Counselling Schedules for Academic Session January 2026

School of Computer Science

UGP05: Bachelor of Computer Applications (BCA) [2025 Pattern]

SN	Name of Programme	Programme Code	Level of Programme	Modes employed by the institution to provide academic counseling services for theory courses	Modes employed by the institution to provide academic counseling services for Practical/ Project courses	Year	Semester
1	Bachelor of Computer Applications (BCA) [2025 Pattern]	UGP05	UG	1. Face to Face Counselling 2. Online Counselling 3. Recorded Video Lectures 4. Printed and Digital Self Learning Material (SLM) 5. Interactive Discussion Forums 6. WhatsApp group and email counselling support 7. Learning Management System 8. Workshops/ Seminars and Revision Sessions	1. Face to Face Laboratory sessions 2. Demonstration Based Learning 3. Online Practical Counseling 4. Recorded Practical Counseling 5. Lab Manuals and Project Guidelines 6. Case Studies 7. Field Study / Industry exposure **8.** Mentor Guided Project Supervision	First	I & II

Note:

- Each counselling session and practical session is conducted for a duration of two hours, ensuring adequate academic engagement and interaction.
- The University centrally prepares the counselling and laboratory schedules by specifying the topics to be covered and the corresponding months of delivery, thereby maintaining uniform academic standards across all Study Centres.
- The University develops and provides Self-Learning Materials (SLM) designed in a learner-centric format. These materials serve as the primary academic resource and support independent study alongside counselling sessions.
- Learner Support Centres (LSC's) are granted operational flexibility to schedule the day and time of counselling and laboratory sessions in consultation with learners, based on local convenience. Accordingly, some Learner Support Centres conduct sessions on weekdays, while others organize them on weekends.
- Audio-visual learning resources developed by the University are hosted on the official University YouTube channel. Learners are provided the flexibility to access these resources for self-paced learning and revision.
- Learner Support Centres and counsellors integrate appropriate web-based educational resources into counselling sessions to enrich the learning experience whenever necessary.
- Learners are encouraged to undertake guided self-study using SLM, digital resources, textbooks, and reference materials recommended by counsellors and Study Centres.

B.C.A. (Bachelor of Computer Applications) (2025 pattern) [UGP05]

Course Code	Category	Course Name	Theory/ Practical/ Project	Contact (HRS)	Credit Points	Assessment Type	Passing Marks
Semester 1							
BCAC101	Major (Core)	Problem Solving Techniques	Theory	60	4	CA(12/30) + EE(28/70)	40/100
BCAC102	Major (Core)	Mathematics	Theory	60	4	CA(12/30) + EE(28/70)	40/100
BCAS101	SEC	Lab: Problem Solving Techniques	Practical	30	4	CA(20/50) + EE(20/50))	40/100
BCAV101	VSC	Advanced Excel	Practical	15	2	CA(10/25) + EE(10/25)	20/50
AECL101	AEC	Listening and Speaking Skills	Theory	30	2	CA(6/15) + EE(14/35)	20/50
VECD101	VEC	Introduction to Constitution of India	Theory	30	2	CA(6/15) + EE(14/35)	20/50
IKSK104	IKS	भारतीय ज्ञान परंपरेच्या अनुशंगाने विज्ञान व तंत्रज्ञान	Theory	30	2	CA(6/15) + EE(14/35)	20/50
	CC	Choose from CC list (Appendix F)					
						Total	**220/550**
Semester 2							
BCAC103	Major (Core)	Data Structure using C++	Theory	60	4	CA(12/30) + EE(28/70)	40/100
BCAC104	Major (Core)	Web Technology	Theory	60	4	CA(12/30) + EE(28/70)	40/100
BCAC105	Major (Core)	Operating System	Theory	60	4	CA(12/30) + EE(28/70)	40/100
BCAV102	VSC	Lab: Web Technology	Practical	15	2	CA(10/25) + EE(10/25)	20/50
BCAS102	SEC	Lab:Data Structure using C++	Practical	15	2	CA(10/25) + EE(10/25)	20/50
AECL102	AEC	Reading and Writing Skills	Theory	30	2	CA(6/15) + EE(14/35)	20/50
VECD101	VEC	Environmental Education	Theory	30	2	CA(6/15) + EE(14/35)	20/50
	CC	Choose from CC list (Appendix F)					
						Total	**220/550**
Award of UG Certificate in the Faculty of Computer Science – Computer Applications (Level 4.5) with 44 credits and an additional 4 credits core NSQF course/Internship OR Continue							
Semester 3							
BCAC201	Major (Core)	Python Programming	Theory	60	4	CA(12/30) + EE(28/70)	40/100
BCAC202	Major (Core)	Data Base Management System	Theory	60	4	CA(12/30) + EE(28/70)	40/100
BCAC203	Major (Core)	Statistics	Theory	30	2	CA(6/15) + EE(14/35)	20/50
BCAC204	Major (Core)	Vedic Mathematics	Theory	30	2	CA(6/15) + EE(14/35)	20/50
BCAV201	VSC	Lab: Python Programming	Practical	15	2	CA(10/25) + EE(10/25)	20/50
BCAS201	SEC	Lab: Data Base Management System	Practical	15	2	CA(10/25) + EE(10/25)	20/50
AECL201	AEC	श्रवण आणि संभाषण कौशल्ये	Theory	30	2	CA(6/15) + EE(14/35)	20/50
	CC	Choose from CC list (Appendix F)					
Elective Course Select Any one from BCA205, BCA206 and BCA207							
BCAC205	DSE	Fundamentals of AI	Theory	30	2	CA(6/15) + EE(14/35)	20/50
BCAC206	DSE	Fundamentals of Data Science	Theory	30	2	CA(6/15) + EE(14/35)	20/50

