EXCEL ENGINEERING COLLEGE
(Autonomous)

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

Accredited by NBA(AERO, CSE, ECE, MECH & NAAC with "A+" and Recognised by UGC (2f &12B)

KOMARAPALAYAM – 637303

DEPARTMENT OF BIOMEDICAL ENGINEERING

2018-22 BATCH

CO ATTAINMENT

COURSE CODE/COURSE NAME	CO 1	CO2	CO3	CO4	CO5	CO AVERAGE
SEMESTER I						
C101/ENGLISH	3.0	1.0	2.0	2.0	2.0	2.0
C102/Engineering Mathematics - I	2.0	2.0	2.0	3.0	3.0	2.0
C103/Engineering Physics	3.0	3.0	3.0	2.0	3.0	2.0
C104/Engineering Chemistry	3.0	2.0	3.0	2.0	2.0	2.0
C105/Problem Solving and Python Progr	3.0	3.0	3.0	2.0	2.0	2.0
C106/Engineering Graphics	3.0	2.0	2.0	2.0	2.0	2.0
C107/Problem Solving and Python Program	3.0	2.0	2.0	3.0	3.0	3.0
C108/Physics and Chemistry Laboratory	3.0	1.0	2.0	3.0	2.0	2.0
SEMESTER II						
C110/Technical English	3.0	1.0	2.0	2.0	2.0	2.0
C111/Engineering Mathematics - II	2.0	2.0	3.0	2.0	3.0	2.0
C112/Physics for Electronics Engineering	3.0	3.0	3.0	2.0	2.0	2.0
C113/Engineering Mechanics for Biomedical E	3.0	3.0	3.0	2.0	2.0	2.0
C114/Fundamentals of Bio Chemistry	3.0	3.0	2.0	3.0	2.0	2.0
C115/Circuit Analysis	3.0	2.0	2.0	2.0	2.0	2.0
C116/Engineering Practices Laboratory	3.0	1.0	2.0	2.0	3.0	3.0
C117/Bio Chemistry Laboratory	3.0	1.0	2.0	3.0	2.0	2.0
SEMESTER III						
C201/Linear Algebra and Partial Differ Eqn	2.0	2.0	2.0	2.0	3.0	3.0
C202/Signals and Systems	3.0	1.0	2.0	2.0	3.0	3.0
C203/Anatomy and Human Physiology	3.0	1.0	2.0	3.0	2.0	2.0
C204/Sensors and Measurements	3.0	3.0	2.0	3.0	2.0	3.0
C205/Electron Devices and Circuits	3.0	3.0	3.0	2.0	2.0	2.0
C206/Pathology and Microbiology	3.0	3.0	3.0	2.0	2.0	2.0
C207/Pathology and Microbiology Lab	2.0	2.0	3.0	3.0	3.0	2.5
C208/Devices and Circuits Laboratory	3.0	3.0	3.0	2.5	3.0	3.0
C209/Human Physiology Laboratory	3.0	1.0	2.0	3.0	2.0	2.0
SEMESTER IV						
C210/Probability and Statistics	3.0	3.0	3.0	2.0	2.0	2.0
C211/Medical Physics	2.0	2.0	2.0	2.0	3.0	3.0
C212/Basics of Electrical Engineering	3.0	3.0	3.0	3.0	3.0	3.0
C213/Linear Integrated Circuits	3.0	1.0	2.0	3.0	2.0	2.0
C214/Fundamentals of Data Structures In C	3.0	3.0	3.0	2.0	2.0	2.0
C215/Digital Electronics	2.0	2.0	2.0	3.0	2.0	2.0
C216/ Data Structures In C Laboratory	3.0	1.0	2.0	3.0	2.0	2.0
C217/Integrated Circuits Laboratory	3.0	1.0	2.0	3.0	2.0	2.0
SEMESTER V						
C301/Analog and Digital Communication	3.0	3.0	3.0	3.0	3.0	3.0
C302/Biocontrol Systems	3.0	3.0	3.0	3.0	3.0	3.0

