

UE Signal and image processing



Level
Baccalaureate
+4



ECTS
6 credits



Component
UFR IM2AG
(informatique,
mathématiques
et
mathématiques
appliquées)



Semester
Automne

- > **Teaching language(s):** English
- > **Teaching method:** In person
- > **Teaching type:** Tutorials
- > **Open to exchange students:** Yes
- > **Code d'export Apogée:** GBX7AM06

Presentation

Description

Contents:

- Image definition
 - Fourier transform, FFT, applications
 - Image digitalisation, sampling
 - Image processing: convolution, filtering. Applications
 - Image decomposition, multiresolution. Application to compression
- This course includes practical sessions.

Objectives

The aim of this course is to provide the basics mathematical tools and methods of image processing and applications.

Course parts

CM/TD	Lectures (CM) & Teaching Unit (UE)	33h
TP	Practical work (TP)	16,5h

Recommended prerequisites

Geometry and analysis from L3 mathematics/applied mathematics

Period : Semester 7

Évaluation initiale / Session principale - Épreuves

Libellé	Nature de l'enseignement	Type d'évaluation	Nature de l'épreuve	Durée (en minutes)	Nombre d'épreuves	Coefficient de l'épreuve	Remarques
	Teaching Unit (UE)	CC				100/100	Ecrit et/ou TP
	Teaching Unit (UE)	CT	Written - supervised work	120		100/100	

Seconde chance / Session de rattrapage - Épreuves

Libellé	Nature de l'enseignement	Type d'évaluation	Nature de l'épreuve	Durée (en minutes)	Nombre d'épreuves	Coefficient de l'épreuve	Remarques
	Teaching Unit (UE)	CC	Calculation report			100/100	
	Teaching Unit (UE)	CT	Written or Oral			100/100	

Skills

Tools for image processing (see objectives above)

Useful info

Contacts

Program director

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Place

› [Grenoble](#)

Campus

› [Grenoble - University campus](#)