

**DR. A.P.J. ABDUL KALAM TECHNICAL
UNIVERSITY, LUCKNOW**



Evaluation Scheme & Syllabus for

B. Tech.

(All Branches except Agriculture & Bio Tech)

AS PER

AICTE MODEL CURRICULUM

(Effective from the Session: 2018-19)

B. Tech 1st Year (All branches except Bio Technology and Agriculture Engg.) Structure in accordance with AICTE Model Curriculum Effective w.e.f. Academic Session 2018-19

SEMESTER - I

Sl. No.	Code	SUBJECT	PERIODS			EVALUATION SCHEME				END SEMESTER		TOTAL	CREDIT
			L	T	P	CT	TA	Total	PS	TE	PE		
3 WEEKS COMPULSORY INDUCTION PROGRAM													
1	KAS101/ KAS102	Physics/Chemistry	3	1	3	30	20	50	25	100	25	200	5.5
2	KAS103	Mathematics-I	3	1	0	30	20	50	-	100	-	150	4
3	KEE 101/ KCS101	Basic Electrical Engineering/Programming for Problem Solving	3	1	2	30	20	50	25	100	25	200	5
4	KCE101/ KWS101	Engineering Graphics & Design/Workshop Practices	1	0	4	-	-	-	25	-	25	50	3
		MOOCs (For B.Tech. Hons. Degree)*											0
		TOTAL										600	17.5

SEMESTER II

Sl. No.	Code	SUBJECT	PERIODS			EVALUATION SCHEME				END SEMESTER		TOTAL	CREDIT
			L	T	P	CT	TA	Total	PS	TE	PE		
1	KAS201/ KAS202	Physics/Chemistry	3	1	3	30	20	50	25	100	25	200	5.5
2	KAS203	Mathematics II	3	1	0	30	20	50	-	100	-	150	4
3	KEE201/ KCS201	Basic Electrical Engineering/Programming for Problem Solving	3	1	2	30	20	50	25	100	25	200	5
4	KCE201/ KWS201	Engineering Graphics & Design/Workshop Practices	1	0	4	-	-	-	25	-	25	50	3
5	KAS204	Professional English	2	0	2	30	20	50	-	100	-	150	3
		MOOCs (For B.Tech. Hons. Degree)*											0
		TOTAL										750	20.5

Mini Project or Internship (3-4 weeks) shall be conducted during summer break after II semester and will be assessed during III semester

*** List of MOOCs (NPTEL) Based Recommended Courses for first year B. Tech Students**

1. Developing Soft Skills and personality-Odd Semester-8 Weeks-3 Credits
2. Enhancing Soft Skills and personality-Even Semester-8 Weeks-3 Credits

*** AICTE Guidelines in Model Curriculum:**

After successful completion of 160 credits, a student shall be eligible to get Under Graduate degree in Engineering. A student will be eligible to get Under Graduate degree with Honours only, if he/she completes additional university recommended courses only (Equivalent to 20 credits; NPTEL Courses of 4 Weeks, 8 Weeks and 12 Weeks shall be of 2, 3 and 4 Credits respectively) through MOOCs. For registration to MOOCs Courses, the students shall follow NPTEL Site <http://nptel.ac.in/> as per the NPTEL policy and norms. The students can register for these courses through NPTEL directly as per the course offering in Odd/Even Semesters at NPTEL. These NPTEL courses (recommended by the University) may be cleared during the B. Tech degree program (not necessary one course in each semester). After successful completion of these MooCs courses the students, shall, provide their successful completion NPTEL status/certificates to the University (COE) through their college of study only. The student shall be awarded Hons. Degree (on successful completion of MOOCs based 20 credit) only if he/she secures 7.50 or above CGPA and passed each subject of that Degree Programme in single attempt without any grace marks.

DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY LUCKNOW



Evaluation Scheme & Syllabus

For

B.Tech. 2nd Year

(Computer Science and Engineering/CS/CSIT)

On

AICTE MODEL CURRICULUM

(Effective from the Session: 2019-20)

DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY LUCKNOW

B.TECH (COMPUTER SCIENCE AND ENGINEERING)

SEMESTER- III

Sl. No.	Subject Codes	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	KOE031-38/ KAS302	Engineering Science Course/Maths IV	3	1	0	30	20	50		100		150	4
2	KAS301/ KVE 301	Technical Communication/Universal Human values	2	1	0	30	20	50		100		150	3
			3	0	0								
3	KCS301	Data Structure	3	1	0	30	20	50		100		150	4
4	KCS302	Computer Organization and Architecture	3	1	0	30	20	50		100		150	4
5	KCS303	Discrete Structures & Theory of Logic	3	0	0	30	20	50		100		150	3
6	KCS351	Data Structures Using C Lab	0	0	2				25		25	50	1
7	KCS352	Computer Organization Lab	0	0	2				25		25	50	1
8	KCS353	Discrete Structure & Logic Lab	0	0	2				25		25	50	1
9	KCS354	Mini Project or Internship Assessment*	0	0	2			50				50	1
10	KNC301/ KNC302	Cyber Security/Environmental Science	2	0	0	15	10	25		50			0
11		MOOCs (Essential for Hons. Degree)											
		Total										950	22

*The Mini Project or internship (3-4 weeks) conducted during summer break after II semester and will be assessed during III semester.

SEMESTER- IV

Sl. No.	Subject Codes	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	KAS402/ KOE041-48	Maths IV/Engg. Science Course	3	1	0	30	20	50		100		150	4
2	KVE401/ KAS401	Universal Human Values/ Technical Communication	3	0	0	30	20	50		100		150	3
			2	1	0								
3	KCS401	Operating Systems	3	0	0	30	20	50		100		150	3
4	KCS402	Theory of Automata and Formal Languages	3	1	0	30	20	50		100		150	4
5	KCS403	Microprocessor	3	1	0	30	20	50		100		150	4
6	KCS451	Operating Systems Lab	0	0	2				25		25	50	1
7	KCS452	Microprocessor Lab	0	0	2				25		25	50	1
8	KCS453	Python Language Programming Lab	0	0	2				25		25	50	1
9	KNC402/ KNC401	Environmental Science/Cyber Security	2	0	0	15	10	25		50			0
10		MOOCs (Essential for Hons. Degree)											
		Total										900	21

**DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY
LUCKNOW**



Evaluation Scheme & Syllabus

For

B. Tech. Third Year

(Computer Science and Engineering)

(Computer Science and Information Technology)

On

Choice Based Credit System

(Effective from the Session: 2018-19)

**DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY
LUCKNOW**

B. Tech. (CSE\CSIT)
FIFTH SEMESTER

Sl No.	Subject Code	Subject Name	L-T-P	Theory/ Lab (ESE) Marks	Sessional		Total	Credi t
					Test	Assign/Att.		
1	RAS501	MANEGERIAL ECONOMICS	3---0---0	70	20	10	100	3
2	RAS502/ RUC501	INDUSTRIAL SOCIOLOGY /CYBER SECURITY	3---0---0	70	20	10	100	3
3	RCS-501	Database Management Systems	3---0---0	70	20	10	100	3
4	RCS-502	Design and Analysis of Algorithm	3---1---0	70	20	10	100	4
5	RCS-503	Principles of Programming Languages	3---0---0	70	20	10	100	3
6	CS-Elective-1	DEPTT ELECTIVE COURSE-1	3---1---0	70	20	10	100	4
7	RCS-551	Database Management Systems Lab	0---0---2	50	-	50	100	1
8	RCS-552	Design and Analysis of Algorithm Lab	0---0---2	50	-	50	100	1
9	RCS-553	Principles of Programming Languages Lab	0---0---2	50	-	50	100	1
10	RCS-554	Web Technologies Lab	0---0---2	50	-	50	100	1
	TOTAL						1000	24

SIXTH SEMESTER

Sl No.	Subject Code	Subject Name	L-T-P	Theory/ Lab (ESE) Marks	Sessional		Total	Credi t
					Test	Assign/Att.		
1	RAS601	INDUSTRIAL MANAGEMENT	3---0---0	70	20	10	100	3
2	RAS602 / RUC601	CYBER SECURITY/ INDUSTRIAL SOCIOLOGY	3---0---0	70	20	10	100	3
3	RCS-601	Computer Networks	3---0---0	70	20	10	100	3
4	RCS-602	Compiler Design	3---1---0	70	20	10	100	4
5	RCS-603	Computer Graphics	3---0---0	70	20	10	100	3
6	CS-Elective-2	DEPTT ELECTIVE COURSE-2	3---1---0	70	20	10	100	4
7	RCS-651	Computer Networks Lab	0---0---2	50	-	50	100	1
8	RCS-652	Compiler Design Lab	0---0---2	50	-	50	100	1
9	RCS-653	Computer Graphics Lab	0---0---2	50	-	50	100	1
10	RCS-654	Data Warehousing & Data Mining Lab	0---0---2	50	-	50	100	1
	TOTAL						1000	24

**DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY
LUCKNOW**



Evaluation Scheme & Syllabus

For

B.Tech. Fourth Year

**(Computer Science and Engineering/Computer
Science)**

On

Choice Based Credit System

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B.Tech. (Computer Science and Engineering)
VII SEMESTER

Sl. No.	Subject Code	Subject Name	L-T-P	Th/Lab Marks	Sessional		Total	Credit
				ESE	CT	TA		
1	Open Elective-1	Open Elective Course -1	3--0--0	70	20	10	100	3
2	CS Elective-3	Deptt Elective Course-3	3--0--0	70	20	10	100	3
3	CS Elective-4	Deptt Elective Course-4	3--1--0	70	20	10	100	4
4	RCS701	Distributed System	3--1--0	70	20	10	100	4
5	RCS702	Artificial Intelligence	3--0--0	70	20	10	100	3
6	RCS751	Distributed System Lab	0--0--2	50		50	100	1
7	RCS752	Artificial Intelligence Lab	0--0--2	50		50	100	1
8	RCS753	Industrial Training	0--0--3			100	100	2
9	RCS754	Project	0--0--6			200	200	3
	TOTAL			450	100	450	1000	24

B.Tech. (Computer Science and Engineering)
VIII SEMESTER

Sl. No.	Subject Code	Subject Name	L-T-P	Th/Lab Marks	Sessional		Total	Credit
				ESE	CT	TA		
1	Open Elective-2	Open Elective Course-2	3--0--0	70	20	10	100	3
2	CS Elective-5	Deptt Elective Course-5	3--1--0	70	20	10	100	4
3	CS Elective-6	Deptt Elective Course-6	3--0--0	70	20	10	100	3
4	RCS851	Seminar	0--0--3			100	100	2
5	RCS852	Project	0--0--12	350		250	600	12
	TOTAL			560	60	380	1000	24

DEPARTMENTAL ELECTIVES

CS-ELECTIVE -3:

1. RCS070 Embedded Systems (Mapping with MOOCS: <https://nptel.ac.in/courses/108102045/>)
2. RCS071 Application of Soft Computing (Mapping with MOOCS: <https://nptel.ac.in/courses/106105173/>)
3. RCS072 High Performance Computing (Mapping with MOOCS: <https://nptel.ac.in/syllabus/106108055/>)
4. RCS073 Human Computer Interface (Mapping with MOOCS: <https://nptel.ac.in/courses/106103115/>)

CS-ELECTIVE-4:

1. RCS075 Cloud Computing (Mapping with MOOCS: https://onlinecourses.nptel.ac.in/noc17_cs23/preview)
2. RCS076 Blockchain Architecture Design (Mapping with MOOCS: <https://nptel.ac.in/courses/106105184/>)
3. RCS077 Agile Software Development
4. RCS078 Augmented & Virtual Reality (Mapping with MOOCS: <https://nptel.ac.in/courses/106105195/13>)

CS-ELECTIVE-5:

1. RCS080 Machine Learning (Mapping with MOOCS: https://onlinecourses.nptel.ac.in/noc17_cs17/preview
https://onlinecourses.nptel.ac.in/noc17_cs26/preview)
2. RCS081 Game Programming
3. RCS082 Image Processing (Mapping with MOOCS: https://onlinecourses.nptel.ac.in/noc18_ee40/preview
<https://nptel.ac.in/courses/106105032/>)
4. RCS083 Parallel and Distributed Computing (Mapping with MOOCS: <https://nptel.ac.in/courses/106102114/>,
<https://nptel.ac.in/courses/106104024/>)

CS-ELECTIVE-6:

1. RCS085 Speech Natural language processing (Mapping with MOOCS: <https://nptel.ac.in/courses/106101007/>
<https://nptel.ac.in/courses/106105158/>)
2. RCS086 Deep Learning (Mapping with MOOCS: https://onlinecourses.nptel.ac.in/noc18_cs41/preview)
3. RCS087 Data Compression
4. RCS088 Quantum Computing (Mapping with MOOCS: https://onlinecourses.nptel.ac.in/noc18_cy07)