BCAC207	DSE	Fundamentals of IoT	Theory	30	2	CA(6/15) + EE(14/35)	20/50
						Total	**220/550**
Semester 4							
BCAC208	Major (Core)	Java Programming	Theory	60	4	CA(12/30) + EE(28/70)	40/100
BCAC209	Major (Core)	Software Engineering	Theory	60	4	CA(12/30) + EE(28/70)	40/100
BCAC210	Major (Core)	Computer Networks	Theory	60	4	CA(12/30) + EE(28/70)	40/100
BCAV202	VSC	Lab: Java Programming	Practical	15	2	CA(10/25) + EE(10/25)	20/50
BCAS202	SEC	Lab: Software Engineering	Practical	15	2	CA(10/25) + EE(10/25)	20/50
AECL202	AEC	वाचन आणि लेखन कौशल्ये	Theory	30	2	CA(6/15) + EE(14/35)	20/50
BCAF201	FP	Minor Project	Project	15	2	CA(20/50)	20/50
Elective Course Select Any one from BCA211, BCA212 and BCA213							
BCAC211	DSE	Machine Learning and Deep Learning	Theory	30	2	CA(6/15) + EE(14/35)	20/50
BCAC212	DSE	Statistics for Data Science	Theory	30	2	CA(6/15) + EE(14/35)	20/50
BCAC213	DSE	IoT Hardware and Software	Theory	30	2	CA(6/15) + EE(14/35)	20/50
						Total	**220/550**
Award of UG Diploma in the Faculty of Computer Science - Computer Applications (Level 5.0) with 88 credits and an additional 4 credits core NSQF course/ Internship OR Continue							
Semester 5							
BCAC301	Major (Core)	Advance Java	Theory	60	4	CA(12/30) + EE(28/70)	40/100
BCAC302	Major (Core)	Cloud computing	Theory	60	4	CA(12/30) + EE(28/70)	40/100
BCAC303	Major (Core)	Design and Analysis of Algorithms	Theory	30	2	CA(6/15) + EE(14/35)	20/50
BCAS301	SEC	Financial management	Practical	15	2	CA(10/25) + EE(10/25)	20/50
BCAS302	SEC	Lab: Advance Java	Practical	15	2	CA(10/25) + EE(10/25)	20/50
BCAV301	VSC	Lab: Cloud computing	Practical	15	2	CA(10/25) + EE(10/25)	20/50
BCAF301	FP	Major Project Foundation	Project	30	4	CA(20/50)	40/100
Elective Course Select Any one from BCA304, BCA305 and BCA306							
BCAC304	DSE	Fuzzy Logic & Expert System	Theory	30	2	CA(6/15) + EE(14/35)	20/50
BCAC305	DSE	SQL for Data Management	Theory	30	2	CA(6/15) + EE(14/35)	20/50
BCAC306	DSE	Networking and Connectivity in IoT	Theory	30	2	CA(6/15) + EE(14/35)	20/50
						Total	**220/550**
Semester 6							
BCAC307	Major (Core)	Android Programming	Theory	60	4	CA(12/30) + EE(28/70)	40/100
BCAC308	Major (Core)	Data Warehousing and Data Mining	Theory	60	4	CA(12/30) + EE(28/70)	40/100
BCAS303	SEC	Digital Marketing	Practical	15	2	CA(10/25) + EE(10/25)	20/50
BCAV302	VSC	Lab: Android Programming & Data Mining	Practical	30	4	CA(20/50) + EE(20/50)	40/100
BCAS304	SEC	Personality and Career Skills	Practical	15	2	CA(10/25) + EE(10/25)	20/50
BCAL301	AEC	Work Life Balance	Theory	30	2	CA(6/15) + EE(14/35)	20/50
BCAO301	OJT	Major Project	Project	30	4	CA(30) + EE(28/70)	40/100
						Total	**220/550**

