

# FFCS Academic Regulations

Version 3.2

*(Applicable for all programmes offered under CAL from AY 2015-2016 onwards)*

## Curriculum for Applied Learning (CAL™)



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# Academic Regulations

## Version 3.2

### 1. Preamble

Present day students are much different from the students of the past in many ways. Today, they like to make decisions on their own and plan their future by themselves. However, student aspirations on one hand and the demands of the work place on the other have become highly diverse. Employers expect students to have multi-disciplinary competency, leadership skills, and be ICT (Information and Communication Technology) ready. The rigid, cohort system of learning, offers little flexibility to students in selecting the courses of their choice and helps little in becoming a well-rounded personality.

As part of continuous improvement in providing quality education, during 2008, VIT has taken the right step in this direction by introducing the Fully Flexible Credit System (FFCS™) into its academic curriculum. Through this, the students can register for courses of their choice altering at will, the pace of learning within the broad framework of an academic course and credit requirements, as time progresses.

Another milestone in implementing FFCS is moving from a fixed time table to a slot-based timetable. Under this, a student will be able to choose the time he/she wants to attend a class/ lab and the course faculty. Since they can make their own time table, each student in a class may have a different timetable of his/her own. In order to make the learning more effective, Project Based Learning (PBL) was introduced in 2010, in which the student applies the course principles by using analytical and critical thinking, creating an opportunity to carry out challenging project(s) as part of a course.

Students also have the option of choosing from a 'basket of courses' within each classification. Ample options are given to choose interdisciplinary courses from other programs which will help the student develop additional skills. Slow learners will also benefit since important courses are offered in both semesters in any given academic year. This arrangement helps the students to re-register the course and clear the backlog in subsequent semesters. Suitable provisions are included to reward academically sound students, allowing them to carry out research activities even in their UG Program.

FFCS not only offers a wide choice for students to build their own curriculum, but also enhances their skill in planning. A Proctor / faculty advisor helps the student in identifying the courses to be studied in each semester based on program requirement, course prerequisites, student's academic ability, interest in various disciplines, past academic history, proposed course offerings and other related criteria.

During 2015 - 16, the concept of Curriculum for Applied Learning (CAL™) was introduced in all Programs of the Institute. Under it, a project component is an integral part of the course structure. All courses are made student-centric instead of teacher-centric. Learning becomes more 'experiential' by carrying out a project (Project Based Learning) as part of most of the courses. 'Learning by doing' enhances understanding the concepts discussed in the class and make multi- and cross- disciplinary applications possible. Students will be able to take up real world problems as their course projects and apply their key learning in identifying better

solutions. All courses under CAL are designed to bring out the importance of application to engineering/technological problems, creativity and innovation, developing entrepreneurial skills, rather than by routine learning methodology. The Academic Regulations for CAL is given in “FFCS Academic Regulations Version 3.0”. Based on the feedback obtained from the different stakeholders, the CAL regulations are slightly modified.

## **2. Scope**

The rules and regulations stated herein shall be called “FFCS-CAL Academic Regulations Version 3.2” in its complete form and in short as “FFCS-CAL Regulations 3.2”. These regulations as given in this document are applicable to students admitted in B.Tech. (2015-2016) and M.Tech. (2016-2017) programs and thereafter to various degree programs. Academic programs under FFCS shall be decided by the Academic council. “FFCS-CAL Regulations 3.2” is applicable for both existing as well as new programs offered by the University, until and unless it is explicitly stated.

The “B.Tech. Degree Program Regulations 2008, FFCS Regulations - Version 1.00” was originally approved by the 18th Academic Council held on 16<sup>th</sup> July 2009. “FFCS Regulations Version 1.10” was approved by the 20th Academic Council held on 26<sup>th</sup> March 2010. For the programs offered by the VIT Business School, separate regulations were approved by the Standing Committee of the Academic Council held on 7<sup>th</sup> August 2010. The complete Academic Regulations Version 2.00 was approved by the 27<sup>th</sup> Academic Council (held on 27<sup>th</sup> July 2012). Minor modifications have been carried out as per the procedure outlined in Section 21 on 15<sup>th</sup> August 2012 and named as Version 2.10. The current version (FFCS Regulations 3.0), subsequent to the introduction of CAL, was approved by the 37<sup>th</sup> Academic Council meeting held on 16<sup>th</sup> June 2015. The modified CAL regulation as given in version 3.1 was approved by 46<sup>th</sup> Academic Council held on 24<sup>th</sup> August 2017. The present version 3.2 incorporates the changes in the regulations that were approved till the 58<sup>th</sup> meeting of the Academic Council and was approved in the 59<sup>th</sup> meeting of the Academic Council. The regulation is applicable for students admitted from AY 2015-2016 for UG and 2016-2017 for PG and integrated PG students.

