# STUDY OFFER FOR EXCHANGE STUDENTS

Polytech Nice Sophia



# **COMPUTER SCIENCE/APPLIED MATHEMATICS & MODELLING**

Keywords - Data science / Artificial intelligence / Computer science / Software engineering / Big Data / Applied mathematics / Machine learning

#### **AUTUMN SEMESTER**

CODE	COURSE	ECTS	SEMESTER
	Module: Human-Computer Interactions		
EIIN942	3D Interaction	5	Autumn
EIENIV9	Information Visualization	5	Autumn
EIINH905	Multimodal Interaction Techniques	5	Autumn
	Module: Cyber Security		
EIIN906B	Blockchain and Privacy	5	Autumn
EIIN926B	Introduction to Security	5	Autumn
EIIN945	Security and Privacy 3.0	5	Autumn
EIENSE9	Security for IoT, CPS and Embedded Systems	5	Autumn
EIIN727	Software Security	5	Autumn
	Module: Internet of Things		
EIENAS9	Architecting IoT System: Beyond Functional Correctness	5	Autumn
EIIN902	Full Stack Software Engineering for IoT	5	Autumn
	Module: Artificial Intelligence		
EIIN933	From Shallow to Deep Learning for Multimedia Data	5	Autumn
EIIN954	Machine Learning: Theory and Algorithms	5	Autumn
	Module: Distributed Computing		
EIIN932	Algorithmic Approach to Distributed Computing	5	Autumn
EIIN943	Large Scale Distributed Systems	5	Autumn
TEMP1	Middleware and Service Oriented Computing	5	Autumn
EIIN931	Virtualized infrastructure in cloud computing	5	Autumn
	Module: Network		
EIIN902	Algorithms for Telecommunication Networks	5	Autumn
EIIN908B	Data Mining for Networks	5	Autumn
EIIN904	Evolving Internet	5	Autumn









EIIN909	Internet Measurement and New Architectures (only available when taking EIIN904)	5	Autumn
EIIN903B	Multimedia Networking	5	Autumn
EIIN924	Peer to Peer	5	Autumn
	Module: Performance		
EIIN907	Graph algorithms and combinatorial optimization	5	Autumn
EIIN925	Performance Evaluation of Networks	5	Autumn
	Module: Web		
EIENWD9	Web of Linked Data	5	Autumn





<sup>\*</sup>All courses are taught in the 2<sup>nd</sup> year of Master in Computer Science Engineering = 5<sup>th</sup> year of the Engineering Degree in Computer Science



# **SMART BUILDING**

Keywords - Civil engineering / Energy / Environmental science / Building management / Construction methods

#### **AUTUMN SEMESTER**

CODE	COURSE	ECTS	SEMESTER
	Module I: Advanced structure	12	
EIBAM811	Structures and geotechnics	3	Autumn
EIBAM812	Steel and mixed construction	2	Autumn
EIBAM813	Structures in reinforced and prestressed concrete	3	Autumn
EIBAM814	Structures: Project	4	Autumn
	Module II: Energy and comfort management	12	
EIBAM821	Advanced energy modelisations	3	Autumn
EIBAM822	Energy systems for Smart buildings/grids/cities	3	Autumn
EIBAM823	Energy management in construction	2	Autumn
EIBAM824	Energy and comfort Management: Project	4	Autumn
	Module IV: Human and social sciences	12	
EIBA874	Team management (Human Resources Management)	2	Autumn
EIBA875	Professional project (Human Resources Management)	2	Autumn
EIBA876	Health and safety at work (Human Resources Management)	2	Autumn
EIBA86	Project	2	Autumn
EILV2AN	Foreign Language: English	2	Autumn
EILV2FLE	Foreign Language: French	2	Autumn





# **SMART BUILDING**

Keywords - Civil engineering / Energy / Environmental science / Building management / Construction methods

