

**SRI VENKATESWARA UNIVERSITY
COLLEGE OF ENGINEERING
TIRUPATI – 517 502
(Autonomous College)**

4-YEAR B.Tech DEGREE PROGRAM

**CHOICE-BASED CREDIT SYSTEM REGULATIONS
(To come into effect from the batch admitted in academic year 2006-07)**

1. Preamble:

Choice-Based Credit System (CBCS) is a flexible system of learning. Credit defines the quantum of contents / syllabus prescribed for a course and determines the number of hours of instruction required. The distinguishing features of the CBCS are the following:

It permits students to:

- i. Choose electives from a wide range of elective courses offered by the departments of the college.
- ii. Undergo additional courses and acquire more than the required number of credits
- iii. Adopt an inter-disciplinary approach in learning
- iv. Make the best use of expertise of the available faculty

2. Minimum Qualification:

A pass in Intermediate Examination conducted by the Board of Intermediate Education of Andhra Pradesh with Mathematics, Physics and Chemistry as optional subjects or any equivalent examination recognized by Sri Venkateswara University.

3. Branches of Study:

The branches of study in B.Tech Degree Program are:

- i) Chemical Engineering
- ii) Civil Engineering
- iii) Computer Science and Engineering
- iv) Electrical and Electronics Engineering
- v) Electronics and Communication Engineering
- vi) Mechanical Engineering

4. Program Duration:

The duration of the program is of four academic years divided into eight semesters comprising of two semesters in each academic year. The scheme of instruction and examination for the first semester is common for all the branches of study.

5. Minimum Instruction Days:

The minimum instruction days for each semester shall be 90 based on six days of instruction per week.

6. Credits:

Credit defines the quantum of contents / syllabus prescribed for a course and determines the number of instruction hours per week. The norms for assigning credits to a course for a duration of one semester shall be as follows:

- i One credit for every one hour of lecture per week / semester
- ii One credit for every one hour of tutorial per week / semester
- iii Two credits for three hours of laboratory or practical work per week / semester
- iv One credit for two hours of laboratory or practical work per week / semester

7. Classification of Courses :

7.1 The courses of each branch of study shall be classified into Basic Courses, Core Courses and Elective Courses. It is mandatory for a student to complete successfully all the basic and core courses pertaining to his/her of branch of study.

7.2 A student shall choose elective courses from the list of elective courses provided for his/her branch of study. Further, he/she may earn credits not exceeding 8 by choosing courses of other branches of study as elective courses which are exclusive of basic and core courses of his/her branch of study. A student shall register for elective courses at the beginning of the semester using the prescribed form.

7.3 Every course shall be uniquely identified by a code.

- 'CE' means Civil Engineering
- 'CH' means Chemical Engineering
- 'CS' means Computer Science and Engineering
- 'CY' means Chemistry
- 'EC' means Electronics and Communication Engineering
- 'EE' means Electrical and Electronics Engineering
- 'HU' means Humanities
- 'PY' means Physics
- 'MA' means Mathematics
- 'ME' means Mechanical Engineering

7.4 A student shall earn a minimum of 176 credits of theory courses and 34 credits of practical courses inclusive of a minimum of 6 credits for Project Work to become eligible for the award of degree.

7.5 A student may audit any course from any branch of study with the permission of the teacher concerned. However, such credits will not be included in the mandatory credits specified in clause 7.4.

8. Scheme of Instruction :

8.1 The Joint-Boards of Studies (JBOS) shall formulate the scheme of instruction and detailed syllabi for the first semester which is common for all the branches of study.

8.2 The Board of Studies (BOS) of each department shall formulate the scheme of instruction and detailed syllabi for the other seven semesters. While formulating the scheme of instruction, the BOS shall ensure to offer a minimum of 176 credits of theory courses and a minimum of 34 credits of practical courses for the entire Program.

9. Evaluation :

9.1 Evaluation shall be done on a continuous basis. There shall be two sessional tests and one End-Semester Examination in each theory course during every semester.

9.2 Sessional Test I will be held immediately after the completion of 36 instruction days.

9.3 Sessional Test II will be held immediately after the completion of 72 instruction days.

- 9.4 Each sessional test of two hours duration shall carry 20 marks. Sessional marks for a maximum of 40 shall be awarded based on the performance of the two sessional tests. It is mandatory for a student to attend both the sessional tests but cannot repeat sessional tests. However, if a student cannot attend one sessional test out of two due to medical reasons, a make up test covering the respective syllabus shall be conducted before the End-Semester Examinations by the faculty member concerned, provided the student produces a medical certificate issued by the Senior Medical Officer of the University. Further, another make up test shall not be conducted if a student fails to attend the make up test for whatever may be the reasons.
- 9.5 For each theory course, there shall be one End-Semester Examination of 3 hours duration carrying 60 marks covering the entire syllabus prescribed for the course. Model Question Paper for each course has to be prepared by the teacher and the same should be forwarded to the Principal through the Chairman, BOS.
- 9.6 For each theory course of the End-Semester Examination, the question paper may be set by an external paper setter. The Principal shall arrange for setting the question paper by appointing the external paper setter from among the panel of paper setters recommended for each course by the BOS concerned.
- 9.7 For each practical course, the sessional marks for a maximum of 40 shall be awarded based on the continuous assessment of practical work. The End-Semester Examination carrying 60 marks shall be held by the concerned teacher.
- 9.8 The distribution of marks for the Project Work shall be as follows:

