

Master in Mechanics

Applied Mechanics 1st year

Presentation

The 1st international year, 'Applied Mechanics', totally common to both programmes of Civil Engineering and Mechanics and which opens on three international courses, including GCER for the second year.

This Master Course gives you the opportunity to apply to the UGA Graduate School and one of its 15 thematic programs. The Graduate School@UGA is a new training program through and for research which was launched in 2021 within the Université Grenoble Alpes, and which concerns all the schools and components of the UGA. The objective of these thematic programs is to offer interested students an interdisciplinary training program and academic excellence combining university studies and laboratory internships. Each thematic program develops a specific line of research, allowing then to embark on a PhD, or to have a direct professional insertion. The program regroups students registered in different mentions, master programs or engineer school tracks and working together in specific courses.

Participation in the Graduate School@UGA is for two years (M1 and M2) and may open the possibility of obtaining an academic scholarship for two years for the best international students (non-French baccalaureate holders).

For more information : <https://www.univ-grenoble-alpes.fr/education/graduate-school/>

Registration and scholarships

Access conditions

- For the first year : holders of a general scientific degree with a specialisation in mechanics, or equivalent diploma
- For the second year : students who have completed the first year of a compatible programme or one of equivalent level

For candidates whose country of residence is not included in the "Studies in France" portal (PEF) scheme, the calendar for the eCandidat application campaigns is available [here](#)

Public continuing education : You are in charge of continuing education :

- if you resume your studies after 2 years of interruption of studies
- or if you followed a formation under the regime formation continues one of the 2 preceding years
- or if you are an employee, job seeker, self-employed

If you do not have the diploma required to integrate the training, you can undertake a [validation of personal and professional achievements \(VAPP\)](#)

skin.odf-uga:SKIN_ODF_CONTENT_PROGRAM_CANDIDATURE_LABEL

Would you like to apply and register ? Be aware that the procedure differs depending on the diploma, the degree obtained, or the place of residence for foreign students. Let us guide you simply by following this [link](#)

Expenses

Tuition fees 2022-2023 : 243 € + 100€ CVEC

Practicals informations :

- > Component : UFR PhITEM (physique, ingénierie, terre, environnement, mécanique)
- > level : Bacalauréate +4
- > Duration : 1 year
- > Course type : Initial and Continuing Education
- > Location(s) : Grenoble - University campus

Contacts

Program director

Geindreau Christian

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Program administration

Registrar's Office for the Master in Mechanics

phitem.master.mecanique@univ-grenoble-alpes.fr

Application

phitem.candidature.etudiant@univ-grenoble-alpes.fr

Program

Master applied mechanics 1st year

Semester 7

UE Solid mechanics	3 ECTS
UE Fluid mechanics	3 ECTS
UE Experimental techniques and methods 1	3 ECTS
UE Numerical methods in solid and fluid mechanics 1	3 ECTS
UE Image and signal processing	3 ECTS
1 option(s) to choose from 1	
UE English	3 ECTS
UE French as a foreign language	3 ECTS
2 option(s) to choose from 2	
UE Plastic analysis of structures	3 ECTS
UE Physics of granular media	3 ECTS

UE Convection in industrial and geophysical flows	3 ECTS
UE Instabilities and turbulence	3 ECTS
UE Basic geomechanics	3 ECTS
UE Introduction of geophysical fluids dynamics	3 ECTS
UE Mechanics of material	3 ECTS
UE Multiphysical couplings (THCM)	3 ECTS
UE Environmental flows	3 ECTS
UE Wave in fluids	3 ECTS
GS_GREEN_UE Climate and Energy for a Sustainable Transition	3 ECTS
1 option(s) to choose from 1	
UE Research project 1	6 ECTS

GS_Soft-Nano_UE-Research Methodologies	6 ECTS
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Semester 8

UE Experimental techniques and methods 2	3 ECTS
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UE Numerical methods in solid and fluid mechanics 2	3 ECTS
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1 option(s) to choose from 1

UE English	3 ECTS
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UE French as a foreign language - Semester 8	3 ECTS
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3 option(s) to choose from 3

UE Plastic analysis of structures	3 ECTS
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UE Physics of granular media	3 ECTS
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UE Convection in industrial and geophysical flows	3 ECTS
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UE Instabilities and turbulence	3 ECTS
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UE Basic geomechanics	3 ECTS
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UE Introduction of geophysical fluids dynamics	3 ECTS
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UE Multiphysical couplings (THCM)	3 ECTS
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UE Mechanics of material	3 ECTS
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UE Environmental flows	3 ECTS
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UE Wave in fluids	3 ECTS
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GS_GREEN_UE_Energy Systems for the Transition	3 ECTS
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1 option(s) to choose from 2

UE Research Internship M1 AM	6 ECTS
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GS_Soft-Nano_UE_Internship	6 ECTS
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UE Research project 2	12 ECTS
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