

# AMRITA VISHWA VIDYAPEETHAM

## B.TECH. PROGRAMME

### REGULATIONS



श्रद्धावान् लभते ज्ञानम्

## AMRITA VISHWA VIDYAPEETHAM REVISED B TECH REGULATIONS (2014 admissions onwards)

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**ORDINANCES**

01. Candidates who have passed the final examination under the 10 +2 system or its equivalent with Mathematics, Physics and Chemistry as optionals, are eligible to apply for admission to the B.Tech. programmes.
02. Procedure for admission will be decided from time to time by the University in accordance with the guidelines from competent authorities.
03. The duration of the B.Tech Programme will normally be four academic years (eight semesters).
04. The B.Tech. degree will be recommended by the Academic Council and approved by the Board of Management in accordance with the regulations of the University.
05. Notwithstanding anything stated above, the Amrita Vishwa Vidyapeetham reserves the right to modify any of the ordinances, as deemed fit, from time to time.

**REGULATIONS****R.1. Admission**

- R.1.1 The admission to B.Tech. programmes will be as per the ordinances and regulations of the University.
- R.1.2 The branches of study and the intake to each branch will be decided by the University from time to time.
- R.1.3 The University may allow a limited number of transfers from one discipline of study to another at the beginning of the third semester, if so requested by the students. Such transfers will be based on the availability of vacancy in the discipline and the academic merit of the student. The decision of the University will be final in this matter.

**R.2. Language of Instruction**

The language of instruction shall be English, except in cases so specified.

**R.3. Structure of B.Tech. Programme**

R.3.1 B.Tech. Programme will be structured on credit-based system and continuous evaluation, following a semester pattern.

R.3.2 The curriculum of B.Tech. programme will have a minimum of 175 credits, apportioned as below among the following knowledge segments:

Science	14 credits
Mathematics	16 credits
Management & Humanities	27 credits
General Engineering	22 credits
Core Engineering	85 credits
Project	11 credits
<b>TOTAL</b>	<b>175 credits</b>

R.3.3 In general, credits are assigned to the courses based on the following pattern, with possible modifications wherever necessary:

- One credit for each lecture hour per week,
- One credit for each tutorial hour per week,
- One credit for each laboratory course/practical of two/three hours per week
- Ten credits for the final project work.

R.3.4 Every branch of B.Tech. programme will have a curriculum and syllabi for the courses, which will be updated according to the requirements and approved by the Academic Council.

R.3.5 Core and elective: Certain courses in each knowledge segment are identified as Core courses and a few others as electives.

There is mandatory registration and credit earnings requirement for core courses. While it is mandatory to register for the elective courses, failure to earn credit in them does not necessarily require repeating the courses. Often another course may be permitted as replacement course. Electives are free to be chosen from the list, for registration.

During the programme, a student is permitted to register for only one elective, offered by any other Department, with the concurrence of the Chairpersons of both the Departments.

**R.4. Tuition Fees**

At the beginning of each academic year, students shall pay all the fees prescribed. A student who drops out of the B.Tech. programme or whose registration is cancelled, cannot claim refund of any fees paid.

**R.5. Class Counsellors and Faculty Advisor**

In order to (i) guide the students in planning their courses of study, (ii) advise them on academic programmes and (iii) monitor their progress, the departments will assign a batch (class) of certain number of students to a faculty member, who will be designated as their Class Counsellor.

One among the Counsellors, shall be designated as the Faculty Advisor, who shall coordinate the functions of the Class Counsellors.

**R.6. Course Committee**

R.6.1 All the campuses will be governed by the same curricula and syllabi, for the respective programmes.

R.6.2 The first two semesters are common for all the disciplines. Course committees are constituted for running common courses on the three campuses at the same time. There will be a Course Committee for each course offered in the programme. Such a committee for any course is common for all the campuses. The committee for each course will consist of the following members:

- (i) The mentor for the course in each campus nominated by the chairperson of the department offering the course in the campus.
- (ii) A Chief mentor nominated by the Dean (Engineering), from among the mentors for the course.

In the beginning of the semester, the Chief mentor and the mentors shall decide on all the details of conduct of the course during the semester. This shall form the guidelines for the Course committee.

