NOTICE

Kerala Technological University is currently framing the academic ordinances, curriculum, rules and regulations. A draft document on the same for the Under Graduate program in Engineering and Architecture is attached. Suggestions are invited for the restructuring of academic curriculum on par with global standards.

Please post your suggestions and comments at academics@ktu.edu.in on or before 18th December 2014. Please give the comments and suggestions under the headings Ordinance 1, Ordinance 2, Ordinance 3 etc or Regulation 1, Regulation 2, Regulation 3 etc.

Registrar
KERALA TECHNOLOGICAL UNIVERSITY

ACADEMIC ORDINANCES, REGULATIONS AND RULES

(First Draft)

ORDINANCES

O-1
Eligibility for admission, 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. (Details to be included later)

O-2
Duration of the B. Tech / B.Tech (Hon) programme will normally be four academic years spanning 8 semesters. For B.Arch programme this will be for five academic years spanning 10 semesters.

O-3
Award of Institute merit and merit cum means scholarships to the B. Tech. students will be governed by the regulations framed by the Academic Committee from time to time.

O-4
Award of B. Tech / B.Tech (Hons) degree shall be based on the recommendation of the Academic Committee and the approval of the Board of Governors in accordance with the academic regulations of the University.

O-5
Notwithstanding any that are stated in the ordinances, the Board of Governors has the right to modify any of them, as deemed fit, at any point of time.

REGULATIONS

R.1 Admission

R-1.1 Admission to B.Tech/B.Arch programmes will be as per the ordinances and regulations of the University following the guidelines given by the State and Central Governments on reservation.

R-1.2 Branches of study and the number of students admitted are decided by the University based on the approval by the competent authorities.
R-1.3 Admission to a branch of study in any of the affiliated colleges of the University as per the admission procedure is final and binding for the whole duration of the programme.

R-2 Language of Instruction and Evaluation

Unless otherwise stated, the language of instruction and evaluation shall be English.

R-3 Branches of B.Tech Programmes

Chemical Engineering
Civil Engineering
Computer Science & Engineering
Electrical Engineering
Electrical & Electronics Engineering
Electronics & Communication Engineering
Applied Electronics & Instrumentation Engineering
Industrial Engineering
Mechanical Engineering
Production Engineering

(All other branches are to be listed)

R.3 B.Tech Program Structure

R-3.1 B.Tech/B.Arch programme in all branches of study will be structured on credit based system following the semester pattern with continuous evaluation.

R-3.2 Duration for the B.Tech/B.Tech(Honours) programme in all branches of study, will normally be 8 semesters. For B.Arch/B.Arch (Honours) this will be 10 semesters.

R-3.3 Each semester shall have 75 instruction days; i.e. 15 weeks of instruction.

R-3.4 A Student can opt for B.Tech (Honours) at the end of fourth semester as per rules framed for this by the Academic Committee.

R-3.4 The curriculum of any branch of the B.Tech programme is designed to have a total of 172 (Final number will be based on the approved curriculum) credits for the award of the degree. Curricula for the first two semesters will be common for all branches of B.Tech programmes.

For B.Arch -------

Credits are apportioned among the following knowledge segments (tentative)
<table>
<thead>
<tr>
<th>Course Type</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Sciences</td>
<td>8</td>
</tr>
<tr>
<td>Mathematics</td>
<td>14</td>
</tr>
<tr>
<td>Humanities</td>
<td>9</td>
</tr>
<tr>
<td>Basic Engineering</td>
<td>21</td>
</tr>
<tr>
<td>Professional Engineering</td>
<td>86</td>
</tr>
<tr>
<td>Electives</td>
<td>18</td>
</tr>
<tr>
<td>Seminar</td>
<td>2</td>
</tr>
<tr>
<td>Comprehensive Viva</td>
<td>3</td>
</tr>
<tr>
<td>Design Project</td>
<td>3</td>
</tr>
<tr>
<td>Project</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>172 Credits</strong></td>
</tr>
</tbody>
</table>

NCC/NSO/Sports/NSS -- 1 Mandatory audited course

R-3.5 Credits are assigned to courses based on the following general pattern.

- One credit for each lecture hour per week
- One credit for each tutorial hour per week
- One credit for each laboratory/practical/project hours of 2 or 3 per week

R-3.6 No semester shall offer more than six lecture based courses and four laboratory courses carrying a maximum credit of 27.

R-3.7 University may allow students to transfer credits, with the approval of the Academic Committee and the BOG.

R-4 Curriculum, List of Courses and Syllabi

R-4.1 Every branch of study in the B.Tech program will have a curriculum, list of courses, syllabi and course plans approved by the Academic Committee of the University.

R-4.2 Courses are categorized as Core Theory (CT), Core Practice (CP) and Electives (EL).

R-4.3 Courses are numbered to indicate the category, year of introduction, offering department and course number. First digit of the course number indicates the academic year in which the course is offered and the third digit normally indicates whether the course is offered in the odd (odd number) or even (even number) or in both (zero) semesters.

