



# SRI VENKATESWARA UNIVERSITY

## COLLEGE OF ENGINEERING: TIRUPATI

### Modified Academic Rules & Regulations- 2020 (R-20)

For B.Tech - Regular / Lateral Entry Scheme/ B.Tech Regular with Honors/ B. Tech. (Major) with Minor Degree Programme(s)

### Choice Based Credit System (CBCS) (Effective from Academic Year 2020-21)

Henceforth, these shall be known as **Academic Regulations R-20** and shall be applicable from the batch admitted in the academic year 2020-2021 through the State Level EAPCET and ECET. They shall be applicable to B.Tech Lateral Entry admitted students in 2021-2022 at the second year level (for Second, Third and Fourth years of study).

#### 1. System

The system is a flexible Choice Based Credit System (CBCS) permitting students

- To choose electives from a wide range of courses offered by the Institute or on-line platforms like SWAYAM online portal.
- To undergo additional courses.
- To adopt an inter-disciplinary approach.

#### 2. Programmes of Study:

The Sri Venkateswara University College of Engineering, Tirupati is offering the following Regular B.Tech programmes of study at present.

S.No.	B.Tech programme Specialization	Code	Code No.
1.	Chemical Engineering	CH	01
2.	Civil Engineering	CE	02
3.	Electrical and Electronics Engineering	EE	03
4.	Electronics and Communication Engineering	EC	04
5.	Mechanical Engineering	ME	05
6.	Computer Science & Engineering	CS	06
7.	Computer Science & Engineering (Artificial Intelligence)	CA	07

In addition, meritorious students will have the option to choose **either** B.Tech with Honors or B.Tech with a **Minor**, with extra courses and credits, in addition to those

prescribed for B.Tech (Regular). Different Major-Minor combinations are offered by the Institute subject to certain conditions specified in these regulations.

### 3. Duration

- 3.1 Minimum duration of the ALL B.Tech Programmes are of Semester pattern, with **Eight (08) Semesters** consisting of **Four (04) Academic Years**, each academic year having **Two Semesters** and **maximum period to study** the B.Tech Degree Programme is **Eight (08) Academic Years**.
- 3.2 The student shall **not take more than Eight (08) academic years** to fulfil all the academic requirements for the award of B.Tech. degree **from the date of commencement of first year first semester**, failing which the student shall forfeit the seat in B.Tech. Degree programme.
- 3.3 Each semester shall consist of 18 weeks, with a minimum of 90 instructional days per Semester and 04 weeks for Examinations. However, Number of instruction days may be reduced to 72, when necessary, with an increased number of instruction hours per week per course.
- 3.4 The four-year B.Tech. Degree programme consists of **160 Credits** and the student Has to register for all **160 credits** and earn all **160 credits** for the award of B.Tech Degree. There is **NO** exemption of credits in any case.
- 3.5 **UGC/AICTE** specified definitions/descriptions are adopted appropriately for various terms and abbreviations used in these regulations.
- 3.6 **Semester Scheme:** Each Semester shall have 'Continuous Internal Evaluation (CIE)' and 'Semester End Examination (SEE)'. Choice Based Credit System (CBCS) and Credit Based Semester System (CBSS) are taken as 'references' for the present set of Regulations. a

### 4. Instruction

#### 4.1 Course Classification & Instructions:

All courses offered for the Under-Graduate (UG) Programme (B. Tech. Degree Programme) are broadly classified as follows. The University has followed in general the guidelines issued by AICTE/UGC.

- 4.1.1 A **three-week Student Induction Program (SIP)** is **mandatory** for all first year UG students in I Semester and shall be conducted as per AICTE / UGC guidelines.
- 4.1.2 **Basic Courses** in Sciences and Basic Engineering to form the conceptual base.
- 4.1.3 **Professional Core Courses** intended knowledge development and enhancement in the chosen discipline of study.
- 4.1.4 **Non-credit Mandatory Courses (Audit Courses)** intended to provide awareness of the contemporary societal issues, or the opportunity to develop cultural, intellectual and civic interests.
- 4.1.5 **Elective Courses**, both Professional and Open, intended (a) to provide extended knowledge in the discipline of study, (b) to provide a broadened scope in the same

discipline, (c) to enable an exposure to some other disciplines and (d) to enhance students' proficiency/skill.

(i) **Professional electives:** The students have to choose **five professional electives** (PE-I to PE-V) from the list of professional electives given in the scheme of syllabus. PE-I & PE-II courses shall be included in VI Semester and PE-III, PE-IV & PE-V Courses shall be included in VII Semester.

(ii) **Open electives:** The students have to choose **open electives** (OE-I, OE-II, OE-III, etc.). **However, the student cannot opt for an open elective course offered by his own (parent) department.** All Open Electives should be studied through MOOCs in SWAYAM Online Portal.

4.1.6 **Skill Oriented Courses** intended to provide a **specific knowledge one specific skill**. It is based on the simple principle of '**learning by doing**' as practised in **real-life situations**. Therefore, it differentiates from the conventional theoretical approach, and instead, focuses on the traits of the individual. Theory course is one hour and Practical course two hours. The Internal evaluation is 40 marks and External evaluation is 60 marks.

