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APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Engineering College Campus, Thiruvananthapuram

REGULATIONS

For

Bachelor of Technology B.Tech (Evening) Degree

2016

In exercise of the Powers conferred under Section 46 of ACT 17 of 2015, the Academic Committee of the University hereby promulgate the Regulations for the University for the Academic Year 2016-2017. These regulations shall come into effect from the date of its publication in the Gazette.

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Addendum

01. Admission to Bachelor of Technology (B.Tech) (Evening) Degree

- a. Eligibility for admission to the B.Tech (Evening) Degree programme, admission policy and procedure shall be decided from time to time by following the guidelines issued by the Government of Kerala and the Government of India and other statutory body such as AICTE.
- b. Candidate shall have passed Diploma in Engineering / Technology awarded by the State Board of Technical examination or equivalent.
- c. Candidates should be on permanent technical / professional employment at the time of application. As on 1st April of the corresponding year they should have at least one year of technical / professional experience after passing the Diploma examination in any of the following type of establishments:
 1. Government Organizations.
 2. Quasi - Government Organizations.
 3. Industrial firm duly registered under Co. Operative Society's Act.
 4. Public or Private limited companies registered under Companies Act.
 5. Private aided Polytechnics and Private – aided and un – aided Engineering
 6. Colleges in the State.
- d. Reservation of seats will be as per the prospectus published by the Director of Technical Education.

02. Examination

- a) At the end of the semester, end semester examination will be conducted in all lecture based courses offered in the semester and will normally be of three hours duration, unless otherwise specified. Supplementary examinations shall be conducted, for students who are eligible and have registered for them during the vacation after even semesters.
- b) Students, who have completed a course but could not write the end semester examination for valid reasons like illness or personal exigencies, are allowed to write the supplementary examination and earn the credits without having to register for the course again provided they meet other eligibility criteria.
- c) The main eligibility criteria for the end semester examination are attendance in the course, internal marks and no pending disciplinary action. The minimum attendance for appearing for the end semester examination is 75% in each course. Further, the internal evaluation marks in the course should be 45% or above. Students who do not meet these eligibility criteria are awarded an FE grade and have to register for the course again.

- d) Students who could not write the end semester examination due to health reasons or other exigencies can register for the supplementary examination, with the approval of the principal provided they have 45% or above marks in the internal evaluations for the course. Candidates who received F grade can also write the supplementary examination. Grades awarded in the supplementary examination will be taken as the end semester grades in these courses.
- e) The examinations for B.Tech (Evening) programme will be common with B.Tech degree programme.

03. Eligibility for Award of Degree

The award of B. Tech. (Evening) degree shall be based on the recommendation of the Academic Committee and the approval of the Board of Governors and in accordance with the academic regulations, if any, issued for the said purpose by the University.

Award of B. Tech. (Evening) degree

A student will be eligible for the award of B. Tech. (Evening) degree of the University on satisfying the following requirements.

- i) Earned credits for all the core courses and the Project.
- ii) Earned the required minimum credits as specified in the curriculum for the branch of study.
- iii) No pending disciplinary action.

04. Fee structure

Fee charged for the programme shall be decided by the University from time to time and informed to all concerned for compliance.

05. Discipline of the student – Action against breach of discipline

Every college shall have a Student's Welfare Committee and a Disciplinary Action Committee, constituted by the Principal of the college. Each college should have a Grievance Redress and Appeals Committee constituted by the Principal to address the grievances of the students and to consider their appeals on any decisions made by the college. Details on the constitution and terms of reference are outlined in 7-u, 7-v, and 7-w.

06. Breach of guidelines and unfair practices in Examinations

These are viewed seriously and appropriate actions are to be taken by the colleges as detailed in 7-u.

07. Miscellaneous provisions

- a) **Language of Instruction and Examination.**
Unless otherwise stated, the language of instruction and examinations shall be English.

