DIRECTION

No. : 106 /2024. Date : 28/11/2024.

Subject : Examinations leading to the Multi-disciplinary Degree of Bachelor of Science (B.Sc.) Major in… Minor in… (Three Years – Six Semesters Degree Course) and B.Sc. (Honors) or Honors with Research (Four Years – Eight Semesters Degree Course) under National Education Policy-2020.

Whereas, Ordinance No. 143 and Direction No.82/2024 dated 25/10/2024 with respect to an examination leading to the Degree of Bachelor of Science (Three Years – Six Semesters Degree Course) are in existence in the University,

AND

Whereas, the Government of India has set up multi stakeholder task force for National Education Policy – 2020 Task Force (NEPTF) on 27/02/2015,

AND

Whereas, the Government of Maharashtra has issued resolution No.**अभ्यास-२०१५/प्र.क्र.६११/विशि-३, दिनांक ३१ ऑक्टोबर, २०१५**for constitution of Task Force for designing the policy for implementation of NEP-2020,

AND

Whereas, the Government of Maharashtra has constituted a Task Force as per G.R. No. संकीर्ण-२०१५/प्र.क्र. १७६/विशि-३, दिनांक १६ ऑक्टोबर, २०२० by the Cabinet for preparation of road map for the implementation of NEP-2020,

AND

Whereas, the Report of the Task Force has been prepared on 30/06/2021 and approved by the Cabinet of Government of Maharashtra on 22/01/2022,

AND

Whereas, the Government of Maharashtra has issued the Resolution No.एनइपी-२०२२/प्र.क्र.१०५/विशि-३, दिनांक ६/१२/२०२२ andएनइपी-२०२२/८६७/२३/तांशि-२, दिनांक ०४/०७/२०२३ for NSQF credit framework,

AND

Whereas, the Government of Maharashtra has issued the Resolution No. एनइपी-२०२२/प्र.क्र.०९/विशि-३, शिकाना, दिनांक २६/१२/२०२२, दिनांक २०/०४/२०२३, दिनांक १६/०५/२०२३, दिनांक ०४/०७/२०२३, दिनांक १६/०६/२०२३, दिनांक २५/०१/२०२४, दिनांक १३/०३/२०२४ आणि ०२/०७/२०२४for implementation of NEP for Under Graduate and Post Graduate Programmes,

AND

Whereas, a joint meetings of all the Pro-Vice Chancellors and the Deans were held with steering Committee at Pune on 23rd and 24th January, 2023,

AND

Whereas, as per the letter from the Government, a workshop of all the Principals and Nodal Officers were held with the Steering Committee on 21/02/2023 in the University,

AND

Whereas, as per the instructions of Government of Maharashtra, Hon'ble Pro-Vice Chancellor has constitute a 13 member Committee under his Chairmanship to formulate the Teaching, Learning, Examination and Evaluation Scheme and Draft Provisions for Direction/Ordinance as per the National Education Policy- 2020 on 28/02/2023,

AND

Whereas, the Committee has proposed the Scheme of Teaching, Learning, Examination and Evaluation and Draft Provisions of Ordinance/Direction,

AND

Whereas, as per the instructions given by the Director, Higher Education, Pune Region, Pune a joint meeting of the Principals of 20 colleges & the Deans of the Faculties, and passed the resolution on 07/04/2023,

AND

Whereas, a Joint meeting of all the Principals, the Deans of the Faculties with the Joint Director, Higher Education, Amravati Region, Amravati on the resolutions which have been passed during 07/04/2023 regarding the workload and the same has been placed on 17/04/2023,

AND

Whereas, joint meeting of the Deans of the Faculties along with the members of Steering Committee were held on 15/06/2023 at Mumbai,

AND

Whereas, as per letter क्रमांक-युएनआय/(१३६/२२)/विशी-१/भाग-३- १७९९ दिनांक १८ मार्च, २०२४, a Committee is constituted for the Scheme of Teaching, Learning, Examination & Evaluation and Draft provisions for Ordinance/ Direction.

AND

Whereas, a series of meetings of the said Committee were held and a Report is prepared inclusive Scheme of

Teaching, Learning, Examination and Evaluation and Provision of Ordinance/Direction,

AND

Whereas, Report is then placed before the Faculty of Science and Technology on 22/04/2024 and, the draft Report was then recommended to the Academic Council,

AND

Whereas, the Report was then approved under section 12(7) of the Maharashtra Public Universities Act, 2016.

AND

Whereas, the Report was then placed before the Board of Studies meeting held in the month of July for the preparation of Syllabi and the Scheme of Teaching, learning, Examination and Evaluation underNational Education Policy- 2020,

AND

Whereas, the syllabi framed by the various Board of Studies under the Faculty of Science and Technology were placed before the Faculty of Science and Technology on 09/07/2024, faculty accepted and recommended the draft syllabi to AcademicCouncil,

AND

Whereas, the Scheme of Teaching, Learning, Examination and Evaluation along with thedraft syllabiof various Under Graduate programme were approved under section 12(7) of Maharashtra Public Universities Act, 2016 on behalf of Academic Council,

AND

Whereas, the Final Report was then placed before the Monitoring Committee on 13/07/2024, 16/07/2024 and 31/07/2024 which was formed by the Faculty of Science and Technology,

AND

The revisions suggested by the Monitoring Committee were then placed before the Regular meeting of Academic Council 30/08/2024 and Academic Council approved the recommendations of Monitoring Committee,

AND

Whereas, the Scheme of Teaching, Learning, Examination and Evaluation and the Draft Syllabi has to be regulated by making an Ordinance,

AND

Whereas making an Ordinance is a time consuming process, Hence it is necessary to issue a Direction under section 12 (8) of the Maharashtra Public Universities Act, 2016,

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

1. i) This Direction may be called, "Examinations leading to the Multi-disciplinary Degree of Bachelor of ScienceMajor in… Minor in… (Three Years – Six Semesters Degree Course) and B.Sc. (Honors) or Honors with Research (Four Years – Eight Semesters Degree Course) under National Education Policy-2020"

ii) This Degree shall belong to the Faculty of Science & Technology.

2. This direction shall come into force from the Academic Session as follows :-

i) Semester I and II from the Academic Session – 2024-2025.
ii) Semester III and IV from the Academic Session – 2025-2026.
iii) Semester V and VI from the Academic Session – 2026-2027.
iv) Semester VII and VIII from the Academic Session – 2027-2028

3. The provisions of directions, eligibility criteria and other details are as follows and the Schemes of Teaching, Learning, Examination and Evaluation of semester – I and semester-II are appended herewith vide**table No.6.**

NEP Implementation in First Phase:

Applicability: This scheme shall be applicable to the undergraduate Programmes B.Sc., B.C.A. and all Non-AICTE Professional UG Degree Programmes in the faculty of Science & Technology (Science Group),
The Department Specific Core (DSC) concept shall be implemented at non-autonomous affiliated colleges for the above mentioned programme.

Objective: The structure of the Three/ Four – year Bachelor's Degree Programme alters the opportunity to students to experience the full range of holistic and multi-disciplinary education in addition to a focus on the chosen **Major** and **Minor** as per their choices and the feasibility of exploring learning abilities.

Explanation:

(a) Major (Core) Subject 60 – 64 Credits: It is the discipline or subject of main focus and the degree will be awarded in that discipline/Subject. For example: B.Sc. (Botany), B.Sc. (Zoology), B.Sc. (Computer Science), B.C.A. (Artificial Intelligence), etc.
Students shall have to secure a minimum 50% of total Credits through Core Courses (mandatory courses, electives, vocational courses, Major Specific IKS, Internship/ Field Projects/ Apprenticeship/ Community Engagement Projects, Seminars, and Group Discussion).

(b) Minor Subject 18-24 Credits: Minor subjects will be subjects focusing on multidisciplinary education as expected in the NEP-2020. The student choosing department specific core (DSC) may choose Minor from same faculty or faculty unrelated to the Major, but something that complements the Major.
For example, student opting Botany as a Major, may choose, Minor of Chemistry/ Zoology/Environmental Science/Microbiology as Minor.
(c) Generic/Open Elective Course (GE/OE) 10-12 Credits: A student is required to select any 'Generic/Open Elective Course' from the 'Generic/ Open Elective Course Basket' of any programme offered by the university from the faculty other than that of the faculty of the Major and Minor subjects. Exceptionally, the GOECs from the Language Courses within any Faculties are open to selection by students from any Faculty.
Student shall declare his/her choice of GOEC before filling out the examination form for the semester concerned.

(d) Vocational and Skill Enhancement Courses (VSEC) 14 – 16 Credits:

i. **Vocational Skill Course (VSC) 8-10 Credits:** Wherever applicable vocational courses will include skills based on advanced laboratory practical of Major. A student is required to successfully complete the 'VOCATIONAL SKILL COURSE' as mentioned in this scheme of examination. This course must be a course corresponding to the 'MAJOR/MINOR' subject selected by a student for his Semester I and II.
From the Semester III onwards, VSEC must be corresponding to MAJOR.

ii. **Skill Enhancement Course (SEC) – 6 Credits:** A student is required to select a 'SKILL ENHANCEMENT COURSE' as per the Teaching, Learning Scheme (Appendix 9) from the basket provided by the university.