## **3. Admission**

All students seeking admission to various B.Tech. and M.Tech. Programs need to undertake national level computer based competitive examinations - VITEEE and VITMEE, respectively, conducted by the University once a year, the dates of which are announced separately through media/university website. Selected students will be admitted into various programs through counseling. For all other programs, students will be admitted based on their merit by considering the marks obtained in the qualifying examinations, in addition to satisfying specific admission criteria of the programs as stipulated by the respective national level councils. The minimum qualifications essential for admission to various programs of the University will be stipulated and indicated in the Admissions brochure released before the commencement of admission to various programs every year.

## **4. Academic System**

### **4.1 Semester**

All programs offered by VIT shall adopt a Semester system, except the MBA program which will be offered in trimester mode. There will be two semesters in an academic year. Normally the Fall Semester will be from July to November and Winter Semester from December to April. Optional Intersession and Summer semesters, during the Winter and Summer vacation periods respectively, may be offered considering the demand for such courses by students needing them, subject to the availability of time, faculty and other resources. Both winter session and Summer semesters are offered under a fast track mode, considering the smaller number of instructional days available during summer and winter vacation periods. However, the number of instructional hours needed to cover the syllabi shall be maintained (equivalent to that in the regular semester) with a greater number of instruction hours per week. Unless otherwise specified explicitly, all rules and regulations applicable to a course offered during a regular semester is applicable to the courses offered during Intersession and Summer semesters also Additional optional semesters, depending on the need and availability of the resources. The maximum number of courses to be taken, eligibility criteria to register and related information shall be specified through Circulars issued by the University from time to time. Based on the requirement Weekend Intra-semester may also be offered to students, during both the regular semesters (Fall and Winter). Though intersessions, intrasession and summer semesters are conducted to help students to clear their backlog, it is not binding on the University to offer these semesters or courses during these semesters. These are offered subject to the availability of the resources.

### **4.2 Curriculum**

Each program contains a prescribed list of courses in a specific format which is generally called "Curriculum". Curriculum of a program contains list of courses grouped under various heads, viz. University Core, University Elective, Program Core and Program Elective. Details of these various heads are given under Section 6.4. A student is considered to have completed the degree program, if and only if, he/she has successfully cleared/ completed all the necessary courses prescribed in his/her program curriculum. Each program Curriculum shall have a version number tagged to the Academic Year to which it is applicable and subsequent changes in the Curriculum shall be indicated by a change in curriculum version number appropriately. Students admitted into a program shall adopt a curriculum specified by the Academic Council for that academic year. Unless otherwise stated explicitly by the Academic Council, any changes in curriculum will be applicable to the students admitted in the subsequent year and the existing batches continue to follow the curriculum prescribed at the time of their joining the program. Due to FFCs, it is possible that some students register for a different version of the course than indicated in their curriculum. In such cases, the credits earned are mapped to the credits given in their curriculum.

Each Head of the Department (HoD) / Program Chair looks after one or more programs and hence the HoD / Program Chair is deemed to be responsible for the curriculum. Any change in the Curriculum should be recommended by the Board of Studies of the program concerned and submitted to the Academic Council by the Chairperson of the Board of Studies for approval. The Program Educational Objectives (PEOs), Program Outcomes (POs) and Additional Program Outcomes (APOs) / Student Learning Outcomes (SLOs) along with the Program Specific Outcomes (PSOs) should be clearly defined while framing the curriculum.

### 4.3 Syllabus

A course syllabus is a document that explains what a student is going to learn in that course. Each course shall have a course code, course title, LTPJC (explained in Section 6.1), syllabus revision number (version), course prerequisites/ co- requisites/ anti-requisites (if any), course objectives, expected course outcomes, modules with short topics, brief description of the topics, expected duration needed to cover each module, suggested text and reference books, the date on which the Board of Studies has recommended the syllabus and the date on which it was approved by the Academic Council. Once approved by the Academic Council, it is mandatory for the course faculty to teach the course as specified in the syllabus in total. Any subsequent modifications carried out with the approval of the Academic Council will be indicated by a change in the syllabus version number. An increment by one indicates a major change and minor changes shall be indicated by a change in the number after the decimal. For example, change from Version 1.0 to Version 2.0 indicates major change in the syllabus, whereas a change from Version 1.0 to 1.1 indicates a minor change in the syllabus.

A Course Committee consisting of a minimum of three faculty members who have taught the course in the past are currently teaching, shall be created and the syllabi of that course will be assigned to the Course Committee for content creation, modification, recommending course equivalences, and other related processes. School Deans may nominate the members or alternate them periodically. Course Committee is considered to be responsible for the syllabus. The School which originally created the syllabus for offering the course is deemed to be its owner. Other Schools may offer the course to their students in that form as a service course and they cannot independently involve in altering the syllabus.