- b) **Academic Calendar.**
The University shall publish in its website the academic calendar for every academic semester indicating the date of commencement of the semester as well as instruction. It will specify the course registration and enrolment dates, the schedule for mandatory internal tests for theory courses, dates by which laboratory/practical evaluations are to be completed, date for finalization of internal marks, last instruction day in the semester, planned schedule of end semester examinations and result declaration as well as approved holidays falling within the semester. Schedules for the supplementary examinations and result declaration dates are to be included in the calendar. Additionally colleges may publish their academic calendar, in line with the University academic calendar, indicating other schedules and events they plan to conduct during the semester.
- c) **Branches of B. Tech. (Evening degree) Programmes.**
The Branches of B. Tech. (Evening) degree programme offered by the University will be those which are approved by AICTE and affiliated to KTU.
- d) **B. Tech. (Evening) degree Programme Structure**
- i) B. Tech. (Evening) degree programme in all branches of study is structured on a credit based system following the semester pattern with continuous evaluation allowing flexibility for students to decide on the duration of programme completion.
 - ii) The duration for the B. Tech. (Evening) degree programme in all branches of study, will normally be 8 semesters.
 - iii) The maximum duration shall be six academic years spanning 12 semesters.
 - iv) Each semester shall have 72 instructional days with 23 hours of instruction per week, followed by end semester examinations.
 - v) The curriculum of any branch of the B. Tech (Evening) programme is designed to have all the courses offered in 3 to 8 semesters of B.Tech programme for the award of the degree.
 - vi) The total academic credits and credits for each course for the B.Tech (Evening) degree will be same as that for the B.Tech programme. No credit requirement is insisted for Student's Activities
 - vii) The courses offered in 3 to 8 semesters of B.Tech programme shall be rearranged to be completed in 8 semesters of B.Tech (Evening) Degree programme. The curriculum thus framed will be known as restructured curriculum for B.Tech (Evening) Degree programme.
 - viii) The credits for the first two semesters of B.Tech degree programme will be considered to be earned by credit transfer from the diploma programme. However CGPA will be calculated only on the basis of courses studied in B.Tech (Evening) degree programme.
- e) **Curriculum, List of Courses and Syllabi**
- i) Every branch of study in the B.Tech (Evening) Degree, programme will have a restructured curriculum approved by the Academic Committee of the University.

- ii) Courses are categorized as Core Theory (CT), Core Practice (CP) and Electives (EL).
- iii) Each course has a course number which will be same as that of B.Tech degree programme.

f) **Faculty Advisor/Counsellor**

All students shall have faculty advisors whose role will be:-

To guide and help students on academics

To monitor their progress in academics and advise them

To counsel them and hand-hold them in any difficulty

g) **Course Registration and Enrolment**

It is mandatory for students to register for the courses they want to attend in a semester. Students admitted freshly to the first semester, are advised to register for all courses listed for the semester. However they do not have to enrol for the semester. All other students are required to register at the end of the semester for the courses they desire to take in the coming semester. They have to enrol for these courses in the new semester, based on the previous semester results. This allows them to make changes in the list of courses already registered for. Before enrolment, students should clear all dues including any fees to be paid and should not have any disciplinary issues pending. The dates for registration and enrolment will be given in the academic calendar. Any late registration or enrolment, allowed up to 7 working days from the stipulated date, will attract a late fee.

A student can withdraw from a course or substitute one already registered by another on valid reasons with the approval of the faculty advisor. However this has to be done within seven working days from the commencement of the semester.

The maximum number of credits a student can register in a semester is limited to 20.

h) **Course Completion and Earning of Credits**

Students registered and later enrolled for a course have to attend the course regularly and meet the attendance rules of the university [RU-2] and appear for all the internal evaluation procedures for the completion of the course. Credits for the course are earned only on getting a pass grade in the composite evaluation.

i) **Core courses, Prerequisites and Electives**

All courses listed in the curriculum, other than the electives, are core courses. Earning credits in the core courses is mandatory for the B. Tech. (Evening) degree. For electives, failure to earn credits does not necessarily require repeating the course. Instead another approved elective is permitted as a replacement course by the faculty advisor concerned. For some courses there could be a prerequisite course completion requirement for registration.

j) Academic Assessment/Evaluation

Academic Evaluation of Courses

University follows a continuous academic evaluation procedure.

Academic evaluation procedure and corresponding weights are as follows:-

- a) For theory courses: - 1/3rd weightage for internal evaluation and 2/3rd for end semester examination.

For convenience, the maximum marks for internal evaluation and end semester examination for theory courses are fixed as 50 and 100 respectively.

Scheme of evaluation is as follows.

- i) Two internal tests each of 20 marks and of one hour duration.
(Internally by the College)
- ii) Tutorials/Assignments/Mini Projects carrying 10 marks.
(Internally by the College)
- iii) End Semester examination carrying 100 marks.
(Conducted by the University)

All the above evaluations are mandatory requirements to earn credits.

Students who have missed either the first or the second test can register with the consent of the faculty and the Head of the Department (HOD) concerned for a re-test which shall be conducted soon after the completion of the second test, but before the end semester examination. The re-test will cover both first and second test course plans. Those who have missed both the tests are not eligible to appear for the end semester examination.