Example:
CT 14 MAT 101 :- This is a core theory (CT) course approved in the year 2014 and offered by the Mathematics department in first year odd semester.

R-5 Course Registration and Enrolment

It is mandatory for students to register for the courses they want to attend in a semester. Newly admitted students have to register for all courses offered in the first semester. 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 want to take in the coming semester. Later they have to enrol for these courses in the new semester based on the previous semester results. This allows them to make minor 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 announced by the colleges in their academic calendar. Any late registration or enrolment, allowed up to 7 working days from the commencement of the semester, will attract a late registration/enrolment fee.

A student can drop a course or substitute one already registered by another, for 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 26.

R-6 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 and appear for all the internal evaluation procedures for the completion of the course. However, earning of credits is only on completion of the semester examination and on getting a pass grade. Students, who have completed a course but could not write the semester examination for valid reasons, are permitted to write the semester examination at the next opportunity and earn the credits without undergoing the course again. Failed candidates or those not allowed to take the semester examination for want of attendance or for other reasons, do not have this option.

R-7 Core courses, prerequisites and electives

Courses identified as core courses are mandatory courses for which the credits are to be earned for the award of the B.Tech degree. For electives, failure to earn credits does not necessarily require repeating the course. Instead another approved elective could be permitted as a replacement course by the faculty advisor concerned. For some courses there could be a prerequisite course completion requirement for registration.
R-8  Semester and Supplementary Examinations

At the end of the semester, semester examination will be conducted in all subjects offered in the semester and will be of three hours duration unless otherwise specified. Supplementary examinations are to be conducted before the commencement of the next semester, for eligible candidates registered for them.

R-8.1  Eligibility of write the semester examination

The major eligibility criteria for the semester examination are attendance in the course and no pending disciplinary action. The minimum attendance for appearing for the semester examination is 75% in each subject. (Any other opinion on this?)

R-8.2  Eligibility to write the Supplementary examination

Only failed students and those who could not write the semester examination due to health reasons or other contingencies that are approved by the college/university can register for the supplementary examination. Grades awarded in the supplementary examination will be taken as semester grades in these subjects and will be based on the semester examination grading pattern in that subject. (This is because of relative grading)

R-9  Summer Courses and Contact Courses

R-9.1  Summer Courses

Students who could not earn the required minimum credits at the end of the second semester have two options to continue with the studies. They are permitted to register again for the course, when it is offered in the next academic year. However there is also the provision to offer summer courses in the failed subjects for these students who may register and attend the course and write the internal and final examinations. Summer courses are to be conducted for a minimum of 22 contact hours in each subject. Summer courses are offered only for the first four semesters of the program and will be conducted either by all colleges or by some in the clusters. This will be announced by the colleges after the declaration of the results. For higher semesters, failed students have to register again in the regular semester in which they are offered.

R-9.2  Contact Courses

If a student has to earn credits for only one subject, after completing eight semesters of study, to get the degree, on his written request the university may offer a contact course in the subject. The contact course is considered as fresh registration and is to be offered by the teacher concerned. Final examination will be conducted by the university. No grade above C shall be given for a contact course.
R-10  Eligibility to continue

A student has to earn a minimum number of credits in a semester to move to the next. In the first semester this is 12 credits and those who do not earn this are to be strictly warned before allowing them to proceed to the second semester. However at the end of the second semester the credits earned should be at least 28 to move to the second semester. Those who fall short of this have to register for the summer courses offered or join back in the first semester and earn required minimum credits to move to the 3rd Semester.

Credit arrears at even semester end to continue with the programme are given below.

At the end of           Permitted Credit arrears (to be finalised based on the curriculum)
2nd Semester-        16
4th Semester-        15
5th Semester-        10
6th Semester-        9
7th Semester-        6
(B.Arch could have a different pan)

R-11  Academic Assessment/Evaluation

The university follows a continuous academic evaluation procedure.

R-11.1  Assessment procedure and the corresponding weights are as follows:-

For theory courses
i) Two internal tests, each having 15% (Internally by the College)
ii) Tutorials/Assignments having 10% (Internally by the College)
iii) Semester examination having 60% (Conducted by the University)

All the above are mandatory requirements to earn credits.

Students who have missed either the first or second test can register with the consent of faculty and HOD concerned for a re-test which shall be conducted soon after the completion of the second test and before the semester examination. The re-test will cover both first and second test course plans.

For Laboratory /Practical /Workshop (suggested weights)

i) Practical Records /outputs 50% (Internally by the College)
ii) Regular Class viva 20% (Internally by the College)
iii) Final written test 30% (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. On completion of these, the grade will be assigned.

(For B.Arch the assessment pattern could be slightly different)

R-11.2  Comprehensive Examination
This will be a written cum oral examination covering broadly all subjects so far completed. The written examination will be objective type of 1 hour duration and shall have 50 marks. 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 one from another department. Oral examination shall have 50 marks. Comprehensive examination may be conducted any time during the 6th semester.

