

**Regulations Governing B.E./B.Tech. and
I Year Scheme & Syllabus**
(With effect from 2010-2011)
(Common to all Engineering Branches)

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**Regulations Governing
THE DEGREE OF BACHELOR OF ENGINEERING / TECHNOLOGY**

OB 1 TITLE AND DURATION OF THE COURSE

- OB 1.1** The course shall be called the degree course in Bachelor of Engineering / Technology, abbreviated as B.E. / B.Tech.
- OB 1.2** The course shall be of four academic years duration divided into eight semesters, each semester having duration of 16 weeks. For evening courses the contact hours are to be satisfied by working extra on afternoons of Saturdays and Sundays.
- OB 1.3** The calendar of events in respect of the course shall be fixed by the University from time to time.
- OB 1.4** The examination in all the subjects shall be conducted at the end of each semester for all the eight semesters.

OB 2 ELIGIBILITY FOR ADMISSION

(The Government orders issued from time to time in this regard shall prevail.)

- OB 2.1** Admission to I year/ I semester Bachelor Degree in Engineering/ Technology shall be open for the candidates who have passed the second year Pre-University or XII standard or equivalent examination recognized by the University.
- OB 2.2** In addition to OB 2.1, the candidate shall have secured not less than forty five percent (45%) marks in the aggregate with Physics and Mathematics as compulsory subjects, along with one of the following subjects, namely, Chemistry, Bio-Technology, Computer Science, Biology and Electronics.

Provided that, the minimum marks for the purpose of eligibility shall be forty percent (40%) in optional subjects in case of candidates belonging to SC/ST and OBC candidates from Karnataka.

Provided that, the candidate shall have studied and passed English as one of the subjects.

- OB 2.3 (a)** Admission to II year/ III semester Bachelor Degree in Engineering/ Technology (Lateral Entry) shall be open to the candidates who are holders of a diploma or equivalent qualification as recognized by University who have secured not less than forty five percentage (45%) marks in the final year examination (fifth and sixth semesters) in the appropriate branch of engineering.

Provided that, in case of SC/ST and OBC candidates from Karnataka, the minimum marks for eligibility shall be forty percent (40%).

Provided further that, all the candidates seeking lateral entry shall also clear prescribed bridge courses as specified by the University.

- OB 2.3 (b)** Admission to Evening Course shall be open to a candidate
- who on the first day of the term notified by the University for the year of admission has not less than one-year professional experience in the branch of engineering / technology, in which the candidate holds a diploma, after passing diploma course.

Explanation: Professional experience means employment on regular basis

- in Government, Government undertaking, Public Sector undertaking, Corporations or
- in a private company registered under the Directorate of Industries and Commerce or the Directorate of Small Scale Industries or
- in Government, Government recognized institutions as technical staff.

Provided that the period of apprenticeship undergone shall also be treated as professional experience, if sponsored by the Board of Apprenticeship Training, Southern Region Chennai or by any Government, Government undertaking or Public Sector undertaking.

Provided further that employment shall be in an establishment situated within the urban agglomeration of city in which the professional institution is situated.

- OB 2.4** Those candidates who have passed a qualifying examination other than the PUC II examination of the Pre-University Education Board of Karnataka, or Engineering Diploma Examinations of the Board of Technical Education of Karnataka, have to obtain eligibility certificate for seeking admission to B.E./B.Tech. Degree course from Visvesvaraya Technological University, Belgaum, or from the Principal of concerned Engineering College of Karnataka State.

OB 3 ATTENDANCE REQUIREMENT

- OB 3.1** Each semester is considered as a unit and the candidate has to put in a minimum attendance of 85% in each subject with a provision of condonation of 10% of the attendance by the Vice-Chancellor on the specific recommendation of the Principal of the college where the candidate is studying, showing some reasonable cause such as medical grounds, participation in University level sports, cultural activities, seminars, workshops and paper presentation, etc.

- OB 3.2** The basis for the calculation of the attendance shall be the period prescribed by the University by its calendar of events. For the first semester students, the same is reckoned from the date of admission to the course as per CET allotment.

- OB 3.3** The students shall be informed about their attendance position periodically by the colleges so that the students shall be cautioned to make up the shortage. The Principals of the affiliated Colleges shall submit the list of students who have been detained for shortage of attendance by the end of the semester to the Registrar (Evaluation) with a copy to the Registrar.

Provided that mere omission by the college to inform the student about the shortage of attendance shall not entitle him to appear for examination.

