

## **Academic Rules and Regulations for M.Tech Programme**

The M.Tech Degree of Sri Vasavi Engineering College (Autonomous), Pedatadepalli, Tadepalligudem, under Jawaharlal Nehru Technological University Kakinada shall be conferred on candidates who are admitted to the programme and fulfill all the requirements for the award of the Degree.

### **1.0 ELIGIBILITY FOR ADMISSIONS:**

Admission to the above programme shall be made subject to eligibility criteria, qualification and specialization as prescribed from time to time.

Admissions shall be made on the basis of merit/rank obtained by the candidates at the Qualifying Examination/Entrance Test conducted by the University/Government or on the basis of any other order of merit as approved by the University/ Government subject to reservations as laid down by the Govt. from time to time.

#### **1.1 ADMISSIONS UNDER SPECIAL CASES:**

These may arise in the following situations.

4. When a student gets detained due to academic regulations and re-joins the college to complete the programme in a new regulation.
5. When a student discontinues for some time and re-joins the college to complete the programme in a new regulation.
6. When a student seeks transfer from other colleges to SVEC and intends to pursue M.Tech programme in the eligible branch of study.

These admissions may be permitted by the College Academic Council as per the norms stipulated by the statutory bodies and the Government of Andhra Pradesh from time-to-time.

In all such cases for admission if necessary permissions from the statutory bodies are to be obtained and the programme of study at the college will be governed by the transitory regulations stipulated in **12.0**.

An under taking from the students is to be taken at the time of admission stating that they would abide by the transitory regulations specified by the authorities if there is any change in the regulations.

## **2.0 AWARD OF M.Tech DEGREE:**

- i. A student shall be declared eligible for the award of the M. Tech Degree, if he pursues programme of study in not less than two and not more than four academic years.
- ii. The student shall register for all 70 credits and secure all the 70 credits.
- iii. The duration of each semester including examinations is 21 weeks.

## **3.0 SPECIALIZATION:**

The following specializations are offered at present for the M. Tech programme

- a) M.Tech- Structural Engineering
- b) M.Tech- Power System Control & Automation
- c) M.Tech- Machine Design
- d) M.Tech- VLSI & Embedded Systems
- e) M.Tech- Computer Science & Engineering

## **4.0 ATTENDANCE:**

A student is eligible to write the semester end examinations (SEE) if he/she acquires a minimum of 75% of attendance in aggregate of all the courses of that semester put together.

- 4.1** Condonation of shortage of attendance in aggregate up to 10% (65% and above **but** below 75%) in a given semester may be granted by the College Academic Committee on medical grounds provided the student has submitted the application for medical leave along with medical certificate from a Registered medical practitioner within three days from reporting to the class work after the expiry of the medical leave. However, a student can avail this concession on medical grounds for not more than once during entire duration of the programme.
- 4.2** A student representing the college in approved extracurricular activities such as sports, games, cultural meets, seminars, workshops and conferences shall be considered as on duty provided he/she has obtained prior written permission from the head of the department concerned and also submitted the certification of participation from the organizer of the event within three days after the completion of the event. However, this period of absence shall be counted as present for the purpose of computation of attendance only.
- 4.3** A stipulated fee shall be payable towards condonation of shortage of attendance.
- 4.4** Attendance below 65% in aggregate shall not be condoned under any circumstances.

- 4.5 Students whose shortage of attendance is not condoned in any semester are not eligible to write their semester end examinations.
- 4.6 A student who is in short of attendance in a semester may seek re-admission into that semester when offered again, within 1 week from the date of the commencement of class work.
- 4.7 A student will be promoted to the next semester if he satisfies the attendance requirement of the present semester.
- 4.8 If any candidate fulfills the attendance requirement in the present semester, he shall not be eligible for readmission into the same class.

## 5.0 EVALUATION:

The performance of the candidate in each semester shall be evaluated course-wise, with a maximum of 100 marks for theory and 100 marks for practicals, on the basis of Internal Evaluation (IE) and End Semester Examination.