COURSE CODE/COURSE NAME	CO 1	CO2	CO3	CO4	CO5	CO AVERAGE
C303/Biomedical Instrumentation	3.0	3.0	3.0	3.0	3.0	3.0
C304/Discrete-Time Signal Processing	3.0	3.0	3.0	3.0	3.0	3.0
C305/Total Quality Management	3.0	3.0	3.0	3.0	3.0	3.0
C306/Basics of Bioinformatics	3.0	3.0	3.0	3.0	3.0	3.0
C307/Digital Signal Processing Laboratory	3.0	3.0	3.0	3.0	3.0	3.0
C308/Biomedical Instrumentation Lab	3.0	3.0	3.0	3.0	3.0	3.0
C309/Interpersonal Skills/Listen & Speak	3.0	3.0	3.0	3.0	3.0	3.0
SEMESTER VI						
C310/Microprocessors and Microcontrollers	2.0	3.0	3.0	3.0	3.0	3.0
C311/Diagnostic and Therapeutic Equip - I	3.0	2.0	3.0	3.0	3.0	3.0
C312/Biomechanics	3.0	3.0	2.0	3.0	3.0	3.0
C313/Environmental Science and Engg	3.0	2.0	3.0	3.0	3.0	3.0
C314/Hospital Management	3.0	2.0	3.0	3.0	3.0	2.5
C315/Telehealth Technology	3.0	3.0	2.0	3.0	3.0	3.0
C316/Microprocessors and Microcont Lab	3.0	3.0	3.0	2.0	3.0	3.0
C317/Diagnostic and Therapeutic Equip Lab	3.0	3.0	2.0	3.0	3.0	3.0
C318/Mini Project	3.0	3.0	3.0	2.0	3.0	3.0
C319/Professional Communication	3.0	3.0	3.0	2.0	2.0	2.5
SEMESTER VII						
C401/Diagnostic and Therapeutic Equip - II	3.0	3.0	3.0	3.0	3.0	3.0
C402/Digital Image Processing	2.5	3.0	3.0	3.0	3.0	3.0
C403/Radiological Equipme	3.0	2.5	3.0	3.0	3.0	3.0
C404/Rehabilitation Engineering	3.0	3.0	2.5	3.0	3.0	3.0
C405/Internet of Things	3.0	3.0	3.0	3.0	3.0	3.0
C406/Electronics Materials	3.0	3.0	3.0	2.5	3.0	3.0
C407/Digital Image Processing Laboratory	3.0	3.0	3.0	3.0	2.5	3.0
C408/Hospital Training	2.5	3.0	3.0	2.5	2.5	2.5
SEMESTER VIII						
C410/Hospital Waste Management	2.5	3.0	3.0	3.0	3.0	3.0
C411/Embedded and Real time Systems	3.0	2.5	2.5	3.0	2.5	2.5
C412/Project Work	3.0	3.0	3.0	2.5	2.5	3.0

10/2/23

Academic coordinator

HOD

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2018-22 BATCH

CO- PO ATTAINMENT

COURSE CODE	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 1	PO 11	PO 12	PSO 1	PSO 2
SEMESTER I														
C101	1	1.6	1	1.5	1	1	1.3	1.5	1.2	1.5	1	1.7	-	-
C102	3	3	2.4	2.6	1.6	1.2	-	-	1.8	-	-	2	-	-
C103	2.6	1.3	1.3	1	1.5	1	1.5	1	-	1	-	1	-	-
C104	1.6	1.6	-	2.8	1.75	1	1	1.8	-	-	2	1.2	-	-
C105	3	3	3	3	2.8	2	2	-	-	1	-	1	2.2	2.0
C106	3	3	2	1	3	3	3	-	2	3	-	3	3.0	-
C107	3	3	3	3	3	2	2	-	-	1	2	1	2.0	-
C108	2.4	2	2.5	2	2	1.5	2.3	1	1.4	1	1.6	2.2	-	2.0
C109	2	1.6	1.7	2.6	1.5	1.5	2	1.4	1	2	1.3	1.5	-	-
SEMESTER II														
C110	2.8	2.8	2.4	2.6	2	1.6	-	-	2	-	-	2.4	-	-
C111	2.4	1.5	2	2	2.5	1.6	1.4	1	-	1	-	2	-	-
C112	3	2	2.2	1.4	2.2	1.4	1.2	-	-	2.2	1.8	2	-	-
C113	2.4	2.2	2	2	2.2	1.8	2	1	1.6	2	1.4	2.4	-	-
C114	3	3	3	3	2	3	3	3	2	1	1	3	-	-
C115	1.5	2.5	2.67	-	1.25	-	-	1	-	-	1.25	1.8	-	-
C116	3	2.6	2.6	3	2	2	2.6	2	3	2.6	1	3	1.0	-
SEMESTER III														
C201	2.2	1.5	-	2	-	-	-	-	1.5	-	-	-	-	-
C202	3	2.8	2	2.2	-	1	1	1	-	-	-	1	1.0	-
C203	3	3	-	2.6	-	-	-	1	-	-	-	1	3.0	2.0
C204	3	-	-	-	-	1	-	-	-	2	-	1	1.0	-
C205	3	3	2.8	-	-	2	3	-	-	3	-	3	2.0	-
C206	3	-	1	-	-	2	-	2.4	2	1	3	1	-	0.8