### 4.4 Course Plan

A course plan consists of a list of lectures/ experiments carried out in each instructional class/ lab by the course teacher during the semester as per the LTPJC (Course components) of the course, with details like mode of delivery, reference material used, and others. For one course credit, 15 lecture hours for theory, 15 hours for tutorial, a minimum of 30 hours of laboratory work or 60 hours of project work should be put in, within the regular semester period or in a summer/ intersession/intrasession terms, as specified in the Academic Calendar of the University. Separate course plans should be prepared for the theory, laboratory or project portions of any course, if the course has an embedded lab and / or project component. Lab exercises and projects given to students should reflect the syllabus content of the course.

### 4.5 Course Flowchart

A flowchart describing how various courses under Program Core (PC), Program Elective (PE) and University Core (UC) are connected through prerequisites, if any, shall be shown and made part of the curriculum. Standard pictorial representations are adopted to indicate the basket (UC, PC or PE) it belongs to and is grouped in such a way as to indicate the level of the course. Necessary pre-, anti-, co- requisites and its LTPJC should be indicated for each course along with its course code.

## 4.6 Course Types

Courses may be classified as Theory only (TH), Lab only (LO), Project only (PJT), Embedded Theory and Lab (ETL), Embedded Lab and Project (ELP), Embedded Theory and Project (ETP) Embedded Theory, Lab and Project (ETLP). Courses such as Seminar, Mini Project/ Design Project/ Summer Project/ Innovation project, Capstone project, Master's Dissertation/Thesis, Comprehensive exam, Industrial internship, Co-/ Extra-Curricular, IIP/ TARP/LSM/Engineering Drawing are generally grouped under 'Project type', the minor variations in delivery along with evaluation criteria shall be defined as part of the syllabus.

Courses taught based on traditional classroom methods are categorized under Class Based Learning (CBL). Under CAL, at least 40% of courses in the curriculum shall have a J-component (Project) as part of the course so that PBL concepts can be implemented. Introduction of 'J' is to improve 'learning by doing' and also to increase the academic engagement of students. For (J) component, the student has to take up a project related to the course in consultation with the faculty concerned and complete the project within the semester. The project can be a group project with a maximum of ten members in a group, thus promoting participatory and peer learning. The group size should be based on the complexity of the project. Students should make sure that the concepts studied are reflected in the project and that there is an innovative component. There will be a minimum of three reviews conducted in a semester for the project courses / components and the marks will be awarded and taken for final assessment. The courses offered in the first semester may not have any 'J' component.

## 4.7 Course codes

Each course will be identified by a unique Course Code consisting of seven alpha-numerals (three alphabets followed by four digits). The alphabets reflect the discipline / sub-discipline to which the course belongs. The first numeral (after the alphabet) indicates the cognitive level of the course, as per the course flow chart and the rest of the numerals indicate a running serial number (also an indicator of the course level). Each course also has its version to track the revisions carried out in its syllabus over the time.

## 5. Program Duration

The minimum duration that is stipulated to meet the various requirements of Programs is given in Annexure -1. This will be in accordance with the time period stipulated by the national statutory bodies. A student is said to have completed the program only if he / she completes the minimum courses assigned and earns required credits, as specified by their program curriculum concerned. However, degree will be awarded only upon the completion of the minimum duration of the program. The general rules and regulations stipulated in this document are also applicable to special programs, including double and dual degrees, which may be announced by the University. However, their specific requirements will be as laid down and approved by the Academic Council separately, from time to time. Students will not be permitted to study additional courses after they have met their minimum credit requirements. The maximum duration students can take to complete their program is given in Section 19.

## 6. Course and Credit requirements

This section outlines the structure of the curriculum, courses and various requirements for program completion.

### 6.1 Course Credits

A course credit is a measurement of duration that the course is offered as an 'instruction' to students. All courses are considered to be offered for the entire duration of a semester. A semester is deemed to have 15 instructional (non-exam) weeks. A class room lecture (L) of 50 minutes duration per week, carried out during all weeks of the semester, shall be considered as one Instructional Unit or one Credit. A tutorial (T) of 50 minutes duration per week, carried out during all weeks of the semester, shall be considered as one Instructional Unit or one Credit. A minimum of 100 minutes per week of laboratory session/ practical or field work/ training (P) or a combination of these, carried out during all weeks of the semester, shall also be considered as one Instructional Unit or one Credit. A minimum of 4 hours of project activity (J) per week carried out during all weeks of the semester shall also be considered as one Instructional Unit or one Credit. Thus, the LTPJC for each course indicates the number of credits delivered as Lecture (L), Tutorial (T), Practical (P), Project (J) and the total instructional delivery indicated as Credits (C).

