



GC UNIVERSITY HYDERABAD

DEPARTMENT OF INFORMATION TECHNOLOGY

SCHEME OF STUDIED FOR BS IN INFORMATION TECHNOLOGY

Eligibility Criteria, Duration of the Program and Award of Degree:

- Minimum 50% marks in Intermediate/12 years schooling/A- Level (HSSC) or Equivalent with Mathematics are required for admission in all BS Computing Programs. **Equivalency certificate by IBCC will be required in case of education from some other country or system.*
- The students who have not studied Mathematics at intermediate level have to pass deficiency courses of Mathematics (06 credits) in first two semesters.
- At minimum 136 credit hours are required for award of BS degrees in any computing discipline mentioned in this document.
- The minimum duration for completion of BS Computing degrees is four years. The HEC allows maximum period of seven years to complete BS degree requirements.
- A minimum 2.0 CGPA (Cumulative Grade Point Average) on a scale of 4.0 is required for award of BS Computing Degree.
- The students after successful completion of 04 semesters in BS Computing Programs may exit with Associate Degree in Computing subject to completion of all requirements for the award of associate degree, i.e., Credit Hours, CGPA, and compulsory courses.

Generic Structure of BS (IT) Program 2024 Onwards

Areas Covered in BS IT program

Areas	Credit Hours	Courses
Computing Core	46	14
Domain Core	18	6
Domain Elective	21	7
Mathematics & Supporting Courses	12	04
University Elective	02	01
Elective Supporting Courses	3	1
General Education Requirement	30	12
Totals	132	44

TOTAL 132

Semester Wise Study Plan - BS (Information Technology)



GC UNIVERSITY HYDERABAD

DEPARTMENT OF INFORMATION TECHNOLOGY

Semester I (Credit Hours: 18)

S No.	Code	Course Name	Domain	Cr Hr (Cont Hr)	Pre- Requisite
1	IT-611	Programming Fundamentals	Core	4 (3-3)	None
2	IT-612	Application of Information & Communication Technologies	GER	3 (2-3)	None
3		Applied Physics	GER	3 (2-3)	None
4	MAT-609	Calculus and Analytic Geometry	Maths	3 (3-0)	None
5		Functional English	GER	3 (3-0)	None
6		Perspective in Social Science	GER	2 (2-0)	None
		Pre-Calculus-I (Before Regular Session)	MDC	3 (3-0)*	
Total Credit Hours				18	None

Semester II (Credit Hours: 17)

S No.	Code	Course Name	Domain	CrHr (Cont Hr)	Pre- Requisite
1	IT-621	Object Oriented Programming	Core	4 (3-3)	Programming Fundamental
2	IT-622	Digital Logic Design	Core	3 (2-3)	None
3	MAT-607	Multivariable Calculus	Maths	3 (3-0)	Calculus and Analytical
4		Dynamics of Natural Science	GER	3 (2-3)	None
5		Islamic Studies	GER	2 (2-0)	None
6		Expository Writing	GER	3 (3-0)	
Total Credit Hours				18	

Semester III (Credit Hours: 18)



GC UNIVERSITY HYDERABAD

DEPARTMENT OF INFORMATION TECHNOLOGY

S No	Code	Course Name	Domain	Cr hr (Cont Hr)	Pre- Requisite
1	IT-631	Data Structures	Core	4 (3-3)	Object Oriented Programming
2	IT-632	Computer Organization & Assembly Language	Core	3 (2-3)	None
3	IT-633	Software Engineering	Core	3 (3-0)	None
4		Creative Arts and Communications	GER	2 (2-0)	None
5		Financial Accounting	Elective Supporting Course	3 (3-0)	None
6	MAT-606	Linear Algebra	Maths	3 (3-0)	Multivariable Calculus
Total Credit Hours				18	

Semester IV (Credit Hours: 19)