Counselling Session for Semester - I

BCAC101: Problem Solving Technique [Theory: 4 Credits]

Each counselling session consists of two hours

Counselling Session	Month	Topic
1	January	Unit 1: Introduction to Computers: Computer Fundamentals: Introduction to Computers: Characteristics of Computers, Uses of computers, Types and generations of Computers.
2	January	Unit 1: Introduction to Computers: Basic Computer Organization: Units of a computer, CPU, ALU, memory hierarchy, registers, I/O devices
3	January	Unit 2: Techniques of Problem Solving: Concept of problem solving, Problem definition, Program design
4	January	Unit 2: Techniques of Problem Solving: Flowcharting, decision table, algorithms, Structured programming concepts
5	January	Unit 3: Planning the Computer Program: Programming methodologies viz. top-down and bottom-up programming
6	February	Unit 3: Planning the Computer Program: Debugging, Types of errors in programming documentation
7	February	Unit 4: Introduction to C: History of C, C Basics
8	February	Unit 4: Introduction to C: Problem solving techniques, flowchart and algorithm
9	February	Unit 5: Managing Input & Output Operations: Reading a character, writing a character, formatted input, formatted output.
10	February	Unit 6: Decision Making and Looping: Decision making and branching if-statement–if, if- else, else-if ladder, nested if else, switch case statement, break statement
11	February	Unit 6: Decision Making and Looping: Decision making and looping- while, do, do- while statement, for loop, continue statement
12	February	Unit 7: Arrays: Arrays Declaration and initialization of one-dimensional array
13	March	Unit 7: Arrays: two Dimensional and character arrays, accessing array elements.
14	March	Unit 8: Strings: Declaration and initialization of string variables
15	March	Unit 8: Strings: string handling functions from standard library – strlen(), strcpy(), strcat(), strcmp()
16	March	Unit 9: Functions: Need of functions, scope and lifetime of variables, defining functions, function call, call by value, call by reference, return values, storage classes
17	March	Unit 9: Functions: category of function- No argument No return value, No argument with return value, argument with return value, recursion, command line Arguments
18	March	Unit 10: Pointers: Understanding pointers, declaring pointer variable, initialization of pointer variable
19	March	Unit 10: Pointers: accessing address of a variable, pointer expressions ,Pointers arithmetic
20	March	Unit 11: Structures and Unions: Defining structure, declaring and accessing structure members, initialization of structure, arrays of structure, Difference between array and structure.
21	April	Unit 11: Structures and Unions: Defining Union, declaring and accessing union members, Difference between structure and

		union
22	April	Unit 12: File Handling: Introduction to Streams, Types of files, Operation on text files
23	April	Unit 12: File Handling: Standard Library, Input Output function
24	April	Unit 13: Storage Functions: Scope and extent, Storage Classes in a single source file, auto, extern and static, register
25	May	Unit 14: Preprocessor: Features of C Preprocessor, Macro Expansion Macros with Arguments
26	May	Unit 14: Preprocessor: Macros versus Functions, File Inclusion, Conditional Compilation;
27	May	Revision
28	May	Revision
29	May	Revision
30	May	Revision for Theory Exam

BCAS101: Problem Solving Technique [Lab: 4 Credits]

Practical Session	Month	Topic
1	January	Flowchart and Algorithm
2	January	if statement, Conditional operator
3	February	Switch statement
4	February	For loop
5	February	do-while / while-do loop
6	March	if-else ladder/nested if
7	March	Menu driven program
8	March	Functions
9	March	Functions and Recursion
10	March	One-Dimensional Array
11	April	Two Dimensional Arrays
12	April	Array of structures
13	April	Pointers
14	May	File Handling
15	May	Miscellaneous