4.1.7 **Internships:** Every student has to do (a) **Community Service Project (CSP) internship** and (b) **Summer Industry Internship (SII)**, which are mandatorily during the summer vacations and (c) **Project Work and Internship in the VIII Semester** to acquire the skills required for job and make engineering graduates to connect with the needs of the Society and Industry at large as per the **AICTE Internship Policy: Guidelines and Procedures**.

4.1.8 **NCC/ NSO/ NSS activities: Non-graded (NG) Credits** are core requirements and can be earned through formal academic activity and informal co-curricular or extra-curricular activities. All students shall be mandatorily registered for NCC/NSO/NSS activities.

4.1.9 A faculty advisor/mentor shall be assigned after admission in to the College to a **group of 10- 15students** from same department to do Internships (Community Service Internship, Summer Industrial Internship etc.) and also to provide counselling/ guidance in courses registration/career growth/placements/opportunities for higher studies/*GATE*/other competitive exams etc.

#### **4.2 Medium of Instruction:**

The medium of instruction of the entire B. Tech undergraduate programme (including examinations and project reports) is in English only.

#### **4.3 Student Induction Program (SIP)**

There shall be **mandatory Student Induction Programme** for fresher's, with a **three-week (i.e., minimum 15 working days) duration (i.e., around 90 -110 hours)** after the **commencement of first semester**, i.e. preferably after that no student will join /admit in the Institute and also final Roll Numbers of the students were notified. Physical activity, Creative Arts, Universal Human Values, Literary, Proficiency Modules,

Lectures by Eminent People, Visits to local Areas, Familiarization to Department/Branch & Innovations etc., shall be included strictly as per the guidelines issued by the AICTE / UGC.

#### **4.4 MOOCs (Massive Open Online Courses)**

Certain prescribed courses will have to be pursued on Online platforms. This is recommended to encourage students to tap these resources, get exposure from different premier Institutes faculty members, to compete with other students in the country and also to prepare them for self-study.

4.4.1 **All OPEN ELECTIVE Courses** are to be successfully completed on **SWAYAM-NPTEL** online portal of Government of India. It will be reflected as OE-I, OE-II, OE-III,.. etc.. must be reflected in Marks Memo / Grade Sheet as per the scheme.

4.4.2 Courses offered by the concerned Department as Program Core / Program Elective shall not be opted as an open elective course.

4.4.3 A student is free to opt for any course relating to (a) Domain Engineering(b) General Engineering (c) Management and (d) Functional / Technical English, in consultation with his / her Department. It should not be a course offered by the Department.

4.4.4 Opted course shall carry **3credits** and of **12** or more weeks of duration. Student has to pursue and acquire a certificate for a MOOC course only from SWAYAM Online Portal of Government of India in order to earn the 3 credits. Attendance will not be monitored for MOOC courses.

4.4.5 A student is free to enrol and complete an online courses starting from **I semester to VII semester** of his / her B.Tech Degree Programme.

4.4.6 Students are encouraged to do **at least two courses per Semester** in SWAYAM Portal, and complete online courses from B.Tech I semester onwards.

4.4.7 **Online courses on SWAYAM Portal only** shall be considered **for credit transfer**. The student will be awarded the credits given in curriculum only by submission of the certificate. In case, if student does not pass courses registered through SWAYAM Portal, the same or alternative equivalent course may be registered again through SWAYAM-NPTEL Portal in the next semester with the recommendation of **SPOC, SWAYAM-NPTEL / HOD** and shall be passed.

4.4.8 Head of the Department concerned shall make arrangement for collection and consolidation of performance certificates in online courses, in coordination/consultation with SPOC, SWAYAM-NPTEL Local Chapter for onward transmission to the Controller of Examinations (Both hard and soft copies of certificates) to take steps to include these courses in Marks Memo/ Grade Sheet of concerned semester.

## 4.5 Mandatory Summer Internships:

4.5.1 In the B.Tech. Degree Programme, Students shall undergo **two mandatory summer internships** (Community Service Project (CSP) and Summer Industry Internship) for a duration of **four to six (4-6) weeks** during the summer vacations by completing **45 - 90** hours of work with at least **75%** attendance.

4.5.2 There shall be mandatory full internship along with the project work parallelly in the final semester of the Programme as per the **AICTE Internship Policy: Guidelines and Procedures**.

4.5.3 In the final semester, the student should mandatorily undergo an internship and parallelly he/she should **work on a project with well-defined objectives**. A student shall also be permitted to submit project report on the work carried out during the internship. At the end of the semester the candidate shall submit an internship report and its completion certificate in the department.

4.5.4 Completion of internships is mandatory, if any student fails to complete an internship, he/she will not be eligible for the award of degree. In such cases, the student shall repeat and complete the internship.

## 5. Course Code

Each course shall be identified by an alpha-numeric course code, consisting of 2 alphabets followed by three numerals. XXyzz

XX denotes the department which offers the course.

y denotes the semester in which the course is offered.

zz denotes a serial number assigned by the course offering department.

