



B.M.S. COLLEGE OF ENGINEERING, BENGALURU - 19
Autonomous Institute, Affiliated to VTU

DEPARTMENT OF MACHINE LEARNING

**B.E IN ARTIFICIAL INTELLIGENCE
AND
MACHINE LEARNING**

**DRAFT SCHEME FOR
UG PROGRAMME III TO VIII SEMESTERS
(w.e.f 2020-2021)**

B.M.S. College of Engineering, Bengaluru – 19 (Autonomous Institute, Affiliated to VTU)											
Scheme of Instructions Semester – III (With effect from the Academic Year 2020-21)											
Sl. No	Course and Course Code		Course Title	Teaching Hours /Week			Examination				Credits
				Theory Lecture	Tutorial	Practical	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	BS-5	20MA3BSSDM	Statistics and Discrete Mathematics	3	1	0	05	50	50	100	4
2	PC-1	20AM3PCOOP	Object Oriented Programming	3	0	1	05	50	50	100	4
3	HS-1	20AM3HSSEM	Software Engineering and Management	2	0	0	02	50	50	100	2
4	PC-2	20AM3PCDBM	Database Management Systems	3	0	0	03	50	50	100	3
5	PC-3	20AM4PCOPS	Operating system	3	0	0	03	50	50	100	3
6	PW-1	20AM3PWWAD	Web Application Development	0	0	2	04	50	50	100	2
7	HS-2	20HS3ICCPH	Constitution of India, Professional Ethics and Cyber Law	1	0	0	02	50	50	100	1
				Examination is by objective type Questions							
Total				15	1	3	24	350	350	700	19

B.M.S. College of Engineering, Bengaluru – 19 (Autonomous Institute, Affiliated to VTU)											
Scheme of Instructions Semester – IV (With effect from the Academic Year 2020-21)											
SL No		Course and Course Code	Course Title	Teaching Hours /Week			Examination				Credits
				Theory Lecture	Tutorial	Practical	Duration in hours	CIE Marks	SEE Marks	Total Marks	
				L	T	P					
1	BS-6	20MA4BSLAC	Linear Algebra and Calculus	3	1	0	05	50	50	100	4
2	PC-4	20AM4PCDSA	Data Structures and Algorithms	3	1	0	05	50	50	100	4
3	PC-5	20AM4PCML1	Introduction to Machine Learning - I	3	0	1	05	50	50	100	4
4	PC-6	20AM4PCTFC	Theoretical Foundations of Computations	3	0	0	03	50	50	100	3
5	PC-7	20AM4PCIAI	Introduction to Artificial Intelligence	3	0	1	05	50	50	100	4
7	SR-1	20AM4SRSMI	Seminar Based on Summer/Winter Internship	0	0	1	0	50	50	100	1
7	PW-2	20AM4PWPPG	Python Programming	0	0	2	04	50	50	100	2
8	HS-3	20HS4ICEVS	Environmental Studies	2	0	0	02	50	50	100	2
				Examination is by objective type questions							
Total				17	2	5	28	400	400	800	24

B.M.S. College of Engineering, Bengaluru – 19 (Autonomous Institute, Affiliated to VTU)											
Scheme of Instructions Semester – V (With effect from the Academic Year 2020-21)											
Sl. No	Course and Course Code		Course Title	Teaching Hours /Week			Examination				Credits
				Theory Lecture	Tutorial	Practical	Duration in hours	CIE Marks	SEE Marks	Total Marks	
				L	T	P					
1	BS-7	20AM5BSPSQ	Probability Statistics and Queueing	3	1	0	05	50	50	100	4
2	PC-8	20AM5PCML2	Introduction to Machine Learning - II	3	0	0	03	50	50	100	3
3	PC-9	20AM5PCIPG	Image Processing	3	0	1	05	50	50	100	4
4	PC-10	20AM5PCDCN	Data Communications and Computer Networks	3	1	0	05	50	50	100	4
5	HS-4	20AM5HSMAE	Management and Entrepreneurship	3	0	0	03	50	50	100	3
6	PE-1	20AM5PEABI	Business Intelligence (AI in Business Intelligence)	3	0	1	05	50	50	100	4
		20AM5PEINS	Cybernetics (Information Security)								
		20AM5PEPCV	Computer Vision (Programming with Open CV)								
7	PW-3	20AM5PWPML	Project work on Machine Learning	0	0	2	04	50	50	100	2
8	PC-11	20AM5PCDVL	Data visualization Laboratory (Tableau / Power BI)	0	0	1	02	50	50	100	1
9	NC-1	20AM5NCPAE	Participation in any Activity/Event	Non-credit mandatory Course							
Total				18	2	5	32	400	400	800	25

