

SANT GADGE BABA AMRAVATI UNIVERSITY, AMRAVATI



THREE-YEAR UNDERGRADUATE PROGRAMME

Bachelor of Science (B.Sc.)

Subject: SEED TECHNOLOGY

FACULTY: SCIENCE AND TECHNOLOGY

(Courses effective from Academic Year 2026-2027 Under Uniform NEP 2020)

Scheme of Teaching-Learning-Evaluation, Credit Distribution, Workload Calculation and Examination

Credit Distribution

Three/Four-year UG Degree Programme (Level 4.5 to 5.5)

Vertical	Vertical Type	I	II		III	IV	V	VI	Total Credits	Grand Total
	(i) Three-year UG Degree Programme (Level 4.5.to 5.5)									
A	Major DSC (60–64) (Minimum 50% of Total Credits)	4	4	Major	6	8	8	8	38	48
				IKS	2				2	
		0	0	Elective	0	0	4	4	8	
B	Minor (from same faculty of DSC) (18–24)	4	4		4	4	4	4	24	24
C	Generic/Open Elective (OE) (Faculty-wise basket other than Major/Minor faculty) (10–12)	4	4		2	2	0	0	12	12
D(i)	Vocational Skill Courses (VSEC) corresponding to Major/Minor (8–10)	0	2		2	2	2	2	10	16
D(ii)	Skill Enhancement Courses (SEC)	2	2		0	0	2	0	6	
E(i)	Ability Enhancement Courses (AEC) (English + Modern Indian Language)	1+	1+		1+	1+	0	0	8	14
		1	1		1	1				
E(ii)	Indian Knowledge System (IKS) 2 Generic	2	0		0	0	0	0	2	
E(iii)	Value Education Courses (VEC) (Understanding India, EVS, Digital & Technological Solution) 4	2	2		0	0	0	0	4	18
F(i)	Internship / Apprenticeship corresponding to Major 8 (OJT)	0	0		0	0	0	4	4	
F(ii)	Field Projects / Community Engagement & Service (CEP) corresponding to Major 4-6	0	0		2	2	2	0	6	
F(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	
	Total Credits per Semester	22	22		22	22	2 2	2 2	132	132

(ii) Four-year UG Degree programme (Level 6.0) Honors Degree in Major or Minor						
A. Honors Degree in Major or Minor						
	Vertical Type			Semester VII	Semester VIII	
	Major (Offered at Three-year UG Programme)	Mandator y		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	8
	On the Job Training (OJT)			0	4	4
	Total			22	22	44
	Cumulative			(132+44) 176		
(ii) Four-year UG Degree Programme (Level 6.0)						
B. Honors with Research Degree in Major or Minor						
	Major (Offered at Three-year UG Programme)		Semester VII	Semester VIII		
		Mandatory	8-10 (24+2 or 24)	8-10 (24+2 or 24)	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		

Sant Gadge Baba Amravati University, Amravati

Teaching and Learning Scheme for the Degree of Bachelor of Science

FACULTY: SCIENCE AND TECHNOLOGY

TLE Scheme for FIRST YEAR: SEMESTER – I (Botany) (Level 4.5)

(As per uniform NEP Scheme)

The Vertical	Type of Course	Course Code	Course Title	Credits	Workload	Theory/Practical				Theory/Pract (Total)	
						External		Internal		Max. Marks	Min. Marks
						Max. Marks	Min. Marks	Max. Marks	Min. Marks		
Major / Minor	Theory1	131200	Basics of Seed Technology and Development of Career	2	2	30	9	20	6	50	20
	Lab/Practical-1	131201	Basics of Seed Technology	2	4	25	10	25	10	50	20
Minor / Major	Theory	-	-	2	2	30	9	20	6	50	20
	Lab/Practical	-	-	2	4	25	10	25	10	50	20
GOEC	Theory		Refer University basket	2	2	30	9	20	6	50	20
GOEC	Theory		Refer University basket	2	2	30	9	20	6	50	20
VSC	-	-	-	-	-	-	-	50	20	50	20
SEC	Lab/Practical-2	131203	Organic Farming	2	4	-	-	50	20	50	20
AEC - English	Theory		Refer University basket	1	1						
AEC –MIL	Theory		Refer University basket	1	1						
IKS-Generic	Theory		Refer University basket	2	2						
VEC	Theory		Refer University basket	2	2						
CC	Outdoor		Separate SOP will be released	2	4						

TOTAL				22	30						
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TLE Scheme for FIRST YEAR: SEMESTER – II (Level 4.5)

