

Among the 600 best in the world in Engineering and Technology and Physical sciences -**Times Higher Education World University Rankings by Subject**.

The UAH ranks 2nd in teaching quality among Spanish public universities -**Fundación CYD**-.

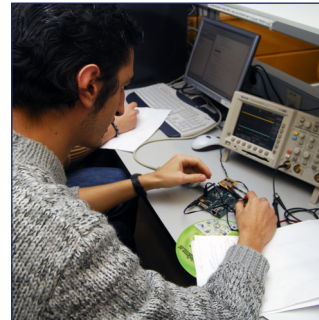
1st Spanish 5-star university according to the international quality accreditation system -**QS Stars University Ratings**-.

Among the best universities in the world -**QS World University Ranking**- and **Times Higher Education World University Ranking**-.

1st University in Spain in EMPLOYABILITY -**MECD Survey of Labour Market Insertion of University Students**.

CAREER OPPORTUNITIES

- Research in Physics: Space Physics, Space Meteorology, Astrophysics. National and international scientific institutions. Observatories.
- Research and development of space instrumentation. National and international scientific institutions.
- Development and commercialisation of payloads in space missions. Management of work teams. Space industry.
- Space agency personnel. European Space Agency. CNES, DLR, NASA.
- Higher academic training, master's degree and/or doctorate, allowing access to university teaching bodies or to a scientific research centre.
- Teaching in secondary schools, continuing education centres or academies.



FACULTY OF SCIENCES

SCIENCE AND TECHNOLOGY CAMPUS

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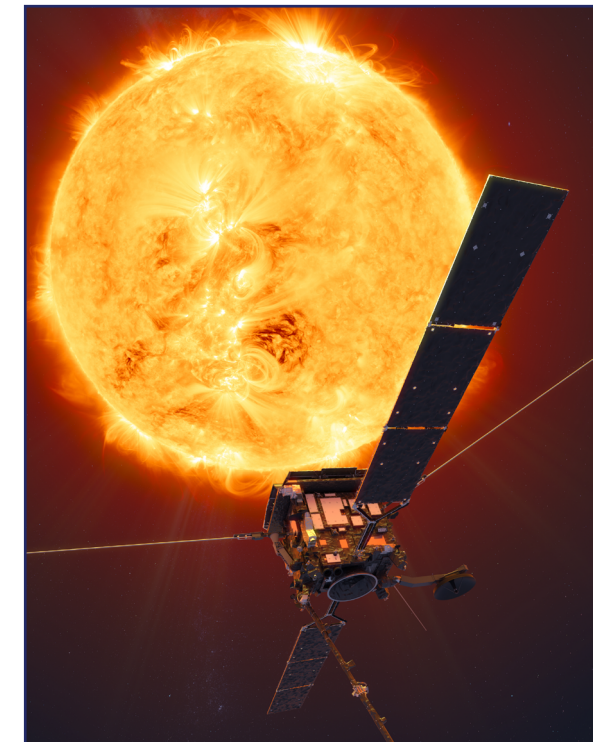
  @UAHes

Degree in

PHYSICS AND SPACE INSTRUMENTATION

Degree within the branch of knowledge of Sciences

WORLD HERITAGE



The University of Alcalá and Space

The UAH is the only university that **offers a complete programme in Physics and Space Research**: Bachelor's Degree in Physics and Space Instrumentation, Master's Degree in Science and Technology from Space and PhD Programme in Space Research and Astrobiology.

The programme **counts on the collaboration of companies and research centres** in the space sector throughout the entire training process.

OVERALL CREDIT DISTRIBUTION

SUBJECT TYPE	ECTS
Basic Training (Basic)	66,0
Obligatory (OB)	138,0
Optional (OP)	18,0
Transversal (L)	6,0
Graduate Dissertation	12,0
TOTAL CREDITS	240,0

The updated offer of optional and transversal subjects can be consulted on the school's website.

Basic: Basic Training; OB: Obligatory subject; OP: Optional subject; L: Transversal subject

COURSE PROGRAMME

FIRST YEAR	FIRST TERM	Type	ECTS	SECOND TERM	Type	ECTS
	Linear Algebra	Basic	6,0	Circuit Analysis	OB	6,0
	Calculus I	Basic	6,0	Calculus I	Basic	6,0
	Electromagnetism	Basic	6,0	Fields and Waves	Basic	6,0
	Fundamentals of Computers	Basic	6,0	Statistics	Basic	6,0
	Mechanics	Basic	6,0	Fundamentals of Programming	Basic	6,0
TOTAL ECTS						60,0

SECOND YEAR	FIRST TERM	Type	ECTS	SECOND TERM	Type	ECTS
	On-Board Computer Structure and Design of	OB	6,0	Numerical Calculation	OB	6,0
	Electronics Fundamentals	OB	6,0	Introduction to Quantum Physics	OB	6,0
	Mathematical Methods of Physics	OB	6,0	Optics and Observation Techniques	Basic	6,0
	Device and Interface Programming	OB	6,0	Signals and Systems	OB	6,0
	Thermodynamics	Basic	6,0	Operating Systems	OB	6,0
TOTAL ECTS						60,0

THIRD YEAR	FIRST TERM	Type	ECTS	SECOND TERM	Type	ECTS
	Fault-Tolerant Architectures	OB	6,0	Mechanical Structure and Thermal System of A Satellite	OB	6,0
	Materials Science	OB	6,0	Statistical Mechanics	OB	6,0
	Space Dynamics	OB	6,0	Attitude and Orbit Control System	OB	6,0
	Quantum Physics	OB	6,0	On-Board Data Handling System	OB	6,0
	Space Systems	OB	6,0	Space Power System	OB	6,0
TOTAL ECTS						60,0

FOURTH YEAR	FIRST TERM	Type	ECTS	SECOND TERM	Type	ECTS
	Astrophysics	OB	6,0	Optional Subjects 1, 2 and 3 / External Work Experience	OP	18,0
	Communication with Ground Segment	OB	6,0	Degree Final Project	OB	12,0
	Fluids in Planetary and Space Environments	OB	6,0			
	Space Project Management	OB	6,0			
	Transversal	L	6,0			
TOTAL ECTS						60,0