(e) Ability Enhancement Courses (AEC), Indian Knowledge System (IKS) and Value Education Courses (VEC) - 14 Credits:

i. **Ability Enhancement Course (AEC)- 08 Credits:** A student is required to undergo and successfully complete the 'ABILITY ENHANCEMENT COURSE' as English for 04 Credits and Modern Indian Language for 04 Credits.

ii. **Generic IKS Course - 02 Credit:** These are expected to contain basic knowledge of the Indian Knowledge System (IKS). It should contain introductory information to the IKS. The student should be able to acquire a basic knowledge after completion of the course.

*(**Subject Specific IKS Course:** This is 2 Credit courses should contain advanced information pertaining to the subject as these will be considered as a part of the Major Credit. The student should have completed the Generic level as a prerequisite before enrolling in the discipline related course)*

iii. **Value Education Courses (VEC) - 04 Credits:** Value Education Courses (VEC) are such as Understanding India, Environmental Science/Education, and Digital and Technological Solutions. A student is required to undergo and successfully complete the VEC.

(f) Field Projects/ Internship/ Apprenticeship/ Community Engagement and Service corresponding to the Major (Core) Subject, Co-curricular Courses (CC)and Research Project:

- Internship/Apprenticeship corresponding to the Major (Core) Subject :- 8 Credits.
- Field Project/Community Engagement and Service corresponding to the Major (Core) Subject :- Minimum 4-6 Credits.
  * To be offered in II and III years of UG Degree Programmes.
- Co-curricular Courses (CC) such as Health and Wellness, Yoga education, Sportsand fitness, cultural activities, NSS/NCC and Fine/Applied/Visual/Performing Arts : 8 Credits
  * To be offered in I and /or II year.
  * Research Project : 12 Credits.

  * To be offered in the final Year for 04 year Honors with Research UG Degree

These verticals of Major are to be completed by the student under the supervision of mentor faculty as per Teaching Learning Scheme.

Credit Structure:

The Minimum and Maximum Credit Structure for different level under the Three/Four-year UG Degree Programme with multiple entry and multiple exit option shall be as per **Table 1**

Table 1: The Minimum and Maximum Credit Structure with exit option

Levels	Qualification Title	Credit Offered		Semester	Year	For exit and continuance shall have to
		Minimum	Maximum			
4.5	UG Certificate (on exit) Certificate in ……	40	44	2	1	Additional 4 Credits are earned from the concerned DSC related NSQF aligned course/ Internship/ Apprenticeship/ Field Project OR student may opt to continue further with Major and Minor.
5.0	UG Diploma (on exit) Diploma in Major in……. & Minor in …….	80	88	4	2	Additional 4 Credits shall have to earn from the concerned DSC related NSQF aligned course/ Internship/ Apprenticeship/Field Project OR student may opt to continue further with Major and Minor.
5.5	Three Year Bachelor's Degree	120	132	6	3	Award of Three Year UG Degree in Major after successful completion of Programme.
Explanation: Degree Completion Requirements: Students must accrue a minimum of 120 credits from the possible 132 to fulfill the requirements for graduation in the Three-Year Degree Programme. Attainment of all credits allocated to the Major and Minor disciplines is compulsory for degree conferral.						
6.0	Bachelor's Degree– Honors	160	176	8	4	Award of Honors Degree in Major after successful completion of Programme.
	OR					
6.0	Bachelor's Degree– Research	160-176		8	4	Award of Honors with Research Degree in Major after successful completion of Programme.

Implementation Year

First Year (Semester I & II)	:	2024-2025
Second Year (Semester III & IV)	:	2025-2026
Third Year (Semester V & VI)	:	2026-2027
Fourth Year (Semester VII & VIII)	:	2027-2028

The fourth year of Four-year UG programme

The fourth year of the Four-year UG programme will not be granted to any such college as 'natural growth'. The affiliated colleges conducting 3-year UG degree programme will seek permission to commence fourth year of UG programme as extension by following the prevailing statutory procedures.

However, colleges already having permission and recognition for the PG degree programme along with UG degree programme in the same Major shall be automatically allowed to continue PG degree programme and conduct the fourth year of UG Honors Degree programme without undergoing any additional procedures.

Similarly, the colleges with approved / recognized Ph.D. Research Centre shall be automatically allowed to continue PG Degree programme and start the fourth year of UG Honors with Research Degree programme without undergoing any additional procedures. For students of colleges running only Three-year UG Degree Programme, the University shall evolve suitable mechanisms for admission to fourth-year honors program in other Colleges shall be evolved by the University separately.

The NEP 2020 curriculum framework offers:

i. The flexibility to move from one discipline of study to another.
ii. The opportunity for learners to choose the courses of their interest in all.
iii. The multiple entry and exit options with the award of UG certificate/ UG diploma/ or Three-year degree depending upon the number of Credits secured.
iv. The flexibility for learners to move from one institution to another to enable them to have multi and/or interdisciplinary learning.
v. The flexibility to switch to alternative modes of learning (offline, ODL, and Online learning, and hybrid modes of learning).

Table 2: Credit distribution

Vertical	Vertical Type	Semester I	Semester II		Semester III	Semester IV	Semester V	Semester VI	Total Credits	Grand Total
	(i) Three-year UG Degree Programme (Level 4.5.to 5.5)									
a	**Major / Minor*** (DSC) **60-64** (Minimum 50% of Total Credits)	2+2 (4)	2+2 (4)	**Major** Mandatory	4+2 (6)	4+2 (6)	6+4 (10)	4+4 (8)	22+16 (38)	**48**
				IKS (Subject Specific)	2	0	0	0	2	
				Elective	0	0	2+2 (4)	2+2 (4)	4+4 (8)	
b	**Minor / Major*** (from same faculty of DSC) **18-24**	2+2 (4)	2+2 (4)	**Minor**	2+2 (4)	2+2 (4)	2+2 (4)	2+2 (4)	12+12 (24)	**24**
c	**Generic/ Open Elective Courses (OE)** (faculty wise Basket Other than faculty of Major/Minor Subject) **10-12**	4	4		2	2	0	0	12	**12**
d	**(i)Vocational Skill Courses (VSEC)** corresponding to Major /Minor (Skill based/ Advance Practicals wherever applicable) **8-10**	0	2		2	2	2	2	10	**10**
	(ii) Skill Enhancement Courses - SEC (Basket of skill courses approved by the University) **6**	2	2		0	2	0	0	6	**6**
e	**(i)Ability Enhancement Courses** (AEC)- Focus: Linguistic & Communication Skills (Eng.+ Modern Indian Language) **8**	2	2		2	2	0	0	8	**8**
	(ii)Indian Knowledge System (IKS)2 (Generic)	2	0		0	0	0	0	2	**2**
	(iii)Value Education Courses (VEC) *Understanding India, EVS, Digital & Technological Solution*. **4**	2	2		0	0	0	0	4	**4**
f	**(i) Internships/ Apprenticeship** corresponding to Major **8 OJT**	0	0		0	0	0	4	4	**4**
	(ii)Field Projects/CommunityEngagement & Service(CEP) corresponding to Major **4-6**	0	0		2	2	2	0	6	**6**
	(iii) Co-curricular courses (CC) (health & wellness, yoga education, sports, fitness, cultural activities, NSS/NCC & Fine/ Applied/ Visual/ Performing Arts **8**	2	2		2	2	0	0	8	**8**
	Total Credits	**22**	**22**		**22**	**22**	**22**	**22**	**132**	**132**

	(ii) Four-year UG Degree programme (Level 6.0) **A. Honors Degree in Major or Minor**				
	Vertical Type		**Semester VII**	**Semester VIII**	
	Major (Offered at Three-year UG Programme) **Mandatory**		**12-14 (2*4+2*2 or 3*4+2)**	**12-14 (2*4+2*2 or 3*4+2)**	**28**
	Elective		4	4	8
	Research Methodology (RM)		4	0	4
	On the Job Training (OJT)		0	4	4
	Total		**22**	**22**	**44**
	Cumulative		**176**		
			(132+44)		

	(ii) Four-year UG Degree Programme (Level 6.0) **B. Honors with Research Degree in Major or Minor**					
	Vertical Type			**Semester VII**	**Semester VIII**	
	Major (Offered at Three-year UG Programme)	**Mandatory**		8-10 (2*4+2 or 2*4)	8-10 (2*4+2 or 2*4)	20
		Elective		4	4	8
	Research Methodology (RM)			4	0	4
	Research Project (RP)			4	8	12
	Total			**22**	**22**	**44**
	Cumulative			**(132+44) 176**		

Abbreviations: Generic/ Open Electives (GE/OE); Vocational Skill and Skill Enhancement Courses (VSEC); Vocational Skill Courses (VSC); Skill Enhancement Courses (SEC); Ability Enhancement Courses (AEC); Indian Knowledge System (IKS); Value Education Courses (VEC); On the Job Training (OJT): Internship/ Apprenticeship (INT/APP); Field projects (FP); Community Engagement and Service (CEP); Co-curricular Courses (CC); Research Methodology (RM); Research Project (RP); MIL: Modern Indian Language

*** Student shall finalize his choice of selecting One subject as a Major and another as a Minor out of the group of two (Major/Minor OR Minor/Major) subjects selected at the time of admission; after the Second semester. The Major & Minor so finalized shall remain same till the end Sixth Semester.**