The Vertical	Type of the Course	Course Code	Course Title	Credits	Workload	Theory/Practical				Theory/Practical (Total)	
						External		Internal			
						Max. Marks	Min. Marks	Max. Marks	Min. Marks	Max. Marks	Min. Marks
Major / Minor	Theory	Theory2	131204	2	2	30	9	20	6	50	20
	Lab/Practical	Lab/Practical-3	131205	2	4	30	9	20	6	50	20
Major / Minor	Theory		-	2	2	25	10	25	10	50	20
	Lab/Practical		-	2	4	30	9	20	6	50	20
GOEC	Theory	107208	Floriculture and Value Additions	2	2	25	10	25	10	50	20
GOEC	Theory	107209	AYUSH	2	2	30	9	20	6	50	20
VSC	Lab/Practical-6	131206	Seed pathology	2	4	-	-	50	20	50	20
SEC	Lab/Practical-7	131207	Landscaping	2	4	-	-	50	20	50	20
AEC - English			Refer University basket	1	1	-	-	50	20	50	20
AEC –MIL			Refer University basket	1	1	-	-	50	20	50	20
VEC			Refer University basket	2	2						
CC			Separate SOP will be released	2	4						
TOTAL				22	32						

* Important:

- VSC Should be Complementary to Major/Minor
- SEC has to be selected from the Basket Provided by University, from the same Faculty/Discipline of the Major/Minor

TLE Scheme for SECOND YEAR: SEMESTER – III (Level 5.0)

The Vertical	Type of the Course	Course Code	Course Title	Credits	Workload	Theory/Practical				Theory/Pract (Total)	
						External		Internal			
						Max. Marks	Min. Marks	Max. Marks	Min. Marks	Max. Marks	Min. Marks
Major	Major-T	131212	Hybrid Seed Production and Vegetable Seed Production	2	2	30	9	20	6	50	20
Major	Major-T	131213	Foundation of Hybrid Vegetable Seed Production	2	2	30	9	20	6	50	20
Major	Major-P	131214	Experimental Hybrid and Vegetable Seed Production	2	2	30	9	20	6	50	20
Major	IKS-T	131215	Indian Seed Sector	2	2	30	9	20	6	50	20
Minor	Minor-T	131216	Seed Processing and Storage	2	2	30	9	20	6	50	20
Minor	Minor-P	131217	Experiments based on Seed Processing and Storage	2	4	25	10	25	10	50	20
GOEC	GOEC-T		Refer University basket	2	2	30	9	20	6	50	20
VSC	VSC-P	131218	Seed Genetics and Breeding	2	4	-	-	50	20	50	20
FP/CES	FP/CES	131219	Seed Technology Lab (FP/ CEP in SD- I)	2	4	-	-	50	20	50	20
CC	CC		Separate SOP shall be consulted from University website	2	4	-	-	50	20	50	20

Important: * VSC Should be Complementary to Major

** SEC has to be selected from the Basket Provided by University, from the same Faculty/Discipline of the Major/Minor

TLE Scheme for SECOND YEAR: SEMESTER – IV (Level 5.0)

The Vertical	Type of the Course	Course Code	Course Title	Credits	Workload	Theory/Practical				Theory/Pract (Total)	
						External		Internal		Max. Marks	Min. Marks
						Max. Marks	Min. Marks	Max. Marks	Min. Marks		
Major	Major-T	131220	Seed Testing and Seed Quality Control	2	2	30	9	20	6	50	20
Major	Major-T	131221	Testing for Purity of Cultivars and Plant Variety Protection	2	2	30	9	20	6	50	20
Major	Major-T*	131222	Seed Quality and Health Testing	2	2	30	9	20	6	50	20
Major	Major-P	131223	Experiments based on Testing of Seeds, Quality, Purity of Cultivars and Plant Variety Protection	2	4	25	10	25	10	50	20
Minor	Minor-T	131224	Seed Testing and Quality	2	2	30	9	20	6	50	20
Minor	Minor-P	131225	Experimental Testing and Quality of Seeds	2	4	25	10	25	10	50	20
GOEC	GOEC-T	-	Refer University basket	2	2	30	9	20	6	50	20
VSC	VSC-P	131226	Seed Production in Field Crops	2	4	-	-	50	20	50	20
SEC	SEC-P#	131227	Emerging Trends in Seed Quality Management	2	4	-	-	50	20	50	20
FP/CES	FP/CES	131228	Field Project / Community Engagement Services in Seed Technology: Phase-II	2	4	-	-	50	20	50	20
CC	CC		Separate SOP shall be consulted from University website	2	4	-	-	50	20	50	20

