



VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY REGULATIONS FOR M.TECH PROGRAMME

(Applicable for the students admitted into 1st Year M.Tech Course from the Academic Year 2016-17)

1. Admission

Application for admission to M.Tech Programme will be invited through open advertisement in the month of April/May every year. The eligibility criteria and selection procedure are given below.

- 1.1 The minimum qualification for admission to any M.Tech Programme is BE/BSc(Engineering)/B.Tech/equivalent(AMIE) in the relevant discipline.
- 1.2 All such candidates seeking admission to any M.Tech programme must have secured 60% (or 6.5 CGPA) in B.Tech or equivalent examination (Section-B for AMIE) except those have qualified GATE.
- 1.3 (a) Candidates with valid GATE score will be given admission to any M.Tech programme based on the scores in GATE examination.
(b) When sufficient numbers of GATE qualified candidates are not available for admission to an M.Tech programme, then, candidates will be selected based on their career marking.

For candidate without a valid GATE Score:

Total career marking	:	100 marks
(i) 10 th /equivalent Examination	:	25 marks
Marks obtained	:	(Percentage of marks secured/100) x 25 Or (CGPA/10) x 25 (on 10 point grade scale)
(ii) +2 Sc/equivalent Examinations	:	35 marks
Marks obtained	:	(Percentage of marks secured/100) x 35 Or (CGPA/10) x 35 (on 10 point grade scale)
(iii) B.Tech/Equivalent Examination	:	40 marks
Marks obtained	:	(Percentage of marks secured/100 x 40) Or (CGPA/10) x 40 (on 10 point grade scale)

(Universities/Institutions sometime record their own conversion of marks to grade or vice versa on their grade sheets. Under such circumstances VSSUT, Burla will accept only the original mode of evaluation specified by degree awarding university or institution ignoring the conversion).

- 1.4 Candidates who have appeared in their final B.E/B.Tech Examinations, but results have not been declared may also be provisionally admitted to the M.Tech Programme. However, they shall have to submit the final grade sheet and provisional pass certificate latest by 30th September of that year, failing which the provisional admission shall be cancelled. In this case the percentage of marks shall be computed from the marks/grades secured in all semesters excluding the final B.Tech examination. The candidates who would have not submitted the mark sheets/grade sheets of all the semesters except 8th Semester (final) semester, their cases shall not be considered for admission into M.Tech Programme.

2. **Award of M.Tech Degree**

A student will be declared eligible for the award of M.Tech. Degree if he fulfils the following:

- 2.1 The candidate shall pursue a course of study for not less than two academic years and not more than four academic years.
- 2.2 The student, who fails to fulfill all the academic requirements for the award of the degree within four academic years from the year of their admission, shall forfeit his seat in M.Tech. Course.
- 2.3 The candidate shall register and secure all credits offered for the course.
- 2.4 Has not been convicted for any cognizable offence.
- 2.5 Has secured CGPA 6.0 or more.
- 2.6 Obtained satisfactory grade in Yoga/NSS
- 2.7 Has cleared the credit requirements with pass grade or more in each subject.
- 2.8 Has a satisfactory conduct.
- 2.9 The student overall competency will be judged by the grade point average. There will be no class division awarded.

3. **Courses of study**

3.1. The following M.Tech programmes are offered at present.

Sl. No.	Department	M.Tech. Specialization
1	Civil Engineering	Environmental Science and Engineering
		Geotechnical Engineering
		Structural Engineering
		Transportation Engineering
		Water Resource Engineering
2	Computer Science and Engineering	Computer Science and Engineering
3	Electrical Engineering	Instrumentation and Control
		Power Electronics Control and Drives
		Power System Engineering
4	Electronics and Telecommunication Engineering	Communication System Engineering
		Microwave Engineering
		VLSI Signal Processing
5	Information Technology	Information and Communication Technology
6	Mechanical Engineering	Heat Power Engineering
		Machine Design and Analysis
		Production Engineering
7	Production Engineering	Manufacturing System Engineering
		Robotics and CAD/CAM

3.2. The medium of instruction is ENGLISH

3.3. The provisions made in these regulations shall be applicable to all M.Tech. Courses offered by the University at present and to any new M.Tech course (s) that may be added in future.