Credit Specifications (Calculation of Workload)

- As per National Credit Framework learners(student) engaged time for 40 Credits is 1200 Hrs.
- The old method of calculating teaching workload is now replaced by the Credit Based Calculations of Teaching Workload and Essential Requirement of Teacher – Student Ratio (TSR) / Faculty – Student Ratio (FSR).
- Workload (Teaching/ contact Hours) based on Credits of the **Discipline / Subject** for **Six verticals of Education** spread over Six / Eight semesters (Three / Four Years) shall be as per **Table-3**

Table 3: Calculation of Workload

Sr. No.	The Vertical		Workload / Semester	
			Classroom (Theory)	**Laboratory (Practical)**
a	Major		1 Credit = 1 Hr / week	1 Credit = 2 Hrs / week
b	Minor		1 Credit = 1 Hr / week	1 Credit = 2 Hrs / week
c	Generic / Open Elective		1 Credit = 1 Hr / week	1Credit = 2 Hrs / week
d	(i) VSC -Major		1 Credit = 1 Hr / week	1 Credit = 2 Hrs / week
	(ii) SEC		1 Credit = 1 Hr/ week	1 Credit = 2 Hrs / week
e	(i) AEC	English	1 Credit = 1 Hr/ week	1 Credit = 2 Hrs / week
		MIL	1 Credit = 1 Hr/ week	
	(ii) IKS-Generic		1 Credit = 1 Hr / week	--
			1 Credit = 1 Hr / week	
	(iii) VEC		1 Credit = 1 Hr/ week	--
			1 Credit = 1 Hr/ week	
f	(i) Internship / Apprenticeship(OJT) -Major		---	1 Credit = 2 Hrs/ week (30 Hrs. of engaged time)
	(ii) FP / CEP (Major)	FP	----	1 Credit = 2 Hrs/ week (A minimum of 45Hrs. of learning activities per Credit in a semester)
		CE&S		1 Credit = 2 Hrs/Week (Cumulative 30 Hrs. of contact time per Credit)
	(iii) CC	English	1 Credit = 1 Hr/ week	1 Credit = 2 Hrs/ week (A minimum of 30 Hrs. of learning activities per Credit in a semester)
		MIL		

CC component may be allotted to English or Modern Indian Language teaching faculty or any teacher from any Discipline / Subject available in HEI.

Eligibility and Admission (Choice of Major and Minor Discipline/Subject):

1. Eligibility for admission to Three-year UG Program in the faculty of Science & Technology (Science Group), Commerce & Management, Humanities and Interdisciplinary studies shall be as mentioned in

Table 4: Program wise Disciplines / Subjects and their Eligibility/ Prerequisite

Faculty	Name of the Program	Disciplines/ Subjects	Eligibility/ Prerequisite
Science & Technology (Science Group)	B.Sc.	Appendix 1	Appendix 1

2. After confirmation of eligibility the candidate shall have to confirm the choice of Major discipline/ subject from the list of disciplines/subjects available in the HEI.
3. The Student shall have to select Major/Minor subject as per Appendix 1 and Appendix 5.
4. Further, preferably before the admission in the Major, the students shall confirm within a two-week duration (Not Later than the last date of admission) his/her choice to opt for Generic/Open Elective (Other than faculty of Major/Minor) from the same HEI.

However, if the Generic/ Open Elective Course is not available in that HEI, the student shall have to make application to the Principal in this regard. NEP Working committee of the HEI, shall finalize and allow the student to opt for Generic /Open Elective from the HEI in the proximity of the HEI where the student is admitted for Major/Minor.

In exceptional cases, the student will be allowed for instructions of Generic/Open Elective in online mode. The examination of Generic/Open Elective shall be conducted as per university rule.

The student may pursue his/her studies instead of Generic/Open Elective by choosing Credit based MOOC on SWAYAM platform **unrelated** to the faculty of Major/Minor subject. Credits shall be provided as approved by relevant Board of Studies.

Table 5: Choices for selection of Minors

Sr. No.	Faculty	Major Discipline/ Subject with which the choice of Minor is mentioned	For selection of the Minor (other than Major) available in the HEI student shall refer
1	Science & Technology	Appendix 5	Appendix 5

Enrollment and Registration of Students on ABC

Creation of ABC ID: Credits awarded to a student from one program from an institution may be transferred/ redeemed by another institution upon the students consent through ABC. Therefore, it is essential to all students to enroll on ABC, Create ABC ID and share ABC ID with academic institution where he/she admitted.
Credit Transfer Mechanism: Credit Transfer Mechanism comprising of Credit Accumulation, Credit Recognition, Credit Redemption and Credit Transfer shall be as prescribed.

Teaching Learning Scheme:

The Teaching Learning Scheme for all six verticals of all semesters shall be as per **Appendix– 9**appended with this **Annexure –1**.

Examination and Assessment Process:

i. The basic principle of the Credit framework is that Credits are a function of the successful completion of a program of study/ vocational education/ training and assessment. No Credit can be earned by the student unless the student is assessed for the achievement of the desired competencies and outcome of a program.

ii. Exit options are provided with Certificate, Diploma and Basic Bachelor's degrees to the students at the end of the second, fourth and sixth semesters of a Four Years Multidisciplinary Degree Programme. Students will receive a Bachelor's degree with Honors/ Research on successfully completing of all eight semesters of the UG Program either at a stretch or with opted exits and re-entries.

iii. For the smooth success of four-year degree programme with multiple entry and exit systems, the examination mode should be based on the combination of innovative trends in formative (informal and formal tests administered during the learning process) and summative (evaluation of students learning at the end of an instructional unit) examination modes in line with the UGC Report on 'Evaluation Reforms in Higher Educational Institutions (2019).

Examination, Evaluation and Assessment Scheme

The total marks for each Course shall be based on Continuous Assessment and Semester End Examination.

Each theory course of Major, Minor, GE/OE, AEC, IKS, VEC as mentioned in **Appendix 9** prepared by the respective Board of Studies shall be evaluated as per the scheme as mentioned in the **Table** 6.

Table 6: Examination, Evaluation and Assessment Scheme

Vertical No.	The Vertical	Mode of Examination, Evaluation & Assessment	Theory				Theory (Total)		Practical				Practical (Total)	
			External		Internal				External		Internal			
			Max. Marks	Min. Marks	Max. Marks	Min. Marks	Max. Marks	Min. Marks	Max. Marks	Min. Marks	Max. Marks	Min. Marks	Max. Marks	Min. Marks
a	Major	External & Internal	30	9	20	6	50	20	25	10	25	10	50	20
b	Minor		30	9	20	6	50	20	25	10	25	10	50	20
c	Generic/ Open Elective		30	9	20	6	50	20	--	--	--	--	--	--
d	VSC	Internal	--	--					--	--	50	20	50	20
	SEC	Internal	--	--					--	--	50	20	50	20
e	AEC (Eng. & One MIL Composite)	External & Internal	30	9	20	6	50	20	--	--	--	--	--	--
	IKS (Generic)	External & Internal	30	9	20	6	50	20	--	--	--	--	--	--
	VEC	External & Internal	30	9	20	6	50	20	--	--	--	--	--	--
f	Internship/ Apprenticeship	Internal	Assessment of these verticals shall be based on various activities/practices. It shall be evaluated by giving maximum 50 marks per 2 Credit Course with separate activity weightages/levels. A detailed SOP for this assessment process shall be prescribed separately.											
	FP/CEP													
	CC													

Continuous Assessment Tests (CAT)

For internal assessment, the Continuous Assessment Tests (CAT) shall be conducted as under-

i. Three CAT each of 8 / 10 Marks (Theory) as applicable and 10 Marks (Practical).

- First on completion of 25% Syllabus of the course or on completion of 25 teaching days,
- Second on completion of 50% Syllabus of the course or on completion of 50 teaching days,
- Third on completion of 75% Syllabus of the course or on completion of 75 teaching days.

ii. Each concurrent assessment (CAT-I, II & III) will be mapped to relevant Course Learning Outcome.

iii. Total Performance in CAT (i.e.40 %) shall be based on the **best two out of three** in CAT examinations

iv. Internal assessment (CAT) shall be carried out by the respective course teacher by choosing variety of assessment tools/methods such as class test, record book, seminar, case study, field work, mini project work, quiz or any innovative method, which may be deemed to be appropriate for assessing the relevant course outcome.

Conduction of the Examination:

As per the scheme of teaching, learning, examination and evaluation, theory/practical examinations of Semester-I, II, III, IV, V, VI, VII and VIII shall be conducted by the University (except for Internal Examinations as applicable) at the end of each semester.

The theory/practical examinations of all the Semesters shall be held as per the following Schedule -

Sr. No.	Name of the Examination	End Sem Examination	Supplementary Examination*
1	Semester-I, III, V and VII	Winter	Summer
2	Semester-II, IV, VI and VIII	Summer	Winter

*The University may evolve mechanism for conducting repeat end semester examination. Such repeat examinations shall have to be conducted within one month of the regular even semester examination and on demand examination.

1. The practical examination of all semesters shall be conducted by the University at the end of each semester. The HEI shall conduct the Practical examination of odd semesters as per the schedule announced by the University. **However, the appointment of the External and Internal Examiners shall be done by the Head or Principal of respective HEI to conduct external examination of the odd semester and the same should be communicated to the University before commencement of the practical examination.**

The University shall conduct the external practical examination of all even semester by appointing external and internal examiners.