#### *Example:*

An LTPJC of 2-1-2-4-5 means 2 instructional units based on class room lecture (L), one instructional unit of tutorial (T), one laboratory (P) based instructional unit (of 100 minutes), one project (J) component (of 200 minutes) - all delivered during a calendar week, and repeated for the entire duration of the semester to earn five credit (C) after passing the course.

In addition to these, specialized programs may have course component as directed by their respective council. For example, law program may incorporate 'moot court' as one of the course components. However, these deviations should be brought for approval by the Academic Council.

### 6.2 Minimum Credit Requirement

The minimum credit requirement for the completion of a program for students admitted is clearly specified in the program curriculum. Further, the student has to meet the course and credit distribution also as specified under 6.3, to become eligible for the degree. Due to various features of FFCS, it is possible for a student to attain the minimum credits without completing all requisite courses/credits under University Elective (UE)/Program Elective (PE) courses individually. Under such circumstances, though the student has attained the total minimum credits, it is mandatory for the student to complete all courses under UC and PC and also to meet the credit requirements under UE and PE, to become eligible for the degree.

### 6.3 Credit Distribution – Discipline Wise

It is expected that all programs should accommodate courses from other disciplines, so that that the students will have multi-disciplinary exposure. All programs should provide sufficient opportunity to students to enhance their communication, soft skills, management and the technical skills. Depending on the program, the courses should fall under engineering, science, humanities and management categories. For examples, the credit distribution for the B.Tech. programs under CAL is given below.

Discipline	Percent share of minimum credit requirement
Engineering	60
Science	25
Humanities	10
Management	05

A maximum of 3% deviation in credits is permitted under each discipline. While developing the curriculum, the school offering the program should ensure that the above distribution shall be attained by the students upon their completion of their curriculum. For other programs also, courses from different disciplines should be included in the curriculum.

## 6.4 Course Distribution

In general, the curriculum of each program consists of courses that are grouped into University Core (UC), Program Core (PC), Program Elective (PE) and University Elective (UE).

### 6.4.1 University Core (UC)

Courses listed under University Core are mandatory to all similar degree programs (B.Tech., B.Sc., M.Tech. and so on). These courses are basic in nature and are expected to enhance student's fundamental knowledge in various disciplines apart from his/her own discipline depending on the requirement. UC courses may be added, removed or modified from time to time by the Academic Council. In few cases, a minimum credit requirement may be fixed to be met by taking one or more courses offered in a basket.

*Example:* UC specifies that each student should take a foreign language course(s) for 2 credits. This can be met by taking any course offered from a basket of foreign language courses, like French, Arabic, Russian, Italian, German, Chinese, Japanese, Spanish, and others.

### 6.4.2 Program Core (PC)

Courses listed under Program Core of a curriculum are program specific. Students have to complete all the courses listed under PC to become eligible for the degree.

### 6.4.3 Program Elective

By taking courses under Program Elective, students get an opportunity to study courses which are more advanced or applied or specialized than the basic courses he/she studies as part of program core courses. These courses will generally provide an in-depth knowledge of a specific sub-field the student has taken as his/her major specialization. Assuming that the CAL program curriculum stipulates that the number of credits a student should complete under PE is 'x', then the total credits offered under the PE in the curriculum for that program should be approximately 2.5x credits, thus ensuring sufficient choice for the student. This is applicable to all programs of the University under CAL. This is also an upper limit condition to discourage listing PE courses that may not be offered in the near future. PE courses that are not offered to students or that have low student registration for two consecutive academic years shall be removed, so as to accommodate new courses. PE courses play a crucial role in offering 'Honours' credentials (section 13.2). If a new PE is added to a curriculum of a program, students adopting the earlier curriculum applicable to their year of joining are also permitted to register the same as their PE, since it ultimately helps them to expand their knowledge. It is desirable that credits of PC:PE is the range 50:50 to 60:40.

#### 6.4.4 University Elective (UE)

Students can take any course as their UE, subject to the eligibility criteria specified under Annexure - II. Such a UE course cannot be either UC / PC specified in their curriculum. This gives an opportunity for students to satisfy their aspirations in other disciplines also. The number of credits a student is permitted to take under UE is fixed. This can be availed as a combination of smaller course credits as well, without any additional payment. Students not willing to take courses from other disciplines shall be permitted to take the PE courses listed in their curriculum (PE as UE), so as to fulfill the credits requirements under UE. An Audit course (refer section 10) already cleared by the student cannot be credited again under the UE option.

(e.g): 6 credits of UE course requirement can be met by taking two 3 credit courses or three 2 credit courses. Students need not pay any additional course registration fees for registering 3 courses instead of 2 courses.

