

# MASTER SATELLITE COMMUNICATION SYSTEMS (SATCOM)

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ECTS  
120 crédits



Durée  
2 ans



Régime(s)  
d'études  
Formation  
initiale

## Présentation

# Programme

## MASTER SATELLITE COMMUNICATION SYSTEMS M1

### Semestre 7 Sat Com

	Nature	CM	TD	TP	Crédits
<b>SOFT AND HUMAN SKILLS- Sem. 7</b>	UE				7 crédits
EPS-2A-Sem.7	Matière				
Conferences on aeronautics - sem 7	Matière				
Communication	Matière				
CHOIX LV ESECA S7	Choix				
LV2-2ème Année-S7	Bloc				
Espagnol-S7	Matière				
Portugais-S7	Matière				
Chinois-S7	Matière				
Italien-S7	Matière				
Japonais-S7	Matière				
Russe-S7	Matière				
Allemand-S7	Matière				
FLE - S7	Matière				
LSF - S7	Matière				
Français Langue Etrangère (FLE (PIM))	Matière				
<b>MATH</b>	UE				6 crédits
Maths Fourier Analysis	Matière				
Maths - Complex variable - Vector analysis	Matière				
Maths Probability / Statistics	Matière				
<b>PROGRAMMING</b>	UE				3 crédits
Basis of Programming / Matlab	Matière				
C programming	Matière				
Microprocessor	Matière				
<b>DIGITAL ELECTRONICS</b>	UE				5 crédits
VHDL - M1 ESECA	Matière				
Digital electronics project	Matière				
<b>INTRODUCTION TO DIGITAL COMMUNICATIONS</b>	UE				8 crédits
SIGNAL PROCESSING	Matière				
DIGITAL SIGNAL PROCESSING	Matière				
DIGITAL COMMUNICATIONS	Matière				
CHANNEL CODING	Matière				
SIMULATION OF COMMUNICATION CHAINS	Matière				
<b>INTRODUCTION TO LABORATORY EQUIPMENT</b>	UE				1 crédits
Introduction to electronic laboratory equipment	Matière				

Intro. to antennas and RF measurements and instrumentation

Matière

## Semestre 8 Sat Com

	Nature	CM	TD	TP	Crédits
<b>SOFT AND HUMAN SKILLS</b>	UE				5 crédits
Professional Communication and English-Sem.8	Matière				
EPS-2A-Sem.8	Matière				
Conferences on Space and Aeronautics	Matière				
CHOIX LV ESECA S8	Bloc				
LV2-2è Année-Sem.8	Choix				
Espagnol-S8	Matière				
Portugais-S8	Matière				
Chinois-S8	Matière				
Italien-S8	Matière				
Japonais-S8	Matière				
Russe-S8	Matière				
Allemand-S8	Matière				
FLE - S8	Matière				
LSF - S8	Matière				
FLE - S8	Matière				
<b>DIGITAL ELECTRONICS</b>	UE				6 crédits
Digital Electronique Project	Matière				
Front-end acquisition	Matière				
<b>OPTICS/TELECOM</b>	UE				4 crédits
Optoelectronics	Matière				
Laser and optical fiber sensing techniques	Matière				
Practical Hyper / Opto	Matière				
<b>RF</b>	UE				7 crédits
Antennas	Matière				
Passive RF	Matière				
Active RF circuits	Matière				
MEMS	Matière				
Microwave system project	Matière				
<b>TELECOMMUNICATION SYSTEMS</b>	UE				8 crédits
Mobile communications	Matière				
Telecommunication project	Matière				
Satellite project	Matière				

## MASTER SATELLITE COMMUNICATION SYSTEMS M2

### Semestre 10 Sat Com

Nature CM TD TP Crédits

PFE

UE

30 crédits

## Semestre 9 Sat Com

	Nature	CM	TD	TP	Crédits
<b>SHS</b>	UE				5 crédits
Satellite Comm. Business & Regulation & Space Law	Matière				
Project management	Matière				
Visits and conferences	Matière				
<b>ADVANCED TELECOMMUNICATION TECHNIQUES 1</b>	UE				
Network & Telecom Protocols	Matière				
Spread spectrum techniques	Matière				
Digital filter banks	Matière				
<b>ADVANCED TELECOMMUNICATION TECHNIQUES 2</b>	UE				
Digital receivers & SDR Technology	Matière				
Modern Channel Coding	Matière				
<b>FUNDAMENTALS OF SATCOM SYSTEMS</b>	UE				
Introduction to Satellite communications	Matière				
Satellite payloads & ground segment	Matière				
Missions, platforms and operations	Matière				
<b>MISE A NIVEAU</b>	UE				
Signal processing	Matière				
Digital communication & channel coding	Matière				
<b>EVOLUTION OF SATCOM SYSTEMS</b>	UE				
Optical Satellite communications	Matière				
Intoduction to sat navigation	Matière				
Satellite Networks	Matière				
System design for satellite telecommunication missions	Matière				