



# University of Madras

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## Undergraduate Programme in Electronics and Communication Science

### Curriculum and Syllabus for B.Sc Electronics and Communication Science *(With effect from the Academic Year 2020-21)*

**February 2020**

**Note: The Committee is designed Learning Outcome Based Curriculum Framework of Under Graduate Electronics and Communication Programmes prescribed by UGC**

**COURSE STRUCTURE:****FIRST SEMESTER**

Course Content	Name of the Course	Ins. Hrs	Credits	Int. Marks	Ext. Marks	Total
Part – I	Language Paper – I	4	3	25	75	100
Part - II	BP2-ENG01-Communicative English	3	3	50	50	100
Part -III	BES-DSC01 – Basic Circuit Theory	5	3	25	75	100
	BMA-CSA01 – Allied Mathematics-I	6	5	25	75	100
	BES-DSC02 – Core Practical-I	6	3	40	60	100
Part IV	Basic Tamil/Adv.Tamil/NME*	2	2	25	75	100
	BP4-EPSC-English for Physical Sciences	4	4	50	50	100

**\*NME: Choose any one from other department**

**SECOND SEMESTER**

Course Content	Name of the Course	Ins. Hrs	Credits	Int. Marks	Ext. arks	Total
Part – I	Language Paper – II	4	3	25	75	100
Part - II	English Paper – II	4	3	25	75	100
Part - III	BES-DSC03 – Electronic Devices	6	3	25	75	100
	BMA-CSA02 – Allied Mathematics–II	6	5	25	75	100
	BES-DSC04 – Core Practical II	6	3	40	60	100
Part IV	Basic Tamil/Adv.Tamil/ NME*	2	2	25	75	100
	Soft skills	2	3	50	50	100

**\*NME: Choose any one from other department**

**THIRD SEMESTER**

Course Content	Name of the Course	Ins. Hrs	Credits	Int. Marks	Ext. Marks	Total
Part - III	BES-DSC05 – Analog Electronics	5	4	25	75	100
	BES-DSC06 – Numerical Methods	5	3	25	75	100
	BES-DSC07 – Digital Electronics	4	4	25	75	100
	BES-DSA03 – Allied Basic Physics-I	4	4	25	75	100
	Allied Practical I	3	Examination will be held in semester IV			
	BES-DSC08 – Core Practical III	3	3	40	60	100
	BES-DSC09 – Core Practical IV	3	3	40	60	100
PART IV	Environmental Studies	1	Examination will be held in Semester IV			
	Soft Skills	2	3	50	50	100

#### FOURTH SEMESTER

Course Content	Name of the Course	Ins. Hrs	Credits	Int. Marks	Ext. Marks	Total
Part - III	BES-DSC10 – Principles of Communication	4	3	25	75	100
	BES-DSC11 – Programming in C Theory and Practical*	4	3	40	60	100
	BES-DSC12 – Microprocessor – Intel 8085	5	4	25	75	100
	BES-DSA04 – Allied Basic Physics – II	5	4	25	75	100
	BES-DSAP1 – Allied Basic Physics-I & II (Practical)	3	2	40	60	100
	BES-DSC13 – Core Practical - V	6	3	40	60	100
Part-IV	Environmental Studies	1	2	25	75	100
	Soft skills	2	3	50	50	100

\* The Distribution of marks for Programming in C Theory and Practical which have both theory and practical (syllabus combined both theory and practical in each paper together) be followed:

PAPER	INTERNAL	EXTERNAL	TOTAL
Theory	25	75	100
Practical	40	60	100

Finally, theory marks (100) be reduced to 60% and practical marks (100) be reduced to 40%.

#### FIFTH SEMESTER

Course Content	Name of the Course	Ins. Hrs	Credits	Int. Marks	Ext. marks	Total
Part-III	BES-DSC14 – Microcontroller	6	4	25	75	100
	BES-DSC15 – Electrical and Electronics Instrumentation	6	4	25	75	100
	BES-DSC16 – Antennas Theory and Radar System	6	4	25	75	100
	BES-DSC17 – Core Practical – VI	6	3	40	60	100
	Elective-I: Choose any one from list	5	5	25	75	100
Part-IV	Value Education	1	2	25	75	100

#### SIXTH SEMESTER

Course Content	Name of the Course	Ins. Hrs	Credits	Int. Marks	Ext. Marks	Total
Part-III	BES-DSC18 – Computer Networks	5	4	25	75	100
	BES-DSC19 – Real Time Embedded System	5	4	25	75	100
	BES-DSC20 – Biomedical Instrumentation	5	4	25	75	100
	Elective II : Choose any one from list	5	5	25	75	100
	BES-DSC21 – Core Practical - VII	6	3	40	60	100
	BES-DSC22 – Project	3	5	20	80	100
Part V	Extension Activities	1	1			

