Academic Regulations (CBCS) 2013

Karunya INSTITUTE OF TECHNOLOGY AND SCIENCES

(Declared as Deemed-to-be-University under Section-3 of the UGC Act, 1956)
KARUNYA NAGAR, COIMBATORE – 641 114, TAMIL NADU

ACADEMIC REGULATIONS (CBCS) - 2013

CHOICE BASED CREDIT SYSTEM (CBCS) POLICY

Version 2.1

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PROGRAMS AND CREDITS

Sl. No	Program	Duration (In Semester)	Total Credits
1a	B.Tech	8	190
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2a	M. Tech	4	82
2b	M. Tech (Lateral)	2	46
3	M. Sc.	4	82
4a	M. Sc. (Integrated)	10	220
4b*	B. Sc.(Exit Option)	6	138
4c*	M.Sc. (Lateral)	4	82
5	PG Diploma	2	41
6	MBA (Trimester)	6	108
7	MBA (Semester)	4	82

4b is exit option and 4c is entry for lapsed seats during IV year.

ACADEMIC REGULATIONS

A. FOCUS / OBJECTIVE

The main focus of the program is highly purposive and innovative, which sets the pace for workable reforms in higher education suitable and relevant to National and International needs. The academic program shall be more enriched, interdisciplinary, flexible and marketable. Through Industry interaction program, purposeful linkage between the professional world and educational world shall be established. Efforts are oriented towards Research and Consultancy to make the research relevant to the National development and social needs. Centres of Excellence of International standards and joint academic and research program with Universities in India and abroad are being established. Programs shall be designed with Science, Applied Science and Technology components for the graduates of the program to function efficiently and effectively in the technological society. All programs shall have structural commonality and the common courses shall be offered together, irrespective of the ultimate degree to be awarded, to provide easy professional linkage, communication and group activity. Strong professional bond shall be developed through 'Industrial Schooling' and mission oriented time bound research projects. Academic administrative structure shall make all innovations possible and workable.

Choice Based Credit System (CBCS) is a versatile and flexible option for each student to achieve their target number of credits by using their choice both in terms of pace and sequence of courses. The students are given the privilege to choose any course as an elective which they have not studied before.

B. ADMISSION CRITERIA

- The Admission Criteria for all programs will be as per the University policy.

- Candidates with M.Sc. qualification are admitted to M.Tech programs, if they are qualified through GATE or by an examination conducted by the School, testing the proficiency and suitability to the program.

C. PROGRAM(S) OF STUDY

All the degree programs offered by the University are structured and their academic requirements are spelt out by the number of course credits. Programs are designed in such a way that a student will be able to finish the program in a stipulated number of semesters (Table 1). Students can be permitted to break in program by the Chairman, Academic Council (AC) on the recommendations of Director of the concerned School, however the program should be completed within the permitted number of semesters.

TABLE 1. DURATION OF STUDY

Degree	Stipulated Number of Semesters	Permitted Number of Semesters
B.Tech	8	12
B.Tech (Lateral)	6	10
M.Tech / MBA/ M.Sc.	4	6
M.Tech (Lateral)	2	4
MBA (Trimester)	6	9
M.Sc. (Integ)	10	14
PG Diploma	2	4

(The permitted number of semesters can be increased case by case by the AC based on the recommendations of the Board of Studies (BoS))

The ongoing degree programs are given below.*

Bachelor of Technology

- B.Tech. Aerospace Engineering
- B.Tech. Biomedical Engineering
- B.Tech. Biotechnology
- B.Tech. Civil Engineering
- B.Tech. Computer Science and Engineering
- B.Tech. Electronics and Communication Engineering
- B.Tech. Electrical and Electronics Engineering
- B.Tech. Electronics and Instrumentation Engineering
- B.Tech. Electronics and Media Technology
- B.Tech. Food Processing and Engineering
- B.Tech. Mechanical Engineering

Master of Technology – Full time (2 years)

- M.Tech. Aerospace Engineering
- M.Tech. Applied Electronics
- M.Tech. Advanced Manufacturing Technology
- M.Tech. Biomedical Instrumentation
- M.Tech. Biotechnology
- M. Tech. Bioinformatics
- M.Tech. Communication Systems
- M.Tech. Computer Science and Engineering
- M.Tech. Control and Instrumentation
- M.Tech. Embedded Systems
- M.Tech. Engineering Design
- M.Tech. Food Processing and Engineering

- M.Tech. Information Technology
- M.Tech. Integrated Water Resource Management
- M.Tech. Nanotechnology
- M.Tech. Network and Internet Engineering
- M.Tech. Power Electronics and Drives
- M.Tech. Renewable Energy Technologies
- M.Tech. Software Engineering
- M.Tech. Structural Engineering
- M.Tech. Thermal Engineering
- M.Tech. VLSI Design
- M.Tech. Mechanical Engineering (Lateral) – 1 year

Other PG Programs

- M.B.A. Trimester Pattern (Full time 2 years)
  (Marketing, Finance, HR, IB & Operations, Logistics and Supply Chain Management)
- M.Sc. Nanoscience and Technology (Integrated) –Full Time 5 Years
- M.Sc. Visual Communication (Integrated)– Full time 3+2 years
- M.Sc. Networking Technology (Full time 2 Years)

PG Diploma – Full Time 1 year
- Advanced Manufacturing Technology (in collaboration with CMTI, Bangalore)
- Petroleum & Natural Gas Flow Measurements & Instrumentation
  (in collaboration with FCRI, Palakkad)

D. ACADEMIC YEAR

The academic year is divided into two semesters, each semester normally consisting of 90 working days. Depending upon the requirements and workload the courses are scheduled in either one of the semesters or both semesters. For MBA program, the year is divided into 3 Trimesters consisting of 60 working days each.

