

**Table 4.4 – Distribution of Curriculum for the batch 20 CS**

	S.No	Code	Course Title	Credit Hours	Knowledge Area	Prerequisites
	1	CS-101	Computer Fundamentals	3-1-4	Computing	None
	2	MTH-102	Applied Calculus	3-0-3	Natural Sciences (Mathematics)	Pre-Engineering
	3	ENG-101	Functional English	3-0-3	Humanities (English)	Intermediate English Language Proficiency
	4	ES-121	Electronic Engineering	3-1-4	Engineering Foundation	None
	5	EL-101	Basic Electrical Engineering	3-1-4	Engineering Foundation	None
			<b>Total</b>	(15-3-18)		
	1	CS-151	Computer Programming	3-1-4	Computing	Computer Fundamentals
	2	CS-152	Digital Logic and Design	3-1-4	Engineering Foundation	Computer Fundamentals
	3	MTH-112	Linear Algebra and Analytical Geometry	3-0-3	Natural Sciences (Mathematics)	Pre-Engineering
	4	ENG-102	Communication Skills	2-0-2	Humanities (English)	None
	5	PS-106	Pakistan Studies	2-0-2	Humanities (Culture)	Social Science
	6	IS-111 / SS-104	Islamic Studies/Ethics	2-0-2	Humanities (Culture)	F. Sc
			<b>Total</b>	(15-2-17)		
	1	CS-201	Computer Architecture and Assembly	3-1-4	Engineering Foundation	Digital Logic & Design
	2	CS-202	Object Oriented Programming	3-1-4	Engineering Foundation	Computer Programming
	3	CS-204	Computer Graphics	2-1-3	Major Based Core (Depth Courses)	None
	4	EL-103	Electrical Circuits	3-1-4	Engineering	Basic Electrical Engineering

	5	MTH-224	Differential Equations	3-0-3	Natural Sciences (Mathematics)	Pre-Engineering
			<b>Total</b>	(14-4-18)		
	1	CS-251	Data Structure and Algorithm Analysis	3-1-4	Engineering Foundation	Object Oriented Programming
	2	CS-252	Microprocessors and Interfacing Techniques	3-1-4	Major Based Core (Breadth Courses)	Computer Architecture & Assembly Language
	3	CS-254	Discrete Structures	2-0-2	Engineering Foundation	Applied Calculus
	4	CS-255	Database Management Systems	3-1-4	Major Based Core (Breadth Courses)	Object Oriented Programming
	5	MTH-226	Fourier Series and Transforms	2-0-2	Natural Sciences (Mathematics)	Intermediate Mathematics
			<b>Total</b>	(13-4-17)		
	1	CS-309	Signal and Systems	3-1-4	Major Based Core (Breadth Courses)	Fourier Series and Transforms
	2	CS-302	Operating Systems Design Concepts	3-1-4	Major Based Core (Breadth Courses)	Data Structures and Algorithm Analysis, Object Oriented
	3	INM-308	Engineering Economics and Project Management	3-0-3	Management Sciences	None
	4	CS-305	Technical Report Writing	3-0-3	Humanities (English)	Communication Skills
	5	MTH-311	Statistics and Probability	3-0-3	Natural Sciences (Mathematics)	None
			<b>Total</b>	(15-2-17)		
	1	CS-351	Communication Systems	3-1-4	Inter-Disciplinary Engineering	Signals and Systems
	2	CS-355	Professional Ethics	2-0-2	Humanities (Social Sciences)	None
	3	CS-356	Mobile Application Development	2-1-3	Major Based Core (Depth Courses)	Web Engineering, Database Management Systems
	4	CS-370	Web Engineering	3-1-4	Major Based Core	Software Engineering, Object
	5	CS-354	Embedded Systems	2-1-3	Major Based Core	Compute Architecture

			<b>Total</b>	(12-4-16)		
	1	CS-401	Digital Image Processing	3-1-4	Major Based Core (Depth Courses)	Computer Graphics, Complex Variables Transforms
	2	CS-403	Computer Communication and Networks	3-1-4	Major Based Core (Breadth Courses)	Communication Systems
	3	CS-404	Software Engineering	3-1-4	Major Based Core (Breadth Courses)	Database Management Systems
	4	CS-499	Computer Engineering Project – I	0-3-3	Senior Design Project	None
			<b>Total</b>	(9-6-15)		
	1	CS-451	Mobile and Wireless Communication	2-1-3	Major Based Core (Depth Courses)	Communication Systems
	2	CS-452	Artificial Intelligence	3-1-4	Major Based Core (Depth Courses)	Modeling and Simulation, Discrete Mathematics
	3	CS-453	Entrepreneurship and Leadership	2-0-2	Management Sciences	None
	4	CS-454	Data Science and Analytics	3-1-4	Inter-Disciplinary	None
	5	CS-499	Computer Engineering Project – II	0-3-3	Senior Design Project	None
			<b>Total</b>	(10-6-16)		

#### 4.5 Curriculum Review Process

The curriculum review process consists of two steps. The first step includes the review of course contents and the second step consist of an overall review of the complete curriculum. The complete review process is carried by the departmental board of studies team consisting of senior faculty members under the supervision of the Chairman, CS-MUET. This review committee revises the curriculum and gives recommendations.

The main function of the curriculum committee is that of primary responsibility for the development, review, renewal, and recommendation of curriculum to be approved by the Board of Studies and Board of Faculties. The CRC committee is also responsible to review requests from faculty for