

**Recommended Plan of Studies
B.E. (Computer System)**

**Proposed 4th BoS
w.e.f Intake Spring 2018**

SEMESTER-1				SEMESTER-2			
Course Code	Course Title	Cr. Hr.	Pre-Req	Course Code	Course Title	Cr. Hr.	Pre-Req
NS-111	Calculus and Analytical Geometry	3+0	Nil	NS-121	Differential Equations	3+0	NS-111
CSE-111	Introduction to Computing	2+1		CSE-122	Circuit Analysis	3+1	Nil
CSE-112	Workshop Practice	0+1		CSE-121	Computer Programming	3+1	CSE-111
NS-112	Applied Physics	3+1		EE-121	Electronic Devices and Circuits	3+1	Nil
HS-111	Functional English	3+0		HS-121	Communication Skills	3+0	HS-111
HS-112	Islamic Studies / Ethical Behavior	2+0		Total credits		18	
Total credits		16					
SEMESTER-3				SEMESTER-4			
Course Code	Course Title	Cr. Hr	Pre-Req	Course Code	Course Title	Cr. Hr	Pre-Req
NS-211	Multivariable Calculus	3+0	NS-111	EE-221	Signals and Systems	3+1	Nil
CSE-211	Digital Logic Design	3+1	Nil	MS-xxx	Management Elective	3+0	Nil
CSE-212	Object Oriented Programming	3+1	CSE-121	CSE-221	Data Structures and Algorithm	3+1	CSE-212
NS-212	Discrete Structures	3+0	Nil	NS-221	Linear Algebra	3+0	NS-111
CSE-213	Computer Aided Engineering Drawing	0+1	Nil	CSE-222	Computer Architecture and Organization	3+0	Nil
HS-211	Pakistan Studies	2+0	Nil	Total credits		17	
Total credits		17					
SEMESTER-5				SEMESTER-6			
Course Code	Course Title	Cr. Hr	Pre-Req	Course Code	Course Title	Cr. Hr	Pre-Req
CSE-311	Probability and Statistics	3+0	NS-111	CSE-321	Operating Systems	3+1	CSE-111
CSE-312	Microprocessor and Interfacing	3+1	CSE-222	CSE-322	Digital System Design	3+1	CSE-211
HS-311	Technical Report Writing	3+0	Nil	CSE-323	Software Engineering	3+0	CSE-221
CSE-313	Data Communication and Computer Networks	3+1	CSE-111	IDEE-32x	IDEE-1	3+0	xx-xxx
CSE-314	Database Management Systems	3+1	CSE-221	CSE-XXX	Elective I	3+1	XXX-XXX
Total credits		18			Total credits		18
SEMESTER-7				SEMESTER-8			
Course Code	Course Title	Cr. Hr	Pre-Req	Course Code	Course Title	Cr. Hr	Pre-Req
CSE-411	Final Year Project Part-I	0+3	Nil	CSE-429	Final Year Project Part-II	0+3	CSE-411
CSE-xxx	Elective-II	3+1	xxx-xxx	CSE-XXX	Elective-IV	3+0	CSE-XXX
CSE-xxx	Elective-III	3+0	xxx-xxx	IDEE-42x	IDEE-2	3+1	xxx-xxx
MS-411	Entrepreneurship	3+0	Nil	HS-xxx	Social Science Elective	3+0	Nil
EE-321	Digital Signal Processing	3+1	EE-221	HS-421	Professional Practice and Engineering Ethics	3+0	Nil
Total credits		17			Total credits		16
ELECTIVES (3+1)				ELECTIVES (3+0)			
Course Code	Course Title	Cr. Hr	Pre-Req	Course Code	Course title	Cr. Hr	Pre-Req
CSE-324	Instrumentation and Measurements	3+1	EE-121	CSE-416	Theory of Automata	3+0	NS-212
CSE-325	Web Engineering	3+1	CSE-121	CSE-421	Compiler Design	3+0	CSE-416
CSE-326	Artificial Intelligence	3+1	NS-212	CSE-417	Computer Security and Cryptography	3+0	CSE-313
CSE-327	Embedded Systems	3+1	CSE-312	CSE-418	Real-Time Systems	3+0	CSE-321
CSE-412	FPGA based System Design	3+1	CSE-322	CSE-422	Parallel and Distributed Computing Systems	3+0	CSE-312
CSE-413	Power Electronics	3+1	EE-121	CSE-423	Digital Image Processing	3+0	EE-321
CSE-414	Advanced Programming	3+1	CSE-121	CSE-419	Global Information System & Remote Sensing	3+0	CSE-314
CSE-415	Software Project Management	3+1	CSE-323	CSE-424	Software Quality Assurance	3+0	CSE-323

IDEE (3+1)				IDEE (3+0)			
Course Code	Course Title	Cr. Hr	Pre-Req	Course Code	Course title	Cr. Hr	Pre-Req
IDEE-421	Modeling and Simulation	3+1	NS-122	IDEE-321	Numerical Analysis	3+0	NS-121
IDEE-422	Control Engineering	3+1	EE-221	IDEE-322	Fault Tolerant Systems	3+0	CSE-211
IDEE-423	Introduction to Mechatronics	3+1	NS-121	IDEE-323	Robotics	3+0	NS-221
IDEE-424	Communication Systems	3+1	EE-221, CSE-311	IDEE-324	Rehabilitation Engineering	3+0	CSE-312
IDEE-425	Bio-Medical Instrumentation	3+1	EE-121	IDEE-325	Neural Networks and Fuzzy Logic	3+0	NS-221

Social Science Electives (3+0)			
Course Code	Course Title	Cr. Hr	Pre-Req
HS-422	Foreign Language	3+0	Nil
HS-423	Sociology	3+0	Nil
HS-424	Cyber Crimes and Law	3+0	Nil
HS-425	Art and Graphics	3+0	Nil
Management Electives (3+0)			
Course Code	Course Title	Cr. Hr	Pre-Req
MS-221	Engineering Economics and Management	3+0	Nil
MS-222	Organizational Behaviour	3+0	Nil
MS-223	Principles of Management	3+0	Nil

Total credit hours = 137[40 Courses + Final Year Project (FYP)]

Proposed: CSE 4th BOS Meeting – Decemebr 11, 2017