2. The examinations specified above shall be held twice in a year at such places and on such dates as may be prescribed by the University.

3. An applicant to an examination specified above, shall pursue a regular course of study in courses prescribed for the examination concerned for not less than one semester in a particular semester in a College/Institute/University department.

4. Provided that the student shall be eligible to appear for examination if -

a. He/she complies with the provisions of the Ordinance pertaining to the Examination in general from time to time.

b. He/she has prosecuted a regular course of study in a university department/college affiliated to the University.

c. He/she has in the opinion of the Principal shown satisfactory progress in his/her studies.

5. The provisions of Ordinance No. 6 and Ordinance No. 9 shall be *mutatis-mutandis* applicable to every collegiate/non-collegiate student.

6. The fees for each theory examination and practical examination conducted by the university shall be as prescribed by the University, from time to time.

Computation of SGPA and CGPA

Letter Grades and Grade Points:

Computation of SGPA and CGPA shall be on the basis of Credits prescribed to Courses and Grade Points obtained by the student based on scale as mentioned in **Table – 7**:

Table 7: Letter Grades and Grade Points

Semester GPA/ Program CGPA Semester/Program	**% of Marks**	**Alpha-Sign / Letter Grade Result**	**Grade Point**
9.00-10.00	90.0-100	O (Outstanding)	10
8.00-<9.00	80.0-<90.0	A+ (Excellent)	9
7.00-<8.00	70.0-<80.0	A (Very Good)	8
6.00-<7.00	60.0-<70	B+ (Good)	7
5.50-<6.00	55.0-<60.0	B (Above Average)	6
5.00-<5.50	50.0-<55.0	C (Average)	5
4.00-<5.00	40.0-<50.0	P (Pass)	4
Below 4.00	Below 40	F (Fail)	0
Ab (Absent)	-	Ab	0

Computation of SGPA and CGPA

The Semester Grade Point Average (SGPA) is computed from the grades as a measure of the student's performance in a given semester. The SGPA is based on the grades of the current term, while the Cumulative Grade Point Average (CGPA) is based on the grades in all courses taken after joining the programme of study.

Semester Grade Point Average (SGPA) The SGPA is the ratio of the sum of the product of the number of Credits with the grade points scored by a student in all the courses taken by a student and the sum of the number of Credits of all the courses undergone by a student, i.e.

$$\textbf{SGPA}\ (Si) = \sum(Ci \times Gi) / \sum Ci$$

Where Ci is the number of Credits of the i^{th} course and Gi is the grade point scored by the student in the i^{th} course.

Example for Computation of SGPA

Semester	**Course**	**Credit**	**Letter Grade**	**Grade point**	**Credit Point (Ci xGi)** (Credit x Grade)
I	Course 1	2	A	8	2 X 8 = 16
I	Course 2	2	B+	7	2 X 7 = 14
I	Course 3	2	B	6	2 X 6 = 12
I	Course 4	2	O	10	2 X 10 = 20
I	Course 5	2	C	5	2 X 5 = 10
I	Course 6	2	B	6	2 X 6 = 12
		12			
				SGPA	84/12=**7.00**

Computation of CGPA:

The Cumulative Grade Point Average (CGPA) is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme, i.e.

$$\textbf{CGPA} = \sum(Ci \times Si) / \sum Ci$$

where Si is the SGPA of the i^{th} semester and Ci is the total number of Credits in that semester.

Example for Computation of CGPA

Semester 1	**Semester 2**	**Semester 3**	**Semester 4**	**Semester 5**	**Semester 6**
Credit: 21 SGPA:6.9	Credit: 22 SGPA:7.8	Credit:25 SGPA:5.6	Credit: 26 SGPA:6.0	Credit: 26 SGPA: 6.3	Credit: 25 SGPA 8.0
CGPA**= 6.73** (21 x 6.9 + 22 x 7.8 + 25 x 5.6 + 26 x 6.0 + 26 x 6.3 + 25 x 8.0)/145					

The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.

Equivalence of the conventional division/class

Equivalence of the conventional division/class to the corresponding C.G.P.A. in final semester shall be in accordance with the **Table 2** -

Table 2: Equivalence of Class/Division to C.G.P.A.

Sr. No.	**C.G.P.A.**	**Class/Division**
1.	7.5 or more than 7.5	First Class with Distinction
2.	6.00 or more but less than or equal to 7.49	First Class
3.	5.50 or more but less than or equal to 5.99	Higher Second Class
4.	5.00 or more but less than or equal to 5.49	Second Class
5.	4.00 or more but less than or equal to 4.99	Pass

Declaration of Results:

1. Declaration of result is based on the Semester Grade Point Average (SGPA) earned towards the end of each semester or the Cumulative Grade Point Average (CGPA) earned at the completion of all eight semesters of the programme and the corresponding overall alpha-sign or letter grades as given in **Table** . If some candidates exit at the completion of the first, second or third year of the Four years Undergraduate Programmes, with Certificate, Diploma or Basic Degree, respectively, then the results of successful candidates at the end of the second, fourth, sixth and eighth semesters shall also be classified on the basis of the CGPA obtained in the two, four, six or eight semesters, respectively.

2. A student obtaining Grade F shall be considered failed and will be required to reappear in the examination. Based on the above recommendations on Letter grades, grade points and SGPA and CGPA, the University shall issue the transcript for each semester and a consolidated transcript indicating the performance in all semesters.

Award of Degree:

1. A student pursuing Three Year / Four Year UG programme shall be awarded an appropriate Honors/ Research degree in Major/ Core Subject on completion of VIII Semester with the minimum of 160 Credits if he secures in that Subject at least 50% of the total Credits for that programme. He shall thus study the specific number of Mandatory Core Courses, Core Electives, Vocational and Skill Courses and Field projects/ Internships connected to Core Subjects in eight semesters, so as to cover at least 50% of the total Credits.

University Three-Year Degree Completion Conditions: In order to be eligible for graduation from the Three-Year Degree Programme, students are required to earn a minimum of 120 credits during their time of study. The program offers a total of 132 credits, allowing for some flexibility in Credit earnings from different verticals. Nonetheless, it is essential for students to successfully complete the entire Credit requirement for their specified Major and Minor subjects, as this is a strict condition for the award of the degree.

2. In case of Research Degree, student shall have to pursue research project and write dissertation in that Major in the VII and VIII semesters.

3. A student is eligible for the award of Minor Degree on successful completion of Four-years Degree Programme with the minimum of 160 Credits, if he/she earns 20-28 Credits in that Minor Subject. The award of Minor Degree is independent of the award of the Major Degree.

Re-entry or Lateral Entry:

i. Students, opting for exits at any level, will have the option to re-enter the programme from where they had left off, in the same or in a different higher education institution within three years of exit and complete the degree programme within the stipulated maximum period of seven years from the date of admission to first year UG.

ii. Re-entry at various levels for lateral entrants in academic programmes shall be based on the earned and valid Credits as-deposited and accumulated in the Academic Bank of Credits (ABC) through Registered Higher Education Institutions (RHEI) and proficiency test records. Lateral entry into the programme of study leading to the UG Diploma/ Three-year UG Degree will be based on the validation of prior learning outcomes achieved and subject to availability based on intake capacity.

iii. An unsuccessful examinee at any of the above examination shall carry college assessment marks (Sessional Marks) of the theory/Practical examination to the successive attempt at the examination. The examinee however can go for his/her college assessment marks in the subject or subjects in which he/she shall be examined for total marks comprising of theory and sessional together at his/her successive attempts.

Progression to Higher Class

Allow To Keep Term (ATKT):
Eligibility for progression to higher classes shall be as per **Table 3**

Table 3: Eligibility for progression to higher classes

S.N.	Admission to	Minimum Required Credits
1	Semester III	20 Credits from all Verticals of Semester I and II
2	Semester V	40 Credits from all Verticals of Semester I to IV

A student who could not complete a semester satisfactorily or did not keep term will be eligible for readmission to the same semester. However, readmission to the semester should be allowed only in regular session of that semester. In such case, the candidate will not be eligible to get admission in higher semester.

General Provision:

1. Record of student's Performance cum Evaluation(containing attendance, concept knowledge, intellectual/ decision making ability, handling skill, sense of responsibility, cooperative/leadership quality, presentation/demonstration) related to *Internships/Apprenticeship, Mini-Project, Field Projects /Studio Activities, Community Engagement and Services, etc.* shall be maintained bythe college/institute/university department

2. For allotment of *Internships/Apprenticeship, Mini-Project, Field Projects /Studio Activities, Community Engagement and Services, etc.*, the College/ Institute/University Department shall follow Standard Operating Procedures (SOP) with concerned College/Institute/University Department/Organization/Industry on the basis of Memorandum of Understanding (MoU) /Letter of Intent and Joining letter. Further, for validation, progress records, Evaluation Sheet etc. shall be maintained by the College/Institute/University Department. The Internship policy documents of Govt. of Maharashtra shall be adopted by the University.