- OB 3.4** A Candidate having shortage of attendance in one or more subjects shall have to repeat the whole semester and such candidates shall not be permitted to take admission to next higher semester.
Such students shall take readmission to the same semester in the subsequent academic year.

OB 3.5 Temporary Discontinuation of course:
A student, who wishes to temporarily discontinue the course and continue subsequently, has to obtain prior permission from the University by applying through the Principal. Such students have to take readmission to the same semester/year in the subsequent academic year. However, the candidate shall complete the course as per OB 6.2.

OB 4 INTERNAL ASSESSMENT MARKS

OB 4.1 There shall be a maximum of 25 Internal Assessment Marks in each theory or practical papers. For seminars, the Internal Assessment marks shall be 50.

OB 4.2 The Internal Assessment marks in a theory subject shall be based on two tests generally conducted at the end of 8 and 12 weeks of each semester. An additional test may be conducted for desirous students before the end of the semester to give an opportunity to such students to improve their Internal Assessment Marks, subject to the provisions of OB 4.13. The test shall be answered in Blue Books with pages serially numbered. These blue books shall be kept in the custody of the Principal of the College until one month from the date of announcement of the result by the University. These shall be made available to University authorities for verification as per the directions of the Registrar (Evaluation)/ Registrar.

OB 4.3 Average of the better marks obtained from any two tests shall be the Internal Assessment Marks for the relevant subject.

OB 4.4 If a candidate remains absent for all the Internal Assessment tests conducted, the Internal Assessment Marks shall be marked as A for the subject against the University Seat Number (USN) of the candidate in the marks sheet submitted to the University by the Principal of the College.

OB 4.5 In the case of a Practical, the IA marks shall be based on the laboratory journals/reports and one practical test.

OB 4.6 i) The IA marks for 1 year Computer Aided Engineering / Drawing:

a) 15 marks for class work (sketching and Computer Aided Engineering drawing).

b) 10 marks for test in the same pattern as that of the main examination (better of the two tests)

ii) The IA marks for other Drawings and Design Drawings offered by Various branches shall be based on the evaluation of the sheets and one test in the ratio 60:40.

OB 4.7 The IA marks in the case of Project and seminar in the final year shall be based on the evaluation at the end of 8th semester by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of who shall be the project / seminar guide.

OB 4.8 The final list, incorporating corrections (if any) of IA marks awarded to the students in the Theory / Practical / Project work / Seminar, shall be displayed on the notice board of the college at least seven days before the closure of the semester and a certified copy of the same shall be sent by the Principals to the University Examination Section within the stipulated date. Every page of the IA marks sheets shall bear the signature of the concerned Teacher/Teachers, Head of the Department and Principal.

OB 4.9 Any corrections or over writing of IA marks shall bear the signature(s) of concerned Teacher(s) and in such cases the Head of the Department shall on every sheet indicate the number of corrections and attest it with his signature.

OB4.10 (a) A candidate failing to secure a minimum of 50% of the IA marks (12/25) in Practical, 50% of marks in project work, shall not be eligible for the practical / project in the University examination.

OB4.10 (b) For seminars, the minimum requirement of IA marks shall be 40% of the maximum.

OB 4.11 Such candidates as mentioned in OB 4.10, shall repeat the laboratory work/project work during the subsequent semester(s) and secure at least the minimum marks prescribed.

OB 4.12 For theory subjects, there shall not be any minimum requirements of IA marks.

OB 4.13 Improvement of IA marks shall not be allowed
a. In theory subjects and
b. in Laboratory / Workshop / Seminar where the candidate has already secured the minimum required marks.

OB 4.14 IA marks of those candidates to whom OB 4.11 is applicable, shall be sent separately to the Registrar (Evaluation).

OB 4.15 IA marks shall reach the University before the commencement of examination. After the submission of Internal Assessment marks to the University, any request for change of IA marks shall not be considered under any circumstances.

OB 5 ELIGIBILITY FOR PASSING

OB 5.1 (a) For a pass in a theory subject/drawing, the candidate shall secure minimum of 35% of the maximum marks prescribed in the University examination and 40% of marks in the aggregate inclusive of the IA marks.

OB 5.1 (b) For a pass in a Practical/Project/Viva-voce examination, a candidate shall secure a minimum of 40% of the maximum marks prescribed for the University Examination in the relevant Practical/Project/Viva-voce.

