

Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon

FACULTY OF SCIENCE AND TECHNOLOGY

PROGRAMME: M.Sc. Electronics (Department of Electronics, SOPS, KBCNMU Jalgaon Campus)

Credit distribution structure for Two Years/One Year PG Degree and PhD Program

Year (2YrPG)	Level	Sem (2Yr)	Major (Core) Subjects		RM	OJT/FP	RP	Cumulative Credits	Degree
			Mandatory (DSC)	Elective (DSE)					
I	6.0	Sem-I	DSC-25(4)(T): EL 411 – Semiconductor Devices DSC-26(2)(T): EL 412 – Analog Circuit Simulation Technique DSC-27(4)(T): EL 413 – VLSI Tools and Techniques DSC-28 (2) (P): EL 414-A – Practical Laboratory -I DSC-29 (2) (P): EL 414-B – Practical Laboratory -II	DSE-5 (4)(T): EL 415 – Industrial Automation and Control	RM (4): EL 416 – Research Methodology			22	PG Diploma (After 3- Yr. Degree)
		Sem-II	DSC-30(4)(T): EL 421 – Optoelectronics DSC-31(2)(T): EL 422 – Advanced Microcontroller and Applications DSC-32(4)(T): EL 423 – Advanced Communication System DSC-33 (2) (P): EL 424-A – Practical Laboratory -III DSC-34 (2) (P): EL 424-B – Practical Laboratory -IV	DSE-6 (4)(T): EL 425 – Python Programming for Electronics PHY 425 – Sensors and Instrumentation	---	OJT/Int (4): EL 426 – On Job training / Internship	---	22	
Cum. Cr. For PG Diploma			28	8	4	4	---	44	
Exit option: PG Diploma (44Credits) after Three Year UG Degree									
II	6.5	Sem-III	DSC-35(4)(T): EL 511 – Semiconductor Processing Technology DSC-36(2)(T): EL 512 – Embedded System and Applications DSC-37(4)(T): EL 513 – Digital Signal Processing and Applications DSC-38(2)(P): EL 514-A – Practical Laboratory-V DSC-39(2)(P): EL 514-B – Practical Laboratory-VI	DSE-7(4) (T): EL 515 – Electronics for Internet of Things (IOT) PHY 515 – Battery Science and Technology	---	---	RP (4): EL 516 – Research Project	22	PG Degree After 3- Yr. UG Or PG Degree after 4-Yr. UG
		Sem-IV	DSC-40(4)(T): EL 521 – Digital Image Processing and Applications DSC-41(4)(T): EL 522 – CMOS Technology and Applications DSC-42(2) (P): EL 523-A – Practical Laboratory-VII DSC-43(2) (P): EL 523-B – Practical Laboratory-VIII	DSE-8(4) (T): EL 524 – Robotic and Application PHY 524 – Fundamentals of Electric Vehicle: Science and Technology	---	---	RP (6): EL 525 – Research Project	22	
Cum. Cr. For 1 Yr. PG Degree			26	8	---	---	10	44	
Cum. Cr. For 2 Yr. PG Degree			54	16	4	4	10	88	
2 Years -4 Sem. PG Degree (88 credits) after Three Year UG Degree or 1 Year- 2 Sem PG Degree (44 credits) after Four Year UG Degree									
	8.0	- - -	Course Work (Total Cr. 12) CW-1(4) CW-2(4) CW-3(4)			Training in Teaching/Education/Pedagogy (4)		16 +Ph.D. Work	Ph.D. in Electronics

Abbreviations: Yr.: Year; Sem: Semester; OJT: On Job Training Internship/ Apprenticeship; FP: Field projects; RM: Research Methodology; RP: Research Project; Cum Cr: Cumulative Credits; CW: Coursework; T: Theory Course; P: Practical Course; DSC: Discipline Specific Core Course; DSE: Discipline Specific Elective Course

Date:

Seal:

BOS in Electronics and Instrumentation (Member/s)

Chairman: Electronics

**Dean
(Faculty of Science & Technology)**

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PROGRAMME: M.Sc. Electronics (Department of Electronics, SOPS, KBCNMU Jalgaon Campus)

Credit distribution structure for Two Years/One Year PG (M.Sc.) Degree Programme

**BoS: Electronics and Instrumentation
 Teaching and Examination Scheme, Master of Science (M.Sc.)**

M.Sc. (Level 6.0) Sem-I: M.Sc. Electronics (EL) (Major, RM, OJT, RP courses)