### **Theory Courses:**

- i. For the theory courses 60 marks shall be awarded based on the performance in the End Semester Examination and 40 marks shall be awarded based on the Internal Evaluation. The internal evaluation shall be made based on the average of the marks secured in the two Mid Term-Examinations conducted-one in the middle of the Semester and the other immediately after the completion of instruction.
- ii. Each Mid-term examination shall be conducted for 30 marks and duration of 120 minutes with 3 questions (without choice), each question for 10 marks.  
The balance 10 marks is earmarked for alternate assessment tool like assignments etc.,

<b>Internal Evaluation= Average of two mid examinations (30)+AAT (10)</b>
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End Semester Examination shall be conducted for 60 marks.

There will be 5 questions with internal choice covering the entire syllabus. The student has to answer all the questions.

### **Practical Courses:**

For practical course, 60 marks shall be awarded based on the performance in the End Semester Examination (Conducted by External Examiner and Internal Examiner) and

40 marks shall be awarded based on the day-to-day performance and an Internal Test as Internal Evaluation.

**Seminar:**

There shall be two seminar presentations one in I semester and another in II semester. For seminar, a student under the supervision of a faculty member, shall collect the literature on a topic and critically review the literature and submit it to the department in a report form and shall make an oral presentation before a Committee consisting of Head of the Department, Supervisor and two other senior faculty members of the department. For each Seminar there will be only internal evaluation for 50 marks. A candidate has to secure a minimum of 50% of marks to be declared successful.

**MOOCS Courses:**

Every student has to register for a MOOCs course in 1<sup>st</sup> semester itself as approved by the Departmental Committee and complete it on self study basis and submit the certificate of successful completion before the end of 3<sup>rd</sup> semester.

**Comprehensive Viva:**

Every Student has to appear for a comprehensive Viva-Voce at the end of III Semester. The performance will be assessed by a committee for 50 marks.

**5.1 Minimum Academic requirement:**

- i. A candidate shall be deemed to have secured the minimum academic requirement in a course if he secures a minimum of 40% of marks in the End semester Examination and a minimum aggregate of 50% of the total marks in the End Semester Examination and Internal Evaluation taken together.
- ii. In case the candidate does not secure the minimum academic requirement in any course (as specified in 5.1(i)) he has to reappear for the End Semester Examination in that course.
- iii. A candidate shall be given one chance to re-register for each course provided the internal marks secured by a candidate are less than 50% and has failed in the end examination. In such a case, the candidate must re-register for the course(s) and secure the required minimum attendance. The candidate's attendance in the re-registered course(s) shall be calculated separately to decide upon his eligibility for writing the end examination in those course(s). In the event of the student taking another chance, his internal marks and end examination marks obtained in the previous attempt stands cancelled.
- iv. For re-registration the candidates have to apply to the Dean Academics by paying the

requisite fees and get approval from the College before the start of the Semester in which re-registration is required.

In case the candidate secures less than the required attendance in any re-registered course(s), he shall not be permitted to write the End Examination in that course. He shall again re-register the course when next offered.

## **6.0 EVALUATION OF PROJECT/DISSERTATION WORK:**

The project duration is two semesters. Every candidate shall be required to submit a thesis or dissertation on a topic approved by the Project Review Committee.

- i. A Project Review Committee (PRC) shall be constituted with Head of the Department and two other senior faculty members along with project supervisor.
- ii. The total project work is evaluated at the end of 4<sup>th</sup> semester for a total of 100 marks out of which 50 marks are awarded by an internal committee (PRC) and 50 marks are awarded by an external examiner.

### **6.1 Registration of Project Work:**

The work on the project shall be initiated at the beginning of the II year and the duration of the project is two semesters.

A candidate is permitted to register for the project work after satisfying the attendance requirement of all the courses, both theory and practical.

The student has to submit, in consultation with his project supervisor, the title, expected outcomes and plan of action of his project work for approval. The student can initiate the Project work, only after obtaining the approval from the Project Review Committee (PRC).

At a later stage if a candidate wishes to change his supervisor or topic of the project, he can do so with the approval of the Project Review Committee (PRC). However, the Project Review Committee (PRC) shall examine whether or not the change of topic/supervisor leads to a major change of his initial plans of project proposal. If yes, his date of registration for the project work starts from the date of change of Supervisor or topic as the case may be.