OB 5.1 (c) For a pass in Seminar, a candidate shall secure a minimum of 40% of the maximum marks prescribed.

OB 5.2 The candidates who do not satisfy the condition OB 5.1 shall be deemed to have failed in that subject and may reappear for the University examination in the subsequent examinations. However, the IA marks awarded to the candidate/s at first attempt in the concerned theory subject will be carried forward. In case of Practicals/Projects/Seminar revised marks will be taken as per regulations OB 4.10 (a & b) and OB 4.11.

OB 5.3 The candidate who passes a subject of a semester as per OB 5.1 is not allowed to appear for the same again, unless he/she opts for rejection of results as per OB 5.4, 5.5, 5.6, 5.7 & 5.8.

OB 5.4 A candidate may at his desire reject his total performance of a semester (including IA marks) or he may reject the result of his performance in University examination of a semester only. Provided that the rejection is permitted only once during the entire course of study.

OB 5.5 The candidate who desires to reject the performance as per OB 5.4 shall reject performance in all the subjects of the semester, irrespective of whether the candidate has passed or failed in any subject. However, the rejection of performance of 8th semester project results shall not be permitted.

OB 5.6 A candidate who desires to reject the total performance of the semester including Internal Assessment, has to take readmission for the relevant semester. Application for such readmission shall be sent to the Registrar, through the Principal of College within 30 days from the date of the announcement of the results. Late submission of application shall not be accepted for any reasons. Readmission to First semester in such cases will not be considered as fresh admission i.e., the candidate will continue to have the same University Seat Number, which was allotted earlier.

OB 5.7 The candidate, who desires to reject only the results of University examination of a semester and does not desire readmission, shall be permitted to re-appear for examinations of all the subjects of the semester in the subsequent examinations. However, the IA marks obtained by the candidate in the rejected semester shall be retained. Applications for such rejection shall be sent to the Registrar (Evaluation) through the Principal of the College within 30 days from the date of announcement of the results. Late submission of applications shall not be accepted for any reasons.

If the rejection of the University examination results of the semester happens to be of an odd semester, the candidate shall be allowed to take admission to the immediate next even semester. However, if the rejection of the University result is of even semester, the candidate shall not be allowed to take admission to the next odd semester.

OB 5.8

Such candidates who opt for rejection at final year are eligible for the award of class and distinction at the B.E./ B.Tech., degree level, but are not eligible for the award of ranks.

OB 5.9

A candidate shall be declared to have completed the course of B.E./B.Tech. degree, provided the candidate has undergone the stipulated course work in all eight semesters as per the regulations.

OB 6

MAXIMUM DURATION FOR COURSE COMPLETION:

OB 6.1

A candidate who has not obtained the eligibility for third semester after a period of three academic years from the date of first admission shall discontinue the course. However, the candidate is eligible for readmission for first year B.E./B.Tech. in respective College of the University and he/ she shall be allotted a University Seat Number (USN) without any change in the year of admission in the USN but the serial number of the candidate shall start with six hundred (6XX) series in the same branch. (Amended and approved in 52nd E.C. Res. No. 2.4)

OB 6.2

The candidate shall complete the course within a period of eight academic years from the date of first admission, failing which he/she has to discontinue the course.
Provided that the candidates admitted under lateral entry scheme shall complete the course within a period of six academic years from the date of first admission, failing which he / she has to discontinue the course.
(Amended and approved in 74th E.C. Res. No. 6.1 dated 12-8-2008)

OB 7

PROMOTION AND ELIGIBILITY FOR THE EXAMINATIONS

OB 7.1

There shall not be any restriction for promotion from odd semester to the next even semester, provided the candidate has fulfilled the attendance requirement.

OB 7.2

A candidate is eligible for promotion from even semester to the next odd semester (i.e. to the next academic year) if the candidate has not failed in more than four heads of passing of the immediately preceding two semesters and has passed in all the subjects of all the still lower semester examinations. A theory or practical shall be treated as a head of passing.

Illustrations

- a. A candidate seeking eligibility to 3rd semester should not have failed in more than 4 heads of passing of first and second semesters taken together.
- b. A candidate seeking eligibility to 5th semester should have passed in all the subjects of 1st and 2nd semesters and should not have failed in more than 4 heads of passing of third and fourth semesters taken together.
- c. A candidate seeking eligibility to 7th semester should have passed in all the subjects up to 4th semester and should not have failed in more than 4 heads of passing of 5th and 6th semesters taken together.