3. For award of Credits to Co-curricular Courses: Health and wellness, Yoga Education, Sports and Fitness, Cultural Activities, NSS/NCC, Fine/Applied/Visual/Performing Arts, Academic Activities like paper presentations in conferences, Avishkar, start-ups, Hackathon, Quiz competitions, Article published, Participation in Summer school/ Winter School / Short term course, Scientific Surveys, Societal Surveys, Field Visits, Study tours, Industrial Visits, online/offline Courses on Yoga (Yoga for IQ development, Yoga for Ego development, Yoga for Anger Management, Yoga for Eyesight Improvement, Yoga for Physical Stamina, Yoga for Stress Management, etc.); the college/ institute/university department should maintain a record of the student.

4. As per Maharashtra Public Universities Act, 2016, Section 89 Chapter VIII, the results of every examination and evaluation conducted by the University will be declared within thirty days from the last date of examination for that particular course and in any case declare the results latest within forty-five days. The names of the examinees passing the examination as a whole in the minimum prescribed period and obtaining the prescribed number of places in the CGPA shall be arranged in order of merit as provided in the examination in general Ordinance no. 6 provided that the merit list only be published in summer examination.
5. An examinee who has completed the term satisfactorily but fails to present himself/herself for the **examination shall be eligible for re-examination externally to the same examination, on payment of fresh fees and** other fees as may be prescribed by the university from time to time.
6. A candidate/student who has successfully completed all requisite courses approved by the university and earned minimum prescribed total Credits for which he/she is admitted for the under graduate degree programme and accumulated the required Credits for the program and who has put in the minimum residence time prescribed for each semester of the program shall be eligible to receive the degree.
7. Examinations will be conducted in Offline mode in accordance with Ordinance No.9. However, under special circumstances and in specific cases, those can be conducted in Online mode on the recommendations of Board of Examination & Evaluation and approval by the Academic Council.
8. Generally, and preferably, College/Institute/Department internal assessment examinations and university examinations papers should be set from the Question Bank prepared by the university.
9. Guidelines to Paper Setters are provided in Appendix B, Instructions to BOS in Appendix C, Glossary of Terms in Appendix D and Abbreviations in Appendix E, respectively. Further, at the end of Appendix E, list of references employed to compose this document is furnished.
10. Provisions of Ordinance No18/2001in respect of an Ordinance to provide grace marks for passing in a Head of passing and Improvement of Division (Higher Class) and getting Distinction in the subject and condonation of deficiency of marks in a subject shall apply to the examination under this Direction.

11. Faculty wise Code Allocation:

As per National Credit Framework (NCrF) the codes for various levels are prescribed. The codes prescribed for intermediate level courses including subject specific courses intended to meet the Credit requirements for minor / major areas of learning are 201 – 299. Taking into consideration the large number of Discipline and Courses in each faculty, the University has decided to evolve a Unique SIX Digit Code for each course. The first three digits will reflect the specific discipline/subject (**Table 4**) followed by three digits for Course under the same discipline.

The following codes prefix to 201 – 299 codes for the courses of Major or Minor Discipline.

For Example – First Course from Discipline / Subject Botany in the faculty of Science and Technology will use “107201” indicating code “107” for Discipline Botany and “201” for the first course in the same Discipline.

Table 4: The range of the Discipline/Subject codes in different faculties

Sr. No.	Faculty	Codes
1	Science & Technology (Science Group)	100 - 399

The Codes allocated for various discipline/subject of different faculties are appended as **Appendix 1 to Appendix 4.**

12. **Power to modify and remove difficulties:**
   a) Notwithstanding anything contained in the foregoing, Hon’ble Vice-Chancellor in consultation with the Dean of the faculty and all the Chairman (BoS) of the Science and Technology (Science Group) shall have the power to issue directions or orders to remove any difficulty,
   b) Nothing in the foregoing may be construed as limiting the power of the University to amend, modify or repeal any or all of the above.
13. Task for BoS for effective implementation of NEP is specified in Appendix 10, Glossary of Terms in Appendix 11 and Abbreviations in Appendix 12, respectively.

NEP Working Committee:

A. University Level :-

There shall be NEP Implementation Cell in the University comprising of the following members

1. **Pro-Vice Chancellor - Chairman**
2. Deans of all faculties - Member
3. Head of the Department of Concerned University (Senior Professor Grade) - Member
4. Student Representative - Member
5. Director, IQAC - Member-secretary

B. University Department Level :-

There shall be NEP Implementation Cell in each University Department comprising of the following members

1. Head of the University Department - Chairman
2. One Teacher nominated by Hon'ble Vice-Chancellor - Member

C. College Level :

There shall be a NEP Implementation Cell in each affiliated College comprising of the following members

1. Principal/Director, Concerned College/Autonomous College/Institute - Chairman
2. Head of the Department of concerned College from each Faculty - Members (Professor / Associate Professor Grade)
3. Student Representative - Member
4. IQAC Co-Ordinator - Member Secretary

Powers and Duties of the NEP working committee

1. Committee shall take review of the Implementation of the NEP after completion of every Semester
2. The committee shall report to the University about difficulties faced during the implementation of the NEP.
3. The committee should also consider the grievances of the students regarding the difficulties/disadvantages put to them, if any, during their studies under NEP.
4. For college level and university level, the committee will also be a Grievance Redressal Committee for implementation of NEP.
5. The committee may consider any other matter in the interest of the students as far as the NEP is concerned.

Appendices:

Appendix 1:List of Major Disciplines/Subjects in the faculty Science & Technology(Science Group) and the eligibility criterion for admission

Program	**Major subjects which can be opted (Figure in bracket shows unique code of Discipline/Subject)**	**Eligibility**
B.Sc.	Bioinformatics (104), Biotechnology(106), Chemistry (108), Computer Application (General)(109), Computer Application (Vocational) (110), Computer Maintenance (111), Computer Science (112), Electronics (113), Environmental Science (114), Food Processing and Technology (115), Food Science (116), Forensic Science (117), Geography (118), Geology (119), Industrial Chemistry (120), Information Technology (123), Instrumentation (124), Mathematics (126), Petrochemical Science (128), Physics (129), Renewable Energy(130), Statistics (132), Data Analytics (134), Data Science & Analytics (135)	• The Students passing H.S.C. Examination with Physics, Chemistry and Mathematics **OR** • The students passing the HSSC Examination offering Vocational stream with Mathematics **OR** • The students passing H.S.C. examination (M.C.V.C. stream) with technical trades like Engineering and Technology Group
	Apiculture (100), Biochemistry(103), Bioinformatics(104), Biological Techniques and Specimen Preparation (Vocational) (105), Biotechnology(106), Botany (107), Chemistry (108), Computer Application (General)(109), Computer Application (Vocational) (110), Environmental Science (114), Food Processing and Technology (115), Food Science (116), Forensic Science (117), Geography (118), Geology (119), Industrial Chemistry (120), Industrial Fish and Fisheries (Vocational) (121), Industrial Microbiology (122), Microbiology (127), Petrochemical Science (128), Seed Technology (Vocational)(131), Zoology(133)	• The Students passing H.S.C. Examination with Chemistry and Biology **OR** • The students passing H.S.C. examination (M.C.V.C. stream) with technical trades like Para Medical Group, Agricultural Group and Fisheries Group

Note: In addition to the eligibility tabulated above, following students will also be eligible for the admission to B.Sc. Student who has successfully completed NSQF course level 4.0 from the Qualification Pack (QP) relevant or allied to Major Discipline/Subject in which he/she desire to seek admission. OR

(i) Student who has successfully completed prerequisite (bridge course) with Course code 0-99 of National Credit Framework (NCrF) relevant or allied to Major Discipline/Subject in which he/she desire to seek admission.

Appendix 5: List of Major Disciplines/Subjects in the faculty Science and Technology (Science Group) and the choice of Minor Subject

Group	The Major Discipline/Subject with Code	Student shall have to select any one Minor of the same faculty (other than Major in which admitted) available in the HEI from the following Discipline/Subject
B.Sc.	Apiculture (100), Biochemistry(103), Bioinformatics(104), Biological Techniques and Specimen Preparation (Vocational)(105), Biotechnology(106), Botany (107), Chemistry (108),Computer Application (General)(109), Computer Application (Vocational) (110), Computer Maintenance(111), Computer Science(112), Electronics(113), Environmental Science(114), Food Processing and Technology(115), Food Science(116), Forensic Science(117), Geography (118), Geology (119), Industrial Chemistry(120), Industrial Fish and Fisheries (Vocational)(121), Industrial Microbiology (122), Information Technology (123), Instrumentation(124), Languages (Science Faculty Disciplines)(125), Mathematics(126), Microbiology(127), Petrochemical Science (128), Physics(129), Renewable Energy(130), Seed Technology (Vocational)(131), Statistics (132), Zoology(133), Data Analytics (134), Data Science & Analytics (135)	Apiculture (100), Biochemistry (103), Bioinformatics (104), Biological Techniques and Specimen Preparation (Vocational) (105), Biotechnology (106), Botany(107), Chemistry(108), Computer Application (General) (109), Computer Application (Vocational) (110), Computer Maintenance (111), Computer Science (112), Electronics (113), Environmental Science (114), Food Processing and Technology(115), Food Science (116), Forensic Science (117), Geography (118), Geology (119), Industrial Chemistry (120), Industrial Fish and Fisheries (Vocational) (121), Industrial Microbiology (122), Information Technology (123), Instrumentation (124), Languages (Science Faculty Disciplines) (125), Mathematics (126), Microbiology (127), Petrochemical Science (128), Physics (129), Renewable Energy (130), Seed Technology (Vocational) (131), Statistics (132) and Zoology (133), Data Analytics (134) **For Example:** The student admitted for Major in Statistics (132) shall have to select Minor of any one of the above Discipline/Subject other than Minor of Statistics. **Special Note:** Students select only one subject as a major or minor from Computer Application (General) (109), Computer Application (Vocational) (110), Computer Science (112), Information Technology (123) and Data Analytics (134)

Notes:

1. Figure in bracket shows unique code of Discipline/Subject
2. The confirmation Major and Minor Discipline/ Subject shall be at the time admission in Semester - III by the student.
3. Minor Discipline/Subject selected by the student in the Semester III shall be continued till the Sixth Semester.