E. COURSES AND CREDITS

➤ The departments in their areas of expertise offer courses. The nature of course, syllabus and the credits are reviewed and updated periodically by the Department Curriculum Development Cells and recommended to the BoS and AC for approval. The feedback from the Alumni, Industries, Educational Experts and Campus interviews are sought for this purpose. The program core shall be updated once in three years only.

➤ Curriculum development cell is a standing internal committee with all the internal members of BoS and AC and any other faculty co-opted / nominated by the Director of the school.

➢ With due approval of the University authorities, external faculty, agency or industry are also permitted to offer courses. The Curriculum Development Cell shall review the course content and assign appropriate credits and recommend the same to the BoS and AC for approval.

➢ Each course is listed under the appropriate department and coded with two digits identifying the year, two alphabets identifying the department followed by 4 numbers, the first one indicating the level and the $2^{nd} – 4^{th}$ digits giving the course number.

➢ The level of the courses is as follows:

- 1 for Pre-Engineering Program (PEP) and I year of M.Sc (Integrated) students. These courses cannot be chosen as an electives.
- 2 for UG students, which cannot be chosen as elective by PG students
- 3 for PG students, which can be chosen as electives by any student

➢ Each course shall carry a credit rating related to the weekly workload for the semester. One credit is assigned to one hour of lecture per week or one hour of tutorial per week or 1.5 continuous hours of academic work per week in Laboratory / Workshop / Drawing / Design.

For Example:
a) A credit rating of 1:0:0 indicates (1x1) + (0x1) + (0x1.5) = One hour of lecture, no tutorial class and no laboratory / workshop / design / drawing
b) A credit rating of 0:1:0 indicates (0xl) + (1x1) + (0x1.5) = No lecture class, one hour of tutorial class and no laboratory / workshop / design / drawing. The tutorial is to be conducted in the lab mode.
c) A credit rating of 0:0:1 indicates (0xl) + (0x1) + (1x1.5) = No lecture class, no tutorial class and 1.5 hours of laboratory / workshop / design / drawing

➢ All PG courses will be given a credit of 3:0:0.

F. COURSE CREDITS DISTRIBUTION

F1. B.Tech Programs:

The following B.Tech programs are offered by the University: B.Tech and B.Tech (Lateral) and their corresponding course credit distribution are shown in Table 2 and Table 3 respectively.

TABLE 2 COURSES & CREDIT DISTRIBUTION FOR UG (B.Tech.) PROGRAM

Classification	Total No of Credits	Pre-Engineering Core Credits	Balance Credits	Remarks about Balance of Credits
General	10	8	2	Value Education
Basic Sciences	30	18	12	Prescribed by the BoS
Engineering Sciences & Technical Arts	30	24	6	Managerial Skills, Computer Aided Graphics (customized)
Program Core	75	-	75	
Program Specific Soft Core	21	-	21	
Project	12 / 20	-	12 / 20	To be registered in the 8th semester only
Other Electives	12 / 6	-	12 / 6	
Total	**190/192**	**50**	**140/142**	

TABLE 3 COURSES & CREDIT DISTRIBUTION FOR UG (B.Tech.-Lateral) PROGRAM

Classification	No of Credits	Remarks about Balance of Credits
General	5	Value Education, English
Basic Sciences	15	Mathematical Foundation, Prescribed by the BoS
Engineering Sciences & Technical Arts	11	Programming in C (Theory & Lab), Managerial Skills, Computer Aided Graphics (customized)
Program Core	75	
Program Specific Soft Core	21	
Project	12 / 20	To be registered in the VI semester only
Other Electives	12 / 6	
Total	**151/153**	

F1.1. Pre Engineering Core:

The courses listed in Table 4 are identified as the PEP core and is an essential component for B.Tech degree, prescribed by the common BoS. The courses classified under the course components viz., 'General', 'Basic Sciences', 'Engineering Sciences and Technical Arts' shall

be common for all students seeking a degree of the department. The total number of credits to be earned in PEP is 50.

TABLE 4 PEP CORE COURSES

SL.NO	CLASSIFICATION	COURSE CODE	NAME OF THE COURSE	CREDITS
1	GENERAL (8 CREDITS)	14EN1001	English Comprehension	3:0:0
2		14EN1002	Communication Skills Lab	0:0:2
3		14CH1003	Environmental Studies	3:0:0
4	BASIC SCIENCES (18 CREDITS)	14MA1001	Basic Mathematics to Engineering	3:1:0
5		14MA1002	Calculus and Statistics	3:1:0
6		14PH1001	Applied Physics	3:0:0
7		14CH1001	Applied Chemistry	3:0:0
8		14PH1002	Applied Physics Lab	0:0:2
9		14CH1002	Applied Chemistry Lab	0:0:2
10	ENGINEERING SCIENCE AND TECHNICAL ARTS (24 CREDITS)	14CE1001	Basic Civil Engineering	3:0:0
11		14ME1003	Basic Mechanical Engineering	3:0:0
12		14EE1001	Basic Electrical Engineering	3:0:0
13		14EC1001	Basic Electronics Engineering	3:0:0
14		14MS1001	Technology for Societal Needs	3:0:0
15		14ME1001	Geometric Drawing	0:0:2
16		14ME1002	Workshop Practice	0:0:2
17		14CS1001	Fundamentals of Computing and Programming	3:0:0
18		14CS1002	Fundamentals of Computing and Programming Lab	0:0:2
			TOTAL	**50**

F1.2. Program core: Program core is a group of courses identified to be taken by students for attaining a specific degree. The BoS on the recommendation of the CDC will prescribe a list of courses which are essential to obtain the degree in a branch of engineering, which should not be more than 75 credits of courses and a project, either part semester or full semester to be undertaken and credit for the project also come under the program core.

Part / Full Semester/Trimester Project:

B.Tech students who have 7 or more backlogs are not eligible for registering for part semester or full semester project. The allotment of guides for eligible UG students should be done before the students leave for summer vacation in the 6th semester. Part semester Project PSP2998 is for a minimum of 45 working days. It can be a team effort and earns 0:0:12 credits. Maximum of 4 U.G. students can form a team for this purpose. The Full semester Project FSP2999 is for 90 working days and is an individual effort and earns 0:0:20 credits.

