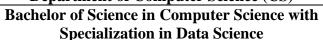


College of Arts and Applied Sciences Department of Computer Science (CS)





Semester	Code	Course Title	Credits	Pre/Co- Requisite
	COMP 101	Introduction to Technical Computing	3	
	COMP 111	Programming Fundamentals	3	=COMP 101
Semester 1	ARAB 101	Academic Writing in Arabic	3	
	ENGL 101	Basic Academic English	3	
	MATH 199	Calculus I	3	
		Credits/Semester	15	
	COMP 151	Discrete Structures	3	>COMP 111
	COMP 161	Numerical Systems	3	>COMP 111
Semester 2	ENGL 102C	English for Computer Science I	3	
	COMP 171	Digital Design & Computer Architecture	3	>=COMP 161
	SOCS 102	Omani Society	3	
		Credits/Semester	15	
	COMP 201	Data Structures and Algorithms	3	>COMP 151
	COMP 211	Object Oriented Programming	3	>COMP 111
Semester 3	ENGL 203C	English for Computer Science II	3	
	COMP 221	Computer Networks	3	>COMP 171
	ENTR 200	Entrepreneurship	3	
		Credits/Semester	15	
	COMP 251	Operating Systems	3	>COMP 221
	COMP 261	Database Management Systems	3	>COMP 211
Semester 4	COMP 271	Introduction to Data Sciences	3	>=COMP 261
	COMP 281	Introduction to Cybersecurity	3	>COMP 221
		Humanities and Social Science Elective	3	
		Credits/Semester	15	
Semester 5	COMP 301	Software Engineering	3	>COMP 201
	COMP 311	Random Processes	3	>COMP 161
		General Elective	3	
		1 st Data Science Elective - 300 Level	3	
		2 nd Data Science Elective - 300 Level	3	
		Credits/Semester	15	
	COMP 351	Artificial Intelligence	3	>COMP 271
Semester 6	COMP 361	Linear Systems	3	>COMP 311
		3 rd Data Science Elective - 300 Level	3	
		4 th Data Science Elective - 300 Level	3	
		5 th Data Science Elective - 300 Level	3	
		Credits/Semester	15	
Semester 7	COMP 401	Web Technologies	3	>COMP 261
	COMP 411	IT Ethics & Society	3	>= SOCS 102

		6 th Data Science Elective - 400 Level	3	
		7 th Data Science Elective - 400 Level	3	
		8 th Data Science Elective - 400 Level	3	
		Credits/Semester	15	
	COMP 451	Analytics for Decision Making	3	>COMP 361
Semester 8	COMP 499	Final Year Project	3	>=COMP 411
		Physics and Natural Science Elective	3	
		9 th Data Science Elective - 400 Level	3	
		10 th Data Science Elective - 400 Level	3	
		Credits/Semester	15	
		Total Credits	120	

DATA SCIENCE ELECTIVES

COURSE CODE	COURSE TITLE	Credits	Pre/Co-
COURSE CODE	COURSE TITLE		Requisite
COMP 330	Big Data Analytics	3	> COMP 271
COMP 331	Data Engineering	3	> COMP 271
COMP 332	Data Analytics Ethics	3	> COMP 271
COMP 333	Natural Language Processing	3	> COMP 211
COMP 334	Knowledge Representation	3	> COMP 211
COMP 352	Machine Learning	3	>= COMP 351
COMP 353	Data Mining	3	>= COMP 351
COMP 354	Deep Learning	3	>= COMP 351
COMP 428	Data Analysis and Visualization	3	> COMP 271
COMP 429	Business Intelligence Analysis	3	> COMP 351
COMP 430	Advanced Data Analytics	3	> COMP 271
COMP 452	Data Science for Marketing Analytics	3	> COMP 351
COMP 453	Research Topics in Data Analytics	3	> COMP 351
COMP 454	Predictive Modeling	3	> COMP 351
COMP 489	Practical Training in Data Science	3	> COMP 351