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Scheme of Instructions Semester – VI (With effect from the Academic Year 2020-21)

SL No	Course and Course Code		Course Title	Teaching Hours /Week			Examination				Credits
				Theory Lecture	Tutorial	Practical	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	PC-12	20AM6PCFLN	Fuzzy Logic and Neural Networks	3	0	1	05	50	50	100	4
2	PC-13	20AM6PCSNA	Social Network Analysis	2	1	0	04	50	50	100	3
3	ES-3	20AM6ESOPR	Operation Research	3	1	0	05	50	50	100	4
4	PE-2	20AM6PESMA	Business Intelligence (AI in Social Media Analytics)	3	0	1	05	50	50	100	4
		20AM6PEBCT	Cybernetics (Block Chain Technology)								
		20AM6PEVAT	Computer Vision (Video Analytics)								
5	OE-1	20AM6OEIDM	Open Elective-1 : Introduction to Data Mining	3	0	0	03	50	50	100	3
		20AM6OEIAI	Open Elective-2 : Introduction to Artificial Intelligence								
		20AM6OEIML	Open Elective-3 : Introduction to Machine Learning								
6	SR-2	20AM6SRSMI	Technical Report (LATEX)	0	0	1	01	50	50	100	1
7	PW-4	20AM6PWBC	Project work based on verticals	0	0	2	04	50	50	100	2
8	HS-4	20AM6HSQAT	Quantitative Ability Training	2	0	0	02	50	50	100	2
Total				16	2	5	29	400	400	800	23

B.M.S. College of Engineering, Bengaluru – 19 (Autonomous Institute, Affiliated to VTU)											
Scheme of Instructions Semester – VII (With effect from the Academic Year 2020-21)											
Sl. No	Course and Course Code		Course Title	Teaching Hours /Week			Examination				Credits
				Theory Lecture	Tutorial	Practical	Duration in hours	CIE Marks	SEE Marks	Total Marks	
				L	T	P					
1	BS-8	20AM7BSBFE	Biology for Engineers	2	0	0	2	50	50	100	2
2	PC-14	20MA7PCDLT	Deep Learning Techniques	3	0	1	05	50	50	100	4
3	PC-15	20AM7PCNLP	Natural Language Processing	3	0	1	05	50	50	100	4
4	PC-16	20AM7PCINS	Information Security	3	0	0	03	50	50	100	3
5	PE-3	20AM7PEECM	Business Intelligence (Ecommerce)	3	0	1	05	50	50	100	4
		20AM7PEMWA	Cybernetics (Malware Analysis)								
		20AM7PEOTD	Computer Vision (Object Tracking and Detection)								
6	PE-4	20AM7PEISP	Inferential Statistics using python	3	0	1	05	50	50	100	4
		20AM7PEEHP	Ethical Hacking Principles								
		20AM7PEAVR	Augmented Reality and Virtual Reality								
7	OE-2	20AM7OEDMG	Data Mining	3	0	0	03	50	50	100	3
		20AM7OESTG	Software Testing								
		20AM7OEIMG	Image Processing								
8	PW-5	20AM7PWMDP	Multidisciplinary project	0	0	3	0	50	50	100	3
9	SR-3	20AM7SRTL5	Technical Seminar (Based on review of Research Publication/ Patent)	0	0	1	0	50	50	100	1
Total				20	0	8	28	400	400	800	28

B.M.S. College of Engineering, Bengaluru – 19 (Autonomous Institute, Affiliated to VTU)											
Scheme of Instructions Semester – VIII (With effect from the Academic Year 2020-21)											
Sl. No	Course and Course Code		Course Title	Teaching Hours /Week			Examination				Credits
				Theory Lecture	Tutorial	Practical	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	HS-5	20AM8HSGCG	Green Computing	2	0	0	02	50	50	100	2
2	OE-3	20AM8OEBDA	Big Data Analytics	3	0	0	03	50	50	100	3
		20AM8OEBCC	Cloud Computing								
3	PW-6	20AM8PWBDA	Project Work	0	0	10	0	50	50	100	10
4	SR-4	20AM8SRINS	Seminar Based on Summer/Winter Internship with a government organization or any other organization or a premier Institute or a Research Lab	0	0	1	0	50	50	100	1
Total				05	0	11	05	200	200	400	16