Subject List for Data Science Course
(for Students enrolled in 2026 and beyond)

	Subject Title	Credits		Lecture Hours									Notes
				Year 1		Year 2		Year 3		Year 4		Tota	
		M	O	S	A	S	A	S	A	S	A		
Specialized Subjects	Linear Algebra Ⅱa	2			2							2	
	Introduction to Computer Programming Ⅰ	2			2							2	
	Exercises in Computer Programming Ⅰ	1			2							2	
	Technical Writing	2			2							2	
	Mathematics for Information Science	2			2							2	
	Data Structure and Algorithm Ⅰ	2				2						2	
	Database System	2				2						2	
	Applied Mathematics Ⅰ	2				2						2	
	Mathematical statistics	2				2						2	
	Exercises in Mathematical Statistics	2				2						2	
	Experiments in Information Systems	2					4					4	
	Software Engineering	2					2					2	
	Experiments in Artificial Intelligence	2					4					4	
	Introduction to Continuous Optimization	2					2					2	
	Data Science Colloquium	2						2				2	
	Security in Information Society	2						2				2	
	Exercises in Data Science	2						2				2	
	Practical Data Science	2						2				2	
	Machine Learning	2							2			2	
	Human Data Analysis	2							2			2	
	English for Engineers	2							2			2	Choose one as mandatory
	Mathematical Science English	2							2			2	subject
	Graduation Study	8								8	8	16	
	Computer Architecture		2		2							2	
	Experiments in Sensor Programming		2			4						4	
	Introduction to Computer Programming Ⅱ		2			2						2	
	Exercises in Computer Programming Ⅱ		1			2						2	
	Information Theory		2			2						2	
	Elementary Analysis Ⅰ		2			2						2	
	Elementary Analysis Ⅰ Exercise		2			2						2	
	Linear Algebra Ⅲ		2			2						2	
	Linear Algebra Ⅲ Exercise		2			2						2	
	Topological Space Ⅰ		2			2						2	
	Topological Space Ⅰ Exercise		2			2						2	
	Operating System		2				2					2	
	Numerical Analysis		2				2					2	
	Data Structure and Algorithm II		2				2					2	
	Applied Mathematics II		2				2					2	
	Elementary Analysis II		2				2					2	
	Elementary Analysis II Exercise		2				2					2	
	Elementary Algebra		2				2					2	
	Elementary Algebra Exercise		2				2					2	
	Topological Space II		2				2					2	
	Topological Space II Exercise		2				2					2	
	Artificial Intelligence		2				2					2	
	Introduction to Computer Programming Ⅲ		2				2					2	
	Parallel and Distributed Processing		2					2				2	
	Information Network		2					2				2	
	Experiments in Information Network		2					4				4	
	Object Oriented Programming		2					2				2	
	Structured Programming		2					2				2	
	Analysis Ⅰ		2					2				2	
	Analysis Exercise		2					2				2	
	Algebra Ⅰ		2					2				2	
	Algebra Exercise		2					2				2	
	Geometry Ⅰ		2					2				2	
	Geometry Exercise		2					2				2	

Differential Equations I		2					2				2	
Differential Equations Exercise		2					2				2	
Complex Analysis I		2					2				2	
Complex Analysis Exercise		2					2				2	
Signal Processing		2					2				2	
Multimedia Data Processing		2					2				2	
Exercises in Computer Graphics		2						2			2	
Experiments in Cooperative Software Development		2						4			4	
Network System and Cloud Computing		2						2			2	
Game Theory and Optimization Problems		2						2			2	
Automaton and Turing Machine		2						2			2	
Analysis II		2						2			2	
Algebra II		2						2			2	
Geometry II		2						2			2	
Differential Equations II		2						2			2	
Complex Analysis II		2						2			2	
Probability analysis		2						2			2	
Preparation for Graduation Study		2						2			2	
Individual Training		1			2	2	2	2			2	1 credit/semester, up to a max of 4 credits
Internship in Mathematics and Computing S		1					2	2	2	2	2	
Internship in Mathematics and Computing L		2					4	4	4	4	4	