3.4. The University may change any or all of these regulations at any time

4. Academic Calendar

- 4.1 Each year shall be divided into two Semesters – autumn /Odd Semester (July to December) and spring/Even Semester (January to June). The Autumn Semester shall ordinarily begin in July for students already on rolls and the spring semester shall ordinarily begin in January. However, the first semester (autumn, for newly admitted students) may be held a little later depending on completion of admission formalities. The number of instruction days shall be a minimum of 90 working days per semester. One week is utilized for mid-semester examination.
- 4.2 Each year the University prepares an academic calendar, which will be adhered to. Details of curricula and syllabi shall be as decided by the Academic Council on recommendation of respective Boards of studies with provision for modification from time to time as per the needs.

5. Credits assigned to Courses

Table 1: Details of credits

	Maximum Marks	Semester		Pass Grade
		Periods / Week	Credits	
Theory	100	04	04	P
Laboratory Course	100	03	02	B
Design/ Drawing	100	03	02	B
Comprehensive Viva Voce	100	-	02	B
Seminar	100	3	02	B
Dissertation	100	6	20	B

6. Distribution and Weightage of Marks

The performance of a student in each semester will be evaluated subject-wise for a maximum of 100 marks for each theory, Laboratory Course, Design/ Drawing, Comprehensive Viva Voce, Seminar and Dissertation.

6.1 Theory Subjects

(a) A theory paper will have 100 marks. The distribution of marks is as follows:

Mid -semester Examination (of 2 Hours duration)	=	20 Marks
Assignments, Quiz	=	10 Marks
End semester Examination (of 3 Hours duration)	=	70 Marks
Total	=	100 Marks

(b) The mid-semester Examination will be conducted ordinarily after 40-45 days of commencement of semester. The academic calendar will specify the schedule for mid semester examination and end semester examination.

Repeat Mid-Semester Examination

A student remaining absent in Mid-semester examination shall forfeit the marks allotted for the examination. However, a student may be allowed to appear repeat Mid-semester examination to be conducted as per the Academic Calendar under the following cases.

- a) Death in family (to be supported by necessary documents).
- b) Illness leading to hospitalization (to be supported by the Discharge Certificate from the Hospital)
- c) Participation in cultural/sports/other official/academic assignment in the interest of University/Government (to be supported by relevant documents and duly permitted by Dean, Students' Welfare).
- d) Appearing the interview/written test for a job/higher study (to be supported by suitable evidences and certified by Dean, Students Welfare).

Procedure of application for repeat mid-semester examination:

- (i) If such cases occur during the Mid-semester examinations then the student should apply in proper format of application, which will be available in the university website or in the office of the Dean, PGS&R for prior permission from the officials as specified in the following Table 2 with necessary supporting documents before remaining absent in the Mid-Semester Examination (wherever possible).
- (ii) The offices of wardens of different halls of residence, and dean, student welfare will send recommended cases in a consolidated form with supporting documents within seven days from the conduct of last date of mid semester examination to the office of the Dean (PGS&R).
- (iii) The office of the Dean PGS&R will scrutinize such recommended cases and if required a committee comprising of Dean(PGS&R) as convener, Dean (Academic affairs), Dean(SW), COE, Medical officer of the University, warden of respective hall of residences will be called for verification of genuineness of cases of application. Otherwise the recommended cases will be treated as final.

Table 2: Details of officials for prior permission by students for repeat mid semester Examination under different cases

Sl.No.	Cases	Authorized Recommending Officials
1	i) Cases (a) & (b)	Warden (for Boarders) & DSW (For Day Scholars)
2	ii) Case (c) & (d)	DSW (For all students)

6.2 Laboratory Courses/Design/Drawing

Day to Day work	=	70 Marks
End semester Examination (of 3 Hours duration with External Teacher)	=	30 Marks
Total	=	100 Marks

For Laboratory subjects there shall be a continuous evaluation during a semester for day-to-day work in the laboratory including record writing 70 marks and 30 marks for end semester examination marks. The end semester examination shall be conducted with an external examiner (Teacher other than the concerned laboratory Teacher) and the laboratory teacher. Student has to secure minimum of 35 marks from day to day work and 15 marks in end

semester examination for securing pass mark that is B grade. Each student has to do independently one experiments/drawing or design problem during the end semester examination. The teacher in charge of the subject has to formulate the modalities of assigning the experiment/drawing or design problem to the students in the end semester examination.

6.3 Comprehensive Viva-Voce

There shall be a Comprehensive Viva-Voce at the end of 4th semester. The Comprehensive Viva-Voce will be conducted by a Committee consisting of Head of the Department and three Senior Faculty members of the Department covering different specializations and two External Examiners, one from relevant Industry and one from academic institutes. The Comprehensive Viva-Voce is intended to assess the student's understanding of the subjects, he studied during the M.Tech. Course. The Comprehensive Viva-Voce is evaluated for 100 marks by the committee.