<b>CE: Civil Engineering</b>	<b>CY: Chemistry</b>
<b>CH: Chemical Engineering</b>	<b>EN: English</b>
<b>CS: Computer Science &amp; Engineering</b>	<b>MA: Mathematics</b>
<b>EC: Electronics and Communication Engineering</b>	<b>PH: Physics</b>
<b>EE: Electrical and Electronics Engineering</b>	<b>MG: Management</b>
<b>ME: Mechanical Engineering</b>	<b>CA-CSE (AI)</b>
<b>PC: Professional Core Courses</b>	<b>PE: Professional Elective Courses</b>
<b>HS: Humanities and Social Sciences</b>	<b>OE: Open Elective Courses</b>
<b>MC: Non-Credit Mandatory Courses</b>	<b>BS: Basic Science Courses</b>
<b>ES: Engineering Science Courses</b>	<b>SC: Skill Oriented Courses</b>
<b>SI: Summer Industry Internship</b>	<b>SA: Skill Advanced Courses</b>
<b>CI: Community Service Internship</b>	<b>PW: Project Work</b>
<b>UG: Under- Graduate</b>	<b>BO: Biological Sciences</b>

## 6. Scheme of Instruction & Syllabus

- 6.1. A Board of Studies (Pass) of each department, constituted by the University, with experts from academic departments, industry, society, alumni and students with both internal and external members shall formulate the Scheme of Instruction and Evaluation of a programme and the detailed syllabus content of the courses.
- 6.2. All the Boards of Studies shall together formulate the scheme of instruction and examinations and detailed syllabi for all the courses of the First and Second Semesters.

## 7. Attendance Requirement

- 7.1 A student is required to complete the study of the Programme satisfying the attendance requirements in all the Semesters within a maximum period of eight academic years from the year of admission to become eligible for the award of B.Tech degree, failing which he/she forfeits his/her admission.
- 7.2 A student shall be detained in a Semester if he/she fails to satisfy the attendance requirements given below:
- (i) A student shall attend a minimum of 50 % of the hours of instruction taken by the teacher, in each Theory course or Laboratory (Practical) course.
  - (ii) A student shall be eligible to appear for the Semester End Examinations, if the student acquires a minimum of 75% of attendance in aggregate of all the courses for that semester- Theory + Tutorial + Practical Courses (excluding the attendance in non-credit mandatory (audit) courses and Skill Oriented Courses). Two periods of attendance for each theory course shall be considered, if the student appears for the mid-term examination of that course.
  - (iii) Shortage of attendance in **aggregate up to 10% (65% and above, and below 75%)** in each semester may be condoned by the **College Academic Committee**, headed by the Principal on genuine and valid grounds i.e., due to ill health of a student, based on the student's representation with supporting evidence. A **stipulated fee** shall be payable towards condonation of shortage of attendance in the SVUCE Examination fee account. Students availing condonation on medical grounds shall produce a medical certificate issued by the competent authority.
- 7.3 A student who fails to satisfy the attendance requirements specified in clause 7.2 (i, ii, iii) shall be **detained** and will have to repeat that Semester in the subsequent academic years with the written permission of the Principal subject to the clause 7.1.
- 7.4 Shortage of attendance **below 65% in aggregate** shall in **No case** be condoned.
- 7.5 A student shall not be permitted to study any semester **more than twice** during the entire Programme of study.
- 7.6 A student fulfilling the attendance requirement in the present semester shall not be eligible for readmission into the same semester. However, A student who satisfies the attendance requirements specified in either of the clauses 7.2 (ii or iii) in any

semester may be permitted to repeat that semester cancelling the previous attendance and sessional marks of that semester with the written permission of the Principal.

## 8. Credits Requirements

The following academic requirements must be satisfied, in addition to the attendance requirements mentioned in **clause 7**. The performance of the candidate in each semester shall be evaluated course-wise, with a maximum of 100 marks per course (theory / practical), based on Internal Evaluation and Semester End Examination.

8.1 **Assigning of Credits:** This is the unit by which the course work is measured. Courses are assigned a number of credit hours based on the amount of work required as represented in the course's learning outcomes and student achievements. For each credit hour student should be enrolled in, and expect one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class work for other academic activities such as practical, internships, research or other academic work leading to the award of academic credit hours.

1 Hr. Lecture (L) per week - 1 credit

1 Hr. Tutorial (T) per week - 1 credit

1 Hr. Practical (P) per week - 0.5 credits

2 Hours Practical (Lab)/week - 1 credit

2 Hours Internships or Research/week - 1 credit

8.2 **Credit requirement for the Award of B.Tech Degree: Successful performance in**

<b>B.Tech (Regular)</b>	<b>160 Credits</b>
<b>B.Tech ( Lateral Entry)</b>	<b>123 Credits (II, III &amp; IV years only)</b>
<b>B.Tech (Honors)</b>	<b>160 + 20 additional credits in the same discipline</b>
<b>B.Tech (Major-Minor)</b>	<b>160 (Major discipline) + 20 credits in other (Minor) discipline</b>

8.3 A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to each course, if he / she secures not less than 40% of Marks (**24 out of 60 marks**) in the Semester End Examination.

