



SRI VENKATESWARA UNIVERSITY, TIRUPATI

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TIRUPATI-517502

(ANDHRA PRADESH)

Lr.No.CII (B)M.Tech-Regulations-2018/AS/ 2019

Dt: 09-09-2019

FROM
THE REGISTRAR
S.V.UNIVERSITY
TIRUPATI

To

The Principal,
SVU College of Engineering,
Tirupati

Sir

Sub: - S.V.University -Academic Branch – Courses of Study – M.Tech. Degree –
Revised Regulations-2018- Ratification of the Academic Senate-
Communicated – Regarding.

Ref: 1. This office letter of even No. Lr.No.CII(B)/ M.Tech-Regulations/2018 ,
Dt. 10.07.2018.

2. Rector's Orders Dt : 07-09-2019.

In continuation of this Office letter first cited, I am, by direction, to inform that the Academic Senate at its meeting held on 16.05.2019 in its Resolution No.C-10, dated 16.05.2019 ratified the action taken by the Vice-Chancellor in approving the Revised Regulations relating to 2 year M.Tech. Degree Course (CBCS) and given effect from the batch of students admitted during the academic year 2018-19 in SVU College of Engineering, Tirupati

Yours faithfully,

Sd/-P. SREEDHARA REDDY
REGISTRAR

Copy to the Dean, Faculty of Engineering, SVU College of Engg., Tirupati for information

Copy to the Chairman, BoS, (PG), ~~ECE/EEE/CSE/Mech/Chem~~ Civil Engg, SVUCE for Information.

Copy to the Head, Department of ECE/EEE/ CSE/ Mech/ Chem./ Civil Engg, SVUCE, for information

Copy to the Controller of the Examinations, S.V. University, Tirupati for information

Copy to the Superintendents of B-VI, B-VII and B-IX Sections/EDP Cell, Examinations Branch, SVU Office, Tirupati for information.

//t.c.f.b.o//

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DEPUTY REGISTRAR
(ACADEMIC)



SRI VENATESWARA UNIVERSITY COLLEGE OF ENGINEERING: TIRUPATI

No.SVUCE/Dean/2019

Date.14-06-2019

From

To

Dr. P. Mallikarjuna
Dean, Faculty of Engineering
SVU College of Engineering
Tirupati

The Registrar
S V University
Tirupati

Sir,

Sub: SVU College of Engineering – Submission of B.Tech. and M.Tech.
Regulations – Regarding

I am herewith submitting B.Tech. (Regular) (CBCS) Regulations - 2018, B.Tech.
(Lateral Entry) (CBCS) Regulations - 2019 and M.Tech. (CBCS) Regulations - 2018
after making minor corrections as suggested in the Academic Senate meeting for
approval.

Thanking you,

Yours faithfully,

(Dr. P. MALLIKARJUNA)

Copy to the Principal, SVUCE

Copy to File

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

M.Tech Degree Program (CBCS) Regulations-2018
(With effect from the batch admitted in the academic year 2018 -2019)

CHOICE-BASED CREDIT SYSTEM

1. Preamble

M.Tech Degree Program is of two academic years with each academic year comprising of 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. Each course defines learning objectives and learning outcomes and comprises of lectures/tutorials/laboratory work/fieldwork/mini-project/dissertation work/viva/seminars/ assignments/ presentations/ self-study or a combination thereof.

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

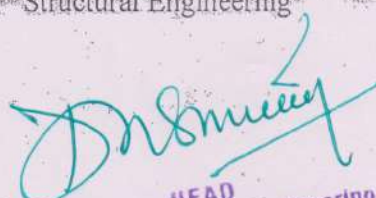
- i. choose electives from a wide range of elective courses
- ii. undergo additional courses of interest
- iii. adopt an inter-disciplinary approach in learning
- iv. make the best use of expertise of the available faculty

2. Minimum Qualification

Qualification for seeking admission into a specialization of M.Tech Degree program is B.Tech Degree, with at least 50% marks in aggregate, awarded by Sri Venkateswara University (SVU) in appropriate Branch of Engineering or any other Degree recognized by SVU as equivalent thereto including AMIE, AMIICHE and AMIETE.