* To be implemented w.e.f. academic session 2026-27

- Only applicable up to academic session 2025-26

Important: VSC Should be Complementary to Major and SEC has to be selected from the Basket Provided by University, from the same Faculty/Discipline of the Major/Minor

TLE Scheme for THIRD YEAR: SEMESTER – V (Level 5.5)

The Vertical	Type of the Course	Course Code	Course Title	Credits	Workload	Theory/Practical Marks				Theory/Pract (Total) Marks	
						External		Internal		Max.	Min.
						Max.	Min.	Max.	Min.		
Major	Major-T	131230	Seed Crop Management	2	2	30	9	20	6	50	20
Major	Major-T	131231	Pollination and Breeding Methods in Vegetable crops	2	2	30	9	20	6	50	20
Major	Major-T	131232	Pest of field crops, stored grains, Quarantine and their management	2	2	30	9	20	6	50	20
Major	Major-P	131233	Management of Seed pathology and entomology	2	4	25	10	25	10	50	20
Major	Major-Elective T1	131234	Principles of Integrated pest management	2	2	30	9	20	6	50	20
Major	Major-Elective P1	131235	Practical based on IPM	2	4	25	10	25	10	50	20
Minor	Minor-T	131236	Seed Health and Farm Management	2	2	30	9	20	6	50	20
Minor	Minor-P	131237	Practical's based on Seed health management	2	4	25	10	25	10	50	20
VSC	VSC-P	131238	Abiotic stress Management in Vegetable seed crops	2	4	-	-	50	20	50	20
SEC	SEC-P1	131239	Germplasm Collection, Exchange and quarantine	2	4	-	-	50	20	50	20
FP/CEP	FP/CEP	131240	Seed Technology Lab(FP/CES in Seed Technology)	2	4	-	-	50	20	50	20
Non Credit	Non Credit		Foundation of Artificial Intelligence	NC	2			30+20	9+6	50	20

Important:

- **VSC Should be Complementary to Major**
- **SEC must be selected from the Basket Provided by University, from the same Faculty/Discipline of the Major/Minor**
- As per Sant Gadge Baba Amravati University, Amravati Extra-Ordinary Notification No. No. 241/2025 Dated 24/12/2025 “Foundation of Artificial Intelligence” is the Mandatory **Non-Credit Course** compulsory course for all the UG students in fifth semester of all undergraduate programs of all faculties in Sant Gadge Baba Amravati University, Amravati to earn their degree

- NC is Non-Credit Course
- Students must select **Any One** of the Major-Elective Courses (T1 to T4) with respective Practical Course in Semester V and **same shall be continued** for Semester VI
- Students must select **Any One** of the SEC-P (P1 to P4) Course in Semester V and Semester VI

TLE Scheme for THIRD YEAR: SEMESTER – VI (Level 5.5)

The Vertical	Type of the Course	Course Code	Course Title	Credits	Workload	Theory/Practical Marks				Theory/Pract (Total) Marks	
						External		Internal			
						Max.	Min.	Max.	Min.	Max.	Min.
Major	Major-T	13124 1	Seed Processing	2	2	30	9	20	6	50	20
Major	Major-T	13124 2	Seed Farm Management	2	2	30	9	20	6	50	20
Major	Major-T	13124 3	Seed Industries and Marketing	2	2	30	9	20	6	50	20
Major	Major-P	13124 4	Practical based on seed processing and farm management	2	4	25	10	25	10	50	20
Major	Major-Elective T1	13124 5	Seed Marketing, Management and Statistic	2	2	30	9	20	6	50	20
Major	Major-Elective P1	13124 6	Laboratory practical's based on Seed Marketing, Management and Statistic	2	4	25	10	25	10	50	20
Minor	Minor-T	13124 7	Seed farm management and marketing	2	2	30	9	20	6	50	20
Minor	Minor-P	13124 8	Experiments based on farm management and marketing	2	2	30	9	20	6	50	20
VSC	VSC-P	13124 9	Seed Tissue Culture	2	4	-	-	50	20	50	20
CC	Intern/Apprenticeship	13125 0	OJT (On the Job Training)	4	8	-	-	50	20	50	20

Important: VSC Should be Complementary to Major and SEC has to be selected from the Basket Provided by University, from the same Faculty/Discipline of the Major/Minor