### **6.2 Project Evaluation:**

- i. A candidate is permitted to submit Project Thesis only after successful completion of all theory and practical courses with the approval of PRC, not earlier than 40 weeks from the date of registration of the project work.
- ii. Three copies of the Project Thesis certified by the supervisor shall be submitted to the

department.

- iii. The thesis shall be adjudicated by an External Examiner approved by the Principal from a panel of 4 Examiners, eminent in the field, submitted by the Department.
- iv. If the report of the examiner is not favorable, the candidate shall revise and re-submit the Thesis in the time frame as decided by the PRC. If the report of the examiner is unfavorable again, the thesis shall be summarily rejected. The candidate has to re-register for the project and complete the project within the stipulated time after taking the approval from the competent authority.
- v. If the report of the examiner is favorable, Viva-Voce examination shall be conducted by the external examiner who adjudicated the thesis. The Head of the Department shall coordinate and make arrangements for the conduct of Viva-Voce examination.
- vi. The total project work is evaluated at the end of 4<sup>th</sup> semester for a total of 100 marks out of which 50 marks are awarded by the internal committee (PRC) and 50 marks are awarded by the external examiner and the performance is graded as per the grading system given in 7.0. If the report of the Viva-Voce is unsatisfactory, the candidate shall retake the Viva-Voce examination only after three months. If he fails to get a satisfactory report at the second Viva-Voce examination, the candidate has to re-register for the project and complete the project within the stipulated time after taking the approval from the College.

#### **7.0 GRADING SYSTEM:**

Based on the students performance in different courses of a semester **letter grades** will be awarded at the end of the semester for each course. The letter grades and the corresponding **grade points** are as given in the following table.

<b>Grade</b>	<b>Grade Points</b>	<b>% of marks</b>
S	10	≥ 90
A	9	≥ 80 - < 90
B	8	≥ 70 - < 80
C	7	≥ 60 - < 70
D	6	≥ 50 - < 60
F	0 (Failed)	< 50

## 8.0 GRADE POINT AVERAGE:

### Computation of SGPA and CGPA:

The following is the procedure to compute the Semester Grade Point Average (SGPA) for each semester and Cumulative Grade Point Average (CGPA) for all four semesters of the programme:

- i. The 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, i.e

$$\text{SGPA (Si)} = \frac{\sum(C_i \times G_i)}{\sum C_i}$$

where  $C_i$  is the number of credits of the  $i^{\text{th}}$  course and  $G_i$  is the grade point scored by the student in the  $i^{\text{th}}$  course.

- ii. The CGPA is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme, i.e.

$$\text{CGPA} = \frac{\sum(C_i \times S_i)}{\sum C_i}$$

Where  $S_i$  is the SGPA of the  $i^{\text{th}}$  semester and  $C_i$  is the total number of credits in that semester.

The SGPA and CGPA shall be rounded off to 2 decimal places and reported in the transcripts.

### Illustration for Computation of SGPA and CGPA:

#### Computation of SGPA at the end of 1<sup>st</sup> semester

#### Illustration No.1:

Course	Credit	Grade letter	Grade point	Credit Point (Credit x Grade)
Course 1	3	A	9	3 x 9 = 27
Course 2	3	C	7	3 x 7 = 21
Course 3	3	B	8	3 x 8 = 24
Course 4	3	S	10	3 x 10 = 30
Course 5	3	D	6	3 x 6 = 18
Course 6	3	C	7	3 x 7 = 21
Course 7	2	A	9	2 x 9 = 18
<b>Total</b>	<b>20</b>			<b>159</b>

Thus, **SGPA at the end of 1<sup>st</sup> Semester = 159/20 = 7.95**

**Illustration No.2 (with one failure)**

Course	Credit	Grade letter	Grade point	Credit Point (Credit x Grade)
Course 1	3	A	9	3 x 9 = 27
Course 2	3	C	7	3 x 7 = 21
Course 3	3	B	8	3 x 8 = 24
Course 4	3	S	10	3 x 10 = 30
Course 5	3	F	0	3 x 0 = 00
Course 6	3	C	7	3 x 7 = 21
Course 7	2	A	9	2 x 9 = 18
<b>Total</b>	<b>20</b>			<b>141</b>