S No.	Code	Course Name	Domain	Cr hr (Cont Hr)	Pre- Requisite
1	IT-641	Database Systems	Core	4 (3-3)	None
2	IT-642	Operating Systems	Core	3 (2-3)	None
3	IT-643	Computer Networks	Core	3 (2-3)	None
4	IT-645	Web Technologies	Domain Core	3 (2-3)	Software Engineering
5	MAT-608	Probability & Statistics	Maths	3 (3-0)	None
6	MAT-611	Discrete Structures	GER	3 (3-0)	DLD
Total Credit Hours				19	



GC UNIVERSITY HYDERABAD

DEPARTMENT OF INFORMATION TECHNOLOGY

Semester V (Credit Hours: 18)

S No.	Code	Course Name	Domain	Cr hr (Cont Hr)	Pre- Requisite
1	IT-651	Information Security	Core	3 (2-3)	None
2	IT-652	Analysis of Algorithms	Core	3 (3-0)	Object Oriented Programming
3	IT-653	Cyber Security	Domain Core	3 (2-3)	Computer Networks
4	IT-654	DB Administration & Management	Domain Core	3 (3-0)	Database System
5	IT655	System & Network Administration	Domain Core	3 (2-3)	Computer Networks
6	IT-656	Computer Architecture	Domain Elective	3 (2-3)	Assembly Language
Total Credit Hours				18	

Semester VI (Credit Hours: 18)

S No.	Code	Course Name	Domain	Cr hr (Cont Hr)	Pre- Requisite
1	IT-661	Artificial Intelligence	Core	3 (2-3)	None
2	IT- 662	Information Technology Infrastructure	Domain Core	3 (2-3)	Application of ICT
3	IT-663	Parallel & Distributed Computing	Domain Core	3 (2-3)	Operating Systems
4	IT-664	HCI & Computer Graphics	Domain Elective	3 (2-3)	None
5	IT-665	Enterprise Systems	Domain Elective	3 (2-3)	None
6	IT-666	Software Project Management	Domain Elective	3 (2-3)	None
Total Credit Hours				18	



GC UNIVERSITY HYDERABAD

DEPARTMENT OF INFORMATION TECHNOLOGY

Semester VII (Credit Hours: 15)

S No.	Code	Course Name	Domain	Cr hr (Cont Hr)	Pre- Requisite
1	IT-671	Final Year Project - I	Core	2 (0-6)	None
2	IT-672	Cloud Computing	Domain Elective	3 (2-3)	Parallel and Distributed Computing
3	IT-673	Computer Graphis & Gaming Development	Domain Elective	3 (2-3)	
4		Technical & Business Writing	University Elective	2 (2-0)	Expository Writing
5	PAK-602	Ideology and Constitution of Pakistan	GER	2 (2-0)	None
6	BA-606	Entrepreneurship	GER	2 (2-0)	
Total Credit				14	
Hours					

Semester VIII (Credit Hours: 09)

S. No	Code	Course Name	Domain	Cr hr (Cont Hr)	Pre- Requisite
1	IT-681	Final Year Project - II	Core	4 (0-12)	Final Year Project - I
2	IT-682	Mobile Application Development 1	Domain Elective	3 (2-3)	None
3	IT-683	Professional Practices	GER	2 (2-0)	None
Total Credit				09	
Hours					

* Extra 6 credit hours of Pre-Calculus I and Pre-Calculus II courses are only for students of Intermediate (Pre-Medical) group. The grade of these courses shall only be Pass/Fail to enable



GC UNIVERSITY HYDERABAD

DEPARTMENT OF INFORMATION TECHNOLOGY

equivalent CGPA for both students of Intermediate (Pre-Medical) group and Intermediate (Pre-Engineering) in the same batch. Also, the grade of these courses shall be mentioned / shown in the BS (CS) transcript / mark sheet of students of Intermediate (Pre-Medical) group.

- * Course Codes shall be shared to members of the Board of Studies by circulation for approval
- * Domain elective courses shall be approved by the chairman of department from the approved list.