All students are required to do Projects in Reputed Industry / Laboratory to promote academic industrial interaction and to provide professional expertise in selected fields of interest. Under this program, projects are formulated and implemented jointly by specialists from the industries and faculty members of the institute. The Institute will provide the information regarding the options available along with the skill set required to all the students.

2. **Program Specific Soft Core**: The BoS on the recommendation of the CDC will prescribe a list of courses which are essential to obtain a specialization and the list should contain courses for a minimum credit of 36. Out of which a student can select 21 credits in order to obtain a specialization. A student can register for soft core only after completion of minimum of 90 credits.

The students are free to choose any soft core course across any specialization. At the end of the 8th semester if all the soft core courses completed for 21 credits by a particular student pertain to a single soft core course, the concerned specialization will be included in the consolidated mark sheet.
The student would have to complete minimum 21 credits to become eligible for the specialization to be mentioned in the consolidated marksheet, provided the part semester and full semester projects are in tune with the soft core courses credited by the student.

3. Towards the requirement of the balance of credits for the degree, a student may choose, depending upon the aptitude, interest and future plans, departmental, interdisciplinary and industrial activities as given below:

  ➢ **Additional Courses**: The students can choose any approved course offered by any Department of the University.

  ➢ **Industrial Training**: Training in a reputed Industry/Research lab for a period of two weeks will be given 0:0:1 credit and for a period of four weeks will be given 0:0:2 credits. Course code will be ITP [2/3] 901, 902 etc. (2 level for UG and 3 level for PG).

  ➢ **Mini Projects**: Individual Full Time Mini Project is done for duration of 4 weeks either internally or externally. The course code will be MP [2/3] 951, 952 etc. and the credits awarded are 0:0:2.

  ➢ **Summer Internship Program**: Training in a reputed Industry/Research lab for a period of four weeks will be given 0:0:2 credits. Course code will be SIP [2/3] 995 etc.

  ➢ **Internship:** Training in a reputed Industry/Research lab for a period of 30 working days will be given 0:0:8 credits. The course code will be ISP [2/3] 997.

  ➢ **Project Preparation:** To help the students to identify industry relevant project works by going through Literature and by contacting industries/research organizations, Faculty members may give presentation to students explaining the details of the Project Works

proposed by them. Project preparation will have a credit of 0:0:1 and the course code will be PP[2/3]911.

> **Comprehensive Practices:** To integrate the learning in different courses and enable the students to develop a holistic view, this module is developed. It is common for all students seeking a degree from the department. Such exercise helps them to enhance their knowledge using logical and analytical skills which ultimately helps them to assimilate concepts learnt in the classroom.

  Comprehensive Practices will have a credit of 0:0:1 and the course code will be CP2921. It shall be registered in the sixth semester.

F2. M.Tech Programs:

A student will be awarded M. Tech. if he/she successfully complete the total number of academic credits prescribed for a regular degree which is 82 (Table 5).

TABLE 5 COURSES & CREDIT DISTRIBUTION FOR M. Tech PROGRAM

Classification	No of Credits	Remarks
General	2	Value Education
Program Core	36	Out of 48 credits, a minimum of 36
Program Specific Soft Core	12	credits to be offered as program core
Part Semester Project	12	To be registered in the III Semester
Full Semester Project	20	To be registered in the IV Semester
Total	82	

1. **Program core:** The BoS on the recommendation of the CDC will prescribe a list of courses which are essential to obtain the Master's degree in a branch of engineering, which should be 36 credits of courses, one part semester and one full semester project.

   PG students who have 3 or more backlogs are not eligible for registering for part semester and full semester project. The allotment of guides for eligible PG students should be done by the end of second semester. Part semester Project PSP3998 is done for a minimum of 45 working days, it should be an individual effort and earns 0:0:12 credits. The full semester project FSP3999 is done for 90 working days and is also an individual effort and earns 0:0:20 credits.

   All students are required to do Projects in Reputed Industry / Laboratory to promote academic industrial interaction and to provide professional expertise in selected fields of interest. Under this program projects are formulated and implemented jointly by specialists from the industries and faculty members of the institute. The Institute will provide the information regarding the options available along with the skill set required to all the students.

2. **Program Specific Soft Core:** The BoS on the recommendation of the CDC will prescribe a list of courses which are essential to obtain a specialization and the list should contain courses for a minimum credit of 18. The student would have to complete minimum 12 credits to become eligible for the specialization to be mentioned in the consolidated marksheet, provided the part semester and full semester projects are in tune with the soft core courses credited by the student.

   The students are free to choose any soft core course across any specialization. At the end of the 4th semester if the soft core courses for 12 credits are completed by a particular student pertain to a single soft core course, the concerned specialization will be included in the consolidated mark sheet.

3. If a student completes the PG core course as a soft core subject at the UG level, a maximum of 2 courses may be replaced with any other program specific soft core courses at M.Tech level after matching the syllabi with due approval from the office of the academic affairs.

F3. M.Tech (Lateral)

A student registering for M. Tech (Lateral) option will have to complete 46 academic credits and the credit distribution is shown in Table 6.

TABLE 6 COURSES & CREDIT DISTRIBUTION FOR M.Tech (Lateral) PROGRAM

Classification	No of Credits	Remarks
Program Core	20	
Program Specific Soft Core	14	
Half Semester Project	12	To be registered in the final Semester
Total	46	

F4. M.Sc. (Integrated) Program

A student will be awarded M.Sc. (Integrated) if he/she successfully completes the total number of academic credits prescribed for a regular degree which is 220. The courses and credit distribution for M.Sc. (Nanoscience & Technology) and M.Sc. (Visual Communication) are presented in Tables 7 and 8 respectively.
The M.Sc. (Visual Communication) students opting for B.Sc. (Exit) option should complete a minimum of 138 credits. The students joining the M.Sc. courses as lateral in the IV year should complete a minimum of 82 credits.