3. Specializations of Study

1. Department of Chemical Engineering
 - a. Chemical Engineering
2. Department of Civil Engineering
 - a. Environmental Engineering
 - b. Geotechnical Engineering
 - c. Hydraulics and Water Resources Engineering
 - d. Structural Engineering


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3. Department of Electrical and Electronics Engineering
 - a. Power Systems
4. Department of Electronics and Communication Engineering
 - a. Communication Systems
 - b. Signal Processing
5. Department of Mechanical Engineering
 - a. Industrial Engineering
 - b. Production Engineering
6. Department of Computer Science and Engineering
 - a. Computer Science and Engineering

4. Program Duration

- 4.1 Minimum duration of the Program is two academic years i.e. four semesters.
- 4.2 Each semester consists of 18 week equivalent to 90 instruction days with an academic work of 30 hours/week. However, number of instruction days may be reduced to 72, when necessary, with increased number of instruction hours per course per week.
- 4.3 Students are permitted to pursue dissertation work (Phase II) on part-time basis after the completion of course work with prior approval from the Principal. The duration of dissertation work (Phase II) under part-time mode shall be two semesters.

5. Credit Definition

Credit is defined based on the quantum of content/syllabus prescribed for a course and the number of instruction hours per week. The norms for assigning credits to a course for a duration of one semester are:

- i. One credit for every one hour of lecture/tutorial per week
- ii. One credit for every two hours of practical work/seminar per week
- iii. Two credits for mini project
- iv. 26 credits for dissertation work

6. Classification of Courses

The courses of each specialization of study are classified into Core, Elective, Audit (non-credit) and Mandatory courses. It is mandatory for a student to complete successfully all the courses prescribed pertaining to his/her specialization of study. Massive Open Online Courses (MOOCs) and e-learning platforms can also be utilized for learning the courses with due permission from the Head of the Department.

7. Credits required for the Award of Degree

A student shall become eligible for the award of M.Tech degree, if he/she earns 68 credits prescribed for the program by passing all the core, elective, audit and mandatory

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courses along with practicals, mini-project and dissertation work.

8. Scheme of Instruction

The Board of Studies (BoS) of the Post-graduate program shall formulate the schemes of instruction and detailed syllabi of all the courses in the respective specializations. The syllabus of theory courses is organized into five units of equal weight.

9. Course Numbering Scheme

Each course is denoted by an alphanumeric code of six characters as detailed below:

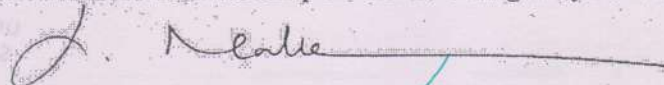

First two	Alphabetic characters	Specialization	CH : Chemical Engineering CO : Computer Science and Engineering CS: Communication Systems EE : Environmental Engineering GT: Geotechnical Engineering HW: Hydraulics and Water Resources Engineering IE: Industrial Engineering PE: Production Engineering PG : for a mandatory course PS: Power Systems SE: Structural Engineering SP: Signal Processing
Next two	Alphabetic characters	Course type	CP : Core Practical EP : Elective Practical MC : Mandatory course MP : Mini-Project OE : Open Elective PA: Program Audit PC : Program Core PD : Program Dissertation PE : Program Elective PS : Program Seminar
Next two	Numerals	Serial number	01, 02, ... for core courses. In case of elective/audit course, the first numeral indicates the number of elective/audit course and the next numeral the serial number.

10. Attendance Requirements

- 10.1 A student is required to complete the program of study satisfying the attendance requirements in all the semesters within twice the prescribed period of study from the year of admission failing which he/she forfeits his/her admission.
- 10.2 A student shall be detained in a semester if he/she fails to satisfy the attendance requirements given below:
 - i. A student has to attend at least 60 percent of the maximum hours of instruction in each course.
 - ii. A student has to attend at least 75 percent of the maximum hours of instruction of all the courses put together in a semester.
- 10.3 A student who fails to satisfy the attendance requirements specified in clause 10.2 in any semester has to repeat that semester in the subsequent academic year with the written permission of the Principal.
- 10.4 A student shall not be permitted to repeat any semester more than two times during the program of his/her study.
- 10.5 A student who satisfies the attendance requirements specified in clause 10.2 in any semester shall be permitted to repeat that semester to improve the semester grade point average by cancelling the previous attendance and sessional marks of that semester with the written permission of the Principal. This provision shall be extended for two times during the entire program of study provided the stipulation in clause 10.1 is satisfied.