BCAC102: Mathematics [Th: 4 Credits]

Each counselling session consists of two hours

Session	Month	Topic
1	January	Unit 1: Set Theory – Relevance of mathematics, set notations, types of sets
2	January	Unit 1: Set Theory – Set operations, properties of set operations, Venn diagrams
3	January	Unit 2: Number Systems – Binary system, decimal ↔ binary conversion
4	January	Unit 2: Number Systems – Binary arithmetic, octal and hexadecimal systems
5	January	Unit 3: Mathematical Induction – Principle and basic proofs
6	February	Unit 4: Mathematical Logic – Statements, truth values, compound statements
7	February	Unit 4: Mathematical Logic – Logical identities, tautology, contradiction
8	February	Unit 5: Exponents and Surds – Laws of exponents and fractional exponents
9	February	Unit 5: Exponents and Surds – Surds and their properties
10	February	Unit 6: Logarithms – Logarithms, antilogarithms, base conversion
11	February	Unit 6: Logarithms – Applications of logarithms
12	February	Unit 7: Permutations & Combinations – Principles and factorials
13	March	Unit 7: Permutations & Combinations – Permutations and combinations problems
14	March	Unit 8: Relations – Cartesian product, types of relations
15	March	Unit 8: Relations – Equivalence relations and matrix representation
16	March	Unit 9: Functions – Types of functions and composition
17	March	Unit 10: Vectors – Vector basics and algebra
18	March	Unit 10: Vectors – Collinear and coplanar vectors
19	March	Unit 11: Matrices – Types and algebra of matrices
20	March	Unit 11: Determinants – Determinants and inverse of matrix
21	April	Unit 12: Linear Equations – Systems of equations and matrix form
22	April	Unit 12: Polynomials – Roots, divisibility, quadratic equations
23	April	Unit 13: Graph Theory – Graph terminology and types
24	April	Unit 13: Graph Theory – Matrix representation, Eulerian & Hamiltonian graphs
25	May	Unit 14: Mensuration – Plane figures and perimeters
26	May	Unit 14: Mensuration – Volumes and surface areas
27	May	Revision – Part 1
28	May	Revision – Part 2
29	May	Revision – Part 3
30	May	Final Exam Revision

BCAV101: Advanced Excel [Lab: 2 Credits]

Practical Session	Month	Experiment / Program Name
1	January	Experiment to explore Excel interface and perform data entry with filled series and keyboard shortcuts
2	January	Experiment to format worksheets and apply cell referencing (absolute, relative, mixed) with named ranges
3	January	Experiment to implement arithmetic, statistical, and logical functions using combined formulas
4	February	Experiment to apply LOOKUP, VLOOKUP, nested VLOOKUP and HLOOKUP functions
5	February	Experiment to use advanced functions: INDEX, INDEX–MATCH and INDIRECT
6	February	Experiment to perform data validation, dependent dropdown lists, sorting and filtering
7	March	Experiment to apply date and text functions for data manipulation
8	March	Experiment to perform data cleaning and conditional formatting
9	March	Experiment to create basic and advanced charts for data visualization
10	March	Experiment to create Pivot Tables, Pivot Charts and use slicers
11	April	Experiment to connect, clean and transform data using Power Query
12	April	Experiment to create data models using Power Pivot
13	May	Experiment to merge queries and design interactive dashboards
14	May	Experiment to record and edit macros using absolute and relative references
15	May	Experiment to implement VBA programming with loops, conditions and user forms

AECL101: Listening and Speaking Skills [Th: 2 Credits]

Session	Month	Topic
1	January	Unit 1: Listening Skills – Importance of listening, listening vs hearing, types of listening
2	January	Unit 1: Listening Skills – Note-taking, synthesizing viewpoints, evaluating arguments, barriers to listening
3	January	Unit 2: Spoken English – English sound system: vowels, consonants, syllables, stress
4	February	Unit 2: Spoken English – Intonation patterns and pronunciation practice
5	February	Unit 3: Conversational Skills I – Greetings, introductions, introducing self & others
6	February	Unit 3: Conversational Skills I – Requesting/responding, agreeing/disagreeing (role play)
7	March	Unit 4: Conversational Skills II – Suggesting, asking information, permissions, apologizing
8	March	Unit 5: Group Discussion – GD rules, language expressions, practice session
9	March	Unit 6: Interview Skills – Types of interviews and preparation
10	March	Unit 6: Interview Skills – Making a good impression + language expressions
11	April	Unit 6: Interview Skills – Mock interview practice
12	April	Unit 7: Telephonic Communication – Calls, messages, appointments
13	April	Unit 7: Telephonic Communication – Information exchange & etiquette
14	May	Integrated speaking practice – conversation + GD + telephonic role play
15	May	Final revision & full communication practice

