

DATA SCIENCE AND ENGINEERING DEGREE

Centre ([see](#))

ECTS CREDITS	
Basic training (FB)	60
Compulsory (OB)	138
Optional (OP)	30
End-of-degree Project (TFG)	12
Total	240



[CLICK ON THE CODE OF EACH SUBJECT TO ACCESS THE COURSE HANDBOOK](#)

FIRST YEAR

Code	Subject	Credits	Type	Semester
20054	LINEAR ALGEBRA	6	FB	1
20055	CALCULUS I	6	FB	1
20056	LOGIC AND DISCRETE MATHEMATICS	6	FB	1
20057	PROGRAMMING I: PROGRAMMING FUNDAMENTALS	6	FB	1
20058	INTRODUCTION TO DATA SCIENCE AND ENGINEERING	6	OB	1
20059	ANALYSIS OF ALGORITHMS	6	FB	2
20060	DATA STRUCTURES	6	FB	2
20061	PROBABILITY AND STATISTICAL INFERENCE	6	FB	2
20062	CALCULUS II	6	FB	2
20063	PROGRAMMING II: PROGRAMMING PARADIGMS	6	OB	2

SECOND YEAR

Code	Subject	Credits	Type	Semester
20064	SIGNALS AND SYSTEMS	6	FB	1
20065	STATISTICAL MODELS	6	OB	1
20066	OPTIMIZATION	6	OB	1
20067	DATA MODELING, STORAGE AND MANAGEMENT	6	OB	1
20068	MACHINE LEARNING I	6	OB	1
20069	BUSINESS, INNOVATION AND ENTREPRENEURSHIP	6	FB	2
20070	SOFTWARE ANALYSIS AND DESIGN	6	OB	2
20071	ARCHITECTURES FOR COMPUTER SYSTEMS	6	OB	2
20072	PROGRAMMING III: CONCURRENT AND DISTRIBUTED PROGRAMMING	6	OB	2
20073	COMPUTER NETWORKS	6	OB	2

THIRD YEAR IMPLANTATION: YEAR 2024-2025

Code	Subject	Credits	Type	Semester
20074	ADVANCED STATISTICAL METHODS IN DATA CLASSIFICATION	6	OB	1
20075	DISTRIBUTED COMPUTING	6	OB	1
20076	DATA VISUALIZATION	6	OB	1
20077	MACHINE LEARNING II	6	OB	1
20078	DATABASE: INTEGRATION AND ARCHITECTURES	6	OB	1
20079	VISUAL SIGNAL PROCESSING	6	OB	2
20080	HIGH-PERFORMANCE COMPUTING	6	OB	2
20081	SIGNAL AND TIME SERIES PROCESSING	6	OB	2
20082	MACHINE LEARNING III	6	OB	2
20083	SOFTWARE ENGINEERING	6	OB	2

FOURTH YEAR IMPLANTATION: YEAR 2025-2026

Code	Subject	Credits	Type	Semester
20084	PROJECT MANAGEMENT AND DIRECTION	6	OB	1
20085	NATURAL LANGUAGE PROCESSING	6	OB	1
	OPTIONAL SUBJECTS	30	OP	1 o 2
20086	ETHICAL AND LEGAL ISSUES IN DATA SCIENCE AND ENGINEERING	6	OB	2
20087	DEGREE THESIS	12	TFG	2

CENTRE

Technical College

C/ Francisco Tomás y Valiente, 11

Campus de Cantoblanco

28049 – Madrid

Teléfono: +34 91 497 2223 / 2226

[Web Page](#) ↗