11. Evaluation

- 11.1 Evaluation shall be done on a continuous basis i.e. through Continuous Internal Evaluation (CIE) and Semester-End Examination (SEE). For each theory course, two sessional tests of two hours duration carrying 40 marks each and a Semester-End Examination of three hours duration carrying 60 marks shall be conducted. Sessional marks for a maximum of 40 shall be awarded based on the performance in the two sessional tests.
- 11.2 First Sessional Test shall be conducted in the middle of the semester i.e. after the completion of 50 % of instruction days covering 50% of the syllabus. Second Sessional Test shall be conducted immediately after the completion of all instruction days covering rest of the syllabus.
- 11.3 It is mandatory for a student to attend both the sessional tests in each theory course. The weighted average of the marks secured in two tests shall be awarded as sessional marks. A weightage of 0.8 is assigned for the better performance of the two tests and 0.2 for the other test. If a student is absent for any of the internal tests for whatsoever reason, the marks awarded for that test shall be zero.
- 11.4 Students shall be permitted to verify the answer scripts of sessional tests.
- 11.5 Valuation of Semester-End Examination answer scripts shall be arranged by the Controller of



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Examinations as per the University procedures in vogue.

11.6 For each practical course, the sessional marks for a maximum of 40, shall be awarded by the teacher based on continuous assessment of practical work. The Semester- End Examination of three hours duration carrying 60 marks shall be conducted by two examiners: i) teacher concerned and ii) teacher nominated by HoD.

11.7 Each audit course shall be evaluated for a maximum of 100 marks by the teacher through continuous evaluation.

11.8 Mini-project shall be evaluated through continuous evaluation by the guide for 50 marks. A committee with Head of the department as Chairman, and supervisor and Chairman, BoS(PG) as members shall evaluate the seminar on mini project given by the student for 50 marks.

13. Evaluation of Dissertation Work

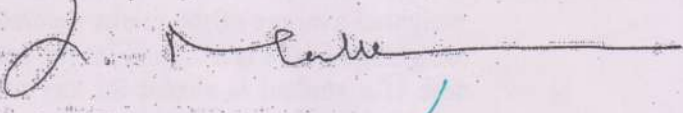
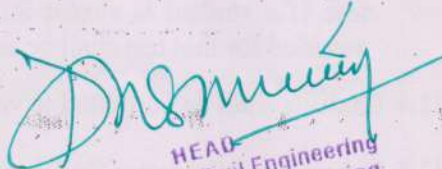
Normally, the dissertation work is carried out at Sri Venkateswara University College of Engineering (SVUCE). However, it can also be carried out in any of the recognized Educational Institutions/National Laboratories/ Research Institutions/ Industrial Organizations/ Service Organizations/ Government Organizations with the prior permission from the guide and Head of the Department.

13.1 The dissertation work shall be evaluated for a total of 26 credits as indicated in the Table below.

13.2 An open pre-submission seminar on dissertation work has to be given by the student at least four weeks ahead of the completion of the program. Head of the Department constitutes a committee comprising of the Chairman, BoS(PG), HoD and Guide and, convenes its meeting to evaluate the work. If the open pre-submission seminar delivered by a student is not satisfactory, another seminar shall be scheduled within two weeks.

13.3 A student has to submit his dissertation work duly certified by the guide and HoD, after successful completion of all the requisite credits pertaining to theory courses, practicals and mini-project. The Principal appoints the external examiner from among the panel of examiners recommended by the Chairman, BoS (PG) for evaluating the dissertation work.

13.4 Head of the department in consultation with the Guide and external examiner schedules the viva-voce Examination of dissertation work and sends the evaluation report to the Controller of Examinations.



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The evaluation of the dissertation work and the marks allotted are as under:

Evaluation of	Evaluation Committee	Marks
Dissertation(Phase-I) (Evaluation at the end of III Semester)		
i)Continuous Evaluation	Guide	50
ii) Seminar	The committee with Head of the Department as Chairman and, Chairman, BoS (PG) and Guide as members.	50
Dissertation(Phase-II) (Evaluation at the end of IV Semester)		
i)Continuous evaluation	Guide	20
ii)An open pre- submission seminar	The committee with Head of the Department as Chairman, and, Chairman, BoS (PG) and Guide as members.	20
iii)End-semester University Examination(An open seminar followed by a Viva-voce)	The committee comprising of External Examiner, HoD and guide wherein the HOD is the chairman of the committee.	60

14. Question Paper Setting

- 14.1 Model Question Paper for each theory course shall be prepared by the teacher and forwarded to the Controller of Examinations through the Chairman, BOS(PG). Two questions shall be set from each unit of the syllabus, out of which one question shall be answered by the student. Each question of the unit shall carry a maximum of 12 marks.
- 14.2 For each theory course, the question paper shall be set by an external paper setter. The Chairman, BoS(PG) recommends a panel comprising of at least six external paper setters to the University. The University shall arrange for setting the question paper by appointing one external paper setter from the panel.

