DIRECTION

No.102/2024 Dated :- 14 /11/2024

Subject : **Examinations leading to the Degree of Master of Engineering) (Computer Aided Structural Engineering) as per CBCS Pattern) (Full Time) / (Semester Pattern Choice Based Credit System)**

Whereas, Direction Nos. 31/2010, 57/2010, 23/2013, 22/2014 and 21/2016 in respect of the examinations leading to the Degree of (Master of Engineering) (Full Time) (Master of Technology) (Full Time) (Semester Pattern as per Credit Grade System) are in existence,

AND

Whereas, Direction No. 15/2021 dated 18.02.2021 in respect of the examination leading to the Degree of (Master of Engineering) (Environmental Engineering) (Full Time) (Semester Pattern Choice Based Credit System) is in existence,

AND

Whereas, the letter bearing No. VBKCOE/2024/371 dated 13.06.2024 has been received from the Principal, Dr.V.B.Kolte College of Engineering, Malkapur, Dist. Buldana regarding request for curriculum design for the new Post-Graduate Course M.E. (Computer Aided Structural Engineering)

AND

Whereas, AICTE, New Delhi vide F.No. Western/1-43660104400/EOA dated 13th May, 2024 and the Dept. of Higher & Technical Education, Govt. of Maharashtra, Mantralaya, Mumbai vide its Resolution dtd.16.08.2024 has approved regarding extension of approval to the new Two years Full Time Course M.E. (Computer Aided Structural Engineering) from the academic year 2024-25 to the above mentioned college Dr.V.B.Kolte College of Engineering, Malkapur, Dist. Buldana from the Academic Year 2024-2025 & onwards,

AND

Whereas, the University has also granted affiliation for the new P.G. Course M.E. (Computer Aided Structural Engineering) vide Notification No. 87/2024 dated 25.7.024 to the above mentioned college as per approval of A.I.C.T.E. New Delhi and the Govt. of Maharashtra for the academic year 2024-25,

AND

Whereas, the Board of Studies in Civil Engineering (Incl.C.T.) in its meeting held on 22.08.2024 vide Item No.36 had prepared and recommended the draft Schemes of Teaching, Learning Examination & Evaluation and draft Syllabus of Semester I to IV along with the Eligibility Criteria for the new Post-graduate Course M.E. (Computer Aided Structural Engineering) (F.T.) (C.B.C.S.) as per CBCS guidelines to the Faculty of Science & Technology to be implemented from the academic session 2024-2025 & onwards,

AND

Whereas, Hon'ble Vice Chancellor has accepted and accorded approval the recommendation of the Board of Studies in Civil Engineering (Incl.C.T.) on behalf of Faculty of Science & Technology under Section 12 (7) of Maharashtra Public Universities Act, 2016 on 20/09/2024 regarding implementation of the Schemes of Teaching, Learning Examination & Evaluation of Semester I to IV of the new Post-graduate Course M.E. (Computer Aided Structural Engineering) (F.T.) (C.B.C.S.) as per CBCS guidelines to be implemented from the academic session 2024-2025 & onwards,

AND

Whereas, the Academic Council in its meeting held on 3.10.2024 vide Item No.67 has accepted and accorded approval to the recommendation of the Board of Studies in Civil Engineering (Incl.C.T.) regarding implementation of the draft Schemes of Teaching, Learning Examination & Evaluation and draft Syllabus of Semester I to IV along with the Eligibility Criteria for the new Post-graduate Course M.E. (Computer Aided Structural Engineering) (F.T.) (C.B.C.S.) as per CBCS guidelines to be implemented from the academic session 2020-21 & onwards,

AND

Whereas, the Schemes of Teaching, Learning, Examination & Evaluation and the syllabus along with Eligibility Criteria of the new Post-graduate Course are to be implemented from the current academic session 2024-2025 & onwards,

AND

Whereas, the Schemes of Teaching, Learning Examination & Evaluation of the new Course are required to be regulated by an Ordinance / regulation,

AND

Whereas, the matter of making an Ordinance / Regulation is likely to take some time,

Now, therefore, I, Dr. Milind Barhate, Vice Chancellor of Sant Gadge Baba Amravati University, Amravati in exercise of powers conferred upon me under the sub-section (8) of Section 12 of the Maharashtra Universities Act, 2016, do hereby direct as under :-

(i) This Direction shall be called "Examination leading to the Degree of (Master of Engineering) (Computer Aided Structural Engineering) (Full Time) (Semester Pattern Choice Based Credit System) Direction, 2024".

