per year.
→Work-study alternation:
- 7 to 10 weeks / 7 to 10 weeks during 1st year
- 5 weeks / 5 weeks, then 10 weeks / 10 weeks in 2nd year
- 10 weeks / 10 weeks, then 15 weeks / 15 weeks in 3rd year

ADMISSION REQUIREMENTS

→Under age 26, upon signature of apprenticeship contract.
→High school + 2 years (L2, DUT, BTS, CPGE, PeiP...) in science and technology.
→Competition via application and interview
→Apprenticeship contract signature.

The apprentice earns compensation between 41% and 78% of the French legal minimum wage.

SOLID PARTNERSHIPS

The MSI program benefits from strong support from:

- *the Région Languedoc-Roussillon-Midi-Pyrénées, through the Higher Education Regional Center for Apprentice Training (CFA EnSup-LR).*
- *SNCT, the national pressure vessel, piping, and industrial maintenance union.*

Most partner companies hire engineering apprentices on graduation.

LANGUEDOC ROUSSILLON LA RÉGION MIDI PYRÉNÉES
CFA ENSUP LR
SNCT Syndicat de la Chaudronnerie, Tuyauterie et Maintenance Industrielle

FIND OUT MORE +

More information on www.polytech-montpellier.fr and www.ensuplr.fr






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