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D. S. Muneer

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15. Grading and Grade Points

Grade Point: It is a numerical weight allotted to each letter grade on a 10-point scale.

Letter Grade: It is an index of the student's performance in a course. Grades are denoted by letters O, A+, A, B+, B, C, P and F.

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.

Letter Grades and Grade Points:

A 10-point grading system with the letter grades are as given below:

Grades and Grade Points

Letter Grade	Range of Marks	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
P (Pass)	50	5
F (Fail)	<50	-
Ab (Absent)	-	-

A student obtaining Grade F is considered failed and is required to reappear in the Semester-End Examination.

For non credit courses, 'Satisfactory' or 'Unsatisfactory' is indicated instead of the letter grade.

Computation of SGPA and CGPA

SGPA is the ratio of sum of the product of number of credits with the grade points scored by a student in all the courses and sum of the credits of all courses in the 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, G_i is the grade point scored in the i^{th} course and N is the number of courses in the semester.

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The CGPA is also calculated in a similar manner taking into account all the courses taken over all the semesters of the program.

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

where S_i is the SGPA of the i^{th} semester, C_i is the total number of credits in i^{th} semester and M is the number of semesters.

SGPA and CGPA shall be rounded off to two decimal points and reported in the transcripts.

- 15.1 A student who satisfies attendance requirements in a semester has to register for the Semester-End Examination, failing which he/she shall not be promoted to next semester. Any such student who has not registered for the Semester-End Examination in any semester has to repeat that semester in the subsequent academic year with the written permission of the Principal.
- 15.2 To pass a course in the program, a student has to secure a minimum of 50% 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 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, to improve the grade point.
- 15.3 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 subsequent semesters. Sessional Marks obtained by the student shall be carried over for declaring the results.
- 15.4 The Semester-End Examination in any course of a particular regulation shall be conducted three times. Thereafter, a student who fails in the course has to take the Semester-End Examination in the equivalent paper of subsequent regulations.

16. Award of Degree and Class

A student shall become eligible for the award of M.Tech degree if he/she earns 68 credits prescribed for the program with a minimum CGPA of 5.75.

The award of degree is classified based on CGPA as given below.

CGPA	CLASS
5.75 or more but less than 6.75	Second class
6.75 or more but less than 7.75	First class
7.75 or more	First class with Distinction

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17. Ranking and Award of Prizes / Medals

- 17.1 Ranks shall be awarded in each branch of study on the basis of Cumulative Grade Point Average (CGPA) for the top three students.
- 17.2 The students who have become eligible for the award of M.Tech degree by passing all the courses prescribed for the program regularly shall only be considered for the award of ranks.
- 17.3 Award of prizes, scholarships and other honors shall be based on the rank secured by the student and in conformity with the desire of the Donor.

18. Transitory Regulations


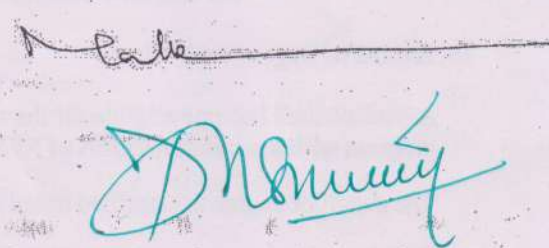
A student who is detained due to attendance shortage in any semester of a particular regulation shall be permitted to rejoin the corresponding semester of the regulation in force at that time. Further, he/she has to complete all the prescribed courses of the regulations in which he/she has been admitted by taking the incomplete courses or their equivalents offered in any semester of new regulations as suggested by the Chairman, BoS concerned provided the Clauses 12.1 and 12.5 hold good.

19. Grievance Redressal Committee

The Principal shall constitute a Grievance Redressal Committee consisting of three senior Professors from among the faculty of the college and a students' representative based on his/her academic merit/excellence in sports/performance in co-curricular activities as a special invitee for a period of two years. The Principal, Chairperson of the committee, shall receive the grievances from the students and places before the committee for its consideration and further suitable necessary action.

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.

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