

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

**B.Tech Degree Programme (CBCS) Regulations-2010  
(To come into effect from the batch admitted in academic year 2012-13)**

**CHOICE-BASED CREDIT SYSTEM**

**1. Preamble:**

B.Tech Degree Programme is of four academic years with each academic year being divided into two consecutive (one odd + one even) semesters.

Choice-Based Credit System (CBCS) is a flexible system of learning and provides choice for students to select from the prescribed elective courses. A course defines learning objectives and learning outcomes and comprises of lectures/tutorials/laboratory work/field work/project work/viva/seminars/assignments/ presentations/ self-study etc. or a combination of some of these.

Under the CBCS, the requirement for awarding a degree is prescribed in terms of number of credits to be completed by the students.

The CBCS permits students to:

- i. choose electives from a wide range of elective courses offered by the Departments of the Institute.
- ii. undergo additional courses of interest
- 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.

The government of A.P. conducts Engineering Common Entrance Test (ECET) for the Engg. Diploma holders and 5% of seats are allotted in each Branch. The students who qualify and allotted by the Convener ECET are admitted directly into B.Tech 3<sup>rd</sup> semester (ie., in the 2<sup>nd</sup> year) in respective branch.

**3. Branches of Study:**

The branches of study in B.Tech Degree Programme 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. Programme Duration :**

The duration of the programme is of four academic years divided into Eight (8) Semesters comprising two semesters in each academic year

**5. Minimum Instruction Days:**

Based on six day week, the minimum instruction day per semester shall be 90. However, the minimum instruction days shall be 72 for the First and Second Semesters with increased instruction hours per week

**6. Credits Definition :**

Fifteen instruction hours in a semester for theory / tutorial / design and drawing shall constitute one credit whereas twenty two instruction hours in a semester for practical constitute one credit.

**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 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 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 8.

**8. Award of Degree:**

A student who has earned a minimum of 210 credits inclusive of at least 34 credits for practicals including 6 credits for project work after passing all the basic and core courses, and the minimum number of electives prescribed for the programme shall become eligible for the award of the degree.

**9. Scheme of Instruction :**

- 9.1 The Joint-Boards of Studies (JBoS) shall formulate the scheme of instruction and examinations, and detailed syllabi for the First and Second Semesters which shall be common for all the branches of study.
- 9.2 The Board of Studies (BoS) of each Department shall formulate the scheme of instruction and detailed syllabi for the subsequent six semesters. While formulating the scheme of instruction, the BOS shall offer the requisite number of credits exclusive of the credits offered in the first and second semesters in conformity with clause 8.
- 9.3 The detailed syllabus of each theory course shall be organized into five units of equal weight.

**10. Course Numbering Scheme :**

Each course number is denoted by five alpha-numerals, three alphabets followed by two numerals.

Code of the department offering the course	CO : Commerce CE : Civil Engineering CH : Chemical Engineering CS : Computer Science and Engineering CY : Chemistry EC: Electronics and Communication Engineering EE : Electrical and Electronics Engineering EO : Economics EN : English MA : Mathematics ME : Mechanical Engineering PH : Physics
Nature of course	T: Theory P: Practical D : Design and Drawing
Course Number	01, 02, ...

**11. Attendance Requirements:**

- 11.1 A student is required to complete the study of B.Tech Programme A student is required to complete the study of B.Tech Programme satisfying the attendance requirements in all the Semesters within a period of eight academic years from the year of admission to become eligible for the award B.Tech degree failing which he/she forfeits his/her seat.
- 11.2 A student shall be detained in a Semester if he/she fails to satisfy the attendance requirements given below:
  - i A student shall attend at least 50 percent of the hours of instruction taken by the teacher, in each course.
  - ii A student shall attend at least 75 percent of the hours of instruction taken for all the courses put together in that Semester.

- 11.3 A student who satisfies the clause 11.2 (i) and does not satisfy the clause 11.2 (ii) but puts in at least 62.5 percent of overall attendance may be considered for condoning the shortage of attendance by the Principal.
- 11.4 A student who fails to satisfy the attendance requirements specified in clauses 11.2 and 11.3 shall repeat that Semester in the subsequent academic years with the written permission of the Principal subject to the clause 11.1.
- 11.5 A student shall not be permitted to study any semester more than three times during the entire Programme of study.
- 11.6 A student who satisfies the attendance requirements specified in either of the clauses 11.2 and 11.3 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 11.1.

