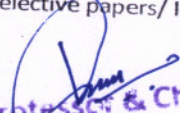


## IIA. Model Program Structures for the Under-Graduate Programs in Universities and Colleges in Karnataka

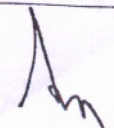
### Bachelor of Arts (Basic/ Hons.)/ Bachelor of Science (Basic/Hons.) insubjects with practical, with one major and one minor

Bachelors in Universities and Colleges in Karnataka									
Sem.	Discipline Core (DSC) (Credits) (L+T+P)	Discipline Elective (DSE) / Open Elective (OE) (Credits) (L+T+P)	Ability Enhancement Compulsory Courses (AECC), Languages (Credits) (L+T+P)		Skill Enhancement Courses (SEC)			Total Credits	
					Skill based (Credits) (L+T+P)	Value based (Credits) (L+T+P)			
I	Discipline A1(4+2) Discipline B1(4+2)	OE-1 (3)	L1-1(3), L2-1(3) (4 hrs each)		SEC-1: Digital Fluency (2)(1+0+2)	Physical Education - Yoga (1)(0+0+2)	Health & Wellness (1) (0+0+2)	25	
II	Discipline A2(4+2) Discipline B2(4+2)	OE-2 (3)	L1-2(3), L2-2(3) (4 hrs each)	Environmental Studies (2)		Physical Education - Sports (1)(0+0+2)	NCC/NSS/R&R(S&G) / Cultural (1) (0+0+2)	25	
Exit option with Certificate (50 credits)									
III	Discipline A3(4+2) Discipline B3(4+2)	OE-3 (3)	L1-3(3), L2-3(3)(4 hrs each)		SEC-2: Artificial Intelligence(2)(1+0+2)	Physical Education - Sports (1)(0+0+2)	NCC/NSS/R&R(S&G)/ Cultural (1) (0+0+2)	25	
IV	Discipline A4(4+2) Discipline B4(4+2)	OE-4 (3)	L1-4(3), L2-4(3)(4 hrs each)	Constitution of India (2)		Physical Education - Sports (1)(0+0+2)	NCC/NSS/R&R(S&G)/ Cultural (1) (0+0+2)	25	
Exit option with Diploma (100 credits) OR Choose any one of the core subjects as Major and the other as Minor									
V	Discipline A5(3+2) Discipline A6(3+2) Discipline B5(3+2)	Vocational-1 (3)			SEC-3: SEC such as Cyber Security(2) (1+0+2)	Physical Education - Sports (1)(0+0+2)	NCC/NSS/R&R(S&G)/ Cultural (1) (0+0+2)	22	
VI	Discipline A7(3+2) Discipline A8(3+2) Discipline B6(3+2)	Vocational-2 (3) Internship (2)			SEC-4: Professional Communication (2)	Physical Education - Sports (1)(0+0+2)	NCC/NSS/R&R(S&G)/ Cultural (1) (0+0+2)	24	
Exit option with Bachelor of Arts, B.A./ Bachelor of Science, B.Sc. Basic Degree (with a minimum of 144 credits) or continue studies with the Major									
VII	Discipline A9(3+2) Discipline A10(3+2) Discipline A11(3)	Discipline A,E-1(3) Discipline A,E-2(3) Res.Methodology (3)						22	
VIII	Discipline A12(3+2) Discipline A13(3) Discipline A14(3)	Discipline A,E-3(3) Research Project (6)*						20	
Award of Bachelor of Arts Honours, B.A. (Hons.)/ Bachelor of Science Honours, B.Sc. (Hons) degree in a discipline (with a minimum of 186 credits)									
*In lieu of the research Project, two additional elective papers/ Internship may be offered.									

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**DEAN**  
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 Gulbarga University, Kalaburagi-585 106.

  
 7/9/24



## Curriculum Structure for the Undergraduate Degree Program

### B.Sc. BOTANY

Total Credits for the Program: 176 188

Starting year of implementation: 2021-22

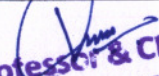
Name of the Degree Program: B.Sc.

Discipline/Subject: BOTANY

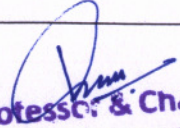
#### Program Articulation Matrix:

This matrix lists only the core courses. Core courses are essential to earn the degree in that discipline/subject. They include courses such as theory, laboratory, project, internships etc. Elective courses may be listed separately.

Semester	Title / Name Of the course	Program outcomes that the course addresses (not more than 3 per course)	Pre-requisite course(s)	Pedagogy##	Assessment\$
✓ 1	BOT A1 Microbial Diversity and Technology	PO1	---	Ex. MOOC Desk Work	Quiz
✓ 2	BOT A2 Diversity of Nonflowering Plants	PO2, PO3	BOT A1	Problem solving,	Debate
3	BOT A3 Plant Anatomy and	PO4, PO5	BOT A1 and A2		

  
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	Developmental Biology			Book Chapter	Class work
4	BOT A4 Ecology and Conservation Biology	PO4, PO5	BOT A1 A2 A3	Seminar,	
5.	BOT A5 Plant Taxonomy and Resource Botany	PO6, PO7	BOT A1 A2 A3	Project based learning,	Class work
	BOT A6 Cell Biology and Genetics	PO6, PO7	BOT A6 A1 A2 A3 A4 A5		Seminar
6.	BOT A7 Plant Physiology and Biochemistry	PO6, PO7, PO9	BOT A5	Term paper Assignment,	Project writing
	BOT A8 Plant Biotechnology	PO8, PO9	BOT A5	Group Discussion	Articles writing,
7.	BOT A9 Molecular Biology	PO8, PO9	BOT A6 A8	Research Project	Interpretation of results
	BOT A10 Seed Biology and Seed Technology	PO9, PO10	BOT A5 A8 A9	Instrumentation	
	BOT A11 Plant Health Technology	PO9, PO10	BOT A5 A4 A8		

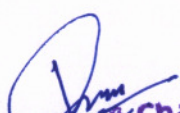
  
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8.	BOT A12 Medicinal Plants and Phytochemistry	PO9, PO10	BOT A4 A5 A7 A8		
	BOT A13 Biochemistry and Computational Biology	PO9, PO10	BOT A5 A8 A9		
	BOT A14 Research Methodology	PO9, PO10	BOT A13		

## Pedagogy for student engagement is predominantly lectures. However, other pedagogies enhancing better student engagement to be recommended for each course. The list includes active learning/ course projects/ problem or project based learning/ case studies/self-study like seminar, term paper or MOOC

\$ Every course needs to include assessment for higher order thinking skills (Applying/ Analyzing/ Evaluating/ Creating). However, this column may contain alternate assessment methods that help formative assessment (i.e. assessment for learning).

  
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