However if one misses both tests due to medical reasons or other personal exigencies, based on genuine evidence, a single test of 2 hour duration for 40 marks will be conducted covering the whole syllabus, before the end semester examinations. Decision on this will be taken by the Principal and verified by the external academic auditor.

- b) For Laboratory /Practical /Workshop courses

- i) Practical records /Outputs 60 marks (Internally by the College)
- ii) Regular class Viva 10 marks (Internally by the College)
- iii) Final practical exam 30 marks (Internally by the College)

All the above assessments are mandatory to earn credits. If not, the student has to complete the course/assessments during his free time in consultation with the faculty members. On completion of these, grades will be assigned. In case the Practical /Laboratory/Workshop courses are not completed in the semester, grade I

(incomplete) will be awarded against the course and the final grade will be given only after the completion of the course/assessments within the next semester.

c) Comprehensive Examination

A comprehensive examination is to be completed in the sixth semester. This examination will be a written cum oral examination covering broadly all courses so far completed [RU-5].

d) Seminar

Each student has to give a seminar on a professional topic of current interest in consultation with the faculty member in charge of the seminar in the Department. The seminar will be evaluated based on RU-6

e) Design Project

Each student or a group of students has to take up a design project. The project topic could be arrived at in consultation with any faculty member in the department. The Evaluation of the project is to be done in two stages. Two project progress evaluations each carrying 20 marks and a final report evaluation and presentation of the project for 60 marks. The project supervisor and two other faculty members from the same or any other department, nominated by the Head of the Department form the evaluation board.

f) Final Semester Project

Students, either individually or in a small batch not exceeding four, have to do a project approved by their faculty supervisor.

Evaluation scheme is given below:-

i)	Two progress assessments	20%	by the faculty supervisor/s
ii)	Final Project Report	30%	by the Assessment Board
iii)	Project presentation and Viva	50%	by the Assessment Board

If the project work is not completed satisfactorily, the student has to put in more work and appear again for assessment on a specified date, not earlier than one month after the first evaluation. If the student fails in the project, a fresh registration for the project for one semester is mandatory.

The project assessment board shall consist of the following members.

Chairman: Head of the Department

Members: Project supervisor/s of the student

One faculty member from the Department

One faculty member from a sister Department

An external expert, either from an academic/research institute or industry

k) Eligibility to Continue

A student has to earn a minimum number of credits in a semester to be eligible to register for the new courses offered in the next semester. In odd semesters if this

requirement is not met, the student is to be forewarned and allowed to continue to the next even semester. However at the end of even semesters this requirement will be strictly implemented. Students who do not meet this requirement are not permitted to register for new courses in the higher semesters. They have to register for the failed courses in normal semesters in which they are offered subject to the limitations imposed by the regulations and course timetable.

Action plan, for dealing with course arrears in theory courses at the end of each semester to continue with the programme, is given below. Faculty advisors shall monitor, advise and support the students in this. Students should be informed about the minimum cumulative credits requirement to register for higher semester courses.

Eligibility Criteria for Registering for Higher Semester Courses

Semester	Minimum cumulative credits required to register for courses in higher semesters
First	Not insisted
Second	20
Third	Not insisted
Fourth	41
Fifth	Not insisted
Sixth	63
Seventh	Not insisted
Eighth	

I) Class Committees

This committee is to be in place in each college affiliated to the University.

a) Class Committee

Beginning from the first semester, all branches of study will have class committees for every semester constituted by the respective Heads of Departments.

The chairman of the committee shall be a senior faculty member who does not offer any course during that semester.

Members:-

- i) All faculty members teaching courses in that semester.
- ii) Two student representatives nominated by the head of the Department.

The course committees and class committees shall meet at least thrice in a semester – the first at the beginning of the semester, the second and the third after the first and

the second internal tests respectively. Both committees should monitor the conduct of the courses, adherence to the course plan and time schedule, completion of the syllabus, standards of internal tests, evaluation process and difficulties faced by the students and take suitable remedial actions at the appropriate time. At the end of the semester, the committee should meet without student representatives to review the conduct of the course and finalize the internal assessment marks and approve them.

m) Eligibility for writing the end semester examination and for grading

Students with 45% or more marks in internal assessment in a course shall only be permitted to write the end semester examination in that course. Those with less than 45% internal marks shall be awarded FE grade and have to register for the course again.

A student should have a minimum of 45% marks in the end semester examination to be eligible for grading in a course. Otherwise he/she will be considered to have failed in the course and an F grade will be awarded.

Internal marks given to the students who got 45% marks or more in the end semester examination shall be regulated in line with the end semester examination performance. Internal mark percentage shall not exceed 25% over the end semester mark %.