8.4 A student is eligible to appear for the Semester End Examination in any course, if absent from it or failed (failing to secure 'P' Grade or above), may reappear for that course at the supplementary examination as and when conducted. In such cases, his Internal Marks assessed earlier for that course will be carried over, and added to the marks secured in the supplementary

examination, for the purpose of evaluating student performance in that course.

- 8.5 When a student is **detained due to short age of attendance** in any semester, no Grade allotment will be made for that semester. However, he is eligible for re-registration in the subsequent semester(s), as and when next offered, with the academic regulations of the batch into which he is re-registered, by paying the prescribed tuition fees per that semester. The student shall have to secure afresh set of internal marks and Semester End Examination marks for performance evaluation in that semester courses SGPA/CGPA calculations.
- 8.6 The B.Tech Degree with Honors/ Minor shall be issued by the University to the students who fulfil all the academic eligibility requirements for the B. Tech Degree programme and Honors/Minor programme. The objective is to provide additional learning opportunities to academically motivated students.

## 9. Examination – Evaluation

The performance of a student in every course will be evaluated for 100 marks each, with 40 marks allotted for CIE (Continuous Internal Evaluation) and 60 marks for SEE (Semester End-Examination). The question papers are to be set by following Bloom's taxonomy L1–L6 both in internal and external examinations.

- 9.1 It is mandatory for a student to attend both the Mid-term tests in each theory course. The weighted average of the marks secured in two tests is awarded a sessional marks. A weight age of 0.8 shall be assigned for the better performance of the two tests whereas for the other test it shall be 0.2. If a student is absent for any of the internal tests for whatsoever reason, the marks awarded for that test shall be zero.
- 9.2 Students are permitted to verify their internal test scripts after valuation. The valuation and verification of answer scripts of Sessional Tests shall be completed within fifteen days after the conduct of the respective Sessional Tests.
- 9.3 Semester End Examination (SEE) is of **3 hours** duration carrying 60 marks. It shall be conducted after the last working day of the semester covering the entire syllabus prescribed for that course. The question paper for Semester End Examination shall be set by an external paper setter following Bloom's Taxonomy. The Chairman, BoS shall recommend a panel comprising at least six external paper setters for each theory course to the Controller of Examinations. The Controller of Examinations shall arrange for setting the question paper by appointing one external paper setter from that panel.
- 9.4 **Evaluation of Practical Courses:** For each practical course except project work, there shall be a Continuous Internal Evaluation (CIE) for a maximum of 40 marks shall be awarded based on the continuous assessment of practical work carried, by the teacher concerned. The Semester End Examination of three (03) hours duration



carrying 60 marks shall be conducted by two examiners: i) one external examiner and ii) one internal examiner appointed by the Principal. The Principal shall appoint an External Examiner from among the panel of examiners recommended by the Chairman, BoS concerned. The Principal shall appoint the internal examiner nominated by the Head of the Department concerned. Out of the 40 marks for continuous internal evaluation (CIE) marks distribution as follows:

- (a). 10 marks are allocated for attendance of the student to indicate regularity, punctuality and sincerity in turn to improve student attitude also.
- (b). 10 marks are for **Laboratory Record**, which may include the write up/ Design (or) Software /Hardware Model Presentation (or) App Development (or) Prototype Presentation submission which shall be evaluated after completion of laboratory course and before semester end practical examination
- (c). For 20 marks, Internal practical examination by the laboratory Course teacher concerned (in terms of aim, components/procedure, expected outcome, viva-voce (or) tutorial (or) case study (or) Quiz Test,) which shall be evaluated.

The Semester End Examination shall be conducted with an external examiner and the laboratory teacher concerned. The external examiner shall be appointed from the cluster / other colleges which will be decided by the Principal, SVUCE, Tirupati. In the Semester End Examination, held for 3 hours, total 60 marks are allocated as shown below:

- |                                  |   |
|----------------------------------|---|
| a). 10 marks for write-up        | b). 20 for experiment/program                             |
| c). 20 for evaluation of results | d). 10 marks for viva-voce on concerned laboratory course |

9.5 The Student, in each practical course, shall have to earn 40% of marks (i.e. 24 marks out of 60 marks) in SEE and to pass overall 40% of marks (i.e. 40 marks out of 100 marks) in both CIE and SEE marks put together.

9.6 **Mandatory Non-Credit Audit Courses:** Courses like Environmental Science, Constitution of India, Universal Human Values, Professional Ethics in Engineering etc., shall be included in the curriculum as non-credit mandatory courses (Audit Courses). To pass in Audit Course, a student has to secure at least 40 Marks out of 100 Marks allotted in the internal evaluation of that Audit Course. **Pass (P) / Fail (F)** shall be indicated in Marks Memorandum / Grade Sheet. In case student fails re-examinations shall be conducted.