Component	Marks
Continuous assessment	40
Concise Dissertation	40
Viva-voce	20
Total	100

The concerned guide shall continuously assess the quality of the project work and award marks for a maximum of 40. A committee consisting of one external examiner and two internal examiners from the department shall value the dissertation and conduct viva-voce for awarding marks for the respective components. The external examiner shall be appointed by the Principal from among the panel of external examiners recommended by the BOS, whereas the internal examiners shall be nominated by the Head of the Department from among the senior faculty members of the department.

10. Academic Requirements:

The cumulative performance of a student up to i^{th} semester will be indicated by Cumulative Point Average (CPA_i) that is calculated by the formula given below:

$$CPA_i = \left(\sum_{k=1}^i \sum_{j=1}^{n_k} C_{k,j} M_{k,j} \right) / \left(\sum_{k=1}^i \sum_{j=1}^{n_k} C_{k,j} \right) / 10$$

(for $i=1, \dots, 8$)

Where

n_i = number of courses completed successfully in semester i

$C_{i,j}$ = number of credits of course j completed successfully in semester i

$M_{i,j}$ = marks secured in course j in semester i

10.1 A student has to secure a minimum of 40 percent of marks in End-Semester Examination and 40 percent of total of marks in the course taken, to pass in that course. A candidate who has not secured marks as said above in a course shall be deemed to have failed in that course. A student cannot reappear for the End-Semester Examination in a course in which he / she has passed to improve the score.

10.2 A student who has failed in a course can reappear for the End-Semester Examination as and when it is held in the normal course. The Sessional Marks obtained by the student will be carried over for declaring the result.

11 Award of Degree :

A student who has earned a minimum of 176 credits in theory and 34 credits in practical by passing in all the basic and core courses, and the minimum number of electives prescribed for the program shall become eligible for the award of the degree.

12. Award of Class :

The students who have become eligible for the award of degree are classified as follows:

Cumulative Point Average (CPA)	Classification
4.0 or more but less than 5.0	Pass Class
5.0 or more but less than 6.0	Second Class
6.0 or more but less than 7.0	First Class
7.0 or more	First Class with Distinction

13. Ranking and Award of Prizes / Medals :

13.1 Ranks shall be awarded in each branch of study on the basis of Cumulative Point Average (CPA) for top ten percent of the students or top three students whichever is higher.

13.2 The students who have become eligible for the award of degree by passing regularly all the 8 semesters shall only be considered for the award of ranks.

13.3 Award of prizes, scholarships and other honours shall be according to the rank secured by the student as said above and in conformity with the desire of the Donor.

14. Attendance Requirements:

14.1 A student is required to complete the Programme of study satisfying the attendance requirements in all the semesters within a period of eight academic years from the year of admission, failing which he/she forfeits his/her seat.

14.2 A student shall be detained in a semester if he/she fails to satisfy the attendance requirements given below:

- i. In each course, a student shall attend at least 50 percent of the maximum hours of instruction taken by the teacher.
- ii. A student shall attend at least 75 percent of the maximum hours of instruction taken for all the courses put together in that semester.

14.3 A student who satisfies the clause 14.2 (i) and does not satisfy the clause 14.2 (ii) but puts in at least 62.5 percent of overall attendance may be considered for condoning the shortage of attendance by the Principal.

14.4 A student who fails to satisfy the attendance requirements specified in clauses 14.2 and 14.3 shall repeat that semester in the subsequent academic years with the written permission of the Principal.

14.5 A student shall not be permitted to study any semester more than three times during the entire Programme of study.

14.6 A student who satisfies the attendance requirements specified in either of the clauses 14.2 and 14.3 in any semester may be permitted to repeat that semester canceling the previous attendance and sessional marks of that semester with the written permission of the Principal. However, this facility shall not be extended to any student more than twice during the entire Programme of study as specified in clause 14.1.

15. Conditions of Promotion:

A student shall be eligible for promotion to the next semester if he/she satisfies the attendance requirements in the immediately preceding semester as specified in clause 14.

16. Transitory Regulations:

16.1 A student who has been detained in the first year of previous regulations for not satisfying the attendance requirements shall be permitted to join first semester of this regulation provided the clauses 14.1 and 14.4 hold good.

16.2 University Examinations in each course of the first year / semester under the regulations that precede immediately these regulations shall be conducted three times after the conduct of last regular examination under those regulations.

16.3 The students who satisfy the attendance requirements in the first year / any semester under the regulations that precede immediately these regulations, but do not pass the courses shall appear for the End-Semester Examinations in equivalent courses under these regulations as specified by the BOS concerned.

17. Amendment to Regulations:

Sri Venkateswara University reserves the right to amend these regulations at any time in future without any notice. Further, the interpretation any of the clauses of these regulations entirely rest with the University.