



APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

**Curriculum
for
B.Tech(Evening) Degree
Semesters I to VIII
2016**

Computer Science & Engineering

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

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BRANCH: Computer Science & Engineering

SEMESTER - 1

Course Code	Course Name	L-T-P	Credits	Exam Slot
MA201	Linear Algebra & Complex Analysis	3-1-0	4	A
CS201	Discrete Computational Structures	3-1-0	4	B
CS203	Switching Theory and Logic Design	3-1-0	4	C
CS207	Electronics Devices & Circuits	3-0-0	3	E
HS210	Life Skills	2-0-2	3	F
CS233	Electronics Circuits Lab	0-0-3	1	T

Total Credits = 19

Hours: 22

Cumulative Credits= 19

SEMESTER - 2

Course Code	Course Name	L-T-P	Credits	Exam Slot
MA202	Probability Distributions, Transforms and Numerical Methods	3-1-0	4	A
CS202	Computer Organization and Architecture	3-1-0	4	B
CS206	Object Oriented Design and Programming	2-1-0	3	D
CS208	Principles of Database Design	2-1-0	3	E
CS232	Free and Open Source Software Lab	0-0-3	1	S
CS234	Digital Systems Lab	0-0-3	1	T

Total Credits = 16

Hours :20

Cumulative Credits= 35

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SEMESTER - 3

Course Code	Course Name	L-T-P	Credits	Exam Slot
CS301	Theory of Computation	3-1-0	4	A
CS303	System Software	2-1-0	3	B
CS305	Microprocessors and Microcontrollers	2-1-0	3	C
CS205	Data Structures	3-1-0	4	D
CS231	Data Structures Lab	0-0-3	1	S
CS333	Application Software Development Lab	0-0-3	1	U

Total Credits = 16

Hours: 20

Cumulative Credits= 51

SEMESTER - 4

Course Code	Course Name	L-T-P	Credits	Exam Slot
CS302	Design and Analysis of Algorithms	3-1-0	4	A
CS204	Operating Systems	3-1-0	4	C
CS308	Software Engineering and Project Management	3-0-0	3	D
HS300	Principles of Management	3-0-0	3	E
HS200	Business Economics	3-0-0	3	F
CS332	Microprocessor Lab	0-0-3	1	S

Total Credits = 18

Hours: 20

Cumulative Credits= 69

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SEMESTER - 5

Course Code	Course Name	L-T-P	Credits	Exam Slot
CS403	Programming Paradigms	3-0-0	3	B
CS405	Computer System Architecture	3-0-0	3	C
CS307	Data Communication	3-0-0	3	D
CS309	Graph Theory and Combinatorics	2-0-2	3	E
	Elective 1	3-0-0	3	F
CS341	Design Project	0-1-2	2	S
CS331	System Software Lab	0-0-3	1	T

Total Credits = 18

Hours: 22

Cumulative Credits= 87

- Elective 1:-
1. CS361 Soft Computing
 2. CS363 Signals and Systems
 3. CS365 Optimization Techniques
 4. CS367 Logic for Computer Science
 5. CS369 Digital System Testing & Testable Design

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SEMESTER - 6

Course Code	Course Name	L-T-P	Credits	Exam Slot
CS402	Data Mining and Ware Housing	3-0-0	3	A
CS304	Compiler Design	3-0-0	3	B
CS306	Computer Networks	3-0-0	3	C
	Elective 2	3-0-0	3	F
CS334	Network Programming Lab	0-0-3	1	T
CS352	Comprehensive Exam	0-1-1	2	U

Total Credits = 15

Hours: 17

Cumulative Credits= 102

Elective 2:-

1. CS362 Computer Vision
2. CS364 Mobile Computing
3. CS366 Natural Language Processing
4. CS368 Web Technologies
5. CS372 High Performance Computing

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SEMESTER - 7

Course Code	Course Name	L-T-P	Credits	Exam Slot
CS401	Computer Graphics	4-0-0	4	A
CS407	Distributed Computing	3-0-0	3	D
CS409	Cryptography and Network Security	3-0-0	3	E
	Elective 3	3-0-0	3	F
CS451	Seminar & Project Preliminary	0-1-4	2	S
CS431	Compiler Design Lab	0-0-3	1	T

Total Credits = 16

Hours: 21

Cumulative Credits= 118

Elective 3:-

1. CS461 Computational Geometry
2. CS463 Digital Image Processing
3. CS465 Bio Informatics
4. CS467 Machine Learning
5. CS469 Computational Complexity

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SEMESTER - 8

Course Code	Course Name	L-T-P	Credits	Exam Slot
CS404	Embedded Systems	3-0-0	3	B
	Elective 4	3-0-0	3	C
	Elective 5 (Non Departmental)	3-0-0	3	D
CS492	Project	0-0-12	6	S

Total Credits = 15

Hours: 21

Cumulative Credits= 133

Elective 4:-

1. CS462 Fuzzy Set Theory and Applications
2. CS464 Artificial Intelligence
3. CS466 Data Science
4. CS468 Cloud Computing
5. CS472 Principles of Information Security

ELECTIVE 5 (NON DEPARTMENTAL ELECTIVE COURSES)

(Note:- If a student has studied or chosen the elective course given within the brackets then the corresponding ND elective cannot be chosen)

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1. CE482 ENVIRONMENTAL IMPACT ASSESSMENT
- 2.CE484 APPLIED EARTH SYSTEMS
- 3.CE486 GEO INFORMATICS FOR INFRASTRUCTURE MANAGEMENT
- 4.CE488 DISASTER MANAGEMENT
5. CE494 ENVIRONMENT HEALTH AND SAFETY
- 6.EE482 ENERGY MANAGEMENT AND AUDITING
- 7.EE484 CONTROL SYSTEMS
- 8.EE486 SOFT COMPUTING (CS361Soft Computing)
9. EE488 INDUSTRIAL AUTOMATION
10. EE494 INSTRUMENTATION SYSTEMS
11. EC482 BIOMEDICAL ENGINEERING
12. MA482 APPLIED LINEAR ALGEBRA
13. MA484 OPERATIONS RESEARCH (CS365 Optimisation Techniques)
14. MA486 ADVANCED NUMERICAL COMPUTATIONS
- 15.ME484 FINITE ELEMENT ANALYSIS
- 16 .ME482 ENERGY CONSERVATION AND MANAGEMENT
- 17 .ME471 OPTIMIZATION TECHNIQUES (CS365 Optimisation Techniques)
- 18..HS482 PROFESSIONAL ETHICS