6.4 Seminar

There shall be seminar(s) in M.Tech courses. For seminar the student shall collect the information on a specialized topic and prepare a technical report, showing his understanding on the topic, and submit it to the department. Further, student has to give a power point presentation on the seminar report before departmental committee. The marks for seminar are awarded as follows:

1) Day to work	-	20 Marks
2) Report preparation	-	20 Marks
3) Seminar Presentation	-	40 Marks
4) Viva-Voce on the Seminar topic	-	20 Marks
Total	-	100 Marks

6.5 Dissertation

There shall be an M.Tech Dissertation in 3rd and 4th semester, where the student shall investigate or work on a topic in any field of Engineering relevant to the Course of study. During the Dissertation works student shall do experimental or analytical works or Design works or any other type of dissertation approved by the Departmental committee. The committee should adopt a rational approach in assigning dissertation supervisor to a student in 3rd semester with respect to the research interest of the students in different specializations. When a student chooses to do Dissertation work in an industries/reputed institutions/universities then the internal faculty member should be the one of the supervisor for completion of the Dissertation. Attendance of such students doing project shall be furnished by the internal supervisor based on his interaction with the student. At the end of the 4th Semester the student shall submit a Dissertation report and gives a power point presentation before the Departmental committee with an external Examiner, outside the University, in the relevant field of Engineering.

The award of Marks for the Dissertation

1) Day to day work (awarded by the Supervisor)	-	50 Marks
2) Dissertation Report (Awarded by the Committee)	-	10 Marks
3) Presentation of Dissertation Seminar (Awarded by the Committee)-	-	20 Marks
4) Viva Voce (Awarded by the Committee)	-	20 Marks
Total	-	100 Marks

7. Attendance Requirements

- 7.1 A student is eligible to write the University examinations in a subject provided he register pursue a regular course of study and attends at least 75% of classes in respective theory, Laboratory Course, Design/Drawing, sessional subjects and Dissertation schedule date during the semester.
- 7.2 The student will be given attendance for all the day, he attended sports, games, NCC and NSS activities, other academic/ official assignments in the interest of the University / Government with prior written permission of the University, after due recommendation from Head of the Department (subjected to a maximum of 10% all together)
- 7.3 The condonation of shortage of attendance up to 10% (65% and above and below 75%) in each subject may be granted by the Committee consisting of medical officer of the university, COE, DSW, Dean (Academic affairs) and Dean (PGS&R) as convener for a student who has remained absent in classes for short periods due to death in the family and long period of his hospitalization. The committee will examine the case based on the documents submitted by the students, facts and circumstances. Assessment will be done by the committee on the merit of the case and give its recommendations to the vice-chancellor. Based on this recommendation, Vice-chancellor may then give condonation of attendance, if disserving, but in any case, condonation cannot exceed 10%. The concern student, including both boarder and day scholar, should apply for this purpose in the prescribed application form available in university website with supporting documents in the office of Dean (Student welfare) immediately after his absent.

The consolidated list of such application will be sent by the office of the Dean (Student welfare) to office of the Dean (PGS&R) before seven days of starting end semester examination.

- 7.4 Shortage of attendance below 65% in a subject shall not be condoned. It is responsibilities of each and every student to keep track or monitor his percentage of attendance for each subject and ensure that he satisfies the attendance norms presented by the university. If the student finds any discrepancy or error in the attendance status, he should immediately bring it to attention of the concern faculty members and respective HoD if required and seek redressal.
- 7.5 Students whose attendance is less than 65% in any subject are not eligible to write their end semester examination. He is allowed to appear supplementary examination with one grade less except for the students securing “P” grade and cases detained based on medical ground.

8. Minimum Academic Requirements

Results and Promotions:

- 8.1 In order to pass a programme / course a candidate must secure a minimum grade as specified in following sub-sections:
- (a) Pass in a Subject Item (Theory):
A candidate declared pass in a theory paper, if he has secured minimum of 30 Percentage marks in End Semester examination and overall 35 percentage marks in a subject including internal examination (“P” grade).
 - (b) Pass in a Subject Item (Laboratory Course / Dissertation / Seminar / Viva- Voce):
In a Laboratory Courses / Sessional / Seminar / Viva-Voce paper a candidate shall pass (clear) a subject if he has secured minimum of 50 Percentage Points (B grade).
 - (c) Pass in dissertation: A candidate is declared as passed if he secures minimum 50 percentage mark (B grade).
 - (d) If a candidate fails in a subject item (Laboratory Courses / Seminar / Dissertation/ viva-voce) in a semester he has to take re-admission in that semester in the next academic year. All such failiur cases shall be reported to the HoD of the concern subject by the concern teacher

(Examiner) before submission of marks to the CoE. The same is to be discussed in the departmental committee to be formed by the HoD. The departmental committee should consist of concern teacher (Examiner) and at least three senior faculty members and HoD as chairman and the decision taken there on with revised marks, if any, shall be forwarded to the concern conducting board for consideration.