For all common courses, the campus mentor shall chair the meeting of all the teachers handling the course, with the student representatives, in each campus. This shall be the campus course committee. The subjects and courses handled by the Campus course committee shall not come under the purview of the Class committees. The campus course committee shall meet at the end of the semester,

without the student representatives, to finalise the results of the respective courses.

The Course committees shall be reconstituted at the beginning of every semester.

**R.7. Class Committee**

R.7.1 Every class of a B.Tech. programme in each campus starting from third semester will have a Class Committee constituted by the Chairperson of the department.

R.7.2 The constitution of the Class Committee will be as follows:

- a) The convener of the class committee who is a faculty member not handling any course for the class concerned, nominated by the chairperson of the department,
- b) All the teachers handling courses for the class,
- c) Two student representatives nominated by the Chairperson of the department, from each class (sufficient representation being given to the girl students).

The Chairperson of the department may attend the committee meetings.

R.7.3 The Class Committee shall meet at least thrice in a semester.

R.7.4 The Class committee shall meet at the beginning of the semester to finalise the academic programme, At the end of the semester the committee (without student representatives) will meet, to finalise the results. The results shall be submitted to the Chairperson, who shall approve and forward the same, to the Examination section.

R.7.5 The Class committees shall be reconstituted at the beginning of every semester.

**R.8. Registration and Enrolment**

R.8.1 Every eligible student shall register for the courses of the next semester (including the chosen electives).

R.8.2 Except for the first semester, registration for a semester will be done

during a specified week before the end-semester examinations of the previous semester. The consent of the Class Counsellor is mandatory before registering for every course.

- R.8.3 From the second semester onwards, all students have to enrol on a specified day at the beginning of a semester. A student will be eligible to enrol, only if he/she satisfies the condition at R.10. (given later in this document) and will be permitted to enrol, only if he/she has cleared all the dues to the Institution, hostel, library and any other, as specified from time to time, at the time of enrolment of the semester and if he/she is not debarred from enrolment, as part of any disciplinary action of the Institution.
- R.8.4 Late enrolment will be permitted on payment of a specified late-fee, upto a period of **five working days** from the last date specified for enrolment.
- R.8.5 The maximum number of credits that can be registered for by a student in a semester is limited to 28.
- R.8.6 **Pre-requisites:** A student is not permitted to register for a course unless he has already attended the pre-requisite course, wherever a pre-requisite, is specified. A student will not be deemed to have attended the pre-requisite, if he/she gets an 'FA' grade in such a course.

### R.9. Dropping / Substituting Courses

If a student finds his/her load heavy in any semester, or for any other valid reasons, he/she may drop courses within **ten working days** of the commencement of the semester, with the written approval of the Faculty Advisor and Chairperson of the Department.

A student can substitute a course registered earlier, with another for valid reasons, within **ten working days** of the commencement of the semester, with the consent of the Faculty Advisor and Chairperson of the Department.

Withdrawal from one or more registered courses after the specified date, will entail academic penalties in the form of a 'Failed, due to lack of attendance' and 'FA' grade appearing on the grade card.

### R.10. Eligibility to continue the Programme

At the beginning of a semester, a student shall not have **more than six arrear courses** (not including Lab. courses, courses in Cultural Education and Soft Skills). Those who have seven or more arrear courses, at the beginning of a semester, shall reduce the number of arrear courses to less than seven during the semester and register for the possible courses of the higher semesters, subject to a maximum of 28 credits, in total.

### R.11. Maximum Duration of the programme

R.11.1 A student is expected to complete the B.Tech. programme in eight semesters. However, a student may complete the programme at a slow pace within twelve semesters, with the prior permission of his/her Faculty Advisor, Chairperson of the Department and Dean/Principal, but he/she has to satisfy the condition in R.10.

R.11.2 A student may be permitted by the concerned Principal/Dean to withdraw from the programme for a semester or a longer period for reasons of ill health or on other valid grounds. However, the programme should be completed within a total span of twelve semesters.

R.11.3 In the event of any student requiring more than twelve semesters to complete the B Tech programme, the extension can be considered on the merits of the case, by the Vice-Chancellor and ratified by the Academic Council.

### R.12. Attendance

R.12.1 A student is expected to put in 100% of attendance, in each of the courses, he/she has registered.

R.12.2 Attendance of the students will be marked by the concerned teacher during every hour of the course.