#### **SPRING SEMESTER**

CODE	COURSE	ECTS	SEMESTER
	Module I: Advanced structure	12	
EIBAM811	Structures and geotechnics	3	Spring
EIBAM812	Steel and mixed construction	2	Spring
EIBAM813	Structures in reinforced and pre-stressed concrete	3	Spring
EIBAM814	Structures: Project	4	Spring
	Module III: Smart building	12	
EIBAM831	Digital and analogic electronics	2	Spring
EIBAM832	Sensors for Smart building	2	Spring
EIBAM833	Information processing for Smart building	2	Spring
EIBAM834	IOT and technologies for Smart building	2	Spring
EIBAM835	Smart building: Project	4	Spring
	Module IV: Human and social sciences	12	
EIBA874	Team management (Human Resources Management)	2	Spring
EIBA875	Professional project (Human Resources Management)	2	Spring
EIBA876	Health and safety at work (Human Resources Management)	2	Spring
EIBA86	Project	2	Spring
EILV2AN	Foreign Language: English	2	Spring
EILV2FLE	Foreign Language: French	2	Spring
	Other courses potentially available in English		
	Module: Structures		
EIBA623	Introduction to eurocodes	2	Spring
EIBA625	Reinforced concrete	3	Spring
	Module: Structures II		
EIBA763	Metal construction	2	Spring
EIBA714	Structural modeling	2	Spring
	Module: Environmental control		
TEMP2	Bioclimatic design	2	Spring







# Study offer for Exchange Students POLYTECH NICE SOPHIA

EIBA714	Thermal modeling	2	Spring
	Module: Mechanics III		
EIBA613	Fluid mechanics	3	Spring
TEMP3	Finite elements	2	Spring
EIEBEU7	Design according to eurocode 8	3	Spring
	Module: Energetics		
EIBA533B	Heat transfer	3	Spring
EIBA534	Thermodynamics	3	Spring
EIBA105	Module: BDI multidisciplinary project	10	Spring





# WATER ENGINEERING

Keywords - Water Engineering / Hydraulic / Environmental Science

#### **AUTUMN SEMESTER**

CODE	COURSE	ECTS	SEMESTER
EMEMP101	Mathematics	3	Autumn
EMEMP102	Physics	3	Autumn
EMEHH101	Hydrology	3	Autumn
EMEHH102	Hydraulics	3	Autumn
EMEWE101	Water & Health	3	Autumn
EMEWE102	Hydrogeology	3	Autumn
EMESW101	GIS	3	Autumn
EMESW102	Programming	3	Autumn
EMEWB101	Project Collaborative Engineering	4	Autumn
EMEPM101	Communication in English for projects	1	Autumn
EMEPM102	Foreign Language	1	Autumn
EMEIR201	Definition & concepts	3	Autumn
EMEIR202	River basin management application	3	Autumn
EMEHS201	Programming	3	Autumn
EMEHS202	Modelling methods	3	Autumn
EMECH201	Numerical methods	3	Autumn
EMECH202	Computational hydraulics	3	Autumn
EMEMF201	Modelling environments	3	Autumn
EMEMF202	Project	3	Autumn
EMECC201	Climate change	2	Autumn
EMECC202	Impact assessment	2	Autumn
EMEWD201	Methodology	1	Autumn
EMEWD202	Thesis writing	1	Autumn
	Module Project & Languages		
EIGE86	Disciplinary or interdisciplinary project	3	Autumn
EILV2AN	Foreign Language: English	2	Autumn
EILV2FLE	Foreign Language: French	2	Autumn







#### **BIOLOGICAL ENGINEERING**

Keywords - Molecular and Cellular Pharmacology / Cancer and Aging / Developmental Biology and Pathogenesis / Marine Ecology and Ecotoxicology / Community Ecology and Agronomy / Bioinformatics

We welcome students in biological engineering to carry out projects or internships. Applications will be studied on an individual basis.