Thus, **SGPA at the end of 1<sup>st</sup> Semester = 141/20=7.05**

**Illustration No.2 (a)**

Course	Credit	Grade letter	Grade point	Credit Point (Credit x Grade)
Course 5	3	D	6	3 x 6 =18
<b>Total Credits of the Semester</b>	<b>20</b>			Ci(First Attempt)141 +Ci (subsequent attempt) 18= <b>159</b>

Thus, **SGPA=159/20=7.95**

**Illustration No.3**

**Second Semester performance:**

Course	Credit	Grade letter	Grade point	Credit Point (Credit x Grade)
Course 1	3	A	9	3 x 9 = 27
Course 2	3	C	7	3 x 7 = 21
Course 3	3	B	8	3 x 8 = 24
Course 4	3	Ex	10	3 x 10 =30
Course 5	3	A	9	3 x 9 = 27
Course 6	3	C	7	3 x 7 =21
Course 7	2	A	9	2 x 9 =18
<b>Total</b>	<b>20</b>			<b>168</b>

Thus, **SGPA of 2<sup>nd</sup> Semester = 168/20=8.4**

**CGPA at the end of 2<sup>nd</sup> Semester:**  $CGPA = \frac{20 \times 7.95 + 20 \times 8.4}{40} = 8.175$



<i>Sem-1</i>	<i>Sem-2</i>	<i>Sem-3</i>	<i>Sem-4</i>
Credit : 20	Credit: 20	Credit : 10	Credit : 20
SGPA: 7	SGPA: 8.5	SGPA: 9.2	SGPA: 6.86

**CGPA after Final Semester:**

$$\text{Thus, CGPA} = \frac{20 \times 7 + 20 \times 8.5 + 10 \times 9.2 + 20 \times 6.86}{70} = 7.70$$

**AWARD OF CLASS:**

A candidate who becomes eligible for the award of M.Tech degree shall be placed in one of the following classes based on CGPA.

**TABLE: CGPA Required for Award of Class**

<b>Distinction</b>	<b>≥ 7.75*</b>
<b>First Class</b>	<b>≥ 6.75</b>
<b>Second Class</b>	<b>≥ 6.0</b>

\*In addition to the required CGPA of 7.75, the student must have necessarily passed all the courses of each semester in the first attempt.

**9.0 MALPRACTICES:**

The Principal shall refer the cases of malpractices in Continuous Internal Evaluation (CIE) and Semester End Examination (SEE) to an Enquiry Committee constituted by him. The committee will submit a report on the malpractice allegedly committed by the student to the Principal.

Rules pertaining to the punishments in the case of Malpractice are given in Annex-I

**10.0 ADDITIONAL ACADEMIC REGULATIONS:**

**Grade Sheet:** A grade sheet (memorandum) will be issued to each student indicating his performance in all courses taken in that semester and also indicating the grades and SGPA.

**Transcripts:** After successful completion of the total programme of study, a Transcript containing performance of all academic years will be issued as a final record. Candidates shall be permitted to apply for recounting/revaluation within the stipulated period with payment of prescribed fee. The Academic Council has to approve and recommend to the JNTUK, Kakinada for the award of a degree to any student.

### **11.0 WITHHOLDING OF RESULTS**

If the student has not paid the dues, if any, to the **college** or if any case of indiscipline is pending against him, the result of the student will be withheld. His degree will be withheld in such cases.

### **12.0 TRANSITORY REGULATIONS:**

For students admitted under special cases (mentioned in 1.1) these transitory regulations will provide the modus operandi.

At the time of such admission, based on the programme pursued (case by case):

5. Equivalent courses completed by the student are established by the BOS concerned.
6. Marks/Credits are transferred for all such equivalent courses and treated as successfully cleared in the Programme of study prescribed by SVEC.
7. A Programme chart of residual courses not cleared will be derived and a Programme of study with duration specified will be prescribed for pursuit at SVEC.
8. Marks obtained in the previous system if the case be, are converted to grades and CGPA is calculated accordingly.

All other modalities and regulations governing shall be the same as those applicable to the stream of students with whom such a candidate is included into.

**Regarding the students who were admitted under JNTU, Kakinada regulations for affiliated colleges:**

If they happen to join and study along with their juniors at SVEC, the transitory regulations to be specified by JNTU, Kakinada for such students have to be followed.