TABLE 7 COURSES & CREDIT DISTRIBUTION FOR M.Sc (Nanoscience & Technology) PROGRAM

Classification	No of Credits	Remarks
General	10	*Value Education
Basic Sciences	30	Prescribed by the BoS
Engineering Sciences & Technical Arts	10	Managerial Skills, Computer Aided Graphics (customized)
Program Core *	86	
Program Specific Soft Core	36	
Part Semester Project*	12	To be registered in the IX semester
Full Semester Project*	20	To be registered in the X semester
Other Electives	16	
Total	**220**	

*To be completed by M.Sc. (Lateral) – 36 credits of Program Core, Value Education (2 credits),
12 credits of Program Specific Soft Core, Part Semester and Full Semester Project.*

TABLE 8 COURSES & CREDIT DISTRIBUTION FOR M.Sc (Visual Communication) PROGRAM

Classification	No of Credits	Remarks
General*	20	Value Education
Basic Sciences*	20	Prescribed by the BoS
Engineering Sciences & Technical Arts*	10	Managerial Skills, Computer Aided Graphics (customized)
Program Core *#	86	
Program Specific Soft Core*#	36	
Part Semester Project *	12	To be registered in the VI semester
Full Semester Project#	20	To be registered in the X semester
Other Electives	16	
Total	**220**	

** To be completed for B.Sc. (Viscom) Exit option – 50 credits of Program Core, 24 credits of Program
Specific Soft Core, all the courses under General, Basic Sciences, Engineering Science & Technical
Arts and Part Semester Project*
*# To be completed by M.Sc. (Lateral) – 36 credits of Program Core, Value Education (2 credits), 12
credits of Program Specific Soft Core and Full Semester Project.*

1. **Program core**: The BoS on the recommendation of the CDC will prescribe a list of courses which are essential to obtain the degree in M.Sc (Integrated) program, which should be 86 credits of courses, one part semester and one full semester project.
   The B.Tech regulations will be applicable for M.Sc (Integrated) students.

2. **Program specific soft core**: The BoS on the recommendation of the CDC will prescribe a list of courses which are essential to obtain a specialization and the list should contain courses for a minimum credit of 50. The student would have to complete minimum 36 credits to become eligible for the specialization to be mentioned in the consolidated mark sheet.

F5. M.Sc. Program

A student will be awarded M.Sc. (Networking) if he/she successfully complete the total number of academic credits prescribed for a regular degree which is 82 (Table 9).

TABLE 9 COURSES & CREDIT DISTRIBUTION FOR M. Sc. PROGRAM

Classification	No of Credits	Remarks
General	2	Value Education
Program Core	36	
Program Specific Soft Core	12	
Other Electives	20/12	
Part/Full Semester Project	12/20	To be registered in the IV Semester
Total	82/82	

1. **Program core**: The BoS on the recommendation of the CDC will prescribe a list of courses which are essential to obtain the Master's degree in a branch of Science, which should not be more than 36 credits of courses, one part semester and one full semester project.

2. **Program Specific Soft Core**: The BoS on the recommendation of the CDC will prescribe a list of courses which are essential to obtain a specialization and the list should contain courses for a minimum credit of 18. The student would have to complete minimum 12 credits to become eligible for the specialization to be mentioned in the consolidated mark sheet.

F6. M.B.A (Trimester)

A student will be awarded M.B.A if he/she successfully completes the total number of academic credits prescribed for a regular degree which is 108 (Table 10) for MBA (Trimester) and 82 (Table 11a & 11b) for MBA (Semester).

TABLE 10 COURSES & CREDIT DISTRIBUTION FOR M.B.A (Trimester) PROGRAM

Classification	No of Credits	Remarks
General	2	Value Education
Program Core	53	
Program Specific Soft Core	36	
Summer Internship	2	
Full Trimester Project	15	To be registered in the VI Trimester
Total	108	

For MBA (Trimester), Full Trimester project TSP3996 is done for 60 working days and is also an individual effort and earns 0:0:15 credits.

TABLE 11a COURSES & CREDIT DISTRIBUTION FOR M.B.A HEALTH CARE MANAGEMENT (Semester) PROGRAM

Classification	No of Credits	Remarks
General	2	Value Education
Program Core	60	
Full Semester Project	20	To be registered in the IV Semester
Total	82	

TABLE 11b COURSES & CREDIT DISTRIBUTION FOR M.B.A HOSPITALITY AND TOURISM MANAGEMENT (Semester) PROGRAM

Classification	No of Credits	Remarks
General	2	Value Education
Program Core	58	
Summer Internship	2	
Full Semester Project	20	To be registered in the IV Semester
Total	82	

F7. PG Diploma

A student will be awarded PG Diploma if he/she successfully complete the total number of academic credits prescribed for a regular degree which is 41 (Table 12).

TABLE 12 COURSES & CREDIT DISTRIBUTION FOR PG DIPLOMA PROGRAM

Classification	No of Credits	Remarks
General	2	Value Education
Program Core	19	
Full Semester Project	20	To be registered in the final semester
Total	41	

Credits can also be earned by PG students as prescribed in F1.4

G. DIRECTED SELF STUDY

Any final year UG/PG Degree student who wishes to study an approved course while the course is not offered can opt for self-study. A maximum of 3 courses can be registered under self-study.

Any student who wishes to pursue a course under self-study shall register for the same in the beginning of the semester. There will not be any regular class conducted for self-study courses. The Director/HOD will allot a Faculty in-charge to monitor the student, to set the question papers and evaluate the internal tests, quality assessment and end semester exam. The continuous assessment will be according to CBCS PG policy and the results will be declared based on absolute grading.

