

Advanced Diploma (Software Engineering)**TOTAL CREDITS = 36**

Course Code	Course Title	Credit Hours	University/ College/ Specialization Requirement	Prerequisite	Semester
CSSE3101	Advanced Web Technologies	3	Specialization	CSWD1103 – Web Development I	Semester 1
STAT3101	Probability and Statistics	3	College	MATH1202 – Calculus I	
UNEN3104	English III (Public Speaking)	3	University	UNEN1203 – English II	
CSSE3102	Object Oriented Analysis and Design	3	Specialization	CSSE2202 – Object Oriented Programming AND {CSSE2101 – Introduction to Software Engineering OR CSIS2101 – Systems Analysis & Design}	
CSDS3203	Introduction to Artificial Intelligence	3	Specialization	CSSE2203 – Data Structures and Algorithms	
	Major Elective 1	3	Specialization		
CSDS3202	Introduction to Data Science	3	Specialization	CSPG1205 – Introduction to Programming AND STAT3101 – Probability and Statistics	Semester 2
CSPM3201	Project Management and Acquisition		College	CSSE2101 – Introduction to Software Engineering OR CSIS2101 – Systems Analysis & Design	
CSRM3202	Research Methodology	3	College	STAT3101 – Probability and Statistics	
CSSE3203	Mobile Application Development	3	Specialization	CSSE3101 – Advanced Web Technologies	
CSIS3103	User Experience Design	3	Specialization	None	
	Major Elective 2	3	Specialization		

B-Tech (Software Engineering)**TOTAL CREDITS = 36**

Course Code	Course Title	Credit Hours	University/ College/ Specialization Requirement	Prerequisite	Semester
CSSE4101	Software Design and Testing	3	Specialization	CSSE3102 – Object Oriented Analysis and Design	Semester 1
CSDS4104	Applied Machine Learning	3	Specialization	CSDS3203 – Introduction to Artificial Intelligence AND CSDS3202 - Introduction to Data Science	
CSSE4102	B-Tech Course Project I	3	Specialization	CSSE3102 – Object Oriented Analysis and Design AND CSRM3202 – Research Methodology AND CSIS3103 – User Experience Design	
CSSE4103	Full-Stack Web Development	3	Specialization	CSSE3101 – Advanced Web Technologies	
	Major Elective 3	3	Specialization		
	Major Elective 4	3	Specialization		
CSSE4104	B-Tech Course Project II	3	Specialization	CSSE4102 – B-Tech Course Project I	Semester 2
CSSE4205	Computer Architecture and Organization		Specialization	CSCM1101 – Fundamentals of Computing and Information Systems	
UNAB4105	Arabic Language Skills	3	College		
MATH3202	Discrete Structures	3	Specialization	MATH2101 – Mathematics for Computing	
	Major Elective 5	3	Specialization		
	Major Elective 6	3	Specialization		

Adv. Diploma & B-Tech Elective Pool

Course	Course title	Credit Hours	University/ College/ Specialization Requirement	Prerequisite
CSSE3104	Computer Graphics and Games Development	3	Specialization	CSPG1205 – Introduction to Programming
CSSE3205	Fundamentals of Robotics	3	Specialization	CSPG1205 – Introduction to Programming
CSSE4106	DevOps and Continuous Delivery	3	Specialization	CSPM3201 – Project Management and Acquisition
CSSE4107	Theory of Computation	3	Specialization	MATH3202 – Discrete Structures
CSSE4208	Innovation and Emerging Technologies	3	Specialization	NONE
CSSE4209	Advanced Mobile Application Development	3	Specialization	CSSE3203 – Mobile Application Development
CSNW3203	System Administration	3	Specialization	CSOP1207 – Principles of Operating Systems
CSNW3202	Cloud Computing Fundamentals	3	Specialization	NONE
CSIS3101	Business Process Management	3	Specialization	CSSE2101 – Introduction to Software Engineering OR CSIS2101 – Systems Analysis & Design
CSIS3102	IS Management and Strategy	3	Specialization	CSCM1101 – Fundamentals of Computing and Information Systems
CSIS3204	Fundamentals of Digital Marketing	3	Specialization	NONE
BSFB2101	Fundamentals of Business	3	Specialization	NONE
CSSY3202	Web Applications Security	3	Specialization	CSWD2101 – Web Development II
CSSY3205	Authentication and Access Control	3	Specialization	CSSY1208 – Introduction to Information Security
CSDS4111	Introduction to Blockchain	3	Specialization	NONE
CSDS4208	Deep Learning	3	Specialization	CSDS4104 – Applied Machine Learning
CSDS3205	Data Visualization	3	Specialization	NONE

CSDS3105	Database Programming	3	Specialization	CSDS2101 – Database Systems
CSDS3101	Fundamentals of Big Data	3	Specialization	CSDS2101 – Database Systems
CSDS4102	Natural Language Processing	3	Specialization	CSDS3203 – Introduction to Artificial Intelligence

University Elective courses across all levels:

course	Course title	Credit hours	University/ College/ Specialization Requirement	Prerequisite
UNCS2215	Communication Skills	3	University	
UNPR2217	Preparing for Work	3	University	
UNWE2216	Working Ethics	3	University	
UNIS2206	Islamic Studies	3	University	
UNOC2207	Oman Civilization and Man	3	University	
UNCT2210	Critical Thinking	3	University	
UNCL2211	Chinese Language	3	University	
UNFL2213	French Language	3	University	
UNGL2215	German Language	3	University	