VECD101: Introduction to Constitution of India [Th: 2 Credits]

Session	Month	Topic
1	January	**Introduction & Background** – Need and importance of the Constitution, historical background
2	January	**Genesis of the Constitution** – Constituent Assembly and drafting process
3	January	**Sources of the Constitution** – Foreign influences and Indian innovations
4	February	**Constitutional Philosophy & Preamble** – Meaning, objectives, interpretation
5	February	**Preamble Values** – Justice, liberty, equality, fraternity
6	February	**Salient Features of the Constitution** – Federal structure, parliamentary democracy, secularism
7	March	**Judiciary & Rule of Law** – Independence of judiciary
8	March	**Fundamental Rights – I** – Introduction, classification, Right to Equality
9	March	**Fundamental Rights – II** – Right to Freedom, cultural & educational rights, constitutional remedies
10	March	**Fundamental Duties** – Meaning, importance, rights–duties relationship
11	April	**Directive Principles – I** – Philosophy and classification
12	April	**Directive Principles – II** – Implementation, harmony with rights
13	April	**Governance System – Legislature** – Parliament & law-making process
14	May	**Governance System – Executive & Judiciary**

IKSK104: भारतीय ज्ञान परंपरेच्या अनुशंगाने विज्ञान व तंत्रज्ञान [Th: 2 Credits]

Session	Month	Topic
1	January	**घटक 1:** वेद आणि विज्ञान - परिचय, वैज्ञानिक संकल्पना, आधुनिक विज्ञान तुलना
2	January	**घटक 2:** खगोलशास्त्र - प्राचीन खगोलज्ञान, ग्रह-नक्षत्र, कालमापन
3	January	भारतीय खगोलशास्त्रीय साधने + पारंपरिक गणना पद्धती
4	February	**घटक 3:** ज्योतिषशास्त्र - मूलतत्त्वे, राशी, नक्षत्र, ग्रहसिद्धांत
5	February	ज्योतिष आणि खगोलशास्त्र संबंध
6	February	**घटक 4:** स्थापत्यशास्त्र - वास्तुशास्त्र, मंदिरे, स्थापत्य परंपरा
7	March	स्थापत्यातील गणित व विज्ञान
8	March	**घटक 5:** गणितशास्त्र - भारतीय गणित परंपरा, शून्य, बीजगणित, त्रिकोणमिती
9	March	प्राचीन गणितज्ञांचे योगदान
10	March	**घटक 6:** भूगर्भशास्त्र + **घटक 7:** रसायनशास्त्र
11	March	आयुर्वेद, धातुविज्ञान व प्राचीन रसायन प्रयोग
12	April	**घटक 8:** भौतिकशास्त्र + **घटक 9:** पर्यावरणशास्त्र
13	April	पर्यावरण व्यवस्थापन + **घटक 10:** कृषिशास्त्र
14	May	**घटक 11:** वनस्पतीशास्त्र - औषधी वनस्पती व आयुर्वेद
15	May	सर्व घटकांचे अंतिम पुनरावलोकन व चर्चा

CCRX101 to CCRX106: [Practical: 2 Credits]

Each activity consists of two hours

Activity Session	Month	Topic
1	February	Activity 1
2	February	Activity 2
3	March	Activity 3
4	March	Activity 4
5	March	Activity 5
6	April	Activity 6
7	April	Activity 7
8	May	Activity 8

Learners can choose the CC of their choice from the list provided.

Semester I						
Course Code	Course Name	Theory/ Practical /Project	Contact (HRS)	Credit Points	Assessment Type	Passing Marks
CCRX101	Health & Wellness-I	Practical	15	2	CA(20/50)	20/50
CCRX102	Yoga education-I	Practical	15	2	CA(20/50)	20/50
CCRX103	Sports & fitness-I	Practical	15	2	CA(20/50)	20/50
CCRX104	Cultural activities-I	Practical	15	2	CA(20/50)	20/50
CCRX105	NSS-I	Practical	15	2	CA(20/50)	20/50
CCRX106	Fine/applied/visual/performing arts-I	Practical	15	2	CA(20/50)	20/50