However, the total credits registered for a semester should not exceed the limit prescribed for various programs.

In cases such as University/ Institute Transfer, etc., the students may be allowed to register courses for credits more than the prescribed limit after getting the approval from the competent authority.

H. AUDITING OF A COURSE

A student desiring to study a course can Audit a Course which will be reflected in the mark statement but not included for CGPA calculation. Such student should register with the Course Instructor before the commencement of the course, with permission of the Director/HoD. The student is expected to complete all the formality of internal and end semester assessment. No adjustment of Time Table will be done to accommodate such students. A maximum of 2 courses can be audited per program and an audited course cannot be registered for earning credit.

I. FACULTY ADVISORY SYSTEM AND REGISTRATION OF COURSES

Each student is assigned to a Faculty member who will act as an Advisor during the campus life of the student in all relevant academic and administrative matters. The student is advised to draw up a plan of study in consultation with the Faculty Advisor.

I1. Number of Credits per Semester

The number of credits to be taken by a Under Graduate student during a regular semester is 25±2 and for a student in regular trimester pattern is 18±2. However in the final year of study the student is permitted to register for the remaining credits even if it is lesser than the average number of credits.

I2. Pre-Requisites and Co-Requisites

If a course 'C2' has a pre-requisite 'C1' and a co-requisite lab 'C3':
- A student is permitted to register for 'C2', only if he/she had registered for 'C1' in the preceding semester(s).
- If a student gets 'R' grade or 'IC' grade in 'C1', failing to meet the minimum passing requirement in either internal or end-semester component of 'C1', he/she may be permitted to register for 'C2'.
- A course 'C3' specified as co-requisite of 'C2' may be registered along with 'C2' or in the ensuing semester.

I3. Add/Drop of Courses

A student can add to or drop any registered course according to the notification given by the Office of the Academic Affairs. The 'dropped' courses can be taken in the subsequent semester.

I4. Re-registration

a. A student who wishes to improve his/her grade shall be permitted to re-register for that particular course as and when it is offered
b. Re-registration fees is Rs.5000/- per course. A student can re-register only during the stipulated period of study.

I5. Summer Course for Arrear Students

a. In a particular course, if the number of students who wish to register for the summer course is ≥ 30, the course will be offered. The course duration will be 45 hours and the Course fee will be Rs. 5000. No Internal Assessment will be conducted.
b. On completion of the Summer Course, the student shall appear for arrear exam. The student will be awarded 'P' grade if he/she scores minimum passing requirement in arrear exam.

J. REQUIREMENTS FOR CONTINUING THE COURSE

A student will be deemed to have completed any semester only if:

- He/She secures not less than 80% of class attendance (OD and ML corrected) and 80% of assembly attendance in that semester.

  However, it is mandatory for a student to maintain a physical attendance of 70%, only after which, the attendance correction for all kinds of official duty (OD) and medical leave (ML) will be effected at the end of the semester.

- His/her conduct is found to be satisfactory as certified by the Director of the School.

Students who do not complete the semester as per this clause will not be permitted to write the end semester examination and are not permitted to go to the next semester. They are required to repeat the incomplete semester in the next academic year.

K. SCHEME OF ASSESSMENT

Unique methods of evaluation have been evolved to take account of certain traits which do not surface in a classroom education, like professional judgment, decision making, interdisciplinary approach, initiative, leadership, sense of responsibility, etc. The system discards the conventional emphasis on a single final examination and numerical marks as the absolute indication of the quality of student's performance. Thus, at the end of the semester letter grades, O, S, A, B, C, P and R are awarded to the student based on the total performance of the student. These letter grades stand for quality of performance and also associated with points in a quantified hierarchy as given below:

O – Outstanding (10), S – Excellent (9), A – Very Good (8) B – Good (7), C – Satisfactory (6), P – Pass (5) and R – Reappearance Required (0)

Further, these letter grades have points associated with them in a quantified hierarchy.

(i)   **For THEORY courses the distribution will be as under**

    Continuous Assessment   - 70
    End semester examination   - 30
                Total   - 100

End semester examination will be conducted for 100marks and the marks obtained will be converted appropriately for all level courses.

(ii)   **For PRACTICAL courses the distribution will be as under**

    Laboratory work   - 60
    Comprehensive Viva   - 10
    End semester examination   - 30
                Total   - 100

No student will be allowed to appear for end semester examination regular / arrear without the certified record book.

(iii)   **For INDUSTRIAL TRAINING / MINI PROJECT/ INTERNSHIP courses the distribution will be as under:**

    Satisfactory certificate   - 10
    Report   - 40
    Seminar   - 20
    Viva-voce   - 30
                Total   - 100

(iv)   **For PROJECT PREPARATION PP[2/3]911 the distribution will be as under:**

    Continuous Assessment
            Min. 3 Reviews   - 40
            Report (with the final Review) - 30
    End Semester
            Seminar & Viva Voce   - 30
            Total   - 100

(v) **For COMPREHENSIVE PRACTICES CP2921 the distribution of marks will be as under:**

Continuous Assessment:	
Test 1 (Online MCQ test from Program Core courses of 3rd & 4th Semesters)	35 Marks
Test 2 (Online MCQ test from Program Core courses of 5th & 6th Semesters)	35 Marks
End Semester:	
End Semester Test (Online MCQ test from Program Core courses of 3rd to 6th Semesters)	30 Marks
Total	**100 Marks**

Every test may comprise of 70 MCQs in GATE pattern. Test 1 may be scheduled during regular time table before 35th working day. Test 2 may be scheduled before the 70th working day. End Semester Test will be conducted before 85th working day.