Generally, a course that forms a part of another curriculum of a program can be taken as a University Elective if that program is of the same degree level (viz. B.Tech. level, M.Tech. level, UG level, PG level, etc.). Hence a course under UE for a particular program may be a PC or PE for another program. If students wish to take a course having pre-requisites, then, they have to meet those pre-requisite conditions specified for that course to become eligible to register for the required course as their UE. Other degree program students can also take those courses as their UE if they meet the conditions specified in Annexure - II. PG level Courses can also be taken as UE courses by UG program students subject to the conditions stipulated under Section 11. A course that is not part of any program curriculum can also be specified as a UE course by declaring it suitable to a specific degree program(s) by the University. In addition, the university shall offer standalone courses related to Management / Humanities. These courses can be registered under University Elective category. Some specialized programs (eg. MBA) may have the credits distributed under PC and PE only.

#### 6.4.5. Experiential Learning

##### ***Industrial Internship / Industrial exposure training:***

During their tenure in the University, students get exposure to an academic environment which is different from their future work environment, viz. industry, wherein they are expected to be placed. To get this exposure, all students (B.Tech., M.Tech.Integrated, B.Des. Industrial Design, BBA, B.Sc. Catering and Hotel Management) should undergo four weeks of industrial internship in a reputed industry in their respective discipline of study, any time after their first year of study. The industrial internship carries 2 credits. The credit for such Industrial exposure is accommodated in the University Core. B.Tech. students can avail this training in a single stretch of four weeks (28 days) or in two stretches of two-weeks duration. Each School shall identify a faculty in-charge of Industrial Internship at program level who will assist the students in identifying an industry and getting necessary approval from the industry. During the training, students are expected to maintain a digital log of their activity and learning. At the end of the training, a report along with completion certificate(s) from the Industry where they had received the training, are to be uploaded into the academic software. Subsequently, Schools shall form "Industrial Internship evaluation committees" and award marks. Students who have completed their training may register for the industrial internship course in a subsequent semester for evaluation by the School. Based on entries made in the activity log,

the industrial internship report and performance of the student during the related viva voce, marks may be awarded which shall lead to a performance grade. In a few programs, this is replaced by study tour and is aimed to provide additional exposure to students.

### ***Capstone Project / Master Thesis:***

Students are expected to carry out an innovative project work during their final semester of study for the credits prescribed under UC of their curriculum, in or related to the specialization of the program the student undergoes, by applying the knowledge they have gained in the courses/ labs they have undergone so far. Through the project work, students are expected to prove their analytical, design, fabrication ability and presentation skills. Depending on the nature of the project work, an individual student or a group of students may carry out the project within the University or outside, viz. in an industry, private/ government organization, or academic/ research institution. Each student will be assigned a faculty member as guide within their School. In suitable cases, with the permission of HoD/Program Chair, the student may opt for a guide outside their School also. In case of projects outside the University, there will be an external guide within the industry/ organization of work and an internal guide within the School to which the student belongs to. In case of group project, the individual project report of each student in that group shall have different project titles so as to bring out the individual's contribution to the group project. Submitting a project that was bought (purchased/ borrowed/ submitted) in "VIT" or another University/ Institution shall be considered as examination malpractice and will be awarded an 'N' grade. The student has to register again and clear the student project in a subsequent semester. Failure or absence in the final viva-voce examination results in re-registration of the project. Though group project is permitted at undergraduate level programs, students of post graduate programs are expected to carry out individual projects. Project duration may be increased up to one year for the post-graduate Programs. Wherever needed, periodic reviews can be conducted through video - conferencing. However, final viva voce examination will be conducted in person only.

Students are expected to decide on the specific project area and title, and carry out substantial portion of the literature survey during the end of their pre-final semester. After the end of their pre-final semester FATs, the students need to make a presentation to the "Student Project Monitoring Committee" constituted by Schools concerned. The Project Work may be a work based on theoretical analysis, modeling & simulation, experimentation & analysis, prototype design, fabrication of new equipment, correlation and analysis of data, etc. or a combination of these. Various time limits specified for monitoring and evaluation of performance of the student should be strictly followed (Refer Table below). The final project report will be evaluated by a panel of examiners consisting of HoD / Program Chair as Chairman of the Committee, External Examiner, one Internal Expert, Guide and Co- guide (wherever applicable) and an oral examination will be conducted. The internal expert will be nominated by the School Dean.

Capstone projects can be carried out as a single project connecting to domain specific issues under the guidance of a faculty. They can also opt for an alternative method of taking up on internship, in the last semester through the placement office. The students can undertake domain specific project work under the guidance of the assigned faculty guide during the same tenure of internship. The format of Student Project report should be in accordance to the format prescribed by the University/ School. All programs other than the M.Tech. shall have a minimum period of one semester for carrying out the project work, in order to be qualified for

the credits specified under UC of their curriculum. M.Tech. Master's Thesis shall have two semesters or 9 months as the minimum project period. Students are permitted to do courses along with their project work, subject to the maximum credits permitted for registration as specified in Section 7.3. Students doing their projects abroad can participate in the reviews through online mode.