(ii) This Direction shall come into force with effect from the session :

2024-2025 for Semester I & II and
2025-2026 for Semester III & IV

(iii) Following shall be the examinations leading to the degree of (Master of Engineering) (Computer Aided Structural Engineering) (Full Time) (Semester Pattern Choice Based Credit System) :

a) M.E. Semester – I Examination in Winter at the end of the Semester I
b) M.E. Semester – II Examination in Summer at the end of the Semester II
c) M.E. Semester – III Examination in Winter at the end of the Semester III
d) M.E. Semester – IV Examination in Summer at the end of Semester IV

(iv) The Eligibility Criteria for admission to the new Post-graduate Course of Master of Engineering (Full Time) shall be in the branches mentioned under column No.3 of the following table against the respective courses mentioned under column No.2 :-

TABLE

Sr. No.	**Master of Engineering**	**Entry level Qualification for the Course**
1	2	3
	M.E. (Computer Aided Structural Engineering) (Full Time) (C.B.C.S.)	B.E./B.Tech. or equivalent degree in Civil Engineering, Civil Technology, Structural Engineering, Construction Engineering, Construction Technology, Construction Automation, Civil Engineering with Computer Application, Civil & Rural Engineering, Civil Engineering & Planning, Civil Environmental Engineering, Civil Engineering (Construction Technology), Civil & Infrastructural Engineering

(v) The Schemes of Teaching, Learning, Examination & Evaluation of Semester I to IV of the new Post-graduate Course M.E. (Computer Aided Structural Engineering) (Full Time) (C.B.C.S.) shall be as per the **Appendix – A** appended with this Direction.

(vi) Other remaining provisions as mentioned in the Direction Nos. 31 of 2010, 57/2010, 23/2013, 22/2014 and 21/2016 prescribed for the various Post-graduate of Engineering & Technology Courses (Master of Engineering / Master of Technology) shall be applicable for the above mentioned Course.

Sd/-
(Dr.Milind Barhate)
Vice-Chancellor
Sant Gadge Baba Amravati University

Date : 14/11/2024

SANT GADGE BABA AMRAVATI INIVERSITY, AMRAVATI
Two Year Post Graduate Degree Program in Master of Engneering, Branch: Computer Aided Structural Engineering
Semester Pattern (Choice Based Credit Grade System)

SEMESTER: I																		
Sr. No.	**Subject Code**	**Subject**	**Teaching Scheme**					**Examination Scheme**										
			HOURS/WEEK					**THEORY**						**PRACTICAL**			
			LECTURE	**TUTORIAL**	**LAB**		**CREDITS**	**Duration of paper (Hrs)**	**Max. Marks Theory Paper**	**Internal Marks**		**Total**	**Min. Passing Marks Internally & Externally**	**Max. Marks**		**Total**	**Min. Passing Marks**
														Int.	**Ext.**		
Theory																	
01	1SFCA01	Structural Dynamics	3	..	..		3	3	80	20		100	10+40	..	..	..	..
02	1SFCA02	Advance Strcutural Analysis	3	..	..		3	3	80	20		100	10+40	..	..	..	..
03	1SFCA03	Advance Design of Steel Structures	3	..	..		3	**4**	80	20		100	10+40	..	..	..	..
04	1SFCA04	Professional Elective 1	3	..	..		3	**4**	80	20		100	10+40	..	..	..	..
05	1SFCA05	Lab 1 Advance Design of Steel Structures lab		..	2		2							25	25	50	25
06	1SFCA06	Lab 2 (CAD & Software Application in Structural Engg Lab)	..	..	2		2	..	..		..	..	..	25	25	50	25
07	1SFCA07	Lab 3 Structural Design, Detailing Checking & NDT Lab	..	..	2		2	..	..		..	..	..	25	25	50	25
08	1SFCA08	Audit 1	2	..	..		0	..	--	--	--	--	--	..	..	..	..
		Total	**14**	**..**	**6**		**18**	**..**	**320**	**80**	**..**	**400**	**200**	**75**	**75**	**150**	**75**
															Total	**550**	

SANT GADGE BABA AMRAVATI UNIVERSITY GAZETTE - 2024 - PART ONE – 2092

SEMESTER: II																	
Sr. No.	Subject Code	Subject	Teaching Scheme					Examination Scheme									
			HOURS/WEEK					THEORY						PRACTICAL			
			LECTURE	TUTORIAL	P/D		CREDITS	Duration of paper (Hrs)	Max. Marks Theory Paper	Internal Marks		Total	Min. Passing Marks Internally & Enternally	Max. Marks		Total	Min. Passing Marks
										Unit Test				Int.	Ext.		
01	2SFCA01	Finite Element Method	3	..	..		3	3	80	20		100	10+40	..	..	..	..
02	2SFCA02	Earthquake & Wind Resistant Design	3	..	..		3	**4**	80	20		100	10+40	..	..	..	..
03	2SFCA03	Advance Design of RCC Structures	3	..	..		3	**4**	80	20		100	10+40	..	..	..	..
04	2SFCA04	Professional Elective 2	3	..	..		3	**4**	80	20		100	10+40	..	..	..	..
05	2SFCA05	Lab 4 (Finite element analysis studio- Lab)	..	..	2		2	..	..		..	..	..	25	25	50	25
06	2SFCA06	Lab 5 (Adavance Design of RCC Structures- Lab)	..	..	2		2	..	..		..	..	..	25	25	50	25
07	2SFCA07	Mini Project & Seminar	..	..	4		2	..	--	--	--	--	--	50	0	50	25
		Total	**12**	**..**	**8**		**18**	**..**	**320**	**80**	**..**	**400**	**200**	**100**	**50**	**150**	**75**
															Total	**550**	

Mini Project & Seminar - Mini Project report is to be submitted individually by student in Spiral Binding copy to department on any one of the following topic-
1) RCC design of G +2 storey frame structure with detailed drawing 2) Steel Design of Industrial Shed / Foot bridge with detailed drawing
3) Design & detailed drawing Comparison with live structural project
Note:- The assessemnt of Mini Project is to be done by a committee consisting of Head of Dept,M.E Coordinator, Guide and Subject expert. 50 marks out of which minimum 25 marks are committee assessed marks and 25 are guide assessed internal marks on the basis of seminar.