9.7 **Evaluation of Project Work:** The guide shall assess the progress of Project Work continuously and award for a **maximum of 40 Marks**. A committee consisting of one external examiner and two internal examiners from the department shall evaluate the Performance of a student based on Oral Presentation and 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. He shall appoint the two internal examiners nominated by the Head of the Department concerned.

- 9.8 Head of the Department in consultation with the External Examiner shall schedule the **viva-voce Examination of Project / Dissertation Work**. The evaluation report (Marks Award Statement) should be send to the Principal. In case of unsatisfactory performance, committee may recommend for extension or repeat the work.
- 9.9 Advanced supplementary examinations for courses in the VII Semester shall be conducted for regular students, who fail in these courses, within a month after the announcement of VII Semester results, to save one academic year of time for outgoing students.

## **10. Course Performance**

- 10.1. In each semester, every student who satisfies the attendance requirements has to register for the Semester End Examination, failing which he/she shall not be allowed to write that Semester End Examination. Any such student who has not registered for the Semester End Examination in a semester shall repeat that End-Semester Examination in the next academic year with the written permission of the Principal.
- 10.2. To pass a course in the programme, a student has to secure a minimum of 40% of maximum marks in the Semester End Examination and a minimum Grade of **P** overall (both Sessional and Semester-End Examination marks put together). A student obtaining Grade **F** shall be considered failed and shall be required to reappear for the Semester End Examination. A student shall not be allowed to reappear for the Semester End Examination in a course which he/she has already passed the course to improve the score.
- 10.3. A student who has failed in a course shall be allowed to reappear for the Semester End Examination as and when it is conducted in the normal course. The Sessional Marks obtained by the student shall be carried over for declaring the results.
- 10.4. Semester End Examination in any course of after a particular regulation shall be conducted two times only. Thereafter, the students who failed in that course shall take the Semester End Examination in the equivalent courses of the subsequent regulation, suggested by the Chairman, BoS concerned.
- 10.5. Instant supplementary semester end examinations shall be conducted after announcement of IV year results for outgoing students in courses listed for IV year to save year for outgoing students.

## **11. Promotion Rules**

Student shall be promoted from first year to second year if he fulfils the minimum attendance requirements.

## 12. Student Performance - Grading and Grade Points

### 12.1 Letter Grade - Grade Point

After each subject is evaluated for 100 marks, the marks obtained in each subject will be converted to a corresponding letter grade as given below, depending on the range in which the marks obtained by the student fall. Letter Grade is an index of the performance of students in a said course. Grade Point is a numerical weight allotted to each letter grade on a 10-point scale.

Letter Grade	Range of Marks (Internal + End-Sem)	Grade Point
O (Outstanding)	91 - 100	10
A+ (Excellent)	81 - 90	9
A (Very Good)	71 - 80	8
B+ (Good)	61 - 70	7
B (Above Average)	51 - 60	6
C (Average)	41 - 50	5
P (Pass)	40	4
F (Fail)	<40	0
Ab (Absent)	-	0

A student who has obtained **Grade F(Fail)** or **Ab (Absent)** in any course shall be considered "**failed**" in that course and he / she shall have to reappear as a 'supplementary student' in the in the Semester End Examination as and when it is conducted in the normal course of time. In such cases, internal marks in those courses will remain the same as those obtained earlier.

In the Grade sheet, against Non-credit Mandatory Course (an audit course), **Audit Pass (P)** ( $\geq 40$  marks) or **Audit Fail (F)** (less than 40 marks) will be indicated. No letter grade /marks shall be allotted for non-credit (zero credit) audit courses. This will in no way affect the CGPA of the Student. A letter grade does not indicate any specific percentage of marks secured by the student, but it indicates only the range of percentage of marks. A student earns grade point (G) in each course, on the basis of the letter grade secured

in that course. The corresponding 'credit points' (CP) are computed by multiplying the grade point with credits for that particular course.

$$\text{Credit points (CP)} = \text{Grade point (G)} \times \text{Credits (C)}.$$

## 12.2 Grade Point Average

**Semester Grade Point Average (SGPA):** It is a measure of student's performance in a semester.

**Cumulative Grade Point Average (CGPA):** It is a measure of overall performance of a student over all semesters.

**Computation of Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA):**

- (i) The Semester Grade Point Average (SGPA) is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the courses taken by a student and the sum of the number of credits of all the courses undergone by a student in that semester.

$$SGPA (S_i) = \frac{\sum_{i=1}^N (C_i \times G_i)}{\sum_{i=1}^N C_i}$$

where,  $C_i$  is the number of credits of the  $i$ th Course and  $G_i$  is the grade point scored by the student in the  $i$ th course and  $N$  is the number of courses in that semester.

- (ii) The Cumulative Grade Point Average (CGPA) will be computed in the same manner considering all the courses undergone by a student over all the semesters of a program, i.e.

$$CGPA = \frac{\sum_{i=1}^M (C_i \times S_i)}{\sum_{i=1}^M C_i}$$

where ' $S_i$ ' is the SGPA of the  $i$ <sup>th</sup> semester and  $C_i$  is the total number of credits in that semester and  $M$  is the number of semesters.

