

SANT GADGE BABA AMRAVATI UNIVERSITY, AMRAVATI



THREE-YEAR UNDERGRADUATE PROGRAMME

BACHELOR OF SCIENCE (B.SC.)

SUBJECT: APICULTURE

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		1+1	1+1	0	0	8	14
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	
F(i)	Internship / Apprenticeship corresponding to Major 8 (OJT)	0	0		0	0	0	4	4	18
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	22	22	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)	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	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 (APICULTURE) (Level 4.5)

(As per uniform NEP Scheme)

The Vertical	Type of Course	Course Code	Course Title	Credits	Workload	Theory/Practical				Theory/Pract	
						External		Internal		(Total)	
						Max. Marks	Min. Marks	Max. Marks	Min. Marks	Max. Marks	Min. Marks
Major / Minor	Theory	100200	Introduction to Honey bee and beekeeping.	2	2	30	9	20	6	50	20
	Lab/Practical	100201	Apiculture Major Lab-I	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	100261	Honey Bees and Environment.	2	2	30	9	20	6	50	20
GOEC	Theory	100262	Colony organization and bees.	2	2	30	9	20	6	50	20
VSC	-	-	-	-	-	-	-	50	20	50	20
SEC	Lab/Practical	100271	SEC Lab-III Handling of bees	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						

TLE Scheme for FIRST YEAR: SEMESTER – II (APICULTURE) (Level 4.5)

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 / Minor	Theory	100202	Food and foraging of Bees	2	2	30	9	20	6	50	20
	Lab/Practical	100203	Major Lab-4	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	100263	Bee flora and Foraging	2	2	25	10	25	10	50	20
GOEC	Theory	100264	Nesting and social behavior of bees.	2	2	30	9	20	6	50	20
VSC	Lab/Practical	100272	Activities on - Bee Keeping Equipment and Bee Foraging	2	4	-	-	50	20	50	20
SEC	Lab/Practical	100273	Bee Plants; Nectar pollen and floral sources.	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 (APICULTURE) (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	100204	Systematics and Morphology of honeybees	2	2	30	9	20	6	50	20
Major	Major-T	100205	Structure of bee colony and functions.	2	2	30	9	20	6	50	20
Major	Major-P	100206	Practical based on morphology and functions of bees.	2	2	30	9	20	6	50	20
Major	IKS-T	100207	Apitherapy.	2	2	30	9	20	6	50	20
Minor	Minor-T	100208	Colony Organization of bees	2	2	30	9	20	6	50	20
Minor	Minor-P	100209	Lab.- Colony Organization of bees	2	4	25	10	25	10	50	20
GOEC	GOEC-T			2	2	30	9	20	6	50	20
VSC	VSC-P	100274	Skill for Identification of Honey Bee Species	2	4	-	-	50	20	50	20
FP/CES	FP/CES	100210	Field Project / Community Engagement Services in Apiculture: Phase-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 (APICULTURE) (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	100211	Fundamentals of honey bee keeping.	2	2	30	9	20	6	50	20
Major	Major-T	100212	Bee hive products.	2	2	30	9	20	6	50	20
Major	Major-T*	100217	Migratory Beekeeping	2	2	30	9	20	6	50	20
Major	Major-P	100213	Experiments based on study of Characteristics of hive products.	2	4	25	10	25	10	50	20
Minor	Minor-T	100214	Method of Bee keeping.	2	2	30	9	20	6	50	20
Minor	Minor-P	100215	Activities on methods of beekeeping.	2	4	25	10	25	10	50	20
GOEC	GOEC-T			2	2	30	9	20	6	50	20
VSC	VSC-P	100275	Skills of Acquisition of natural bee colonies.	2	4	-	-	50	20	50	20
SEC				2	4	-	-	50	20	50	20
FP/CES	FP/CES	100216	Field Project / Community Engagement Services in Apiculture: 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**

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 (APICULTURE) (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	100218	Casts Of Honeybees and their role.	2	2	30	9	20	6	50	20
Major	Major-T	100219	Major Theory-8: Communication and Behaviour in Honeybees	2	2	30	9	20	6	50	20
Major	Major-T	100220	Major Theory -9:Honey Bee Ecology	2	2	30	9	20	6	50	20
Major	Major-P	100221	Practical based on Major-7,8 &9	2	4	25	10	25	10	50	20
Major	Major-Elective T1	100222	Apis dorsata (Rock Bee) – Ecology and Behaviour	2	2	30	9	20	6	50	20
Major	Major-Elective P1	100223	Practical based on Elective-1	2	4	25	10	25	10	50	20
OR											
Major	Major-Elective T2	100224	Fundamentals of Honey Bee Product Processing and Preservation	2	2	30	9	20	6	50	20
Major	Major-Elective P2	100225	Practical based on Elective-2	2	4	25	10	25	10	50	20
Minor	Minor-T	100226	Bee-Pollination Management	2	2	30	9	20	6	50	20
Minor	Minor-P	100227	Practical based on Minor	2	4	25	10	25	10	50	20
VSC	VSC-P	100276	VSC-: Bee health monitoring and bee enemies.	2	4	-	-	50	20	50	20
SEC	SEC-P	100277	SEC: Hands-on Training in Beekeeping Equipment and Hive Product Extraction	2	4	-	-	50	20	50	20
FP/CEP	FP/CEP	100228	Field Project / Community. Engagement Services in Apiculture:	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
- Students must select **Any One** of the Major-Elective Courses (T1 OR T2) with respective Practical Course in Semester V and **same shall be continued** for Semester VI

TLE Scheme for THIRD YEAR: SEMESTER – VI (APICULTURE) (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	100229	Bee Diseases and Their Management.	2	2	30	9	20	6	50	20
Major	Major-T	100230	Bee Pests, Predators, and Enemy Management	2	2	30	9	20	6	50	20
Major	Major-T	100231	Composition & Quality of Honey.	2	2	30	9	20	6	50	20
Major	Major-P	100232	Pract. On Major -10,11 & 12	2	4	25	10	25	10	50	20
Major	Major-Elective T1	100233	Apis dorsata (Rock bee) – Honey Harvesting and conservation	2	2	30	9	20	6	50	20
Major	Major-Elective P1	100234	Pract on Elective-3	2	4	25	10	25	10	50	20
OR											
Major	Major-Elective T2	100235	Advance Processing, value addition and Quality management of Honey Bee Product	2	2	30	9	20	6	50	20
Major	Major-Elective P2	100236	Pract on Elective-4	2	4	25	10	25	10	50	20
Minor	Minor-T	100237	Inspection of Bee Colonies.	2	2	30	9	20	6	50	20
Minor	Minor-P	100238	Practical Based on Minor Theory	2	2	30	9	20	6	50	20
VSC	VSC-P	100278	VSC: Entrepreneurship Development in Apiculture	2	4	-	-	50	20	50	20
CC	Intern/Apprenticeship	100239	Apiculture- on-job training	4	8	-	-	50	20	50	20

Important:

- **VSE Should be Complementary to Major**
- Students must select **Any One** of the Major-Elective Courses (T1 OR T2) with respective Practical Course in Semester VI