R.12.3 Leave shall be availed by students only under unavoidable circumstances. It is mandatory that students shall apply in the prescribed form before proceeding on leave. Leave letter recommended by the Class counsellor and Faculty Advisor shall be submitted to the Chairperson of the Department who will normally grant the leave. Unauthorised absence will be treated as breach of discipline.

Request for leave for more than three consecutive days on medical grounds, must be supported by a proper medical certificate. In non-medical cases, requests for leave for more than three consecutive days must be countersigned by the parent/guardian or the Warden, whichever is applicable. Leave granted will not be counted as physical presence.

R.12.4 Students going on official duty, such as representing the college/ University for sports and cultural activities, or presenting papers in seminars, conferences, etc., will be eligible for 'duty leave' on the recommendation by Faculty Advisor.

All kinds of leave, authorized by the Chairperson of the Department, shall not exceed 20% of the total hours in the course.

R.12.5 Finalisation of attendance for every course shall be done three working days before the last instruction day of the semester. Any student failing to secure a minimum of 80% attendance in a course, will not be eligible to appear for the end-semester examination in that course.

In the event of the attendance falling short of 80% in a course, an application for condonation has to be made, indicating the entire history of leave taken. Condonation should be requested for the entire period of absence in the course.

R.12.6 Condonation, under exceptional cases -

If the attendance of a student falls short of 80% in any course, due to continuous absence caused by accident, prolonged illness, or unforeseen circumstances, such cases may be considered by the Dean/Principal concerned, for condonation of absence based on the request of the student, supported by recommendation of the Faculty Advisor and chairperson of the department concerned. However in such cases, the student must have duly applied for leave, in time. The overall attendance of a student in such a case shall not fall below 70%. Condonation will be considered only in the case of those students who have proved themselves to be otherwise regular, by attending at least 80% of the classes during the semester, excluding the period of long leave. At least 70% physical presence is mandatory in every course even in such exceptional cases, and this provision can be exercised by a student only once in the programme.

R.12.7 Condonation cannot be claimed as a matter of right. It shall be granted at the discretion of the authorities, based on the genuineness and validity of the reasons, cited for the absence. Unauthorized absence during the semester, shall make a student ineligible for condonation.

R.12.8 In case a student who is not permitted to attend the end-semester examination in any course due to lack of attendance, he/she will be awarded 'FA' grade in that course, indicating "failed due to insufficient attendance" and mentioned in the grade card. Students awarded 'FA' grade in a course, shall re-register for the course, when offered next or as a run-time re-do course.

### **R.13. Assessment Procedure**

R.13.1 The academic performance of each student in each course will be assessed on the basis of Internal Assessment (including Continuous Assessment) and an End-semester Examination.

R.13.2 In theory courses (that are taught primarily in the lecture mode), the weightage for the Internal Assessment and End-semester examination will be 50:50. The Internal assessment in theory courses shall consist of at least two periodical tests, weekly quizzes, assignments, tutorials, viva-voce etc., The weightage for these components shall be 20 marks for the Continuous assessment, comprising of Quizzes, assignments, tutorials, viva-voce, etc. and 15 marks each for both the Periodical Tests. At the end of the semester, there will be an end-semester examination of three hours duration, in each lecture-based subject.

R.13.3 In the case of laboratory courses and practicals, the relative weight for Internal assessment and End-semester examination will be 80:20. The weight for the components of Internal assessment will be decided by the course committee at the beginning of the course.

*Evaluation pattern for course having both Theory and Lab. components:*

Courses having only one credit for theory, be treated as a Lab. course, for evaluation purposes;

Courses having two credits for theory and/or tutorials, be given a weightage of 60 marks and 40 marks for the Theory and Lab. components, respectively; and

Courses having three credits for theory and/or tutorials, be given a weightage of 70 marks and 30 marks for the Theory and Lab. components, respectively;  
The Lab. component evaluation will be based on continuous evaluation, without any end-semester practical evaluation.

R.13.4 It is mandatory that the students shall appear for the end-semester examinations in all theory and practical courses, for completion of the requirements of the course.

R.13.5 Marks secured in the Internal Assessment, during the regular registration, shall be retained. This component of marks can be revised only on undergoing the course by re-registration.