- (iii) Both SGPA and CGPA shall be rounded-off to 2-decimal points and reported in the transcripts.
- (iv) While computing the SGPA/CGPA, the subjects in which the student is awarded Zero grade points will also be included.
- (v) As per AICTE regulations, conversion of CGPA into equivalent percentage is **Equivalent Percentage = (CGPA - 0.5) × 10**. It will also be mentioned in the transcripts.

## 12.3 Award of Class:

After a student has satisfied the requirements prescribed for the completion of the program and is eligible for the award of B.Tech degree, he/she shall be placed in one of the following:

<b>Class Awarded</b>	<b>CGPA Secured</b>
First Class with Distinction	$\geq 7.50$
First Class	$\geq 6.50 - < 7.50$
Second Class	$\geq 5.50 - < 6.50$
Pass Class	$\geq 5.00 - < 5.50$

#### 12.4 Provisional Certificate & Consolidated Marks Memo

Provisional Certificate (PC) & Consolidated Marks Memo (CMM) shall be given separately in A4 size format. On the rare side of CMM Letter Grade - Grade Point table and conversion formula for CGPA /SGPA to percentage should be printed invariably.

#### 13. NCC / NSO / NSS Requirements

13.1 All students admitted into the B.Tech. programme in SVUCE are required to choose in any one of the three-fold programmes i.e. National Cadet Corps (NCC) or National Sports Organization (NSO) or National Service Scheme (NSS), as an extra-curricular programme, and complete the requirements within the **first four** (I - IV) registered **semesters**(first and second years) of their study.

13.2 NSO programme will be restricted to only those students, who show marked proficiency in sports. The NCC / NSO/NSS programme shall be optional for the students other than those in the first and second year. The foreign nationals are exempted from these programmes.

13.3 Students' Welfare Committee shall complete the enrollment of students under the particular programme /scheme and forward the same to the Office of the Principal for completing the personal files of the students. The students enrolled in a scheme, shall not ordinarily be allowed to change afterwards.

13.4 Every student will be required to earn two (02) **Non-Graded Credits** from one of these activities, by completing **60**hours of work during second and third semesters preferably. The faculty coordinators of NCC / NSO / NSS will decide and announce the policies on earning Non-Graded Credits in these activities from time to time. A student must complete the **60** hours of activities in one of these three options by the end of the fourth registered semester or the summer after the fourth semester, failing which he/ she would not be allowed to register for the fifth semester to study.

13.5 The minimum attendance requirement is 75%. Grade shall be awarded as Satisfactory (S) or Unsatisfactory (U) in the mark sheet on the basis of **attendance, behaviour, participation and performance**. If a student gets an unsatisfactory Grade, he/she shall repeat the above activity in the subsequent years, in order to complete the degree requirements.

13.6 If a student falls short of the attendance requirements he / she should make up the deficiency as noted below:

If the absence is on valid grounds, the deficiency will be made up in the extra NCC / NSO / NSS programmes to be offered in the same year.

If the absence is unauthorized, the deficiency will have to be made up during the following year. The deficiency in NCC will have to be made up in NSO / NSS programmes at the rate of four times the deficiency, i.e., each NCC hour missed will be made up by four NSO / NSS hours.

The deficiency in NSO / NSS classes will have to be made up at the rate of two hours for each hour missed.

13.7 Preferably 3<sup>rd</sup> Saturday of a month may be devoted for NSS activities to the 2<sup>nd</sup> Year B.Tech students from the day class work commences for B.Tech III Semester.

#### **14. Gap Year**

Gap year(s) shall be availed by the outstanding student himself/herself who wants to pursue entrepreneurship by taking a break of one year at any time after completing 2<sup>nd</sup> year of study. An evaluation committee at College level shall be constituted to evaluate the proposal submitted by the student and the committee shall decide on permitting the student for availing the Gap Year. This period shall be counted for the maximum time for graduation. Students shall be permitted to re-join the succeeding year from the date of commencement of class work and shall be under the academic regulations in force at that time.

#### **15. Ranks & Awards**

15.1 Ranks shall be awarded in each branch of study on the basis of Cumulative Grade Point Average (CGPA) for the top three students.

15.2 The students who have become eligible for the award of the degree by passing regularly all the eight Semesters without backlogs shall only be considered for the award of ranks.

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

#### **16. Grievance Redressal Committee(GRC)**

The Principal shall constitute a Grievance Redressal Committee at College Level and at department levels also as per the AICTE/UGC guidelines. On receipt of grievance / complaint, the institution will refer the complaint to the appropriate **Committee** to address the **grievance / complaint of a student / parent within 15 days of receipt of complaint**. Grievances received from the students will be placed before the committee for its consideration. The committee shall submit its redressal recommendations to the Principal for an appropriate action on the said grievance.