COURSE CODE	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 1	PO 11	PO 12	PSO 1	PSO 2
C207	3	3	2.8	-	-	2	-	1	-	3	-	1	1.0	1.0
C208	3	3	2.4	2.6	-	1	-	-	-	-	-	2	1.0	1.0
C209	3	3	2.4	2.6	-	1	-	-	-	-	-	2	-	1.0
SEMESTER IV														
C210	1.5	1.3	1	1.6	-	-	-	-	1	-	-	1	-	-
C211	3	2.8	3	3	-	-	-	-	-	-	-	1	0.5	-
C212	3	1.8	-	2.6	-	-	1	-	-	1	-	1	2.0	3.0
C213	3	-	-	2.6	-	-	1	-	-	-	-	2	-	1.0
C214	3	3	2.4	2.6	-	1	-	-	-	-	-	2	-	2.4
C215	3	2	-	3	-	-	-	1.7	-	-	-	1	-	-
C216	3	2.4	2	-	3	-	-	2.4	2	1	3	1	0.6	1.6
C217	3	1	2.4	2.6	-	1	-	1	2	2	-	1	1.5	2.6
C218	3	3	-	2.8	-	1.6	-	-	2	2	-	1	1.5	2.6
SEMESTER V														
C301	3	2	-	3	-	-	-	1.7	-	-	-	1	-	0.9
C302	3	3	3	3	-	2	-	3	-	-	1	1	2.9	2.9
C303	3	-	-	2.4	2.6	-	-	1	-	1	-	1	0.5	0.5
C304	3	3	2	3	-	-	-	-	-	1	-	1	0.9	-
C305	3	-	-	-	-	1	-	-	-	2	-	1	-	2.2
C306	3	2	2	3	-	1	-	1	2	2	-	1	-	1.0
C307	3	3	2.6	3	-	1	-	1	2	2	-	1	3.0	3.0
C308	3	-	-	2.4	2.6	1	-	1	-	2	-	1	0.9	-
C309	3	3	3	3	-	2	-	3	-	-	-	1	0.9	1.4
SEMESTER VI														
C310	3	-	-	-	1	-	-	2	-	-	-	1	2.8	3.0
C311	3	2.4	2.4	2.2	-	-	-	2.8	-	-	-	1	3.0	3.0
C312	3	3	-	3	2	-	-	-	1	-	-	2	3.0	3.0
C313	3	-	2	-	1	-	1	-	2	-	-	1	2.8	3.0
C314	3	1	2	2	-	1	1	-	-	-	1	1	1.0	-
C315	3	-	2.5	2.5	3	-	-	-	1	2	-	2	1.0	-
C316	3	3	3	3	2.4	3	3	3	3	3	3	2	2.0	-
C317	-	2	-	2	-	1	3	-	1	3	-	-	1.7	-
SEMESTER VII														
C401	3	2.5	2	-	-	3	2.4	1	-	-	2	1	-	2.4
C402	3	1.8	-	2.2	-	-	-	1.4	-	-	1	1	2.0	-
C403	3	-	2.2	-	3	-	-	-	-	2	-	1	3.0	1.0
C404	2.8	-	2	2.4	2.4	1	2.4	2.2	-	-	-	1.2	-	2.0

COURSE CODE	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 1	PO 11	PO 12	PSO 1	PSO 2
C405	3	-	-	1.6	-	-	-	-	-	2	-	1	2.4	2.6
C406	2.6	-	1.3	-	-	-	2	1.8	-	-	-	1	2.4	2.6
C407	3	3	3	3	3	-	2	-	2	-	-	-	3.0	1.0
C408	3	-	1.4	-	2.4	-	-	-	2	-	-	2	3.0	1.0
SEMESTER VIII														
C409	-	-	-	-	-	2	-	2.4	1.8	2.4	1	-	1.0	3.0
C410	3	2.25	-	1.6	2.6	-	-	1	-	2	-	1	-	-
C411	3	3	3	3	3	3	3	3	3	3	3	3	1.0	-
DIRECT ATTAINENT (80%)	2.5	2.1	1.7	1.9	2.0	1.5	1.5	1.6	1.8	1.9	1.6	1.4	1.7	1.8
	2.0	1.7	1.4	1.5	1.6	1.2	1.2	1.2	1.4	1.5	1.3	1.1	1.3	1.4
INDIRECT ATTAINMENT (20%)	**2.5**	**2.1**	**1.7**	**1.9**	**2.0**	**1.5**	**1.5**	**1.6**	**1.8**	**1.9**	**1.6**	**1.4**	**1.7**	**1.8**
	0.5	0.4	0.3	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.4
TOTAL ATTAINMENT (100%)	2.5	2.1	1.7	1.9	2.0	1.5	1.5	1.6	1.8	1.9	1.6	1.4	1.7	1.8

Academic coordinator

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