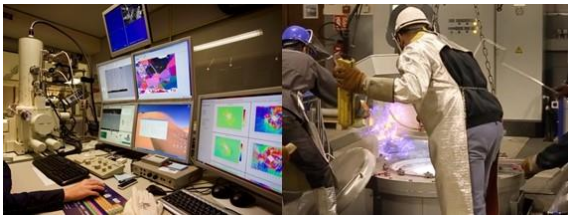
Master of Science M1+M2
Advanced Manufacturing and Materials Science (AM^2S)

From Materials Science to Advanced Manufacturing for the Industry of the Future 4.0

Campus of Aix-en-Provence, France

Arts et Métiers Sciences et Technologies



The manufacturing industry is undergoing challenging changes. Industry 4.0 will change how manufacturing works, and as a result, it will also change who is needed to work within the industry. The objective of AM^2S is to prepare engineers for these future challenges. This program will provide future engineers and researchers the knowledge and skills to understand, use and develop Industry 4.0 concepts based on smart approaches, including the digital revolution.
This MSc is in partnership with Texas A&M University (USA), as part of the Transatlantic Partnership for Industry of the Future.

INTRODUCTION

The AM^2S Master of Science program is a unique program that allows students to acquire skills in **manufacturing processes** and **materials science** through **multi-physics** and **multi-scale** approaches, including **smart** and **digital** concepts, within the scope of **Industry 4.0**.
This program focuses on innovative scientific fields, from the physics and chemistry of materials to the use of manufactured parts, by developing the duality between experimentation and numerical simulation.
A **M1 Track** (60 ECTS) and a **M2 Track** (60 ECTS) are proposed.
A **dual degree option** with Texas A&M Interdisciplinary Engineering can be proposed including M1 in one university and M2 in the other university.

PUBLIC

- *Bachelor Students (BSc or L3) for M1 Track*
- *M1 Students for M2 Track*

PREREQUISITES

- *Mechanical Engineering or Materials Science & Engineering*
- *Equivalent foreign degree*
- *Selection for Dual Degree option with Texas A&M*

CAREERS

- Working in a major manufacturing company in many sectors, such transport or energy, or in a mechanical or/and materials engineering research laboratory
- Working in an industry with a scientific approach in the sectors of the matter transformation or/and part manufacturing
- PhD in mechanics, material science or manufacturing

PROCEDURE

Applications open in February
Deadline end of June

KEY STRENGTHS

- Registered in the French National Directory of Professional Certifications (RNCP « Génie Mécanique » 31495)
- Leading international industrial partners in the transport, aerospace and automotive sectors
- 20% experts from industry
- Use of innovative industrial resources
- Program designed and taught by the Mechanics, Surfaces and Materials Processing Laboratory, which is a leading innovator in Advanced Materials, Manufacturing Sciences and Engineering.

COST OF MSc

Nationally recognized degree

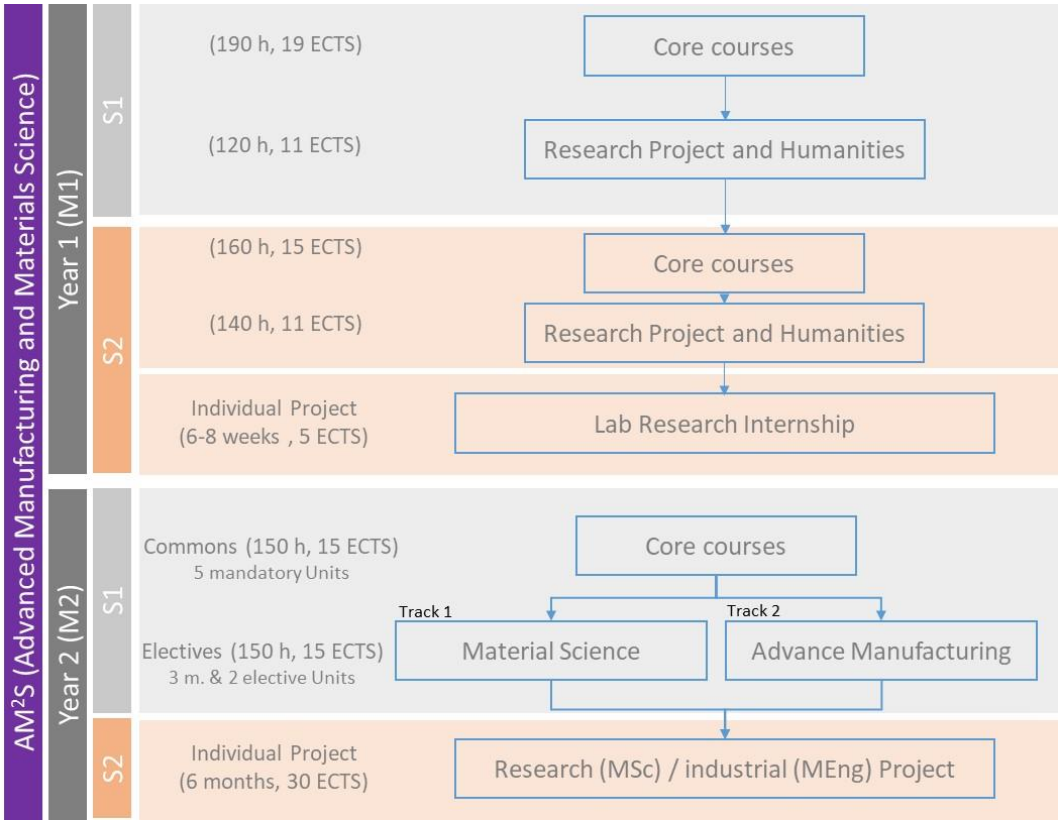
Tuition fees per year for EU/EEA and non-EU/EEA citizens : around €243/academic year
Must be paid by registration day

Social security costs may be added

Dual Degree option with Texas A&M: fees at Texas A&M

PROGRAMS

Full-time academic program in two years :
Teaching language: English
ECTS credits:
30 credits/semester (120 ECTS for the M1+M2)



PARTNERS

Academic partners:
- Texas A&M University
- University of Bristol
- Danish Technical University
- Karlsruhe Institute of Technology

Industrial partners:
- Airbus, Renault, PSA, CEA, Safran, Thyssen Group, Saint-Gobain, Still

Institutional partners:
- Clusters: Safe, Henri-Fabre Project
- IRT M2P

CONTACT

Program Directors : M1 : Dr . Régis Kubler - M2 : Prof . Laurent Barrallier
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www.artsetmetiers.fr/fr/formation/admissions

https://artsetmetiers.fr/fr/am2s-advanced-manufacturing-and-materials-science-m1m2

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