(For example if the end semester mark % is 45, then the maximum internal mark % is to be $45+25 = 70$ %.)

In case the student writes the supplementary examination, the mark got in that will be taken into consideration for regulating the internal marks.

Those who have more than 45% marks in the end semester examination are awarded the grade based on both internal assessment and end semester examination marks. A student earns credits for a course if the grade is P or above.

n) Award of Grades

Grading is based on the % marks obtained by the student in a course, as given in 7q.

The grade card will only give the grades against the courses the student has registered.

Semester grade card will give the grade for each registered course, Semester Grade Point Average (SGPA) for the semester as well as Cumulative Grade Point Average (CGPA).

o) Grades and Grade Points

Grades and Grade Points as per UGC guidelines is to be followed by the University

Grades	Grade Point (GP)	% of Total Marks obtained in the course
O (Outstanding)	10	90% and above
A ⁺ (Excellent)	9	85% and above but less than 90%
A (Very Good)	8.5	80% and above but less than 85%
B ⁺ (Good)	8	70% and above but less than 80%
B (Above Average)	7	60% and above but less than 70%
C (Average)	6	50% and above but less than 60%
P (Pass)	5	45% and above but less than 50%
F (Fail)	0	Less than 45%
FE	0	Failed due to eligibility criteria [7-o]
I	-	Course Incomplete

SGPA and CGPA are calculated based on the above grading norms and are explained at the end of this document.

p) Academic Auditing

The University shall have a detailed academic auditing procedure in place comprising of an internal academic auditing cell within the college and an external academic auditing for each college. The internal academic auditing cell in each college shall oversee and monitor all academic activities including all internal evaluations and semester examinations. This cell is to prepare academic audit statements for each semester at regular intervals of four weeks of instruction. These reports are to be presented to the external academic auditor appointed by

the University, who will use it as a reference for his independent auditing and for the final report to the University.

Academic auditing will cover:-

- 1) Course delivery covering syllabus, adherence to course plan, quality of question papers for internal examinations, internal evaluation, laboratory experiments, practical assignments, mini projects, conduct of practical classes and their evaluation. Semester examination and academic performance of the students.
- 2) Co-curricular and Extra-curricular activities available for students, and their organization.
- 3) Academic functioning of the college encompassing students, faculty and college administration covering punctuality, attendance, discipline, academic environment, academic accountability, academic achievements and benchmarking.

q) Break of Study

A student may break study on serious health reasons, for a maximum duration of two semesters, preferably in one academic year.

Break of study is permitted with the approval of the college Principal. [RU-3.]

All such cases of break of study are to be reported to the University. The maximum duration for completing the B. Tech. programme will still be twelve semesters (six years).

r) Revaluation and Grade Improvement

There is no provision for improving the grade. Revaluation rules are same as that for B.Tech programme.

s) Grade Cards

Students who have written the end semester examination will be given the grade cards for the registered courses, in every semester by the respective colleges. On earning the required credits for the degree, a consolidated grade sheet for the B. Tech programme will be given by the University.

t) B. Tech (Evening) Degree

B.Tech (Evening) Degree will neither have any ranking nor have any classifications like distinction or first class.

u) Academic Discipline and Malpractices in Examinations

Every student is required to observe discipline and decorous behaviour.

Any act of indiscipline, misbehaviour and unfair practice in examinations will be referred to the **Disciplinary Action Committee (DAC)**. Malpractices in examinations shall be viewed seriously and any such incident observed or reported by a faculty member or an invigilator associated with the examinations shall be reported to the Principal who in turn shall refer it to DAC. On the basis of the report and evidence available or gathered, DAC shall immediately initiate an enquiry giving the concerned student a chance to explain his/her case. Based on this the committee shall recommend the course of action in line with the guidelines formulated for this by the Controller of Examination of the University and forward it to the Principal for action.

Actions are to be based on the severity of the offence and are to be dealt with, on a course basis. Guidelines on this shall be given by the Controller of Examination which is to be followed by the Disciplinary Action Committee of the college.

The student may appeal to the Grievances and Appeals Committee for a relook on the matter. Based on the committee's report, the Principal shall take a final decision on the matter.

DAC shall be headed by a department head and shall have three other faculty members drawn from different departments as members. In case of malpractices in end semester examinations, the report given by the college DAC and the action taken by the Principal shall be intimated to the Controller of Examination of the University

v) Student's Welfare Committee

Every college shall have a Student's Welfare Committee, constituted by the Principal of the college. This committee shall have at least three faculty members as members and the chairman shall be a senior faculty member in the rank of a Professor. This committee is entrusted with the task of looking after the welfare of the students by taking appropriate steps with the concurrence of the principal.

w) Grievances and Appeals Committee

Each college should have a Grievances Redress Committee constituted by the Principal to address the grievances of the students and to consider their appeals on any decisions made by the college. This committee consisting of at least three faculty members and chaired by a senior professor shall look into student's grievances and appeals and give its recommendations to the Principal for action.