Appendix – 9: Teaching Learning Scheme

Sant Gadge Baba Amravati University, Amravati
FACULTY: SCIENCE AND TECHNOLOGY (SCIENCE GROUP)
Teaching and Learning Scheme: for the Degree of Bachelor of # with $
(Three Years- Six Semesters Bachelor's Degree Programme)
TEMPLATES
FIRST YEAR: SEMESTER – I

Mode of Teaching	Vertical No.	The Vertical	Type of Course	Course Code	Course Name	Credits	Workload (Hrs/Week)	Vertical Workload (Hrs/Week)
Classroom Teaching / Lab Work (Practical)/ Outdoor / Field	a.	Major / Minor	Theory			2	2	6
			Lab/Practical-1			2	4	
	b.	Minor / Major	Theory1	-	-	2	2	6
			Lab/Practical-2			2	4	
	c.	Generic/Open Elective Course	Theory1			2	2	4
			Theory2			2	2	
	d.	VSC	-	-	-	-	-	4
		SEC	Lab/Practical-3			2	4	
	e.	AEC - English	Theory			1	1	6
		AEC –MIL	Theory			1	1	
		IKS-Generic	Theory			2	2	
		VEC	Theory			2	2	
	f.	CC	Outdoor			2	4	4
		TOTAL				**22**	**30**	**30**

FIRST YEAR: SEMESTER – II

Mode of Teaching	Ver. No	The Vertical	Type of Course	Course Code	Course Name	Credits	Workload (Hrs/Week)	Vertical Workload (Hrs/Week)
Classroom Teaching / Lab Work (Practical)/ Outdoor / Field	a.	Major / Minor	Theory2			2	2	6
			Lab/Practical-4			2	4	
	b.	Minor / Major	Theory2			2	2	6
			Lab/Practical-5			2	4	
	c.	Generic/ Open Elective Course	Theory3			2	2	4
			Theory4			2	2	
	d.	VSC	Lab/Practical-6			2	4	8
		SEC	Lab/Practical-7			2	4	
	e.	AEC - English	Theory			1	1	4
		AEC –MIL	Theory			1	1	
		VEC	Theory			2	2	
	f.	CC	Outdoor			2	4	4
		TOTAL				**22**	**32**	**32**

*** Important:**

- VSC Should be Complementary to Major/Minor
- SEC has to be selected as per above T and L Scheme or from the Basket Provided by University, from the same Faculty/Discipline of the Major/Minor

Sant Gadge Baba Amravati University, Amravati
FACULTY: SCIENCE AND TECHNOLOGY (SCIENCE GROUP)
Teaching and Learning Scheme: for the Degree of Bachelor of # with $
(Three Years- Six Semesters Bachelor's Degree Programme)

SECONOD YEAR: SEMESTER – III

Mode of Teaching	Ver. No	The Vertical	Type of Course	Course Code	Course Name	Credits	Workload (Hrs/Week)	Vertical Workload (Hrs/Week)
Classroom Teaching / Lab Work (Practical)/ Outdoor / Field	a.	Major	Theory3			2	2	8
			Theory4			2	2	
			Lab/Practical-8			2	4	
		IKS-Major Specific	Theory			2	2	
	b.	Minor	Theory3			2	2	6
			Lab/Practical-9			2	4	
	c.	Generic/ Open Elective Course	Theory5			2	2	2
	d.	VSC	Lab/Practical-10			2	4	4
	e.	AEC - English	Theory			1	1	2
		AEC –MIL	Theory			1	1	
	f.	FP/CES	Project			2	4	8
		CC	Outdoor			2	4	
		TOTAL				**22**	**30**	**30**

SECOND YEAR: SEMESTER – IV

Mode of Teaching	Vertical No	The Vertical	Type of Course	Course Code	Course Name	Credits	Workload (Hrs/Week)	Vertical Workload (Hrs/Week)
Classroom Teaching / Lab Work (Practical)/ Outdoor / Field	a.	Major	Theory5			2	2	8
			Theory6			2	2	
			Lab/Practical-11			2	4	
	b.	Minor	Theory4			2	2	4
			Lab/Practical-12			2	2	
	c.	Generic/ Open Elective Course	Theory6			2	2	2
	d.	VSC	Lab/Practical-13			2	4	8
		SEC	Lab/Practical-14			2	4	
	e.	AEC - English	Theory			1	1	2
		AEC –MIL	Theory			1	1	
	f.	FP/CES	Project			2	4	8
		CC	Outdoor			2	4	
		TOTAL				**22**	**32**	**32**

*** Important:**

- VSC Should be Complementary to Major
- SEC has to be selected as per above T and L Scheme or from the Basket Provided by University, from the same Faculty/Discipline of the Major/Minor

Sant Gadge Baba Amravati University, Amravati
FACULTY: SCIENCE AND TECHNOLOGY (SCIENCE GROUP)
Teaching and Learning Scheme: for the Degree of Bachelor of # with $
(Three Years- Six Semesters Bachelor's Degree Programme)

THIRD YEAR: SEMESTER – V

Mode of Teaching	Ver. No	The Vertical	Type of Course	Course Code	Course Name	Credits	Workload (Hrs/Week)	Vertical Workload (Hrs/Week)
Classroom Teaching / Lab Work (Practical)/ Outdoor / Field	a.	Major	Theory7			2	2	20
			Theory8			2	2	
			Theory9			2	2	
			Lab/Practical-15			2	4	
			Lab/Practical-16			2	4	
		Major (Elective)	Theory1			2	2	
			Lab/Practical-17			2	4	
	b.	Minor	Theory5			2	2	6
			Lab/Practical-18			2	4	
	c.	Generic/Open Elective	-	-	-	-	-	-
	d.	VSC	Lab/Practical-19			2	4	4
		SEC	-	-	-	-	-	
	e.	VEC	-	-	-	-	-	0
	f.	FP/CES	Project			2	4	4
		CC	-	-	-	-	-	-
		TOTAL				**22**	**34**	**34**

THIRD YEAR: SEMESTER – VI

Mode of Teaching	Ver. No	The Vertical	Type of Course	Course Code	Course Name	Credits	Workload (Hrs/Week)	Vertical Workload (Hrs/Week)
Classroom Teaching / Lab Work (Practical)/ Outdoor / Field	a.	Major	Theory10			2	2	18
			Theory11			2	2	
			Lab/Practical-20			2	4	
			Lab/Practical-21			2	4	
		Major (Elective)	Theory2			2	2	
			Lab/Practical-22			2	4	
	b.	Minor	Theory6			2	2	6
			Lab/Practical-23			2	4	
	c.	Generic/ Open Elective	-			-	-	0
	d.	VSE	Lab/Practical-24			2	4	4
	e.	VEC						
	f.	Internship / Apprenticeship	OJT			4	8	8
		FP/CES	Project			-	-	
		-	-	-	-	-	-	-
		TOTAL				**22**	**36**	**36**

*** Important:**

- VSC Should be Complementary to Major
- SEC has to be selected as per above T and L Scheme or from the Basket Provided by University, from the same Faculty/Discipline of the Major/Minor

Sant Gadge Baba Amravati University, Amravati
FACULTY: SCIENCE AND TECHNOLOGY (SCIENCE GROUP)
Teaching and Learning Scheme: for the Degree of Bachelor of # with $
(Four Years- Eight Semesters Bachelor's Degree Programme (Honors)

FOURTH YEAR: SEMESTER – VII

Mode of Teaching	Vertical Number	The Vertical	Type of Course	Course Code	Course Name	Credits	Workload (Hrs/Week)	Vertical Workload (Hrs/Week)
Classroom Teaching / Lab Work (Practical)/ Outdoor / Field	a.	Major	Theory12			2	2	22
			Theory13			2	2	
			Theory14			2	2	
			Theory15			2	2	
			Theory16			2	2	
			Lab/Practical-25			2	4	
			Lab/Practical-26			2	4	
		Elective	Theory5			2	2	
			Theory6			2	2	
		Research Methodology(RM)	Theory1	-	-	2	2	6
			Lab/Practical-27			2	4	
		TOTAL				**22**	**28**	**28**

