

OM AMRITESWARYAI NAMAH

Amrita Vishwa Vidyapeetham

Amrita School of Engineering, Amritapuri

Department of Electronics & Communication Engineering (ECE)

**Course Book (July – Dec 2021)**

<b>S1EAC</b>						
<b>Cat</b>	<b>Code</b>	<b>Title</b>	<b>Name of I</b>	<b>L T P</b>	<b>Cr</b>	<b>ES</b>
SCI	19MAT101	Single Variable Calculus		1 0 0	1	
SCI	19MAT102	Matrix Algebra		2 0 0	2	
ENGG	19EAC101	Introduction to Computer Engineering		3 0 0	3	
ENGG	19CSE100	Problem Solving and Algorithmic Thinking		2 1 3	4	
SCI	19PHY103	Physics of Electronic Materials		3 0 0	3	
ENGG	19MEE100	Engineering Graphics - CAD		2 0 3	3	
ENGG	19EEE111	Electrical and Electronics Engineering		3 0 0	3	
ENGG	19EEE182	Electrical and Electronics Engg Practice		0 0 3	1	
ENGG	19ECE101	Introduction to IoT		0 0 3	1	
HUM	19CUL101	Cultural Education - I		2 0 0	2	
		<b>TOTAL</b>		<b>31</b>	<b>23</b>	

<b>S1ECE</b>						
<b>Cat</b>	<b>Code</b>	<b>Title</b>	<b>Name of I</b>	<b>L T P</b>	<b>Cr</b>	<b>ES</b>
SCI	19BIO101	Biology for Engineers - A		3 0 0	3	
SCI	19MAT101	Single Variable Calculus		1 0 0	1	
SCI	19MAT102	Matrix Algebra		2 0 0	2	
ENGG	19CSE100	Problem Solving and Algorithmic Thinking		2 1 3	4	
SCI	19PHY103	Physics of Electronic Materials		3 0 0	3	
ENGG	19MEE100	Engineering Graphics - CAD		2 0 3	3	
ENGG	19EEE100	Basic Electrical and Electronics Engineering		3 0 0	3	
ENGG	19EEE181	Basic Electrical and Electronics Engineering Lab		0 0 3	1	
ENGG	19ECE101	Introduction to Internet of Things		0 0 3	1	
HUM	19CUL101	Cultural Education - I		2 0 0	2	
		<b>TOTAL</b>		<b>31</b>	<b>23</b>	

<b>S3EAC</b>						
<b>Cat.</b>	<b>Code</b>	<b>Title</b>	<b>Name of I</b>	<b>L T P</b>	<b>Credit</b>	<b>ES</b>
SCI	19MAT209	Linear Algebra and Optimization Techniques		3 1 0	4	
ENGG	19EAC204	Computer Organization and Architecture		3 0 0	3	
ENGG	19EAC203	Data Structures and Algorithms		2 0 3	3	
ENGG	19EAC205	Mathematics of Signal Processing		3 0 0	3	
ENGG	19EAC201	Electronic Circuits I		3 0 0	3	
HUM	19AVP201	Amrita Values Program		1 0 0	1	
ENGG	19EAC202	Network Theory		3 0 0	3	
ENGG	19EAC281	Mathematics of Signal Processing Lab		0 0 3	1	

ENGG	19EAC282	Electronic Circuits I Lab		0 0 3	1	
HUM	LSK101	Soft Skills, Verbal Skills, Aptitude			P/F	
		<b>TOTAL</b>		<b>31</b>	<b>23</b>	

