



BIKANER TECHNICAL UNIVERSITY, BIKANER

Karni Industrial Area, Pugal Road, Bikaner

The Regulations for Choice Based Credit Scheme for Undergraduate Degree (B. Tech) Courses in Engineering & Technology

1. Bikaner Technical University has implemented the Model Curriculum proposed by AICTE for Undergraduate Degree Courses in Engineering & Technology with some modifications for students admitted in Session 2018-19 and onwards.

2. Definition of Credit :

1 Hour Lecture (L) per week	1 credit
1 Hour Tutorial (T) per week	1 credit
1 Hour Practical (P) per week	0.5 credit
2 Hour Practical (Lab)/week	1 credit

3. General Rules of Credits :

- a. A credit of 166 will be required for a student to be eligible to get Undergraduate Degree in Engineering & Technology.
- b. A Credit of 125 (166-41) will be required for a student to be eligible to get Undergraduate Degree in Engineering & Technology admitted through Lateral Entry (LEEP) in 2018-19 and onward.
- c. A Student will be eligible to get B. Tech (Honours) Degree, if he/she completes an additional 20 credits. These credits should be acquired through MOOCs only.
- d. The structure of the degree will be as follow :

Name of Degree	Required Credits
B. Tech	166*
B. Tech (Honours)	166+20 (MOOCs)

*for LEEP Students 125 Credits.


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4. Structure of Undergraduate Engineering & Technology Program:

S.No.	Category	Break Up of Credits
1	Humanities and Social Sciences including Management Courses (HSMC)	10
2	Basic Science Courses (BSC)	23
3	Engineering science courses including workshop, drawing, basics of electrical/ mechanical/ computer etc. (ESC)	24
4	Professional core courses (PCC)	84
5	Professional Elective courses relevant to chosen specialization/ branch (PEC)	
6	Open Subject – Electives from other technical and/or emerging subjects (OE)	6
7	Project work, Seminar and Internship in industry or elsewhere	15
8	Social Outreach, Discipline & Extra Curriculum Activities (SODECA)	4
9	Mandatory Courses (Environmental Sciences, Induction training, Indian Constitution, Essence of Indian Traditional Knowledge).	(non-credit)
	Total	166
10	B. Tech (Honours) Degree shall be awarded on acquiring additional 20 credits through MOOCs.	166+20

5. Course Code and Definition :

S.No.	Category		Code
1	Humanities and Social Sciences including Management Courses	HSMC	1
2	Basic Science Courses	BSC	2
3	Engineering Science Courses	ESC	3
4	Professional Core Courses	PCC	4
5	Professional Elective Courses	PEC	5
6	Open Electives	OE	6
7	Project/Seminar/Training	PST	7
8	Social Outreach, Discipline & Extra Curriculum Activities	SODECA	8
9	Mandatory Courses	MC	9

6. Semester wise credit system :

Sr. No.	Semester	Credits		Total Credit
		Courses	SODECA	
1	I	20	0.5	20.5
2	II	20	0.5	20.5
3	III	24	0.5	24.5
4	IV	23	0.5	23.5
5	V	22.5	0.5	23
6	VI	23	0.5	23.5
7	VII	14.5	0.5	15
8	VIII	15	0.5	15.5
Total		162	04	166



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7. Mandatory Training :

S. No.	Duration of Training	Mode of Training	After	Exam Semester	Credit
1	15 Days	In-house /Industry	I Year (II Semester)	III	1*
2	45 Days	In-house /Industry	II Year (IV Semester)	V	2.5
3	45 Days	Industry Only	III Year (VI Semester)	VII	2.5
Total					6

Dates of Tainting Shall be notified in University's academic Calendar.

*LEEP Students may complete their training with any soft skill part time training to be decided at institute level during III semester

8. Distribution of Project/Seminar/Training (PST):

PST	Credits			Total Credit
	Project	Seminar	Training	
	7	2	6	15

* Teaching load of 1/2/3 Hrs may be considered for Training/Seminar/Project in the respective semesters.

9. Examination :

1 Credit – 50 Marks

166 Credits – 8300 Marks

There will be an internal assessment for all theory subjects:

Distribution of Marks:

S. No.	Credit of Theory Paper	End Term Exam (Hours)	Internal Assessment (20%)	End Term Exam (80%)	Total Maximum Marks
1	1	2 hours	10	40	50
2	2		20	80	100
3	3	3 hours	30	120	150
4	4		40	160	200

Practical	Internal	External
	60%	40%

For 1 & 2 credit courses internal assessment will be done through two midterm tests. For 3 & 4 credit courses the internal assessment component shall be further divided as under:

Marks	Internal Assessment		
	I Mid Term	II Mid Term	Assignment/Presentations
	40%	40%	20%
30	12	12	6
40	16	16	8

Note: Examination credits and total marks, that is **125 Credit= 6250 Marks** must be included for LEEP students.