OB 8

ELECTIVES

OB 8.1

A candidate shall take one elective in 6th semester from 'Group A', two electives in 7th semester (one each from groups 'B' and 'C') and two electives in 8th semester (one each from groups 'D' and 'E'). There shall be a minimum of three electives are to be listed in every group.

OB 8.2

The minimum number of students to be registered for an Elective to be offered shall be not less than ten.

OB 8.3

A candidate shall exercise his option in respect of electives and register for the same at the beginning of concerned semester. The candidate may be permitted to opt for change of elective subject within 15 days from the date of commencement of the semester as per the calendar of the University.

OB 9 SEMINAR AND PROJECT

- OB 9.1** Seminar topic shall be selected from the emerging technical areas only.
- OB 9.2** Project work at 8th semester shall be completed batch wise, each batch consisting of a maximum of four candidates.
- OB 9.3** *Viva-Voce* examination in project work shall be conducted batch-wise.

OB 10 AWARD OF CLASS AT SEMESTER LEVEL

- OB 10.1** For the award of First Class with Distinction in a semester, the candidate shall have secured not less than 70% marks in aggregate in the first attempt and shall have passed in all subjects in one or more attempts.
- OB 10.2** For the award of First Class in a semester examination, the candidate shall have securing not less than 60% but less than 70% marks in aggregate in first attempt and shall have passed in all subjects in one or more attempts.
- OB 10.3** A candidate who secures in a semester less than 60% of marks in aggregate in first attempt and passes in all the subjects in one or more attempts, shall be declared to have passed the semester examination in only Second Class.

OB 11 AWARD OF CLASS AT DEGREE LEVEL

- OB 11.1** The Bachelor Degree in Engineering/Technology shall be awarded to the candidates who have passed all the stipulated examinations from 1st to 8th semesters. However, declaration of the class of the degree shall be based on the performance of the candidate in first attempt from 5th to 8th semester examinations taken together.
- OB 11.2** A candidate who has passed in all subjects of 1st to 8th semester securing not less than 70% marks in the first attempt of 5th to 8th semesters taken together shall be declared to be eligible for the award of the B.E. / B.Tech. degree in first class with distinction.

- OB 11.3** A candidate who has passed in all subjects of 1st to 8th semester securing not less than 60% but less than 70% of marks in aggregate in the first attempt in 5th to 8th semester examinations taken together shall be declared to be eligible for the award of the B.E./ B.Tech. degree in First Class.

- OB 11.4** A candidate who has passed in all subjects of 1st to 8th semester securing less than 60% in aggregate in the first attempt in 5th to 8th semesters shall be declared to be eligible for the award of the B.E. / B.Tech. degree in Second Class.

- OB 11.5** The marks secured by the candidate in a semester examination after rejecting the results shall also be taken as first attempt marks and shall be considered for the award of class of the Semester/ Degree but not for award of rank.

OB 12 AWARD OF PRIZES, MEDALS & RANKS

- OB 12.1** For the award of Prizes and Medals, the conditions stipulated by the Donor may be considered subject to the provisions of the statutes framed by the University for such awards.

- OB 12.2** For award of ranks in a branch, a minimum of 10 candidates should have appeared in the 8th semester examination. The total number of ranks awarded shall be 10% of total number of candidates appeared in 8th semester or 10 whichever is less in that branch.

- OB 12.3** For award of rank in a branch of Engineering / Technology, the aggregate marks secured by the candidate from 5th semester to 8th semester shall be considered. A candidate shall be eligible for a rank at the time of award of degree in each branch of Engineering / Technology, provided the candidate
- Has passed 1st to 8th semester in all the subjects in first attempt only
 - Has not repeated/rejected any of the lower semesters.

OB 13 TRANSFER OF STUDENTS

OB 13.1 Transfer of students from one College to another College within Karnataka State is permitted only at the beginning of third, fifth, and seventh semesters, subject to availability of seats within the permitted intake in respective Colleges and subject to the prior approval of the University and the provisions of OB 7.2. In the case of candidates from Universities other than VTU they should have passed in all the subjects of 1st and 2nd semesters for admission to 3rd semester and all the subjects of 1st to 4th semesters for admission to 5th semester and all the subjects of 1st to 6th semesters for admission to 7th semester.

The candidates seeking admission from Universities other than VTU shall have to

- apply for establishment of equivalence with prescribed fees as notified by VTU and
- obtain No Objection for admission from the University before commencement of term as notified by VTU

OB 13.2 Transfer of students within the College from one branch to another branch at 3rd semester shall be permitted with the prior approval of the VTU and subject to the provisions made by the Government of Karnataka/ AICTE in this behalf.