08. Amendment to Ordinance/ Regulations/Rules

Notwithstanding all that has been stated above, the University has the right to modify any of the above Ordinance/Rules/regulations from time to time.

RULES:

RU-1 Course Code and Course Number

The course code and number are same as that of B.Tech degree programme.

RU-2 Attendance

Attendance is marked for each course. While 75% attendance is mandatory for writing the end semester examination in each course, students are expected to have 100% attendance. However under unavoidable circumstances students are permitted to take leave. Leave is permitted on medical grounds or on personal exigencies. Leave of absence for all these is limited to 25% of the academic contact hours for the course. Biometric Punching System shall be used for marking daily attendance.

In case of long illness or major personal tragedies/contingencies the college Principal can relax the minimum attendance requirement to 60%, to write the end semester examination. This is permitted for one or more courses registered in the semester. Principal shall keep all records which led to his decision on attendance, for verification by the University. However this concession is applicable only to any two semesters during the entire programme. In case of prolonged illness, break of study is permitted as per RU-3.

RU-3 Break of Study

A student is permitted to have a break of study.

- i) In case of accident or serious illness needing prolonged hospitalization and rest.
- ii) In case of any personal reasons that need a break in study.

For break of study due to illness, student should submit all necessary medical reports together with the recommendation of the doctor treating him giving definite reasons for break of study and its duration. Before joining back the student should submit the fitness certificate from the doctor who treated him.

Students who want a break in study due to personal reasons shall convince the Principal on the genuine need for it by giving authentic evidence for the same.

RU-4 Leave of Absence

Students who want to take leave under RU-2 have to submit a leave letter to the teacher conducting the course. This letter is to be forwarded to the Head of the Department with recommendation of the teacher indicating the total leave of absence the student has so far availed. Leave is to be sanctioned by the Head of the Department. For medical leave over three days, medical certificate indicating the need for leave is required. After any medical leave exceeding five instruction days, on rejoining, the student has to produce the fitness certificate given by the doctor.

RU-5 Comprehensive Examination

This examination consists of two parts. Part one a written test and the other an oral one.

The written examination shall be objective type of 1 hour duration and shall have 50 marks and is to be conducted by the concerned department. Chairman of the oral examination board shall be a senior faculty in the department and the members include two other faculty members of the department and an external expert from another academic institute or an industry. Oral

examination shall carry 50 marks. Comprehensive examination may be conducted any time during the 6th semester with sufficient notice given to the students.

RU-6 Seminar

Students have to prepare a detailed report on the topic of the seminar and submit it to the teacher concerned. The seminar is to be of 20 minutes duration with another 5 minutes given for questions and answers. All students in the class have to attend the seminar without fail. Evaluation will be based on the report, seminar presentation as well as on the ability of the student to answer the questions put forward. Faculty member in charge of the seminar and another faculty member in the department nominated by the Head of the Department are the evaluators for the seminar. Distribution of marks for the seminar is as follows.

Marks for the report: 30%

Presentation: 40%

Ability to answer questions on the topic: 30%

RU-7 Ragging

Ragging of any nature is a criminal and non-bailable offence. Involvement in ragging shall lead to stringent punishment, including imprisonment as per the law of the land. A student, whose involvement in ragging is established, shall be summarily dismissed from the college. Each student of the Institute, along with his/her parent, is required to give an undertaking in this regard and the same is to be submitted at the time of registration.

Addendum:-

1. Calculation of SGPA/CGPA

Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA) are calculated as follows.

$SGPA = \frac{\sum(C_i \times GP_i)}{\sum C_i}$ where C_i is the credit assigned for a course and GP_i is the grade point for that course. Summation is done for all courses registered by the student in the semester. Here the failed courses are also accounted.

$CGPA = \frac{\sum(C_i \times GP_i)}{\sum C_i}$ where C_i is the credit assigned for a course and GP_i is the grade point for that course. Summation is done for all courses registered by the student during all the semesters for which the CGPA is needed. Here the failed courses are also accounted. CGPA of all courses passed may also be given.

CGPA for the B. Tech programme is arrived at by considering all course credits that are needed for the degree and their respective grade points.

With the approval of Academic Committee.
Issued by

Thiruvananthapuram

25-6-2016

Registrar