8.2 Passed and Promoted (denoted by P) to next higher level/year.

He has no backlog from lower levels.

He has secured CGPA ≥ 5.5 in cleared subjects.

8.3 Eligible for Promotion with backlogs (denoted by XP) indicating that

The candidate is eligible for promotion to meet higher level/year with backlog (XP) as shown in Table 3.

Table No.3: Requirements for Promotion/Admission to next higher semester

1	2	3	4	5
For Admission into	Should have passed Sessional/ Laboratory Course/ Dissertation/ Seminar/ Viva-Voce items of	Should not have failed in more than four theory papers of	Should have cleared all course items of	Should have a minimum CGPA 5.5 in subjects passed
2 nd Semester	1 st Semester	-	-	-
3 rd Semester	2 nd Semester	1 st & 2 nd Semesters taken together	-	1 st & 2 nd Semesters
4 th Semester		-	-	-
For issue of Final Grade sheet		No backlogs in any semesters	All Semesters	6.0 or more

8.4 **Ineligible for Promotion (denoted by X):**

The candidate is NOT eligible for promotion to next higher level/ years if he does not satisfy the conditions in the Table 3. A student who fails to fulfil the candidature by laid down in Table - 3 shall become non-collegiate student for clearing the papers in which he has failed. He has to register for those subjects for appearing the examination in the next academic year subject to satisfying the condition lay down in section 2.1 and 2.2 of this regulations.

8.5 The overall performance of a successful candidate for the award of a degree shall be based on the combined results of all the examinations of the concerned programme.

9. Supplementary Examination

There shall be a Supplementary Examination for theory papers every year in June / July. Students who have failed in the theory subjects registered by them in odd and even semesters of the year, may avail this opportunity to clear these backlog subjects. The exact schedule for supplementary examination will be notified by the Controller of Examinations (COE) in the university website. Students are allowed to appear the supplementary examination only after register in the back log subjects by paying necessary dues during the notified period. Those

who have attendance shortage in the theory subject as mentioned in the section 7.5 are allowed to appear supplementary examination.

10. **Grading System**

- 10.1 A letter grading system is followed by the University based on 10 points as follows as recommended by UGC:

Table No.4: Details of Percentage of Points and corresponding Grade points

Qualification	Grade	Score on 100 Percentage Points	Points
Outstanding	O	$\geq 90\%$	10
Excellent	A+	$\geq 80\% \text{ \& } < 90\%$	9
Very Good	A	$\geq 70\% \text{ \& } < 80\%$	8
Good	B+	$\geq 60\% \text{ \& } < 70\%$	7
Above Average	B	$\geq 50\% \text{ \& } < 60\%$	6
Average	C	$\geq 40\% \text{ \& } < 50\%$	5
Pass	P	$\geq 35\% \text{ \& } < 40\%$	4
Fail	F	$< 35\%$	0
Absent	Ab		0

- 10.2 A student's level of competence shall be categorized by a GRADE POINT AVERAGE to be Specified as:

SGPA -Semester Grade Point Average.

CGPA-Cumulative Grade Point Average.

10.3 Definition of Terms

- POINT-Integer showing each letter grade. (as shown in Table- 4)
- CREDIT -Integer signifying the relative emphasis of individual course item(s) in a semester as indicated by the Courses (also see Table -1).
- CREDIT POINT = (b) x (a) for each course item.
- CREDIT INDEX = \sum CREDIT POINTS of course items in a semester.
- SEMESTER GRADE POINT AVERAGE (SGPA)

$$\text{SGPA} = \frac{\text{CREDIT INDEX for the Semester}}{\sum \text{CREDITS}}$$

(Note: (d) and (e) are same for course; d) referred for the limited research programs where a limited courses are registered for and e) referred for regular semester courses)

- CUMULATIVE GRADE POINT AVERAGE (CGPA)

$$\text{CGPA} = \frac{\sum \text{CREDIT INDEX of all previous Semesters}}{\sum \text{CREDITS of all previous Semesters upto a semester.}}$$

- 10.4 The Grade secured in YOGA will be mentioned in the 4th Semester Grade Sheet along with the CGPA.