### **13.0 GENERAL:**

- i. Wherever the words “he”, “him”, “his”, occur in the regulations, they include “she”, “her”, “hers”.
- ii. The academic regulation should be read as a whole for the purpose of any interpretation.
- iii. In the case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Chairman of the Academic Council is final.
- iv. The College may change or amend the academic regulations or 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 college.

**MALPRACTICES**

<b>S.No</b>	<b>Nature of Malpractices/Improper Conduct</b>	<b>Punishment</b>
1 (a)	Possesses or keeps accessible in examination hall, any paper, note book, programmable calculators, Cell phones, pager, palm computers or any other form of material concerned with or related to the subject of the examination (theory or practical) in which he is appearing but has not made use of (material shall include any marks on the body of the candidate which can be used as an aid in the subject of the examination)	Expulsion from the examination hall and cancellation of the performance in that subject only.
(b)	Gives assistance or guidance or receives it from any other candidate orally or by any other body language methods or communicates through cell phones with any candidate or persons in or outside the exam hall in respect of any matter.	Expulsion from the examination hall and cancellation of the performance in that subject only of all the candidates involved. In case of an outsider, he will be handed over to the police and a case is registered against him.
2.	Has copied in the examination hall from any paper, book, programmable calculators, palm computers or any other form of material relevant to the subject of the examination (theory or practical) in which the candidate is appearing.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the subjects of that Semester/year. The Hall Ticket of the candidate is to be cancelled and sent to the University.
3.	Impersonates any other candidate in connection with the examination	The candidate who has impersonated shall be expelled From examination hall. The candidate is also debarred and forfeits the seat. The performance of the original candidate who has been impersonated, shall be cancelled in all the subjects of the Examination (including practicals and project work) already appeared and shall not be allowed to appear for examinations of the remaining subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all University examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat. If the imposter is an outsider, he will be

		handed over to the police and a case is registered against him.
4.	Smuggles in the Answer book or additional sheet or takes out or arranges to send out the question paper during the examination or answer book or additional sheet, during or after the examination.	Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all University examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.
5.	Uses objectionable, abusive or offensive language in the answer paper or in letters to the examiners or writes to the examiner requesting him to award pass marks.	Cancellation of the performance in the subject.
6.	Refuses to obey the orders of the Chief Superintendent/Assistant Superintendent / any officer on duty or misbehaves or creates disturbance of any kind in and around the examination hall or organizes a walk out or instigates others to walk out, or threatens the officer-in charge or any person on duty in or outside the examination hall of any injury to his person or to any of his relations whether by words, either spoken or written or by signs or by visible representation, assaults the officer-in-charge, or any person on duty in or outside the examination hall or any of his relations, or indulges in any other act of misconduct or mischief which result in damage to or destruction of property in the examination hall or any part of the College campus or engages in any other act which in the opinion of the officer on duty amounts to use of	In case of students of the college, they shall be expelled from examination halls and cancellation of their performance in that subject and all other subjects the candidate(s) has (have) already appeared and shall not be permitted to appear for the remaining examinations of the subjects of that semester/year. The candidates also are debarred and forfeit their seats. In case of outsiders, they will be handed over to the police and a police case is registered against them.

	<p>unfair means or misconduct or has the tendency to disrupt the orderly conduct of the examination.</p>	
7.	<p>Leaves the exam hall taking away answer script or intentionally tears of the script or any part thereof inside or outside the examination hall.</p>	<p>Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all University examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.</p>
8.	<p>Possess any lethal weapon or firearm in the examination hall.</p>	<p>Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred and forfeits the seat.</p>
9.	<p>If student of the college, who is not a candidate for the particular examination or any person not connected with the college indulges in any malpractice or improper conduct mentioned in clause 6 to 8.</p>	<p>Student of the colleges expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred and forfeits the seat. Person(s) who do not belong to the College will be handed over to police and, a police case will be registered against them.</p>

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10.	Comes in a drunken condition to the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year.
11.	Copying detected on the basis of internal evidence, such as, during valuation or during special scrutiny.	Cancellation of the performance in that subject and all other subjects the candidate has appeared including practical examinations and project work of that semester/year examinations.
12.	If any malpractice is detected which is not covered in the above clauses 1 to 11 shall be reported to the University for further action to award suitable punishment	