

National Institute of Technology Calicut
Curriculum of B.Tech. Degree programme in Computer Science and Engineering
(From 2006 Admissions)

Code	Title	L	T	P/D	Cr	Code	Title	L	T	P/D	Cr
S₁					19+3*	S₂					21
1 MAU101	Mathematics I	3	1	0	3	1 MAU102	Mathematics II	3	1	0	3
2 SHU101	Physics I	2	0	0	2	2 SHU102	Physics II	3	0	0	3
3 ZZU101	Engineering Mechanics I- Statics	2	1	0	3	3 ZZU102	Engineering Mechanics II- Dynamics	2	1	0	3
4 ZZU103	Engineering Graphics	1	0	3	3	4 EEU102	Basic Electrical Engineering	3	0	0	3
5 SHU106	Chemistry	2	0	0	2	5 ECU101	Basic Electronics Engineering	3	0	0	3
6 SHU111/ CSU101	Professional Communication/ Computer Programming	3	0	0	3	6 SHU111/ CSU101	Professional Communication/ Computer Programming	3	0	0	3
7 ZZU191/ ZZU192	Workshop Practice I/ Workshop Practice II	0	0	3	2	7 ZZU191/ ZZU192	Workshop Practice I/ Workshop Practice II	0	0	3	2
8 SHU191/ SHU192	Physics Lab / Chemistry Lab	0	0	2	1	8 SHU191/ SHU192	Physics Lab / Chemistry Lab	0	0	2	1
9 O T	ZZU193/ ZZU194/ ZZU195 Ph. Edn.(1Cr.), Value Education (1Cr.) National Service Scheme (1Cr.).	-	-	-	3*						
S₃		L	T	P/D	Cr (24)	S₄		L	T	P/D	Cr (24)
1 MAU201	Mathematics III	3	1	0	3	1 MAU202	Mathematics IV	3	1	0	3
2 EEG204	Electrical Circuits & Systems	3	0	0	3	2 CSU211	Formal Languages and Automata	3	0	0	3
3 ECG204	Electronic Circuits & Systems	3	0	0	3	3 CSU201	Discrete Computational Structures	3	0	0	3
4 CSU212	Computational Combinatorics	3	0	0	3	4 CSU213	Database Management Systems	3	0	0	3
5 CSU202	Logic Design	3	0	2	4	5 CSU203	Data Structures & Algorithms	3	0	0	3
6 CSU230	Program Design	3	0	2	4	6 CSU215	Computer Organisation	3	0	2	4
7 ECG291	Electronics Lab	0	0	3	2	7 CSU291	Data Structures Lab	0	0	5	3
8 CSU297	Hardware Lab	0	0	3	2	8 CSU296	DBMS Lab	0	0	3	2
S₅		L	T	P/D	Cr (23)	S₆		L	T	P/D	Cr (21)
1 CSU301	Design and Analysis of Algorithms	3	0	0	3	1 CSU321	Software Engineering	3	0	0	3
2 CSU302	Number Theory & Cryptography	3	0	0	3	2 CSU312	Principles of Programming Languages	3	0	0	3
3 CSU303	Compiler Construction	3	0	0	3	3 CSU313	Operating Systems	3	0	0	3
4 CSU304	Computer Networks	3	0	0	3	4	Elective	3	0	0	3
5 ZZU301	Environmental Studies	3	0	0	3	5	Elective	3	0	0	3
6 CSU305	Theory of Computation	3	0	0	3	6 CSU396	Programming Languages Lab	0	0	3	2
7 CSU391	Networks Lab	0	0	3	2	7 CSU397	Operating Systems Lab	0	0	5	3
8 CSU392	Compiler Lab	0	0	5	3	8 CSU398/ CSU399	Mini Project / Industrial Training	0 0	0 0	3 3	1 1 \$
S₇		L	T	P/D	Cr (20)	S₈		L	T	P/D	Cr (20)
1 SHU416	Economics	3	0	0	3	1 MEG301	Principles of Management	3	0	0	3
2 CSU401	Computer Architecture	3	0	2	4	2 CSU363	Computational Intelligence	3	0	0	3
3	Elective	3	0	0	3	3	Elective	3	0	0	3
4	Elective	3	0	0	3	4	Elective	3	0	0	3
5	Elective	3	0	0	3	5	Elective	3	0	0	3
6 CSU491	Seminar	0	0	3	1	CSU499	Project	0	0	10	5
7 CSU498	Project	0	0	5	3						

* Three courses of one credit each, to be credited before completing six semesters of the programme.
 \$ one of Mini Project/ Industrial Training is compulsory.

Minimum Requirements

1. A candidate should have earned a total of at least 175 credits.
2. Two of the elective courses are to be global.
3. A final year student who meets certain standard requirements is permitted to take M.Tech level elective courses.

List of Elective Courses:

Sl. No	Code	Title	L	T	P/D	Cr
1.	CSU339	Advanced Data Structures	3	0	0	3
2.	CSU358	Communication and Information Theory	3	0	0	3
3.	CSU371	Logic for Computer Science	3	0	0	3
4.	CSU331	Computer Graphics and Multimedia	3	0	0	3
5.	CSU341	Distributed Computing	3	0	0	3
6.	CSU343	Embedded System Design	3	0	0	3
7.	CSU353	Mobile Communication Systems	3	0	0	3
8.	CSU315	Computer Hardware	3	0	0	3
9.	MAU333	Stochastic Processes for Engineers	3	0	0	3
10.	MAG504	Numerical Analysis and Optimization Techniques	3	0	0	3
11.	CSU333	Object Oriented-Analysis & Design	3	0	0	3
12.	CSU334	Web Programming	3	0	0	3
13.	CSU431	Advanced Database Management Systems	3	0	0	3
14.	CSU441	Advanced Computer Architecture	3	0	0	3
15.	CSU352	Coding Theory	3	0	0	3
16.	CSU354	Electronic Commerce	3	0	0	3
17.	CSU356	Mobile Computing	3	0	0	3
18.	CSU361	Image Processing	3	0	0	3
19.	CSU362	Pattern Recognition	3	0	0	3
20.	CSU411	Computer Security	3	0	0	3
21.	CSU364	Natural Language Processing	3	0	0	3
22.	CSU373	Computational Complexity	3	0	0	3
23.	CSU471	Advanced topics in Algorithms	3	0	0	3
24.	CSU472	Quantum Computation	3	0	0	3
25.	MAG521	Simulation and Modeling	3	0	0	3
26.	MAU329	Fuzziness and Soft Computing	3	0	0	3
27.	MAU325	Decision Modeling Technique	3	0	0	3
28.	MAU342	Topics in Algebra	3	0	0	3
29.	MAU326	Integer Optimization and Network Models	3	0	0	3
30.	MAU336	Design and Analysis of Experiments	3	0	0	3
31.	MAU335	Forecasting Techniques	3	0	0	3
32.	MAU324	Fuzzy Optimization	3	0	0	3