(vi) **For PART SEMESTER PROJECT PSP[2/3]998 the distribution will be as follows:**

Continuous Assessment
    Min. 2 Intermittent Reviews   - 40
    Report (with the final Review) - 30
    End Semester Seminar &Viva voce- 30
          Total   - 100

(vii) **For FULL SEMESTER PROJECT FSP[2/3]999 the distribution will be as follows:**
Continuous Assessment
    Min. 3 Intermittent Reviews   - 40
    Report (with the final Review) - 30
    End Semester Seminar &Viva voce- 30
          Total   - 100

(viii) **For FULL TRIMESTER PROJECT TSP3996 the distribution will be as follows:**
Continuous Assessment
    Min. 2 Intermittent Reviews   - 40
    Report (with the final Review) - 30
    End Semester Seminar &Viva voce- 30
          Total   - 100

L. CONTINUOUS ASSESSMENT

Continuous assessment (CA) marks will be awarded on the basis of continuous assessment made during the semester for Theory, Practical, Part-semester Project and Full-semester Projects, as per the guidelines issued from time to time with the approval of Chairman, AC. This continuous assessment is based on the sessional work and consists of class tests, Internal examinations, homework, assignments, term paper, seminars, course related projects, etc. Absence from these or late submissions will result in loss of marks. Instruction for the same is given separately.

M. END SEMESTER EXAMINATION

- End Semester examination will be conducted for all the courses registered in a particular semester along with courses in which R and IC grades were awarded, if any, in the previous semester(s).
- The University conducts final examination, normally in November and in April every year. The time table will be notified in advance.
- A student is permitted to withdraw the end semester examinations once during a programme under the following norms:
  - o He / she meets the minimum attendance requirement
  - o He / she should not have failed in any course/withdrawn even a single course earlier.
  - o The immediate next attempt will be considered as the first attempt and the internal assessment of the withdrawn course may be carried forward and the student shall appear for end semester exam in the subsequent semester and the grading will be given after fixing the marks obtained by the student with their original class.

Practical/ Part-semester / Full-semester / Trimester Projects: Faculty who conducted the practical / the Supervisor of the Project along with an expert from KU to be appointed by the Director will conduct the end semester examination.

Industrial training / Mini-project/ Internship / Project Preparation: Two experts (one can be supervisor) from KU to be appointed by the Director will conduct the end semester examination as per the component given above (Section K.III) for 100 marks.

N. REVALUATION

The students are entitled the following within a reasonable time limit, to keep the evaluation system above board:
- There will be only single valuation for Level 1, Level 2 and Level 3 subjects, hence students are entitled for xerox copies of answer scripts, if the students are not satisfied with the marks allotted, then can apply for revaluation.
- The average mark will be taken as the mark obtained for the two valuations for pass & pass or fail & fail. However for pass & fail, there will be a third valuation and the marks corresponding to two similar results will be averaged.

O. GRADING SYSTEM

The letter grade and the grade point to each student studying a course are awarded based on the statistical parameters, mean ($\bar{x}$) and standard deviation (σ) of the distribution of marks. These parameters are defined as follows:

$$\bar{x} = \frac{\sum_{i=1}^{N} M_i}{N} \qquad \sigma = \sqrt{\frac{\sum_{i=1}^{N} (M_i - \bar{x})^2}{N}}$$

where M is the aggregate of marks obtained both from continuous assessment if applicable and the end semester assessment by the student in a course. N is the number of appearing students in the batch / course.

The minimum passing requirements and classification of grades are presented in Table 15 & 16 respectively.

Level 1 & Level 2 courses:

1. If the number of students registered for a course is $\geq$ 30, relative grading (Table 13) will be followed, else absolute grading based on Table 14 will be applied.
2. A student will be awarded R grade if M < $(\bar{x} - 2\sigma)$ or if Internal marks < 50% or end semester mark <33% (Refer Table 16).
3. If $(\bar{x} - 2\sigma) > 45$, the lower limit of Grade P is to be fixed as 45%.
4. Half Semester and Full Semester Project shall follow the Absolute Grading.

Level 3 Courses:

1. All theory, laboratory courses, half semester and full semester projects shall follow absolute grading. All theory and laboratory courses for MBA students shall follow relating grading. However for Part/Full Trimester Projects, absolute grading shall be followed.
2. A student will be awarded R grade if M < $(\bar{x} - 2\sigma)$ or if Internal marks < 40% or end semester mark < 40% or the sum of both internal and end semester marks < 50% (Refer Table 15).
3. If $(\bar{x} - 2\sigma) > 50$, the lower limit of Grade P is to be fixed as 50%.

TABLE 13 RELATIVE GRADING

Total Mark, M secured by the student (CA+ES)	Grade	Quality Assessment	Grade Point
$M \geq (\bar{x} + 1.75\sigma)$	O	Outstanding	10
$(\bar{x} + 1.00\sigma) \leq M < (\bar{x} + 1.75\sigma)$	S	Excellent	9
$\bar{x} + 0.25\sigma \leq M < \bar{x} + 1.00\sigma$	A	Very Good	8
$\bar{x} - 0.5\sigma \leq M < \bar{x} + 0.25\sigma$	B	Good	7
$\bar{x} - 1.25\sigma \leq M < \bar{x} - 0.5\sigma$	C	Satisfactory	6
$\bar{x} - 2\sigma \leq M < \bar{x} - 1.25\sigma$	P	Pass	5
$M < \bar{x} - 2\sigma$	R	Reappearance Required	0

TABLE 14 ABSOLUTE GRADING

Grade	Qualitative Assessment	Point Value of Grade	Marks associated with
O	Outstanding	10	≥ 95
S	Excellent	9	≥ 85 &< 95
A	Very Good	8	≥ 75 &< 85
B	Good	7	≥ 65 &< 75
C	Satisfactory	6	≥ 60 &< 65
P	Pass	5	≥ 45&< 60* ≥ 50&< 60**
R	Reappearance Required	0	<45* <50**

*For 1 and 2 Level Courses   **For 3 Level Courses

TABLE 15 MINIMUM PASSING REQUIREMENT

Level of Course	Internal Mark	End Semester Mark	Total
1 & 2	≥ 50%	≥ 33%	≥ 45%
3	≥ 40%	≥ 40%	≥ 50%

