

MASTER IN SATELLITE AND AEROSPACE SYSTEMS AND SERVICES



MASTER IN SATELLITI E PIATTAFORME ORBITANTI



"Next door to space"

The course addresses the innovation in space systems, including small sat constellations, suborbital flight, stratospheric platforms. English is the official language of the course. The first five months of the course are devoted to lectures in class. The international teaching community is made by a team of experts with different affiliations (academy, industry, space agencies and other public institutions). The system view on the space vehicle characterizes the course along with the operative and management aspects.



The Master in Satellite Systems and Services of the University of Rome La Sapienza has the purpose to develop high level competences in the space sector, namely in the field of space missions, space systems and services delivered by space systems like telecom, Earth observation, navigation, science. The operative and industrial aspect of the activity is especially considered. Special attention is devoted to innovative technologies as 3D manufacturing.



The participants develop a one month teamwork activity in the frame of the Concurrent Engineering Lab developed by La Sapienza. The six months stages are designed with the host companies and agreed with the students. The course, at its fifteenth edition, aims at developing competences, experiences and relationships that can be immediately used in real world practice in an international frame of reference.

With the contribution of



SAPIENZA
UNIVERSITÀ DI ROMA

FACOLTA' DI INGEGNERIA CIVILE E INDUSTRIALE
DIPARTIMENTO DI INGEGNERIA MECCANICA E AEROSPAZIALE
VIA EUDOSSIANA, 18 ROMA

The industrial partners and a European network of Universities

The Master is developed by a partnership that links Sapienza with other European and International Universities involved in the space field, space agencies like ASI and ESA, the Italian Defense, companies like Thales Alenia Space Italia, Telespazio. The partnership is open to new institutional and private partners in Europe and outside.

Organization of the course

The course covers one year of study (60 credits), organized in 5 months of classes (beginning March 2, 2020), one month of teamwork activity and six months of stages in companies, space agencies or other institutions. The companies share with the academia the responsibilities of lecturing, offering stages and logistic support. In addition, visits to national and international research labs are organized. During the XII edition of the Master, was organized for the master students a trip in the U.S.A. to give them the opportunity to visit some of the most important centers of Aerospace Research of California, like SpaceX, JPL, NASA Ames and Loral.

Admission, fee, deadlines

The access to the master is regulated by a public competition and is open to all the candidates with a five years degree in Engineering or in Science. The attendance fee amounts to 7500 euro. Scholarships are available for the entire amount of the attendance fee, offered by space companies or public institutions that can also cover the expenses of their personnel, in case of admission to the course. An interview will be made to the candidate participants. The deadline for submitting the request for participation is January 15, 2017 and all the details are published on the site www.mastersatelliti.it and <http://www.uniroma1.it/didattica/master/satelliti-e-piattaforme-orbitanti>. Information are also available from the secretariat of the master (+0039-06-44585738) segreteria mastersatelliti@uniroma1.it or from the Director Prof. Paolo Gaudenzi paolo.gaudenzi@uniroma1.it. The secretariat of the master supports all the formalities for European and for the non EU candidate students.

Placement of the participants of previous editions

From the annual enquiry about job placement and careers of former students very positive results were obtained both in Italy and abroad (es. ESA).

MASTERSAT 15 Calendar of the Academic year 2016/2017 (Tbc)

Modules	Dates	Days (hours)	Credits
70 days of class (360hrs) + Teamwork			
Space systems applications and services	Total credits for the 30 days of the macromodulus: 15		
1 Introduction to space missions and systems	2-6/03	5 (25)	3
2 Space environment and science missions	9-13/03	5 (25)	3
3 TLC	16-20/03	5 (25)	3
4 NAV+ TLC services	23-27/03	5 (25)	3
5 Optical and radar EO	30/03-3/04	5 (25)	3
Management of space systems and services	Total credits for the 5 days of the macromodulus: 3		
6 Management of space companies and programmes	06-09/04	4 (20)	3
Space Engineering and System Architecture	Total credits for the 20 days of the macromodulus: 10		
7 Conceptual design of space missions and systems	15-17/04	3 (15)	1.5
8 Systems Engineering, System Architecture, Subsystem Engineering	20-24/04	5 (25)	3
09 Sub orbital and hypersonic flight systems. Stratospheric platforms	04-08/05	5 (25)	3
10 Concurrent Engineering and Satellite System Design Technique	11-13/05	3 (15)	1.5
11 Cyber and Machine learning	14-19/05	4 (20)	2
	Total credits for the 3 days of the macromodulus: 3		
12 3D additive manufacturing and advanced composite technologies	14-20/05	5 (25)	3
Technical visits (TBC)			
1. TAS-I Rome	2. Telespazio (Fucino)	3. Defense space centers (e.g. SICRAL; CITS)	
Teamwork activity (May/June 2020)	Total credits (visit and teamwork, including report: 10		

The course grants 60 credits (45 for the above scheduled activities and 15 for the six months stage, including the final report).

International teaching community: Prof. Yamine Ait Ameer (INP-ENSEEHT, France), Prof. Richard Fleeter (Brown University, USA), Prof. Alessandro Gulinari (Skoltech, Russia)