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10. Pass Rules for B. Tech(4 Year Program):

The result of a candidate will be worked out at the end of each Semester Examination. The absolute marks of a student (p_i) shall be converted into relative marks (x_i) on 100 point scale as below :

$$x_i = \frac{p_i}{p_{\max}} q$$

Where,

x_i = Converted relative marks of an individual student in a particular i^{th} subject/course (rounded off to next higher integer number).

p_i = Absolute percentage (%) of marks obtained by an individual student in the i^{th} subject/course.

p_{\max} = Absolute highest marks obtained in a subject.

q = Highest equivalent relative marks taken for conversion purpose (as given in column 2 of the following table).

Absolute highest marks obtained in a subject (p_{\max})	Highest equivalent relative marks taken for conversion purpose (q) on 100 point scale
Column 1	Column 2
$p_{\max} \geq 75\%$	100
$60\% \leq p_{\max} < 75\%$	89
$30\% \leq p_{\max} < 60\%$	79
$p_{\max} < 30\%$	Not considered for conversion

The Grade and Grade point shall be awarded to an individual student as under:

S.No.	Relative Marks(x_i)	Grade	Grade Points
1	$x_i \geq 90$	A++	10
2	$85 \leq x_i < 90$	A+	9
3	$80 \leq x_i < 85$	A	8.5
4	$75 \leq x_i < 80$	B+	8
5	$70 \leq x_i < 75$	B	7.5
6	$65 \leq x_i < 70$	C+	7
7	$60 \leq x_i < 65$	C	6.5
8	$55 \leq x_i < 60$	D+	6
9	$50 \leq x_i < 55$	D	5.5
10	$45 \leq x_i < 50$	E+	5
11	$40 \leq x_i < 45$	E	4
12	$x_i < 40$	F	0

- For a pass, candidate must obtain at least grade E for each theory and practical.
- If a student remains "Absent" or obtains "Zero" marks in any of external component (theory & Practical), He/ She will be awarded "F" Grade.
- No grace marks shall be awarded.



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- Candidate fails in a theory subject/course shall have to reappear in theory and midterm both examination. Similarly, candidate fails in a practical subject/course shall have to reappear in external practical and sessional both examination.
- Revaluation and inspection of answer books system will prevail as per existing examination regulations. However, change of grade point of individual candidate after the revaluation will be independent and shall not affect the grade point of other students.
- For a back examinee the grade and grade point of a particular subject/paper shall be calculated on the basis of his/her appearance in present (appearing) examination.

11. Semester wise SGPA :

$$SGPA = \frac{\sum_{i=1}^n c_i \times p_i}{\sum_{i=1}^n c_i}$$

Where,

C_i = Number of credits of the i^{th} course of a semester for which SGPA is to be calculated.

P_i = Grade point obtained in i^{th} course

$i = 1, 2, \dots, n$ represent the number of course in which a student is registered in the concerned semester.

12. OVERALL CGPA :

$$CGPA = \frac{\sum_{i=1}^m c_i \times p_i}{\sum_{i=1}^m c_i}$$

Where,

C_i = Number of credits of the i^{th} course of semester

P_i = Grade point obtained in i^{th} course. A grade, lower than 'E' (i.e. grade point < 4) in a course shall not be taken into account.

$i = 1, 2, \dots, n$ represent the number of courses in which a student is registered and obtained a grade not lower than 'E' up to that semester for which CGPA is to be calculated.

- The overall CGPA shall be awarded after earning the required credits by the student for passing the said semester; otherwise it shall be awarded on passing all the semesters.
- SGPA/CGPA shall be rounded off to two decimal digits on higher side.
- Final course merit will be decided on the basis of CGPA obtained by an individual student considering relevant merit ordinance of the university. Revaluation result will be counted for deciding the merit.
- Conversion of Percentage to CGPA

Equivalent Percentage = (10 x CGPA)

- Award of Division : The division of the students shall be awarded in the following manner (subject to the passing of all the semester courses) :

1	$CGPA \geq 7$	1st Division with Distinction
2	$6 \leq CGPA < 7$	1st Division
3	$5 \leq CGPA < 6$	2nd Division
4	$4 \leq CGPA < 5$	Pass

- Maximum duration for the completion of course will be eight (8) years.



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13. End Term Exam Theory Paper Pattern :

S. No.	Exam Hours	Max. Marks	Candidate has to attempt /Total number of questions		
			Part A	Part B	Part C
1	2 Hours	40	5/5	4/6	2/3
2		80			
3	3 Hours	120	10/10	5/7	4/5
4		160			

S. No.	Exam time		Max. Marks	
			40	80
1	2 Hours	Part A	$5 \times 2 = 10$	$5 \times 2 = 10$
		Part B	$4 \times 4 = 16$	$4 \times 10 = 40$
		Part C	$2 \times 7 = 14$	$2 \times 15 = 30$
			120	160
2	3 Hours	Part A	$10 \times 2 = 20$	$10 \times 3 = 30$
		Part B	$5 \times 8 = 40$	$5 \times 10 = 50$
		Part C	$4 \times 15 = 60$	$4 \times 20 = 80$

Part A: Short Answer questions (up to 25 words)

Part B: Analytical/Problem Solving questions.

Part C: Descriptive/Analytical/Problem solving/Design question.


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