FOURTH YEAR: SEMESTER – VIII

Mode of Teaching	Vertical Number	The Vertical	Type of Course	Course Code	Course Name	Credits	Workload (Hrs/Week)	Vertical Workload (Hrs/Week)
Classroom Teaching / Lab Work (Practical)/ Outdoor / Field	a.	Major	Theory17			2	2	22
			Theory18			2	2	
			Theory19			2	2	
			Theory20			2	2	
			Theory21			2	2	
			Lab/Practical-28			2	4	
			Lab/Practical-29			2	4	
		Elective	Theory7			2	2	
			Theory8			2	2	
		OJT	Lab/Practical-30			4	8	08
		TOTAL				**22**	**30**	**30**

Sant Gadge Baba Amravati University, Amravati
FACULTY: SCIENCE AND TECHNOLOGY (SCIENCE GROUP)
Teaching and Learning Scheme: for the Degree of Bachelor of # with $
(Four Years- Eight Semesters Bachelor's Degree Programme (Honors with Research)

FOURTH YEAR: SEMESTER – VII

Mode of Teaching	Vertical Number	The Vertical	Type of Course	Course Code	Course Name	Credits	Workload (Hrs/Week)	Vertical Workload (Hrs/Week)
Classroom Teaching / Lab Work (Practical)/ Outdoor /	a.	Major	Theory12			2	2	22
			Theory13			2	2	
			Theory14			2	2	
			Theory15			2	2	
			Theory16			2	2	
			Lab/Practical-25			2	4	
			Lab/Practical-26			2	4	
		Elective	Theory5			2	2	
			Theory6			2	2	
		Research Project (RP)	Project	-	-	4	8	8
		TOTAL				**22**	**30**	**30**

FOURTH YEAR: SEMESTER – VIII

Mode of Teaching	Vertical Number	The Vertical	Type of Course	Course Code	Course Name	Credits	Workload (Hrs/Week)	Vertical Workload (Hrs/Week)
Classroom Teaching / Lab Work (Practical)/ Outdoor / Field	a.	Major	Theory17			2	2	22
			Theory18			2	2	
			Theory19			2	2	
			Theory20			2	2	
			Theory21			2	2	
			Lab/Practical-28			2	4	
			Lab/Practical-29			2	4	
		Elective	Theory7			2	2	
			Theory8			2	2	
		Research Project (RP)	Project			6	12	12
		TOTAL				**22**	**34**	**34**

Notes:

a. #/$ Here mention the title of Degree. For example - Degree of Bachelor of Science with the # Major and $ Minor Discipline (Subject Botany as # Major and Chemistry as $ Minor)

b. The strength of the batch of the Practical for UG Classes shall be 16 with an addition of 10% with the permission of Hon'ble Vice Chancellor. The number of the students required to constitute a batch or calculate the workload shall be in accordance with the relevant Government Resolution in force at the time, applicable to specific time, region, course type, mode of instruction, and other pertinent factors.

c. 1 Credit shall mean 1 Hour Teaching per Week per Semester (Total 15 Hrs/ Semester), the duration of 1 Teaching Period will be 60 Minutes. For Practical 1 Credit shall mean 2 Hour Teaching per Week per Semester (Total 30 Hrs/ Semester).

d. For Examination and Evaluation of Theory Courses, 40 % Marks shall be assigned to Internal Examination and 60% Marks shall be assigned to end-semester external university examination.

e. **Co-curricular Courses:** Health and wellness, Yoga Education, Sports and Fitness, Cultural Activities, NSS/NCC, Fine/Applied/Visual/Performing Arts During Semester I, II, III, IV, V and VI**.** These courses may be taught by Physical Education Director or may be assigned to Language Teacher by the Principal of HEI based on the expertise of the concerned.

f. Value Education Courses to be selected from the Basket of Courses provided by the University. These courses may be assigned to the Language or any Teacher by the Principal of HEI based on the expertise of the concerned.

g. **Generic / Open Elective Courses (GE/OE):** Courses to be selected from the Basket of Courses provided by the University

h. **Abbreviations:** Department Specific Core: DSC, Department Specific Elective: DSE, FSC: Faculty Specific Core, FSE: Faculty Specific Elective, Indian Knowledge System: IKS, Inter Faculty Specific Core: IFSC, Inter Faculty Specific Elective: IFSE, Theory : Th, Practical/Practicum: Pr, Environment Studies: ES, Pre-requisite Course mandatory if applicable: Prq, Laboratory: Lab (Practical), Generic/ Open Electives: OE; Vocational Skill and Skill Enhancement Courses: VSEC; Vocational Skill Courses: VSC; Skill Enhancement Courses: SEC; Ability Enhancement Courses: AEC; Value Education Courses: VEC; OJT: On Job Training: Internship/ Apprenticeship; Field projects: FP; Community Engagement and Service: CES; Co-curricular Courses: CC; RM: Research Methodology; Research Project: RP; MIL: Modern Indian Language

Curriculum Design:

Each theory paper of shall be of 2 Credits comprising of 4 Units with Teaching Hours as mentioned in the table. The pattern of theory papers shall be as per following template –

Level	Semester	Course Code	Course Name	Credits	Teaching Hours	Exam Duration	Max Marks
4.5	I	101201	Diversity of Lower Plant	2	30	2 Hrs	30

The Curriculum of any Course shall be designed as per following template:

<table>
<tr><td>Course Objectives:</td><td colspan="4"></td></tr>
<tr><td>Course Outcomes:</td><td colspan="4">As per Blooms Taxonomy (4 to 6)</td></tr>
<tr><td>Unit System</td><td>Contents</td><td>Workload Allotted</td><td>Weightage of Marks Allotted</td><td>Incorporation of Pedagogies</td></tr>
<tr><td>Unit I</td><td>Detailed pointwise contents with at least four points</td><td>8 Hrs</td><td>8 Marks</td><td rowspan="5">BoS shall recommend suitable pedagogical strategies, both classical and contemporary innovations, for integration into the Teaching, Learning, and Evaluation (T, L, & E) Processes. These strategies should be tailored to enhance the delivery and comprehension of the course content within each Unit, ensuring that they align with the educational objectives and learning outcomes.</td></tr>
<tr><td>Unit II</td><td>Detailed pointwise contents with at least four points</td><td>7 Hrs</td><td>7 Marks</td></tr>
<tr><td>Unit III</td><td>Detailed pointwise contents with at least four points</td><td>8 Hrs</td><td>8 Marks</td></tr>
<tr><td>Unit IV</td><td>Detailed pointwise contents with at least four points</td><td>7 Hrs</td><td>7 Marks</td></tr>
<tr><td>References:</td><td colspan="4">Study Materials in the form of - Reference Books, Text Books, Research Articles, Digital Resources like Weblinks, E- Contents, Educational Software, Databases, etc.</td></tr>
<tr><td>Model Questions:</td><td colspan="4">Short Type (At least 8), Long Type (At least 4) and MCQs for Internal Assessment (At least 8) wherever applicable as the need of curriculum.</td></tr>
</table>

Appendix 10: Task for BoS for effective implementation of NEP

1) The Board of Studies should define and specify the Graduate Attributes (Gas), Program Outcomes (POs) and Program Specific Outcomes (PSOs) for the respective Discipline/Subject

2) The Board of Studies of all subjects of all four faculties should decide the titles for the following four verticals for all six semesters except Board of Studies-Science Languages and Board of Studies-Commerce Languages.

Vertical	Particulars	No. of Titles (for all non - lab Courses)	No. of Titles (for all lab Courses)
a	Major Discipline	22	16
	Labs	-	13
	IKS-Subject Specific	01	1
	Electives	04	04
b	Minor	09	09
c	Generic Open Electives	06	06
d	Vocational Courses	05	(Included in Major Labs)
	Skill Enhancement Courses	06	

3) The board of studies of all subjects of Faculty of Science and Technology (Science Group) should finalize the syllabus for the following four verticals for Semester I & II in the First Phase

Vertical	Particulars	Syllabus-No. of Titles (for all non - lab Courses)	Syllabus-No. of Titles (for all lab Courses)
A	Major Discipline	06	04
	Labs	-	2 + 4
B	Minor	01	01
C	Generic Open Electives	04	04
B	Vocational Courses	02	(4 labs included in Major Labs)
	Skill Enhancement Courses	03	

1) In addition to above the Board of Studies of all Languages should take care of Value Education Course (VEC) for the Faculty of Humanities, whereas Science Languages Board & The Commerce Languages Board should take care of VEC for Science & Technology (Science Group) Faculty and Commerce & Management Faculty respectively. These BoS should decide the titles for all applicable semesters and syllabi for first and second semesters as mentioned below -

Vertical	Particulars	No. of Titles	Syllabus- No. of Titles (Sem I&II)
e	AEC	4 of one Credit each	02
	IKS-Generic	01 title of 02 Credit	01
	VEC	02 titles of 02 Credit each	02

2) All Board of Studies should consider Vocational Skill Courses and Skill Enhancement Courses of Laboratory and Practical Nature and should evolve discipline specific teaching-learning modus operandi accordingly. However, classroom type theory courses may also be permissible for this vertical.

3) To evolve codes of various courses for all applicable verticals (a) to (f) between 201 to 299 only in tune with the prefix allotted by the NEP task force committee.

4) The modus operandi for teaching, learning and evaluation for vertical (f) i.e., Internship, field project and Cocurricular Courses prescribed by NEP task force committee and duly approved by concern authorities will be applicable to all board of studies

5) Details of Contents, Evaluation and Assessment of Laboratory Course (Practical) shall be prescribed by respective BoS where ever is applicable.