**S3ECE**

Cat	Code	Title	Name of I	L T P	Cr	ES
ENGG	19ECE201	Analog Electronic Circuits		3 0 0	3	
ENGG	19ECE202	Applied Electromagnetics		3 1 0	4	
ENGG	19ECE204	Digital Electronics and Systems		3 1 0	4	
ENGG	19ECE203	Signals and Systems		3 1 0	4	
SCI	19MAT205	Probability Theory and Random Processes		3 1 0	4	
ENGG	19ECE282	Digital Electronics and Systems Lab		0 0 3	1	
ENGG	19ECE281	Analog Electronics Lab		0 0 3	1	
HUM	19AVP201	Amrita Values Program 1		1 0 0	1	
HUM	19ENV300	Environmental Science			P/F	
HUM	LSK101	Soft Skills, Verbal Skills, Aptitude			P/F	
		<b>TOTAL</b>		<b>25</b>	<b>22</b>	

**S5 EAC**

Cat	Code	Subject	Name of I	L-T-P	Cr	ES
ENGG	19EAC301	Fundamentals of Machine Learning		2 1 0	3	A
ENGG		Professional Elective I*		3 0 0	3	E
	19ECE321	Adaptive signal processing [CAP 50]				
	19ECE357	Pattern Recognition [CAP 50]				
	19ECE454	Image Processing [CAP 50]				
	19CSE331	Cryptography				
	19CSE453	Natural Language Processing				
ENGG	19EAC302	Embedded Systems Design		3 0 0	3	B
ENGG	19EAC303	Information Theory and Coding		3-1-0	4	C
ENGG	19ECE313	VLSI Design		3 0 0	3	D
ENGG	19EAC381	Machine Learning lab with Python		0 0 3	1	L2
ENGG	19ECE383	VLSI Design lab		0 0 3	1	L3
HUM	19SSK301	Soft Skills II		1 0 3	2	L1
ENGG	19LIV390	Live-in –Labs***			[3]	G
ENGG	19ENV300	Environmental Science			P/F	P2
		<b>TOTAL</b>		<b>26</b>	<b>20</b>	

**S5ECE**

Cat	Code	Subject	Name of I	L-T-P	Cr	ES
ENGG	19ECE304	Microcontrollers and Interfacing		3 0 3	4	D
		Microcontrollers and Interfacing Lab				
ENGG	19ECE303	Radio Frequency Engineering		3-0-0	3	C
ENGG	19ECE302	Digital Communication		3-0-0	3	B
ENGG	19ECE301	Control Theory		3-1-0	4	A
ENGG		<b>Professional Elective I*</b>		3-0-0	3	E
	19ECE338	Solid State Devices [CAP 25]				
	19ECE357	Pattern Recognition [CAP 50]				
	15ECE321	Adaptive signal processing [CAP 50]				

	19ECE454	Image Processing[CAP 50]				
ENGG	19ECE381	RF and Simulation lab		0-0-3	1	L3
ENGG	19ECE382	Communication Systems lab		0-0-3	1	<u>L2</u>
HUM	19SSK301	Soft Skills II		1 0 3	2	L1
ENGG	19LIV390	Live-in –Labs***			[3]	G
		<b>TOTAL</b>		<b>29</b>	<b>21+[3]</b>	

**S7ECE**

Cat	Code	Subject	Name of I	L-T-P	Cr	ES
ENGG	15ECE401	Information Theory and Coding Techniques		3-1-0	4	A
ENGG	15ECE402	Radio Frequency Engineering		3-1-0	4	B
	15ENV300	Environmental Science and Sustainability		3-0-0	3	H
ENGG		<b>Elective 11</b>		3-0-0	3	E
	15ECE344	Antenna Systems and Design[Cap 50]				
	15ECE356	Satellite Communication[Cap 50]				
	15MEC333	Financial Management[Cap 50]				
ENGG		<b>Elective 111</b>		3-0-0	3	D
	15ECE359	Wireless Communication[Cap 50]				
	15ECE345	Cellular and Mobile Communication System[Cap 50]				
	15ECE371	VLSI Fabrication Technology[Cap 25]				
ENGG	15ECE481	Microwave Engineering Lab		0-0-2	1	L1
PRJ	15ECE495	Project Phase 1			2	P1
ENGG	15ECE490	Live-in-Lab**			[3]	P2
		<b>TOTAL</b>			20 [+3]	