### Timeline for Student Project evaluation

Activity	Weightage	Remarks
1 <sup>st</sup> Review (acceptance of project title)	5%	To be held after the completion of pre-final semester FATs
2 <sup>nd</sup> Review	40%	To be scheduled during the CAT-I period of non-final year students
Submission of draft Report to Internal Guide	5%	10 calendar days before the viva voce Exam
Submission of Synopsis	-	7 calendar days before the viva voce Exam
Report corrections / modifications to be informed to students by Guides	-	3 calendar days before the viva voce Exam
Submission of Project Report in its final form	-	One instructional day before the viva voce exam
3 <sup>rd</sup> Review (Final)	50%	To be scheduled during the FAT period of non-final year students as Viva Voce examination by the Project Monitoring Committee. Of the 50% weightage, 20% goes to project report evaluation by the Guide, 5% for poster and 25% goes to the Viva voce examination conducted by External Examiner.

Though capstone Project is expected to be registered during the final semester of the program period, under special circumstances, a Student project can be registered in a semester other than the final, provided the student has earned a minimum credit as indicated below. For this purpose, the minimum credits required will be the sum of all course credits in which the students has a 'performance grade' or an 'F' grade or an 'N' grade (in which the student is yet to complete at least one of the component (Y grade)), plus the credits registered during the previous semester for which the results are not yet published. Registration of Project Work is permitted only during regular semesters (Fall and Winter Semesters). However, courses of project type (viz. mini project), carrying 2 or 3 credits, can be carried out during summer / intersession semester. Such project type courses may also be evaluated on the same pattern similar to Student capstone Project. In such cases, instead of the "Student Project Monitoring Committee", the guide will evaluate the project along with the HoD / Program Chair.

All students doing a 'project only' type of course (Capstone project, Master's Thesis, Design project, etc. - to name a few) shall prepare a Poster as part of their project highlighting their work. The poster carries 5% weightage of the total marks of the project course. This poster should be prepared as per the format enclosed in Annexure-III (single standard format- all programs) and displayed at the time of final evaluation. The same format shall be used for the

SET Conferences (from AY 2016-17 onwards) also. This will give an opportunity to all faculty and students of the campus to know the achievements of students carried out as part of their Project work or Thesis work. Any physical model developed may also be displayed along with the poster. This will also be a motivating factor for the junior students and help to improve the quality of projects/ Theses over a period of time. Schools will announce the poster display schedule and venue to all other students and faculty in advance, to enable them to visit and know the work carried out by project students. Schools may create a faculty team to visit the venue and evaluate the posters for the 5% of marks that it carries. Students shall explain their work to the faculty team visiting them for evaluation or other visitors.

### ***Cooperative Education:***

Cooperative education (co-op) is an academic program that links classroom studies with professional work experience in a field related to a student's career goals. Co-op combines theory and practice through knowledge and experience.

Co-op is provided as an option only and hence; it is not binding on all students of the program. Co-op period will be for 6 months. Students accepting the Co-op program shall receive their degrees after the completion of Co-op period only. This will be indicated in the Grade Sheet and Consolidated Grade Sheet as a Pass/ Fail course with no credits assigned. Hence the credits earned will not be considered for GPA/CGPA calculation.

### ***Semester Abroad Program:***

VIT's Semester Abroad Program (SAP) aims to encourage both the undergraduate / final year and postgraduate students from all streams to pursue their final semester in other universities abroad. The Office of International Relations organizes a road-show on SAP and students in their pre-final year of their programs are invited to participate. Students take up their Capstone Project in the campus of the University Abroad under the guidance of a Faculty member from that University in addition to a guide from VIT. The progress of the work is monitored by both the guides and will be evaluated periodically. The final viva voce examination for the project will be conducted in VIT only after successful completion of the project and the arrival of the student.

### ***SET Conference:***

Science, Engineering and Technology (SET) Project is included as one of the courses under University Core courses of the 2 year post-graduate programs. M.Tech. students shall carry out one SET Project in each of their first and second Semesters. The students of M.Sc and MCA programs shall carry out one SET Project in each of their Semesters, except during their Master's Thesis Semester. Each of this SET project shall carry 2 credits and shall be indicated as 'SET500X Science, Engineering and Technology Project X' in their respective curriculum. It is compulsory for all PG students to publish their project results in the form of a paper published during the SET Conference of that semester. SET Conferences will be organized towards the end of each semester by any one of the Schools. The SET project work carried out by the student shall carry 75% weightage and the balance 25% is allotted to the published / communicated research article (15% if the article is communicated and 25% if it is accepted / published). Of the 75%, 50% shall be awarded by the project guide and the balance 25% by the School SET Project Evaluation Committee which has the guide as a member for evaluating the project concerned.