Appendix 11:Glossary of the Terms

- **Academic Credit:** An academic Credit is a unit by which the course work (theory/ practical/ training) is measured. Each course may be allotted Credits in proportion to the time expected to be devoted by the student for that course. Thus, it determines the number of hours of instructions required per week. One Credit means the standard methodology of calculating one hour of theory or one hour of tutorial or two hours of laboratory work or one week of internship per week for a duration of a semester (13-15 weeks) resulting in the award of one Credit; which is awarded by a higher educational institution on which these regulations apply.
- **Academic Bank of Credits (ABC):** ABC is an academic service mechanism as a digital/virtual/online entity established and managed by MoE/UGC to facilitate students to become its academic account holders and paving the way for seamless student mobility between or within degree granting Higher Education Institutions (HEIs) through a formal system of Credit recognition, Credit accumulation, Credit transfers and Credit redemption to promote distributed and flexible teaching learning.

- **Academic Year:** Two consecutive (one odd + one even) semesters constitute one academic year.
- **Assessment:** It is the process of collecting, recording, scoring, describing and interpreting information about learning
- **Academic Flexibility:** It is the provision for innovative and interchangeable curricular structures to enable creative combinations of Courses/Programmes in Disciplines of study leading to Degree/Diploma/PG Diploma/Certificate of Study offering multiple entry and multiple exit facilities in tune with National Education Policy-2020, while removing the rigid curricular boundaries and creating new possibilities of life-long learning.
- **Affiliated College:** It implies any higher education institution approved by the affiliating university on the basis of the stipulated norms and guidelines by virtue of which it provides for a course/programme of study for obtaining any qualification from a university.
- **Autonomous College:** It means any institution, whether known as such or by any other name accorded with autonomous status by the UGC upon the recommendations of the affiliating university and the State Government concerned, by virtue of which it provides for a course/programme of study with academic and innovation flexibility for obtaining any qualification from a university and which, in accordance with the Rules and Regulations of such university, is recognized as competent to provide for such course/programme of study and present students undergoing such course/programme of study for the examination leading to the award of such qualification.
- **Choice Based Credit System (CBCS):** The CBCS provides choice for students to select from the prescribed courses (core major, electives, minor, soft skill courses etc.)
- **Code:** Each course shall bear a distinguishing code (three letters and three digits) that identifies the discipline from which it is being offered.
- **Conventional Mode of Learning:** It means a mode of providing learning opportunities through face to face interaction between the teacher and learner in regular class room environment but does not exclude supplementary instructions if any for the learner through use of online.
- **Core or Major Course:** A course, which should compulsorily be studied by the student as a requirement of core or major subject is termed as a Core Course.
- **Course:** A basic unit of education and/or training. It means a paper which is taught for at least one semester as a part of a subject and is a component of a Programme. All courses need not carry the same weightage. A collection of courses forms a Programme of study.
- **Credit Point:** It is the product of grade point and number of Credits for a course.
- **Cumulative Grade Point Average (CGPA):** Weighted average of the grade points obtained in all courses registered by the student across semesters.
- **Elective Course:** Generally, a course which can be chosen from a pool of courses and which may be very specific or specialized or advanced or supportive to the discipline/ subject of study or which provides an extended scope or which enables an exposure to some other discipline/subject/domain or nurtures the candidate's proficiency/skill is called an Elective Course.
- **Evaluation:** It is the process of making judgments based on evidences and interpretations gathered through examination and assessment and on the basis of agreed upon criteria.
- **Foreign Higher Educational Institution:** It represents a Higher Educational Institution duly established or incorporated or recognized in a foreign country and offering academic and research programmes at the undergraduate and/or higher levels.
- **Generic Elective (GE) or Open Elective (OE) Course:** An elective course chosen generally from an unrelated discipline/subject, with an intention to seek multidisciplinary exposure is called a Generic Elective.
- **Grade Point:** Numeric weightage attached to each letter grade.
- **Grade Point Average (GPA):** A system of calculating academic achievement based on an average, calculated by multiplying the numerical grade point received in each course by the number of Credits.
- **Graduate Attributes (GAs):** It is a set of individually assessable outcomes that are indicative of the graduate's potential to acquire competencies in that programme.
- **Higher Education Institutions:** The Higher Education Institutions (HEIs) who are empowered to award degrees by themselves or through their affiliating universities m accordance with Section 22 of the UGC Act, 1956.
- **Lateral Entry:** Lateral entry or admission is granted to those students who have exit after award of Certification, Diploma, or a Basic Bachelor's Degree and are eligible for and desirous of re-entering into the second year/ third year/ fourth year, respectively of same Four-year multidisciplinary degree programme at any ABC registered HEI within stipulated/ permissible period of years as decided by Statutory Councils of that HEI. Lateral entry is also open to those students, if he/she has already successfully completed a multidisciplinary Four-year first degree programme and is desirous of and academically capable of pursuing another multidisciplinary Four-year first degree programme an allied subject.
- **Learning Management System** (LMS): It means a system to keep track of delivery of e-Learning Programmes, learner's engagement, assessment, results, reporting and other related details in one centralized location
- **Learning Outcome Based Education (LOBE):** Adherence to student-centric learning approach to measure student's performance based on pre-determined set of outcomes.
- **Letter Grade:** Index of performance resulting from the transformation of actual marks obtained by a student in a course.

- **Major Courses:** The discipline in which the student shall pursue major study in his/her Undergraduate/Master's Programme.
- **Proctored Examination:** It means the examination conducted under the supervision of approved person or technology enabled proctoring which ensures the identity of the test taker and the integrity of the test taking environment, either in pen-paper mode or in computer-based testing mode or in full-fledged online mode, as may be permissible.
- **Programme:** Programme /Programme of study means a higher education programme pursued for a degree specified by the Commission under Section 22 (3) of the UGC Act. It also refers to a collection of courses in which a student enrolls and which contributes to meeting the requirements for the awarding of one or more Certificates/ Diplomas/ Degrees.
- **Programme Education Objectives (PEOs):** PEOs are broad statements that describes what graduates are expected to attend within few years of graduation.
- **Programme Learning Outcomes (PLOs):** They represent the knowledge, skills and attitudes a student should attain at the end of the programme.
- **Qualifications:** Qualifications are final 'awards' such as a Certificate, Diploma or Degree.
- Qualifications are awarded by a competent authority such as a college or university in recognition of the attainment by students of the expected learning outcomes on the successful completion of a particular programme of study. Qualifications can also signify the competence to follow an occupational practice.
- **Research Project/ Dissertation:** Project work is considered as a special course involving application of knowledge in solving / analyzing /exploring a real-life situation / difficult problem. The student undertakes research in specific areas of his Major/ Core Subject with an advisory support by a teacher/faculty member.
- **Rubric (Assessment Rubric):** A rubric for assessment, also called a scoring guide, is a tool used to interpret and grade students on any kind of work against criteria and standards.
- **Semester Grade Point Average (SGPA):** Performance of a student in a given semester.

Appendix 12:Abbreviations

ABC	Academic Bank of Credit
AEC	Ability Enhancement Courses
CC	Co-curricular Courses
CAT	Continuous Assessment Test
CES	Community Engagement and service
DSC	Department Specific Core
DSE	Department Specific Elective
ES	Environment Studies
Faculty Specific Elective	FSE
FP	Field projects
GE	Generic Electives
HEI	Higher Educational Institute
IFSC	Inter Faculty Specific Core
IKS	Indian Knowledge System
Lab	Laboratory
MIL	Modern Indian Languages
MIL	Modern Indian Language
MOOC	Massive Online Open Course
NCrF	National Credit Framework
NEP	National Education Policy
OE	Open Electives
On Job Training	OJT
Pr	Practical/Practicum
Prq	Pre-requisite Course
Research Methodology	RM
RP	Research Project
SEC	Skill Enhancement Courses
Th	Theory
UGC	University Grants Commission
VEC	Value Education Courses
Vocational Enhancement Courses	VEC
VSC	Vocational Skill Courses
VSEC	Vocational and Skill Enhancement Courses

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1. Kulkarni R D, NEP 2020: Report on Structure and curriculum of 4 year and dual multi-disciplinary degree program with multiple entry and exit options for implementation in state universities of Maharashtra; Ministry of Higher and Technical Education, Government of Maharashtra State, October 2022

2. UGC, New Delhi, Curriculum and Credit Framework for Undergraduate Programmes, 12 December 2022.

3. Government Resolution, Government of Maharashtra State, No. NEP/2022/ Pr. Kr. 09/ Vishi-3/Shikana dated 20 April 2023 (GR Code: 202304201925266908)

4. Government Resolution, Government of Maharashtra State, No. NEP/2022/ Pr. Kr. 105/ Vishi-3/Shikana dated 6 Dec 2022 (GR Code: 202212061843114008)

5. UGC, New Delhi, Learning Outcomes-based Curriculum Framework for Undergraduate Education, January, 2020.

The existing Ordinance No. 143 and the Direction No. /2024 and 22/08/2024 of the programme shall be repealed stage-wise and only applicable to the students who have already sought their admissions as per its provisions and shall repealed after exhausting the chances given to the failure students of old programme by the University.

Date :- 28 /11/2024

Sd/-

(Dr. Milind Barhate)
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