- 10.5 Conversion Formula to percentage (as per UGC Guidelines):

The conversion from CGPA to percentage of marks shall be as follows:

$$\text{Percentage of marks: } (\text{CGPA} - 0.5) \times 10\%.$$

- 10.6 For non-credit courses 'Satisfactory' or 'Unsatisfactory' shall be indicated instead of the letter grade and this will not be counted for the computation of SGPA/CGPA.

10.7 Grade Sheet

At the end of each even semester, grade sheet shall be made available to each student free of cost. However, if a student requires a duplicate grade sheet he should apply to the Controller of Examinations along with a money receipt of required fee. The grade sheet of a student may be withheld if he has not paid his dues or if there is a case of indiscipline pending against him for any other reason.

11. Transit Regulation in case of change in Regulations or Course of Studies

- 11.1 When a student seeks admission/ readmission to a semester other than 1st semester at a later academic year due he has to pursue study according to the new courses of study from that semester onwards. But he shall be governed by regulation prevalent at the time of his admission to first semester and shall have to appear back papers of the previous semesters according to the old course of studies.
- 11.2 The degrees shall be awarded to such students by the University after the recommendations of the Academic Council of the university.

12. Residence

- 12.1 Veer Surendra Sai University of Technology, Odisha, Burla is ordinarily a residential University. However, upon non-availability of seat in halls of residence students shall make their own arrangement for boarding & lodging outside under intimation to the institution.
- 12.2 The boarders shall abide by the rules of the halls of the residence framed from time to time.
- 12.3 The University will provide reasonable accommodation to students with disabilities as per availability in order to promote academic success.

13. Conduct and Discipline

- 13.1 Students shall conduct themselves within and outside the premises of the University in a manner befitting the students of a premier University.
- 13.2 Students shall show due respect to the teachers and officers of the university. Further, proper courtesy and consideration should be extended to the employees of the University and of the halls of residences. They shall also pay due attention and courtesy to the visitors of the university and residents of the campus.
- 13.3 Students are required to develop a friendly, camaraderie with fellow students. In particular, they are expected to show kindness and consideration to the new students admitted to the University every year. ***Ragging in any form inside and outside in campus is banned by law.*** Acts of ragging will be considered as gross indiscipline and will be severely dealt with.
- 13.4 The following acts of omission and/or commission shall constitute gross violation of the code of conduct and are liable to disciplinary action.
- Ragging (see UGC regulations on the curbing the menace of Ragging)
 - Lack of courtesy and decorum, indecent behavior anywhere within or outside the campus.
 - Willful damage or stealthy removal of any property/ belongings of the University /Hostels or fellow students.

- Possession, consumption or distribution of alcoholic drinks or any kind of hallucinogenic drugs.
- Adoption of unfair means in the examinations.
- Mutilation or unauthorized possession of Library books.
- Noisy and unseemly behavior, disturbing fellow students. Commensurate with the gravity of offence, the punishment may be reprimand, fine/ expulsion from the hostel, debarment from examination, rustication for a specified period or even outright expulsion from the University. The Vice-Chancellor on recommendation of the Disciplinary Committee may take any disciplinary action as deemed fit and deserving. The academic council may not recommend a student, who is found guilty of some major offence, to BOM for the award of a degree even if he has satisfactorily completed the entire academic requirement.

14. Readmission to a Semester

The following categories of students may seek readmission to a semester:

- Those who have discontinued study in a semester of previous academic year on valid grounds.
- Those who have been rusticated for some definite period in a semester of previous academic year provided the period of punishment is over by the time of admission.
- Those who have been detained due to shortage of attendance in a semester of previous academic year.
- Those who have failed to satisfy the requirements under regulation for promotion to the next year / semester.

15. Anomaly (if any): All differences and disputes arising in the interpretation and implementation of these regulations as above in this prospectus will be referred to the Vice-Chancellor and his decision shall be final and binding.

16. Jurisdiction for all disputes, if any relating to VSSUT is Sambalpur, Odisha, India only.

17. Withdrawal of degree

Under extremely exceptional circumstances where gross violation of the post-graduation requirements is detected at a later stage, the academic council may recommend for withdrawal of the degree already awarded.

18. General

18.1 Wherever the words he/him/his occurs in the regulations, they include she/her/hers.

18.2 The academic regulation should be read as a whole for the purpose of any interpretation.

18.3 In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Vice-Chancellor is final.

18.4 The University may change or amend the academic regulations of syllabi at any time and the changes or amendments made shall be applicable to all the students with effect from the dates notified by the University.