



BIKANER TECHNICAL UNIVERSITY, BIKANER

OFFICE OF THE CONTROLLER OF EXAMINATION

KARNI RICCO INDUSTRIAL AREA, PUGAL ROAD, BIKANER-334004(RAJ)

Phone : 0151-2250940,50

Web :btu.ac.in

Email: coe@btu.ac.in

No.:F(26)/BTU/COE/CBCS/2020/1459-66

Date: 16/03/2020

OFFICE-ORDER

As per the recommendations of Committee (constituted by order no. BTU/COE/EXAM/2019-2020/1249-56, dated 10.01.2020) and the subsequent approval of Hon'ble Vice Chancellor the Regulations of Choice Based Credit System for Under Graduate Degree (B.Tech.) Courses in Engineering & Technology (Academic Session 2019-20 and Onwards) are as follows:-

1. Bikaner Technical University has implemented the Model Curriculum proposed by AICTE for Undergraduate Degree Courses in Engineering & Technology.

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

Table 2.1

3. **General Rules of Credits :**

- A credit of 166 will be required for a student to be eligible to get an Undergraduate Degree in Engineering & Technology.
- A Credit of 125 (166-41) will be required for a student to be eligible to get an Undergraduate Degree in Engineering & Technology admitted through Lateral Entry (LEEP) in 2020-21 and onwards.
- 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.
- The structure of the degree will be as follow :

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

Table 3.1

*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 an additional 20 credits through MOOCs.	166+20

Table 4.1

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

Table 5.1

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

Table 6.1

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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

Table 7.1

Dates of Training 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 semesters.

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

PST	Credits			Total Credit
	Project	Seminar	Training	
	7	2	6	15

Table 8.1

* 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:

Set	A 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

Table 9.1

Practical	Internal	External
	60%	40%

Table 9.2

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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

Table 9.3

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

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

A. On the basis of percentage of obtained marks, the process of result computation will be as follows, and the following will be awarded:

For every subject: Grade and Score Point

For every Semester: Semester Grade Point Average (SGPA) up to the precision of two digits after the decimal.

Every Semester: Cumulative Grade Point Average (CGPA) up to the current semester, up to the precision of two digits after the decimal.

Step 1: For each subject, the percentage of obtained marks will be converted into Grade as per Table I.

Percentage of Obtained Marks in Theory Subjects	Percentage of Obtained Marks in Practical Subjects	Grade
Per ≥ 85	Per ≥ 85	O
$70 \leq \text{per} < 85$	$70 \leq \text{per} < 85$	A+
$60 \leq \text{per} < 70$	$60 \leq \text{per} < 70$	A
$55 \leq \text{per} < 60$	$55 \leq \text{per} < 60$	B+
$50 \leq \text{per} < 55$	$50 \leq \text{per} < 55$	B
$45 \leq \text{per} < 50$	NA	C
$40 \leq \text{per} < 45$	NA	P
Per < 40	Per < 50	F
Absent	Absent	AB

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Step 2: For each subject convert the Grade to Score Point as per Table II.

Grade	Score Point
O	10
A+	9
A	8
B+	7
B	6
C	5
P	4
F	0
AB	0

Step 3: Semester Grade Point Average (SGPA) of the kth semester is

$$SGPA = \frac{\sum_{i=1}^n P_i * C_i}{\sum_{i=1}^n C_i}$$

Where, P_i is score Points in the ith subject, C_i is Credits of an ith subject, and n is a total number of subjects in the current kth semester.

Step 4: Cumulative Grade Point Average (CGPA) of the kth semester is

$$CGPA = \frac{\sum_{j=1}^m S_j * C_j}{\sum_{j=1}^m C_j}$$

Where S_j is SGPA of jth Semester, C_j is total Credits in the jth semester, and m is a total number of semesters upto a current kth semester.

- B. Awarded SGPA and CGPA shall be recalculated if a candidate passes a subject or all subjects of any semester in 2nd or later attempt.
- C. SGPA & CGPA shall be calculated after passing all the subjects of a particular semester.
- D. Criteria to Pass the Course shall be as per the following:
 - i. A candidate has to pass individually in all subject/Project work of each semester from I to VIII semesters, as mentioned in the corresponding teaching and examination scheme.

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- ii. A candidate must obtain at least 33% (13 out of 40 marks, 26 out of 80 marks, 40 out of 120 marks and 53 out of 160 marks) in the Term End Exam and total 40% marks in aggregate of the subject and P grade for each theory subjects.
- iii. Similarly, a candidate must obtain at least 50% marks and a B grade in each component of practical and sessional subjects and in aggregate.
- iv. If a student remains absent or obtains Zero marks in any of the external components (Theory and Practical), He/ She will be awarded an "F" grade.
- v. Minimum marks required for declaring a candidate PASS are described in the table below:

Category of Subject	Minimum Passing marks		
	Internal assessment	Term End Examination	Total
Theory	Nil	33%	40%
Practical & Sessional	50%	50%	50%

Table 10.3

- E. For a pass, a candidate must obtain at least grade E for each theory and practical.
- F. Grace marks will be awarded as per BTU rules.
- G. If a student remains "Absent" or obtain "Zero" marks in any of external component of theory or practical, he/she will be awarded "F" grade, respectively and will be required to appear in the subsequent back examinations. "F" grade student while applying for the back paper examination, may opt either of the following options:
 - A. Carry forward the previous marks of internal assessment.
 - B. Improve the internal assessment.
- H. Revaluation and inspection of the answer books system will prevail as per existing examination regulations. However, change of grade point of an individual candidate after the revaluation will be independent and shall not affect the grade point of other students.
- I. 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.

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

Table 10.4

The maximum duration for the completion, of course, will be eight (8) years.

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• 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			

Table 10.5

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

Table 10.6

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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