## **17. Transitory Regulations**

- (a). Discontinued or detained candidates are eligible for re-admission as and when next offered.
- (b). The re-admitted candidate will be governed by the rules & regulations under which the candidate has been admitted.
- (c). (i) In case of transferred students from other Universities, credits shall be transferred to SVUCE as per the academic regulations and course structure of SVUCE.  
(ii) In addition, the transferred candidates have to pass the failed courses at the earlier Institute in the examinations conducted by the SVUCE with already obtained internal/sessional marks.

## **18. Amendment to Regulations**

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

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# SRI VENKATESWARA UNIVERSITY

## COLLEGE OF ENGINEERING:

### TIRUPATI

## B.Tech with Honors Programme

### Additional Regulations for B.Tech with Honors Programme

- H1. Students of a Department/Discipline are eligible to opt for B.Tech (Honors) Program offered by the same Department/Discipline, to be completed within the stipulated period of 4 years. Honors must be completed simultaneously with major degree program. A student cannot earn Honors after he/she has already earned bachelor's degree.
- H2. A student shall be permitted to register for B.Tech with Honors program at the beginning of IV Semester, provided that the student must have acquired a minimum of 8.00 SGPA in the preceding 3 semesters without any backlogs. (Only III Semester for students admitted in lateral entry). In case of the declaration of the III semester results after the commencement of the IV semester and if a student fails to score the required minimum of 8.00 SGPA, his/her registration for Honors Programme stands cancelled and he/she shall continue with the regular Programme. The credits earned in additional courses till that time will be treated as extra credits.
- A student will have to consistently perform and at any later point of time, if his/her overall CGPA falls below 8.00, his/her registration for B.Tech (Honors) will be cancelled and such students will continue with the regular Program and receive B.Tech degree only.**
- H3. Students can select additional and advanced courses offered by their respective department in which they are pursuing the degree and get an Honors degree in the same discipline. A Student can select at least one course per semester from the list of Honors courses of a branch in which they are pursuing the degree.
- H4. In addition to fulfilling all the requisites of a Regular B.Tech Degree Programme, a student shall earn 20 additional credits to be eligible for the award of B.Tech (Honors) degree. This is in addition to the credits essential for obtaining the Under-Graduate Degree in Major Discipline (i.e. 160 credits).



- H5. It is the responsibility of the student to acquire/complete prerequisite before taking the respective course. The courses offered shall be domain specific courses and advanced courses.
- H6. Of the 20 additional Credits to be acquired, 16 credits shall be earned by undergoing specified courses listed, with four courses, each carrying 4 credits. The remaining 4 credits must be acquired through two MOOCs, which shall be discipline-specific, each with 2 or 3 credits and with a minimum duration of 8/12weeks conducted in SWAYAM online portal of Government of India. Attendance will not be monitored for MOOC courses. A student has to acquire a certificate from the SWAYAM online portal of Government of India with grading or marks in order to earn 4 credits.
- H7. The concerned BoS shall also consider courses listed under professional electives of the respective B.Tech programmes for the requirements of B. Tech (Honors). However, a student shall be permitted to choose only those courses that he/she has not studied in any form during the Programme.
- H8. If a student drops or is terminated from the Honors programme, the additional credits so far earned cannot be converted into free or core electives; they will remain extra. These additional courses will find mention in the transcript (but not in the degree certificate). In such cases, the student may choose between the actual grade or "pass (P)" grade and also choose to omit the mention of the course as for the following, as per the option given by the student.
- (i) All the courses done under the dropped Honors will be shown in the transcript.
  - (ii) None of the courses done under the dropped Honors will be shown in the transcript.
- H9. In case a student fails to meet the required minimum of 8.00 SGPA in all Semesters for Degree with Honors at any point of time after registration, he/she will be dropped from the list of students eligible for Degree with Honors and they will receive regular B.Tech degree only. However, such students will receive a separate grade sheet mentioning the additional courses completed by them.

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# SRI VENKATESWARA UNIVERSITY

## COLLEGE OF ENGINEERING:

### TIRUPATI

## B.Tech (Major-Minor) Programme

### Additional Regulations for B.Tech (Major-Minor) Programme

- MM1. Students who are desirous of pursuing their special interest areas other than the chosen discipline of Engineering may opt for additional courses/credits in another specified engineering discipline from among the combinations offered by the Institute. Such a program is referred to as B.Tech (Major) in discipline A and Minor in discipline B.

For example, If Mechanical Engineering student selects subjects from Electronics Engineering under this scheme; he/she will get Major degree of Mechanical Engineering with minor degree of Electronics Engineering.

- MM2. Student from **ANY** department is **eligible** to apply for Minor from **ANY Other Department**. Combinations will be decided, based on the compatibility, relevance, and the trend in technology, by the Boards of Studies (BoS) of the participating Disciplines of Engineering. The list of combinations may alter from time to time.
- MM3. A student shall be permitted to register for B.Tech(Major - Minor)programme at the beginning of IV semester, provided that the student has acquired a minimum of 8.00 SGPA in the preceding 3 semesters without any backlogs. (Only III Semester for lateral entry).It is expected that the III Semester results may be announced after the commencement of the IV Semester. If a student fails to acquire 8.00 SGPA in III Semester or failed in any of the courses, his registration for Minors programme shall stand cancelled. An SGPA of 8.00 has to be maintained in the subsequent semesters without any backlog in order to keep the Minors registration active. The credits earned in additional courses till that time will be treated as extra credits. However, such students will receive a separate grade sheet mentioning the additional courses completed by them.