OB 13.3 The University may prescribe fee for administrative purpose (for updating of the records), which shall be notified from time to time, for transfer from one college to another (Change of College) or within the College (change of branch).

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM
SCHEME OF TEACHING AND EXAMINATION**

1 SEMESTER B.E./B.TECH.

PHYSICS GROUP

Sl. No.	Subject Code	Subject	Teaching Department	Board	Theory /Lab/ Drawing (Hrs/ Week)	Examination Marks		
						Th./Pr.	I.A.	Total
1	10MAT11	Engineering Maths-I	Maths	Basic Sc.	4 (T)	100	25	125
2	10PHY12	Engineering Physics	Physics	Basic Sc.	4 (T)	100	25	125
3	10CIV13	Elements of Civil Engg. & Engineering Mechanics	Civil Engg.	Civil Engg.	4 (T)	100	25	125
4	10EME14	Elements of Mechanical Engg.	Mech. Engg.	Mech. Engg.	4 (T)	100	25	125
5	10ELE15	Basic Electrical Engg.	E & E	E & E	4 (T)	100	25	125
6	10WSL16	Workshop Practice	Mech., Auto, IP, IEM, Mfg. Engg.	Mech. Engg.	3 (L)	50	25	75
7	10PHYL17	Engg. Physics Lab	Physics	Basic Sc.	3 (L)	50	25	75
8	10CIP18	*Constitution of India & Professional Ethics	Any Department		2 (T)	50	25	75
9		Language (Kan.)	Humanities		2 (T)	---	---	---
Total					30	**600	**175	775

I SEMESTER B.E./B.TECH.**CHEMISTRY GROUP**

Sl. No.	Subject Code	Subject	Teaching Department	Board	Theory /Lab/ Drawing (Hrs/ Week)	Examination Marks		
						Th./Pr.	I.A.	Total
1	10MAT11	Engineering Maths-I	Maths	Basic Sc.	4 (T)	100	25	125
2	10CHE12	Engineering Chemistry	Chemistry	Basic Sc.	4 (T)	100	25	125
3	10CCP13	Computer Concepts & C Programming	Any Engineering Department	CSE	4 (T)	100	25	125
4	10CED14	Computer Aided Engineering Drawing	Mech./IP/Auto/ Mfg.Engg./ IEM	Mech. Engg.	6 (2T + 4L)	100	25	125
5	10ELN15	Basic Electronics	E & C / E & E / TC / IT	E & C	4 (T)	100	25	125
6	10CPL16	Computer Programming Lab	Any Engineering Department	CSE	3 (L)	50	25	75
7	10CHEL17	Engg. Chemistry Lab	Chemistry	Basic Sc.	3 (L)	50	25	75
8	10CIV18	*Environmental Studies	Civil / Environmental	Civil	2 (T)	50	25	75
9		Language (Eng.)	Humanities		2 (T)	---	---	---
Total					32	**600	**175	775

2

II SEMESTER B.E./B.TECH.**PHYSICS GROUP**

Sl. No.	Subject Code	Subject	Teaching Department	Board	Theory /Lab/ Drawing (Hrs/ Week)	Examination Marks		
						Th./Pr.	I.A.	Total
1	10MAT21	Engineering Maths-II	Maths	Basic Sc.	4 (T)	100	25	125
2	10PHY22	Engineering Physics	Physics	Basic Sc.	4 (T)	100	25	125
3	10CIV23	Elements of Civil Engg. & Engineering Mechanics	Civil Engg.	Civil Engg.	4 (T)	100	25	125
4	10EME24	Elements of Mechanical Engg.	Mech. Engg.	Mech. Engg.	4 (T)	100	25	125
5	10ELE25	Basic Electrical Engg.	E & E	E & E	4 (T)	100	25	125
6	10WSL26	Workshop Practice	Mech./IP/Auto/ Mfg.Engg./ IEM	Mech. Engg.	3 (L)	50	25	75
7	10PHYL27	Engg. Physics Lab	Physics	Basic Sc.	3 (L)	50	25	75
8	10CIP28	*Constitution of India & Professional Ethics	Any Department	Civil	2 (T)	50	25	75
9		Language (Kan.)	Humanities		2 (T)	---	---	---
Total					30	**600	**175	775

3