**12. Evaluation :**

- 12.1 Evaluation shall be done on a continuous basis. For each theory course, there shall be two sessional tests of two hours duration carrying 20 marks each and one End-Semester Examination of 3 hours duration carrying 60 marks. Sessional marks for a maximum of 40 shall be awarded based on the performance of the two sessional tests.
- 12.2 For each practical course except project work, the sessional marks for a maximum of 40 shall be awarded based on the continuous assessment of practical work by the teacher concerned. An End-Semester Examination of 3 hours duration carrying 60 marks shall be conducted by two teachers: one external examiner and one internal examiner appointed by the Principal. The Principal shall appoint the external examiner from among the panel of examiners recommended by the Chairman, BOS concerned. He shall appoint the internal examiner nominated by the Head of the Department concerned.
- 12.3 The guide shall assess the progress of UG project work continuously 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 project work and conduct viva-voce for a maximum of 60 marks. The Principal shall appoint the external examiner from among the panel of examiners recommended by the Chairman, BOS concerned, whereas the internal examiners shall be nominated by the Head of the Department from among the senior faculty members of the Department.
- 12.4 Sessional Test I shall be conducted in the middle of the semester i.e. after the completion of 40 % of instruction days covering the syllabus of units one and two.

- 12.5 Sessional Test II shall be conducted immediately after the completion of 80 % of the minimum instruction days covering the syllabus of units three and four.
- 12.6 For each theory course, an End-semester three hours duration examination of shall be after the last working day of the semester covering the entire syllabus prescribed for that course.
- 12.7 It is mandatory for a student to attend both the sessional tests. Sessional marks will be awarded adopting a differential weightage of 80% for the highest sessional marks and 20% for the latest sessional mark2. (when absent for any sessional test the sessional marks for that test shall be ZERO.) w.e.f the academic year 2014-15.
- 12.8 The students shall be permitted to verify the valuation of answer scripts of sessional tests.
- 12.9 The valuation of Sessional Test I answer scripts and verification of the same by the respective students shall be completed before the Sessional Test II.
- 12.10 The valuation of Sessional Test II answer scripts and verification of the same by the respective students shall be completed before the last working day of the semester.
- 12.11 The valuation of End-Semester Examination answer scripts shall be arranged by the Controller of Examinations as per the University procedures in vogue.

**13. Question Paper Setting:**

- 13.1 Model Question Paper for each theory course shall be prepared by the teacher within 15 days from the commencement of the Semester and the same shall be forwarded to the Controller of Examinations through the Chairman, BOS concerned. Two questions shall be set from each unit of the syllabus for a maximum of 12 marks each out of which one question from each unit shall be answered by the student. Further , a question may comprise sub-questions specifying the distribution of marks among them. However, the chairman BOS shall accord exception in question paper format,if necessary.
- 13.2 For each theory course, the Controller of Examination shall arrange for question paper setting by appointing one external paper setter out of the panel of at least six names recommended by the Chairman, BOS concerned.

**14. Academic Requirements :**

The cumulative performance of a student up to  $i^{th}$  semester will be indicated by Cumulative Point Average (CPA) 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

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

$M_{ij}$  = Marks secured in course j in semester i

- 14.1 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.
- 14.2 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.
- 14.3 Whenever the syllabus is revised for a course, only one End-semester Examination shall be held in old syllabus. Thereafter, the students who failed in that course shall take the End-semester Examination in the revised syllabus.

**15. Award of Class :**

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

<b>Cumulative Point Average (CPA)</b>	<b>Classification</b>
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

**16. Ranking and Award of Prizes / Medals :**

- 16.1 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.
- 16.2 The students who have become eligible for the award of B.Tech degree by passing regularly all the eight Semesters shall only be considered for the award of ranks.
- 16.3 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.

**17. Conditions of Promotion:**

A student shall be eligible for promotion to the next semester of B.Tech Programme provided he/she satisfies the attendance requirements in the immediately preceding semester as specified in clause 11.

**18. The Principal shall constitute Redressal Committee by nominating three Professors out of the faculty of the college for a period of two years. The Convener of the committee, one among the three, shall receive the complaints from students regarding the valuation of sessional tests, and place the same before the committee for its consideration. The committee shall submit its recommendations to the Principal for his consideration.**

**19. Transitory Regulations :**

- 19.1 A student who has been detained in any semester of previous regulations for not satisfying the attendance requirements shall be permitted to join in the corresponding semester of this regulation provided the clauses 11.1 and 11.5 hold good.
- 19.2 End-semester Examinations in each course under the regulations that precede immediately these regulations shall be conducted three times after the conduct of last regular examination under those regulations. Thereafter, the failed students, if any, shall take examination in the equivalent papers of these regulations as suggested by the Chairman, BOS concerned.

**20. Amendment to Regulations :**

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