

UNIC Nicosia - Data Science (4 years, 240 ECTS, Bachelor of Science)

TABLE 2: COURSE DISTRIBUTION PER SEMESTER

A/A	Course Type	Course Name	Course Code	Periods per week	Period duration	Number of weeks/ Academic semester	Total periods/ Academic semester	Number of ECTS
Semester 1								
1.	R	Introduction to Data Science	COMP-140	3	50'	13	39	6
2.	R	Programming Principles I	COMP-111	4	50'	13	52	6
3.	R	Mathematics and Logic for Computation	MATH-111	4	50'	13	52	6
4.	R	Calculus I	MATH-195	4	50'	13	52	6
5.	R	English Composition	ENGL-101	3	50'	13	39	6
Semester 2								
1.	R	Programming Principles II	COMP-113	4	50'	13	52	6
2.	R	Software Development Tools for Data Science	COMP-142	3	50'	13	39	6
3.	R	Calculus II	MATH-196	4	50'	13	52	6
4.	R	Probability and Statistics I	MATH-225	3	50'	13	39	6
5.	E	Elective - Section G: Humanities and Social Sciences	*	3	50'	13	39	6

Semester 3

1.	R	Advanced Programming Concepts and Paradigms	COMP-221	4	50'	13	52	6
2.	R	Data Programming	COMP-240	4	50'	13	52	6
3.	R	Probability and Statistics II	MATH-325	4	50'	13	52	6
4.	R	Linear Algebra I	MATH-280	3	50'	13	39	6
5.	E	Elective – Section D: Sciences and Engineering	*	3	50'	13	39	6

Semester 4

1.	R	Data Structures and Algorithms	COMP-270	3	50'	13	39	6
2.	R	Database Management Systems	COMP-302	3	50'	13	39	6
3.	R	Bayesian Statistics	MATH-329	3	50'	13	39	6
4.	R	Machine Learning and Data Mining I	COMP-244	3	50'	13	39	6
5.	R	Project in Data Science	COMP-248	N/A	N/A	13	N/A	6

Semester 5

1.	R	Machine Learning and Data Mining II	COMP-344	3	50'	13	39	6
2.	R	Optimization Techniques	MATH-335	3	50'	13	39	6
3.	R	Data Visualization	COMP-342	3	50'	13	39	6
4.	R	Data Privacy and Ethics	COMP-242	3	50'	13	39	6
5.	E	Elective – Section E: Business	*	3	50'	13	39	6

Semester 6

1.	R	Big Data	COMP-340	3	50'	13	39	6
2.	R	Linear Models I	MATH-326	3	50'	13	39	6
3.	R	Technical Writing and Research	BADM-332	3	50'	13	39	6
4.	E	Major Elective	COMP/MATH	3	50'	13	39	6
5.	E	Major Elective	COMP/MATH	3	50'	13	39	6

Semester 7

1.	R	Artificial Intelligence	COMP-405	3	50'	13	39	6
2.	R	Neural Networks and Deep Learning	COMP-447	3	50'	13	39	6
3.	R	Data Science Final Year Project I	COMP-494	N/A	N/A	13	N/A	6
4.	E	Major Elective	COMP/MATH	3	50'	13	39	6
5.	E	Major Elective	COMP/MATH	3	50'	13	39	6

Semester 8

1.	R	Data Science Final Year Project II	COMP-495	N/A	N/A	13	N/A	6
2.	E	Major Elective	COMP/MATH	3	50'	13	39	6
3.	E	Major Elective	COMP/MATH	3	50'	13	39	6
4.	E	Major Elective	COMP/MATH	3	50'	13	39	6
5.	E	Elective – Section D or E or G	*	3	50'	13	39	6