#### 6.4.6. Comprehensive Examination

Comprehensive examination is conducted to evaluate the comprehensive knowledge the student has gained in all the courses he/she had undergone, his/her analytical ability to apply such knowledge in various situations, etc. Comprehension of a student in his/her field of specialization will be evaluated in the form of a written test, viva voce, online exam or by any other creative methodology, including Hack-a-thon/Make-a-thon, or a combination of these which will be announced through circulars from time-to-time by the school. In case of viva voce exam, the Comprehensive Examination Committee is constituted for each program with the HoD/Program Chair as its Chairperson with three members in the rank of Senior Professor/Professor associated with the program, with at least one member from other program offered by the School and at least one member from another School. The Comprehensive examination is generally conducted during the final / prefinal year of the program. The student becomes eligible to appear for the Comprehensive Examination only if he has earned a minimum of 115 credits (for B.Tech. Programs) and 161 credits for integrated M.Tech. Programs. The exact dates for the Comprehensive examination and the mode of examination will be announced by the University through circulars. Any student with a valid "GATE Score" is exempted from attending the Comprehensive Examination conducted by the institute for the purpose.

#### 6.4.7. Additional learning

In order to make student learning capabilities more meaningful and activity-oriented, programs like Hack-a-thons, Make-a-thons and other similar activities are conducted on campus. In order to integrate this in academics, additional marks can be awarded to the student by the faculty after due assessment of the performance of the student. The student can benefit through such additional marks, to a maximum of 10, which can be added to the CAM scored for one course per semester or as per the directions given by the university, through circulars. Similarly, additional marks can be given to students who take up take up online courses that are relevant to the registered course. If a student wishes to do a project in courses that do not have an embedded 'J'-component and has a tangible output, the effort and output can be considered for the award of additional marks. The effort and output can be considered for the award of additional marks. However, additional learning may not be limited to the above activities. In any case, prior approval from the faculty handling the course and the School Dean is essential for the inclusion of additional marks for such categories. This additional learning is course specific. It is the responsibility of the School to make sure that additional marks are allotted to only one course for a specified activity. The total internal marks (including the additional marks) are given an upper limit of 60 (40 being the marks given to final assessment). The type of activities that can be considered for additional marks will be modified through circulars by the University.

### **7. Course Registration**

It is mandatory for all students to register for courses that he/she wish to study in the semester through a Course Registration process. The Course Registration will be carried out on specific day(s) as declared by the University. Students having any outstanding dues to the University will be permitted to register for the courses, but will not be permitted to attend the classes till they pay the fees. For valid reasons, late registration for a maximum of 10 calendar days from the commencement of the semester may be permitted only with the approval of the School Dean concerned and on payment of a late Registration fee as specified by the

University. If a student fails to register the minimum number of courses in any semester, his/her studentship with the University is liable to be cancelled.

Generally, students will be offered more courses than what a normal student is expected to take. Depending on the requirements or from a 'wish list' collected from students, Schools decide the courses to be offered in each semester. Students shall register courses offered in each semester and clear them, subject to various conditions as prescribed in this Regulation. The list of courses offered by each program will be announced prior to the registration. Depending on academic and non-academic resources available to each program, courses offered may vary. Students will get a chance to make their own plan of study by changing the pace with which they study (fast/slow). Since slot timetable is adopted, students can choose their own slots from multiple slots offered for the same course. The flowchart depicting the registration process is given in the Annexure IV. The given workflow is only indicative and is subject to change depending on the requirement.

### **7.1. Proctor (Assistance)**

Upon joining the University, each student will be assigned a Proctor by the School concerned. The Proctor will discuss with the student on his/her academic performance in previous semester(s), periodically, and suggest the number and nature of courses to be registered in the ensuing semester, within the framework of that program curriculum. The proctor can refer to VTOP / Program school to get information on the student curriculum and also his / her academic performance. This would help the Proctor guide students to register courses under his/her curriculum. Students having backlogs or under probation may get advice for pacing the program accordingly.

### **7.2. Bridge Courses**

During the first semester of all programs offered by the University, students will be advised to register for the courses (all or courses of their choice based on the guidance from the HoD/Program Chair during the orientation) from the list of "Courses Offered" for their specific program. Depending on the proficiency in language and other necessary fundamental disciplines, the student may be asked to undergo some special courses (bridge courses), as recommended by his/her program curriculum, to compensate his/her inadequacy of level. These courses will be recommended based on a screening test conducted by the University or based on the subjects a student has completed during his/her previous qualifying examinations. The credits and grades so obtained will not be counted in the CGPA calculation / towards the minimum credit requirements for the completion of the program as specified in Section 6.2.

