



UNIVERSITY OF NAPLES
"PARTHENOPE"

Department of Science and Technology



COURSE LEADER
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Department of
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Master's Degree Course

Science and Technology of Navigation
(Class LM-72)

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COURSE OVERVIEW

The aim of the master's degree course in Science and Technology of Navigation is to train highly skilled professionals and scientists in the field of science and technology of navigation and climate, with the expertise to apply methods, techniques and tools to different scientific and technological contexts. In particular, subjects and topics covered in the first-level degree course are further developed, with special emphasis on navigation and flight management, topographic survey and geo-topographical network management. The course also provides a good grounding in the physics of the atmosphere, the ocean and climate, at both general and specialist level in all their experimental and theoretical aspects, concentrating in particular on their applications. Thanks to their multi-disciplinary training, graduates are prepared to liaise with professionals and scientists working in various related application sectors.

CAREER PROSPECTS

Graduates in Science and Technology of Navigation are able to work in several areas of both the private and public sector, especially in the following fields: nautical and aeronautical cartographical processing; bathymetric survey; maritime and airport security; airport feasibility studies; coastline monitoring and management; air and marine pollution control; weather and marine forecasting; mathematical modelling of oceanographic, meteorological and climate phenomena; exploitation of renewable energy sources; management of aeronautical, land and marine services; support activities in the field of air telecommunication; airport management; Air Traffic Management.

SYLLABUS

The master's degree course in Science and Technology of Navigation is a two-year course (totalling 120 ECTS credits), which consists of 12 exams, a 225h internship with companies or research institutions, and a final examination. The course is structured into semesters and offers two areas of specialization: "Air and Maritime Navigation and Survey" and "Climate Sciences". Upon enrolment, students must choose their area of specialization with a written application. Students can take exams only for the elective modules within their area of specialization.

SYLLABUS

Year I	ECTS
Scientific Computing Applications I	9
Climatology	6
Flight Mechanics II	6
Radar and Radio-navigational Aids	9
Scientific Computing Applications II	3
Naval Architecture and Stability III	3
Space Sciences and Technology	9
Elective Module	6
Year II	
Satellite Navigation	9
Meteo-oceanographic and Climatological Modelling	9
Business Economics and Organization	6
Elective Module	6
Elective Module	6
Internships and Apprenticeship	9
Further skills	6
Final Examination	18