TABLE 16 CLASSIFICATION OF GRADES

S.No	Attendance	Internal Marks (IM)	Semester Outcome	Grade	Proposed Outcome	Evaluation
1	Overall attendance <80%	-	-	IE	Repeat Semester	
2	Overall attendance (Morning Counseling +Subject-wise) ≥ 80%	IM > Min. req.	Fail / Absent	R	Appear for Arrear Exam (AE)	Relative Grading by fixing in the original batch
3		IM < Min. req.	Fail/ Absent	IC	Appear for AE (No Summer Course)	Minimum Marks- 45%*, 50%** IM not considered - Only 'P'

*For 1 and 2 Level Courses   **For 3 Level Courses

- If a student fails to meet the attendance requirement, he may be considered as 'Ineligible' and allotted the grade 'IE'. A student who gets the grade 'IE' shall repeat the semester in

the subsequent academic year. All the courses registered during that semester will be cancelled.

- If a student meets the minimum attendance and internal mark requirements but is fail or absent in the end semester exam shall be awarded 'R' grade. He / She shall appear for arrear exam in the subsequent semester and grade will be awarded according to Relative Grading by fixing in the original batch if he/she meets the minimum requirement.
- A student who gets 'IC' grade shall appear for arrear exam in the subsequent semester and will be awarded 'P' grade if he/she meets the minimum requirement.

GRADE POINT AVERAGE

Based on the grades obtained by a student in all the registered courses, a Grade Point Average (GPA) is calculated as follows and is rounded off to two decimals

$$GPA = \frac{\sum (No.of\,Credits \times Grade\,Point)}{\sum No.of\,Credits}$$

The ranking of a student in a semester will depend on the GP earned

SGPA: The Semester Grade Point Average is the GPA for the subjects registered in a semester.

CGPA: The Cumulative Grade Point Average at any stage is the GPA for all subjects successfully completed upto that stage.

The SGPA and CGPA are rounded off to two decimal places.

PERCENTAGE OF MARKS: To get percentage of marks, multiply the GPA by 10.

P. CLASSIFICATION OF SUCCESSFUL CANDIDATES:

- ➢ Should successfully complete the total number of academic credits prescribed for a regular UG and PG degree

- ➢ In addition to satisfactory completion of the academic requirement, every student should successfully complete a minimum of non-academic credits as per norms for the award of degree by taking activities of student's choice from amongst those designed to achieve the non-academic objectives of the University.

Q. CLASSIFICATION OF AWARDS:

i) A student is awarded I Class with Distinction if the student passes all the courses required in the first attempt within the permitted period and has more than 8.0 CGPA on a 10 point grade. Even if a student takes 'break of study' on valid reasons and pass all subjects without arrears, he/she is eligible to get I class with distinction.

ii)   A student is awarded I Class if the student
  - is able to pass all the subjects within the permitted period by taking not more than two attempts after the stipulated period.
  - has been permitted to go through 'break of study' on valid reasons and this period will not be counted as part of stipulated/permitted period.
  - has more than 6.0 CGPA on a 10 point grade at the completion of the required number of credits.

iii)   All the other students who qualify for the degree are given second class.

R. COMMENDATION

A student obtaining CGPA of 9.5 and above with project grade of 'O' will be commended by the Board of Management for outstanding performance

S. CONSTITUTION OF CURRICULUM CELLS

The Departmental Curriculum Development Cells are constituted as under for planning and updating of syllabus to be presented to the Board of Studies. Similarly the Common Curriculum Development Cell is constituted as under for finalizing the subjects for both common and departmental core.

a) Departmental Curriculum Development Cells for academic matters

Chairman : Head of the Department
Director   : Ex-Officio
Members : All Professors
              : All Associate Professors
              : All Assistant Professors (SG)
Note : A minimum of 3 members are required otherwise senior most Assistant Professors will be co-opted.

Secretary : Faculty member nominated by HoD.

b) Common Curriculum Development Cell for regulations

Chairman : Chairman (Academic Council)
Members : Registrar
              All Directors
              All Deans
              All HODs
Secretary : Dean

T. CREDIT REQUIREMENTS FOR GRADUATION

The Students who complete more than the minimum number of credits required for the completion of the program shall be given an option to get the Degree with the best minimum credits required for graduation. Only the courses corresponding to the best minimum required credits will be listed in the consolidated statement of grades.

U. GENERAL

On all matters connected with their course work and the prescribed requirements for the Degree, the students are advised to seek the guidance from their Class Advisor / Mentor / Head of the Department concerned.

CONTINUOUS ASSESSMENT

PREAMBLE:

Grades will be awarded on the basis of continuous assessment made during the semester. These continuous assessment components are periodic tests, internal examinations, assignments, term paper, seminars, course related projects, etc.

A course instructor who handles a class does the assessment on his/her own but will be subjected to academic audit.

The salient features of the continuous assessment are:
➢ There will be regular periodic evaluation of each student by number of pre-notified components
➢ Absence from these or late submissions will result in loss of marks.
➢ The marks obtained in all components will be added and statistical method will be used to award the grades as given in the policy.
➢ End semester examination / Viva are mandatory.

THEORY COURSES:

Attendance:

  i.   Students who are physically present in a class only should be marked present, students not present in the class for what so ever reason should not be marked present.

 ii.   The attendance marks will be awarded as per the course-wise OD corrected attendance. >95% 3 marks / <95 & >90 2 marks / <90 & >85 1 mark

iii.   Student will be awarded 1 mark if their counseling session attendance is more than 90%.