Failed students may take the supplementary examinations in a course, for a maximum of three attempts, carrying the Internal Assessment marks earned by them, in their earlier regular registration of the course.

Students, failing to pass the course, even after three attempts at the supplementary examinations, shall henceforth appear for the supplementary examinations, for the entire 100 marks and the Internal Assessment marks earned by them in their regular registration, shall not be considered.

R.13.6 **PROJECT WORK:** The Internal assessment of project work will be carried out through a minimum of two assessments (presentations followed by oral examinations). At the completion of the project work, the student will submit a bound volume of the project report in the prescribed format. The project work will be evaluated by a team of duly appointed examiners.

The final evaluation of the project work, will be based on the content of the report, presentation by the student and a viva-voce examination on the project. There will be 60% weight for Internal assessment and the remaining 40% for final evaluation.

If the project work is not satisfactory, he/she will be asked to continue the project work and appear for assessment later.

#### **R.14 PUBLICATION/INTERNSHIP**

All students, if they are to be considered for award of Distinction at the time of graduation, are required to show that they have submitted a paper for publication at a conference or Journal (National or International). This is in addition to the requirements already prescribed for the award of Distinction. The publication shall be as per the format prescribed by the University.

Students who have undergone Internship at reputed organisations or National / International Institutions, **with the prior approval** of the concerned Departmental Chairperson and the Principal/Dean, may be considered for waiver of the requirement of publication, for the award of Distinction. However, the decision of the Departmental Chairperson and the Principal/Dean of the concerned School, in this regard, shall be final.

#### **R.15. Supplementary Examinations**

Examinations shall be held for all the courses of both the odd and even semesters during the end-semester schedule and the students failed in a non-semester course shall apply for appearance in the respective examination and take the examination, by paying a prescribed fee.

A supplementary examination, for the semester courses, shall be held shortly after publishing the results, as per the rules.

Students securing an 'F' grade, in a course, shall have the option of appearing directly for the supplementary examinations.

#### **R.16. Grading**

R.16.1 Based on the performance in each course, a student is awarded at the end of the semester a letter grade in each of the courses registered. Letter grades will be awarded by the Class Committee in its final sitting, without the student representatives.

The letter grades, the corresponding grade points and the ratings are as follows:

<u>Letter Grade</u>	<u>Grade Points</u>	<u>Ratings</u>
A+	10.00	Outstanding
A	10.00	Excellent
B+	9.00	Very Good
B	8.00	Good
C+	7.00	Above Average
C	6.00	Average
D	5.00	Pass
F	0.00	Fail
FA	0.00	Failed due to lack of attendance
I	0.00	Incomplete (awarded only for Lab. courses / Project / Seminar)
W		Withheld

'FA' grade once awarded stays in the record of the student and is not deleted even after he/she completes the course successfully later.

The 'I' grade, awarded in a course, will be subsequently changed into appropriate grade when the student satisfactorily completes the requirement during the subsequent semester. If he/she does not complete it in the next semester, it will be converted to 'F' grade.

R.16.2 A student is considered to have successfully completed the course and earned the credit if he/she scores a letter grade 'D' or higher in that course.

#### R.17. Declaration of Result

After finalization of the grades by the Class Committees and subsequent approval of the Chairperson of the Department, the result will be announced by the Controller of Examinations.

#### R.18. Revaluation of answer Papers

On publication of the results, in case any student feels aggrieved, he/she can request for revaluation of answer scripts of the end-semester examination. For this purpose, the student has to submit a request in the prescribed form to the Controller of Examinations, through the Principal, within five working days from the publication of results along with the prescribed revaluation fees. After the revaluation is completed, the results will be published. If the revaluation leads to a higher grade, the revised grade will be awarded to the student and in such cases, the revaluation fee will be refunded in full.

Revaluation is permitted only for lecture-based courses.

#### R.19. Semester Grade Point Average (SGPA)

On completion of a semester, each student is assigned Semester Grade Point Average (SGPA) which is computed as below for all courses registered by the student during that semester.

$$\text{Semester Grade Point Average} = \frac{\sum (C_i \times Gp_i)}{\sum C_i}$$

where C is the credit for i<sup>th</sup> course in that semester and Gp<sub>i</sub> is the grade point for that course.