A student will have to consistently perform and at any later point of time, if his/her overall CGPA falls below 8.00, (both major and minor combined) his/her registration for B.Tech (Major-Minor) will be cancelled and such students will continue with the regular Programme and receive B.Tech degree only.

- MM4. A student shall earn additional 20 credits in the specified area to be eligible for the award of B. Tech degree with Minor. This is in addition to the credits essential for obtaining the Under Graduate Degree in Major Discipline (i.e. 160 credits). i.e., The students registered for B.Tech (Major-Minor) shall have to successfully complete 160 credits (in the major discipline) and 20 additional credits (in the minor discipline) subject to clause **MM3**.
- MM5. Scheme for 160 credits in the major discipline shall be the same as that of B.Tech regular programme. For the additional 20 credits, BOS of the minor degree component shall prescribe the courses. A Student can select at least one course per semester from the list of Courses of a branch of which he or she want to pursue minor degree.
- MM6. Of the 20 additional Credits to be acquired in the minor discipline, 16 credits shall be earned by undergoing specified four courses listed, each carrying 4 credits. There maining 4 credits must be acquired through two MOOCs in SWAYAM On-line Portal, which shall be minor discipline-specific, each with 2 or 3 credits and with a minimum duration of 8/12weeksas recommended by the Board of studies (BoS).It is the responsibility of the student to acquire/ complete prerequisite before taking the respective course. If a course comes with a lab component, that component has to be cleared separately. A student shall be permitted to choose only those courses that he/she has not studied in any form during the Programme.
- MM7. The concerned BoS shall decide on the minimum enrolments for offering Minor program by the department. If a minimum enrolments criterion is not met, then the students may be permitted to register for the equivalent MOOC courses in SWAYAM On-line Portal as approved by the concerned Head of the department. Attendance will not be monitored for the courses studied through MOOCs. Student has to acquire a certificate from the SWAYAM On-line Portal with grading or marks in order to earn 4 credits.

- MM8. Minor must be completed simultaneously along with a major degree programme. A student cannot earn the Minor after he/she has already earned a regular bachelor's degree.
- MM9. A committee should be formed at the College level to evaluate the grades/marks given by SWAYAM On-line Portal to a student. Upon completion of courses the committee should convert the obtained grades/marks to the maximum marks assigned to that course. The College Level Committee can take a decision on such conversions and may give appropriate grades.
- MM10. If a student drops (or terminated) from the Minor programme, they cannot convert the earned credits into free or core electives; they will remain extra. These additional courses will find mention in the transcript (but not in the degree certificate). In such cases, the student may choose between the actual grade or a "pass (P)" grade and also choose to omit the mention of the course as for the following:
- (i) All the courses done under the dropped Minors will be shown in the transcript.
  - (ii) None of the courses done under the dropped Minor will be shown in the transcript.
- MM11. In case of heavy competition for any combination(s), College Academic Council shall take an appropriate decision on registration, ensuring equitable distribution among the disciplines.

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# SRI VENKATESWARA UNIVERSITY

## COLLEGE OF ENGINEERING:

### TIRUPATI

#### ACADEMIC REGULATIONS FOR B.TECH (LATERAL ENTRY SCHEME) FROM THE ACADEMIC YEAR 2021-2022

##### Eligibility for award of B.Tech Degree (Lateral Entry Scheme (LES))

1. The **B.Tech.(LES)** students after securing admission into the II Year B.Tech Degree Programme shall pursue a course of study for not less than three academic years and not more than six academic years.
2. The student shall register for at least 123 credits and secure 123 credits with  $CGPA \geq 5.00$  from II year to IV-year B.Tech. Degree programme (LES) for the award of B.Tech degree.
3. The students, who fail to fulfil the requirement for the award of the degree in six academic years from the year of admission, shall forfeit their seat in B.Tech degree programme.
4. The attendance requirements of B. Tech. (Regular) shall be applicable to B.Tech.(LES).
5. **Promotion rule**
  - 5.1. A student will be promoted from II year to III year if he fulfils the academic requirement of 50% of credits up to either III Semester (II year) or IV Semester (II year) from all the examinations, whether or not the candidate takes the examinations and secures prescribed minimum attendance in IV Semester (II year).
  - 5.2. A student shall be promoted from III year to IV year if he fulfils the academic requirements of 50% of the credits up to either V Semester (III year) or VI Semester (III year) from all the examinations, whether or not the candidate takes the examinations and secures prescribed minimum attendance in VI semester (III year).
6. **All the other Rules and Regulations as applicable to 4-year B.Tech. (Regular) degree Programme will holds good for B.Tech. (Lateral Entry Scheme) degree Programme.**

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