R-11.3 Design Project

Evaluation of the project is done in two stages. Two project progress evaluations each carrying 20 marks and a final presentation of the design covering ideation, conceptualization, design details, engineering drawings of the product/part/system, and the status of prototype development, evaluated for 60 marks. The project supervisor and two other faculty members from same or any other department shall form the evaluation board.

R-11.4 Final Semester Project/Thesis

Evaluation is based on the following:-

- i) Two progress assessments 20%
- ii) Final Project Report 30%
- iii) Project presentation and Viva 50%

If the project work is not completed satisfactorily, the student has to work further and again appear for assessment on a specified date, not earlier than one month after the first evaluation. The project assessment board shall consist of the following members.

Chairman: Head of the Department
Members: Project supervisor of the student
          One faculty member from the department
          One faculty member from another department
          An external member, either from academic/research institute or industry

R-12 Faculty Advisor/Counsellor

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

- i) To guide and help them on academics
- ii) To monitor their progress in academics and advise them
- iii) To counsel them and hand hold them in any difficulty

R-13 Course Committees and Class Committees.

These committees are to be in place in each college affiliated to the University.
R-13.1 Course committees

This is for common courses offered to all students admitted for the B.Tech programme irrespective of their branch of study. Each of such courses will have a course committee constituted by the principal of the college.

Chairman of the course committee shall be a senior faculty member not taking the course.

Members:-

i) All teachers offering the course.
ii) Four student representatives nominated by the principal.

R-13.2 Class committees

Starting from third semester, all branches of study will have class committees for every semester constituted by the respective heads of departments.

Chairman of the committee shall be a senior faculty member who does not offer any course for that semester.

Members:-

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

Course committees and class committees shall meet at least thrice in semester - one at the semester beginning, one around the middle of the semester and one before the end of the semester. These committees should monitor the conduct of the courses, adherence to the course plan and time schedule, completion of the syllabus, standards of internal tests and evaluation process and difficulties faced by the students and take suitable remedial actions at the appropriate time. Immediately after the semester, the committee should meet without student representatives to review the internal assessment marks and approve them.

R-14 Award of Grades

Grading is based on the total marks obtained by the student in a course.

University will follow relative grading.

The grade card will only give the grades against the courses.

Semester grade card will give the grade for each registered course, Grade Point Average (GPA) for the semester as well as Cumulative Grade Point Average (CGPA).
R-15  Grades     Grade Point  (Proposed. Please note that this is not based on the marks but on relative grading)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>10</td>
</tr>
<tr>
<td>A</td>
<td>9</td>
</tr>
<tr>
<td>B</td>
<td>8</td>
</tr>
<tr>
<td>C</td>
<td>7</td>
</tr>
<tr>
<td>D</td>
<td>6</td>
</tr>
<tr>
<td>E</td>
<td>5</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
</tr>
<tr>
<td>FA</td>
<td>Failed due to lack of attendance</td>
</tr>
<tr>
<td>I</td>
<td>Course Incomplete</td>
</tr>
</tbody>
</table>

GPA and CGPA are calculated based on the above grading norms.

R-16 Break of Study

A student can break the study for a year to initiate start up ventures, product or on health reasons with the approval of the Head of the Department and the Principal.

R-17 Revaluation and Grade Improvement

These options are not available.

However the student is permitted to check the answer book of the semester examination after the results are declared. Any discrepancies in evaluation could be brought to the notice of the teacher concerned who will initiate appropriate action on this. The decision of the university shall be final on this.

R-18 Grade Cards

Students who have written the 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 program will be given.

R-19 B.Tech degree will not have any classifications like distinction or first class. (Normally in credit system there are no classifications. However this can be looked into, if needed)

R-20 B.Tech (Hons)

Accredited departments in institutions having at least 2 PG programs may offer B.Tech (Hons). It should be noted that students with a CGPA above a specified value (say 8) at the end of the fourth semester and having no backlogs, only are eligible for this option. As only selected institutions may have this provision, students cannot demand this or move later to
an institute where this is available. Students have to earn 12 additional credits to get B.Tech (Hons). Those who opted for B.Tech (Hons) but unable to earn the required additional credits in 8 semesters will automatically fall back to the B.Tech program. However additional credits so far earned by them will be given in the grade card.

For B.Arch(Hons) – - - -

R-21 Discipline
Every student is required to observe discipline and decorous behaviour both inside and outside the college campus and refrain from any activity which may tarnish the image of the college and the university.
Any act of indiscipline, misbehaviour including unfair practice in examinations will be referred to a Welfare and Discipline Committee of the college that will make detail enquiry on the matter and decide on the course of action to be taken and forward it to the Principal/Dean for implementation. The student may appeal to the principal whose decision on the matter shall be final.

R-22 Amendment to Regulations
Notwithstanding all that has been stated above, the University has the right to modify any of the above regulations from time to time.