The summation is over all the courses registered by the student during the semester including the failed courses. The SGPA is rounded off to two decimals.

#### R.20. Cumulative Grade Point Average (CGPA)

The overall performance of a student at any stage of the B.Tech. Degree programme is evaluated by the Cumulative Grade Point Average (CGPA) upto that point of time.

$$\text{Cumulative Grade Point Average} = \frac{\sum (C_i \times Gp_i)}{\sum C_i}$$

where C is the credit for i<sup>th</sup> course in any semester and Gp<sub>i</sub> is the grade point for that course.

The summation is over all the courses registered by the student during all the semesters upto that point of time including the failed courses. The CGPA is also rounded off to two decimals.

The ranking of the students in a batch at any intermediate or final stage is based on CGPA.

#### R.21. Grade Card

The Grade Card issued to the student at the end of a semester will contain the following information:

- Code number, title and credits for the courses registered,
- Letter grade earned for each course, corresponding grade points and rating.
- Total number of credits earned by the student up to the end of that semester,
- SGPA obtained in the semester and
- CGPA accrued till the end of that semester.

**R.22. Classification of successful candidates:**

A student shall be considered to have successfully completed the programme, if he/she has:

- i) registered and successfully completed all the core courses and projects;
- ii) earned the required minimum number of credits as specified in the curriculum corresponding to the programme, within the stipulated time;
- iii) earned the specified number of credits in all the categories of courses;

Candidates who have successfully completed the programme, within a period of eight semesters from entering the programme, shall be classified as follows:

Candidates securing a CGPA of 8.00 and above –

**FIRST CLASS WITH DISTINCTION \***

Candidates securing a CGPA between 6.50 and 7.99 –

**FIRST CLASS**

and the same be mentioned in the Degree certificate;

(\* subject to satisfying the condition mentioned at R.14 and having passed all the courses in the first attempt)

If the programme is completed after eight semesters of study, the candidates securing even a CGPA of 8.00 and above, shall be classified to have completed the programme, only with **FIRST CLASS**.

**R.23 Transcript**

The Controller of Examinations will also issue, on request, and payment of a prescribed fee, a detailed transcript with his signature or facsimile to every student after completion of the programme. It shall contain all the information that is contained in the grade card. Additionally, it shall also include the month and year of passing each course. The transcript card shall contain only the final grades secured, but will not indicate the earlier failures, if any. The detailed transcript, will contain the CGPA and the class, if any obtained. It will not, however, indicate the disciplinary actions taken against the student.

**R.24 Discipline**

Every student is required and expected to observe strict discipline and decorous behaviour both inside and outside the campus. He/she should not indulge in any activity which may tarnish the fair

name and prestige of Amrita Vishwa Vidyapeetham. Any act of indiscipline or misbehaviour including unfair practice in the examinations will be dealt with by the Disciplinary Action Committee of the Institution, constituted by the Dean concerned. The committee will enquire into the charges and make recommendations to the Dean/Principal concerned. Based on the findings of the committee, Dean/Principal will take appropriate disciplinary action. Serious act of indiscipline on the part of the students may even attract penalty upto the extent of expulsion from the University.

**R.25 Redressal of grievances**

Students have the right to seek redress of grievances. For this, they have to appeal in writing to the Dean concerned, who will take necessary steps in the matter.

**R.26 Award of B. Tech. Degree**

A student will be declared eligible for the award of B.Tech. Degree, if he/she has:

- a) registered and successfully completed all the prescribed courses and projects;
- b) earned the required minimum number of credits as specified in the curriculum corresponding to the branch of his study within the stipulated time;
- c) earned the specified number of credits in all the categories of courses;
- d) no disciplinary action pending against him/her; and
- e) no outstanding dues against him/her.

The B Tech degree, indicating the discipline, will be awarded by the Board of Management of Amrita Vishwa Vidyapeetham on recommendation of the Academic Council.

**R.27. Interpretation Clause**

Related to any of the academic matters, whenever there arises any doubt or dispute on the interpretation of regulations or rules, the decision of the Academic Council will be final as well as binding on all concerned.

**R.28. Amendment to Regulations**

Notwithstanding anything stated above, the Amrita Vishwa Vidyapeetham reserves the right to modify any of the regulations, as deemed fit, from time to time.