Sr No	Course Category	Name of the course (Title of the Paper)		Total Credit	Hours/Semester	Teaching Scheme (Hrs./week)		Evaluation Scheme		
						Theory	Practical	Continuous Internal Evaluation (CIE) (CA)	End Semester Evaluation (ESE)(UA)	Duration of Examination (Hrs.)
						T	P			
1	DSC	DSC-25	EL 411 - Semiconductor Devices	4	60	T	-	40	60	03
		DSC-26	EL 412 - Analog Circuit Simulation Techniques	2	30	T	-	20	30	03
		DSC-27	EL 413 - VLSI Tools and Techniques	4	60	T	-	40	60	03
		DSC-28	EL 414-A - Practical Laboratory-I	2	60	-	P	20	30	03
		DSC-29	EL 414-B - Practical Laboratory-II	2	60	-	P	20	30	03
2	DSE	DSE-5	EL 415 - Industrial Automation and Control	4	60	T	-	40	60	03
3	Research	RM	EL 416 - Research Methodology	4	60	T	-	40	60	03
Total				22						

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BoS: Electronics and Instrumentation
Teaching and Examination Scheme, Master of Science (M.Sc.)

M.Sc. (Level 6.0) Sem-II: M.Sc. Electronics (EL) (Major, RM, OJT, RP courses)

Sr No	Course Category	Name of the course (Title of the Paper)		Total Credit	Hours/ Semester	Teaching Scheme (Hrs./week)		Evaluation Scheme		
						Theory	Practical	Continuous Internal Evaluation (CIE) (CA)	End Semester Evaluation (ESE)(UA)	Duration of Examination (Hrs.)
						T	P			
1	DSC	DSC-30	EL 421 - Optoelectronics	04	60	T	--	40	60	03
		DSC-31	EL 422 - Advanced Microcontroller and Applications	02	30	T	--	20	30	03
		DSC-32	EL 423 - Advanced Communication System	04	60	T	--	40	60	03
		DSC-33	EL 424-A - Practical Laboratory -III	02	60	--	P	20	30	03
		DSC-33	EL 424-B - Practical Laboratory -IV	02	60	--	P	20	30	03
2	DSE	DSE-6	EL 425 - Python Programming for Electronics PHY 425 - Sensors and Instrumentation	04	60	T	--	40	60	03
3	FP/ OJT, RP	OJT	EL 426 - On Job training / Internship	04	60	--	P	40	60	03
Total				22						

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BoS: Electronics and Instrumentation
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M.Sc. (Level 6.0) Sem-III: M.Sc. Electronics (EL) (Major, R M, OJT, RP courses)

Sr No	Course Category	Name of the course (Title of the Paper)		Total Credit	Hours/ Semester	Teaching Scheme (Hrs./week)		Evaluation Scheme		
						Theory	Practical	Continuous Internal Evaluation (CIE) (CA)	End Semester Evaluation (ESE)(UA)	Duration of Examination (Hrs.)
						T	P			
1	DSC	DSC-34	EL 511 - Semiconductor Processing Technology	04	60	T	--	40	60	03
		DSC-35	EL 512 - Embedded System and Applications	02	30	T	--	20	30	03
		DSC-36	EL 513 - Digital Signal Processing and Applications	04	60	T	--	40	60	03
		DSC-37	EL 514-A - Practical Laboratory-V	02	60	--	P	20	30	03
		DSC-38	EL 514-B - Practical Laboratory-VI	02	60	--	P	20	30	03
2	DSE	DSE-7	EL 515 - Electronics for Internet of Things (IOT) PHY 515 - Battery Science & Technology	04	60	T	--	40	60	03
3	FP/OJT, RP	RP	EL 516 - Research Project	04	60	--	P	40	60	03
Total				22						

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Teaching and Examination Scheme, Master of Science (M.Sc.)

M.Sc. (Level 6.0) Sem-IV: M.Sc. Electronics (EL) (Major, RM, OJT, RP courses)

Sr No	Course Category	Name of the course (Title of the Paper)		Total Credit	Hours/ Semester	Teaching Scheme (hrs/week)		Evaluation Scheme		
						Theory	Practical	Continuous Internal Evaluation (CIE) (CA)	End Semester Evaluation (ESE)(UA)	Duration of Examination (Hrs.)
						T	P			
1	DSC	DSC-39	EL 521 – Digital Image Processing and Applications	04	60	T	--	40	60	03
		DSC-40	EL 522 – CMOS Technology and Applications	04	60	T	--	40	60	03
		DSC-41	EL 523-A – Practical Laboratory-VII	02	60	--	P	20	30	03
		DSC-42	EL 523-B – Practical Laboratory-VIII	02	60	--	P	20	30	03
2	DSE	DSE-8	EL 524 – Robotic and Application PHY 524 – Fundamental of Electric Vehicle: Science and Technology	04	60	T	--	40	60	03
3	FP/OJT, RP	RP	EL 525 – Research Project	06	90	--	P	60	90	03
Total				22						

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