Periodic Tests:

1.   Three tests will be conducted for 40 marks each. All the three tests are compulsory.

Level 1& 2	Marks	Level 3	Marks
3 Internal Tests @ 18 marks each	54	3 Internal Tests @ 20 marks each	60
Quality Assessment (6 marks-Online test)	12	Quality Assessment	10
Attendance	4	End Semester Exam	30
End Semester Exam	30		
Total	100	Total	100

Note:

a. Students who have availed OD for any one test will be allotted the best marks out of the two tests he/she appeared.

b. Students who have missed any one test due to valid reasons (including ML) shall be awarded the equivalent percentage of marks obtained in the end semester exam.
   For eg. If end semester exam mark is 80% , the test mark awarded for the missed test will be 80% of 18 for UG and 80% of 20 for PG.

c. If student misses more than one test, only one test will be compensated.

2. The following tests schedule shall be incorporated in the Academic Calendar.

   UG and PG courses other than MBA (For a 3 credit course):

Test No.	Schedule	Portions
Test 1	After 25th Working day	1 - 12 lectures
Test 2	After 50th Working day	13 - 24 lectures
Test 3	After 75th Working day	25 - 36 lectures

   MBA course:

Test No.	Schedule	Portions
Test 1	After 20th Working day	1 - 10 lectures
Test 2	After 35th Working day	11 - 20 lectures
Test 3	After 50th Working day	21 - 30 lectures

3. Question Pattern for Internal Test:

   1 & 2 Level Courses
   - The question paper will consist of two big questions of 20 marks each with adequate subdivisions.
   - Each question can be of the following pattern:
     a. Two questions @1marks each
     b. Two questions @ 2 marks each
     c. One big question @ 14 marks

   3 Level Courses
   - The question paper will consist of two big questions of 20 marks each with subdivisions.

4. The faculty will prepare a scheme of valuation, value the script, give to the students, and will explain the valuation scheme.

5. **Quality Assessment:** One online test will be conducted per course between 55th and 74th working day for all 1 and 2 level courses. The test can be conducted during regular lecture hours. The mark obtained will be converted to 6. Any other component (seminars/ term papers/ posters/ hardware) may be given for the remaining 6 marks.

Quality Assessment:

i. QA will be given for a course which does not have a tutorial credit and will be given a maximum of 10 marks for 3 level courses and 12 marks for 1 and 2 level courses.

ii. The Course Teacher will decide on any **two** components for this assessment; it can be a seminar / assignment / design / product development / minor project / case study / term paper, etc.

iii. The quality assessment component and their weightage by which the students are going to be assessed by the course teacher will be clearly spelled out to the students in the beginning of the semester itself.

iv. Students are not permitted to just download materials from Internet and submit them as Assignment, Project or Term Paper for Quality Assessment. Students should prepare handwritten / typed reports based on the understanding of concept, technology, etc.

v. The quality assessment will be reviewed by the HoD/Director at the end of the semester.

Tutorials (Applicable for 1 and Level Courses)

i. This will be applicable only to the courses which have a tutorial credit

ii. The students attending a course under a faculty in a slot will be divided such a way a maximum of 25 students will be assigned to a faculty for conducting the tutorial and will be registered (lab mode) accordingly

iii. The tutorial questions and keys will be framed by the course teacher and communicated to teachers handling the tutorials.

iv. The students are required to maintain a separate notebook for each tutorial class.

v. The faculty will assess the tutorial work at the end of every tutorial period and record the marks

vi. The marks obtained by each student in all tutorials will be added and calculated for 10 marks.

End Semester Theory Examination:

1. The students registered for the same course code will appear for a common end semester exam.

2. Question Pattern for End Semester Exam: Five questions of 20 marks each for UG and PG with one compulsory question which will be asked from the syllabi covered from 37th to 45th

lectures (for a 3 credit course except MBA). For MBA, the compulsory question will be from 31st to 36th lecture hours.

3. One common question paper will be used per course for all internal tests and end semester exam.

4. End Semester Question Paper Pattern:

	UG & PG
Time	3 Hours
Maximum Marks	100
Total no of questions	**9** *(1 compulsory question(*) + 4 pairs of questions with either/or choice from the portions covered in Tests 1 to 3)*
Total no of questions to be answered	5

(*)*Should be from lectures 37 – 45 for a 3 credit course*

LABORATORY COURSES:

Practical:

1. The faculty will prepare a list of experiments and get the approval of HoD / Director and notify the same before the commencement of the semester.

2. The list will consist of 12 experiments for a 2 credit lab (one session per week) or 6 experiments for a 1 credit lab (one session per 2 weeks)

3. At the end of every class the faculty will evaluate the work done during the session (based on observation note) for 20 marks

4. The student would have to submit the record note at the beginning of the ensuing class and faculty will evaluate the same for 10 marks

5. No student will be permitted to do 2 experiments in the same class.

6. The marks obtained by the students will be calculated for 60 marks.

7. There will be a comprehensive viva for 10 marks after completion of the prescribed experiments

8. No student will be allowed to appear for end semester examination regular as well as arrear without the certified record book.

End Semester Practical Examination:

1. The faculty after ensuring that the students have completed atleast 10 / 5 experiments will conduct the examination in the regular lab class.

2. A student should have completed a minimum of 8 / 4 experiments to appear for the end semester examination. The list of eligible students will be generated by the system.

3. Faculty who conducted the practical will inform HoD / Director for appointing an expert from KU.

4. The faculty and the expert appointed by the HoD / Director will conduct the end semester examination for 30 marks.

INDUSTRIAL TRAINING / MINI-PROJECT / INTERNSHIP / PART-SEMESTER PROJECT AND FULL-SEMESTER PROJECT:

Assessment will be as per the scheme given in the CBCS policy:

1. There will be periodic review of the progress by the panel assigned by the HoD / Director

2. This assessment will be for 70 marks as per the policy

3. Faculty who are associated with this activity along with an expert from KU to be appointed by the Director will conduct the end semester viva for 30 marks

CBCS Malpractice Policy:

The students will be governed by the Malpractice Policy as prescribed by the Office of the Controller of Examinations.