Internship :- Minimum 15 days internship under subject specialized working professional/ organsiation should be taken individually by all students after second semester and before session startup of Third Semester .

SEMESTER: III																		
Sr. No.	**Subject Code**	**Subject**	**Teaching Scheme**					**Examination Scheme**										
			HOURS/WEEK				**CREDITS**	**THEORY**						**PRACTICAL**				
			LECTURE	**TUTORIAL**	**P/D**			**Duration of paper (Hrs)**	**Max. Marks Theory Paper**	**Internal Marks**		**Total**	**Min. Passing Marks**	**Max. Marks**		**Total**	**Min. Passing Marks**
										Unit Test				**Int.**	**Ext.**		
01	3SFCA01	Open Elective	3				3										
02	3SFCA02	Audit 2	2	..			..	..	..			..	..	..			
03	3SFCA03	Dissertation Phase -I Seminar		..	20		13	..	..			..	..	75	75	150	75
Total			**5**	**0**	20		**16**	**..**	**..**			**..**	..	75	75	150	75
															Total	150	

Dissertation Phase -1 seminar : Seminar is to be delivered on work completed during third semester over sanctioned dissertation title . 75 marks out of 150 will be assessed by a Committee consisting of Head of Department ,M.E Coordinator , Dissertation Guide and subject expert. Remaining 75 internal marks are to be given by guide based on performance of respective student.

SEMESTER: IV																			
Sr. No.	Subject Code	Subject	Teaching Scheme					Examination Scheme											
			HOURS/WEEK				CREDITS	THEORY						PRACTICAL					
			LECTURE	TUTORIAL	P/D			Duration of paper (Hrs)	Max. Marks Theory Paper	Internal Marks		Total	Min. Passing Marks	Max. Marks		Total	Min. Passing Marks		
														Int.	Ext.				
01	4SFCA01	Dissertation Phase -II		..	32		16	..	--	--		--	--	150	200	350	175		
Total			**..**	..	**32**		**16**	**..**	**..**	**..**		**..**	..	**150**	**200**	**350**	**175**		
															Total	**350**			

Dissertation Phase II- Seminar is to be delivered on the complete work of disseration. 75 internal makrs out of 150 will be assessed by a Committee consisting of Head of Department, M.E Coordinator, Guide and subject expert. Remaining 75 marks will given by the guide based on performance. External examiner appointed by S.G.B.A.University will assess the disseration viva voce out of 200 marks.

Professional Elective 1	Professional Elective 2	Open Elective	Audit 1 & 2
1) Theory of Elasticity& Elastic Stability ; 2) Computational Earthquake Engineering 3) Analysis and Design of Machine Foundations. 4) Advance Design of Prestress Structure 5) Repair , Restrenghtning & Rehabilitation of Strucutre .	1) Theory of Plates & Shells 2) Substrucutre & Foundation Design; 3) Design & Detailing of Form Work ; 4) Computation Design of Civil Structures 5) Computer Aided Numerical Methods	1) Industrial Safety; 2) Project Management & Operational Research; 3) Waste to Energy; 4) Composite Materials 5) Disaster Mitigation Engineering structures	**Can be done on topics** - 1) English for Research paper writing 2) Disaster Management 3) Value Education 4) Consitiution of India 5) Pedagogy Studies 6) Stress Managment by Yoga 7) Personality Development through Life Enlightenment Skills 8) Sanskrit for technical Knowledge

1.Note for Open Elective & Audit Courses :-	Open Elective and Audit Course 1 & 2 is to be done through MOOC's platform over which the course assessment & successful completion certificate is provided or through Learning Management System platform provided by instiiute
2.Note for Dissertation Submission :-	Binded Dissertation work must be submitted to the university on or before 30th April (for regular exam) and 30th November (for supplimentry exam). Thesis of Dissertation work to be submitted with late fee to the university upto 31 May (for regular exam) and 31st December (for Supplimentry exams) The late fee shall be charged as in the case of Examination form.
3.Note for Exam Conduction :-	It is mandatory to conduct exam within 30 days from the date of appointment of External Examiner , in case examiner is unavailable or deny for conduction the same must be informed to university
	Student should fill the examination form in the beginning of III semester jointly for III and IV semester.
	Single marksheet for III and IV semester together will be given to the students.

Summary of Marks & Credits

Year	Semester	Sem Marks		Sem Credits	Yearly Credits
First Year	I	550	#	18	36
	II	550		18	
Second Year	III	150	#	16	32
	IV	350		16	
Total		**1600**		**68**	