### **7.3. Minimum/ Maximum Credit Limits for Course Registration**

The number of credits most students are expected to register in a semester will be 23 (Average Academic Load) so that they complete the program within the specified duration of the program. However, a student can register for a maximum of 27 credits or a minimum of 16 credits in a regular semester (other than the optional terms). Under no circumstances a student, whether regular or timed-out, will be permitted to cross these limits. However, a student carrying out the last registration of his/her program will be permitted to register less than 16 credits in order to meet the minimum credit requirements for the completion of their program.

If a student has CGPA less than 4.0 at any time of their study, the student will be advised to register for a maximum of 20 credits. If students with less than 4.0 CGPA fail to improve their performance in the subsequent semesters, their studentship is liable to be cancelled. A Committee under Dean of Academics will look into those cases and recommend to the Vice-Chancellor on necessary further action to be initiated.

The number of credits a student can register during a summer / intersession / weekend semester shall be between 6 and 8, or 2 courses, whichever is less. However, in special cases, the student may be permitted to register a maximum of 12 credits with the approval of the Proctor and School Dean. There is no minimum number of credits fixed for course registration during summer or intersession or weekend semester.

#### **7.4. Registering for Backlog Courses**

Students who have not cleared one or more component(s) of a CAL course (Theory/ Lab/ J-Component) are shown with "N" grade. If a student clears all the components individually but if the grand total of that course does not meet the passing range then "F" grade is awarded. A course having an 'F' grade will be considered as a backlog and it has to be re-registered in the subsequent semesters or special terms. Students with F grade courses are eligible to register the next level course (pre-requisite is met). With N grade, if the student has cleared the theory component, he/she will be permitted to register the next level course (pre-requisite is met). Both F and N have to be cleared by re-registering the same course in the subsequent semester/inter semester/ summer semester / subsequent intra-semester. If a student has not cleared all the components (or) if the student opts for Grade Improvement then all the components of the course has to be re-registered. On the other hand, if the student has cleared in one or more components but got N grade in that course, then the cleared components are exempted from re-registration. Re-registration fee will be as per the university norms existing at the time of re-registration (whole or a component of a course). Such a re-registration fee is also applicable for project-only courses. When a course is re-registered wholly, all earlier course evaluation marks shall be treated as cancelled/ reset. If a student fails in a course due to lack of marks in the lab/project component of an embedded course, the student has to re-register the lab/project component alone. Courses having 'W' grade (course withdraw) will not be considered as backlog. Students who are debarred from writing FAT will be given "N" grade, for that course, in the grade sheet. To provide an early opportunity for students to clear their backlog of courses, efforts will be made to offer as many courses as possible during Fall, Winter, Intersession and Summer semesters. Students have to pay a Re-registration fee, as specified by the University from time to time, for the following cases: 1) Registration of a course for which 'N' or 'F' or 'W' is given, or 2) registering a UE/PE (either same course or a substitution course) which was not cleared in the previous semester(s).

However, students are given an option to clear the course by appearing for arrear examinations after their final semester. Students should register for all the course components if he/she opts to clear the course through the arrear examinations. Component based registration is not applicable for arrear examination. If a student fails to clear the course through arrear examination option and if he/she wishes to clear through re-registration, then the student should register for all the components of the course.

## 7.5. Add/Drop of Courses

Option to add or drop a course (from the registered courses) is given during the first three instructional days of the semester (not applicable to summer / intersession / weekend semesters), subject to the availability of resources and the minimum/ maximum number of credits required to be registered in a semester as specified in Section 7.3. Only those courses that stand registered at the end of Add/Drop process will be considered as final for that semester. The courses thus dropped will not appear in the semester Grade Sheet of the student. The 'dropped' courses can be taken in the following semester when the courses are offered. Add/Drop provision is not available for the courses registered during intersession / summer semester, in view of their short duration. Add/ Drop is only an option given to the student. While exercising this option, if the student adds a new course, then the student's attendance is calculated from the date of adding the course. If he/she drops the course and again adds the same course then the attendance is calculated from the first date of adding the course and no compensation/ transfer of attendance shall be permitted. There is no re-registration fee for registering a 'Dropped' course again.

## 7.6. Course Withdrawal

If a student feels that his/her performance in CAT-I of a registered course is not satisfactory, the student can withdraw from the course. After finalization of CAT-I marks, the University will announce suitable days for carrying out Course Withdrawal. Course Withdrawal will be open to students for three instructional days as announced through circulars. Withdrawal below 16 credits is, generally, not permitted. However, final years and timed-out students are exempted from the minimum withdrawal credit limit. Re-registered courses cannot be withdrawn, except those re-registered courses that have been cleared subsequently. If a registered additional/ re-registered course is withdrawn, no refund will be made. A course once withdrawn through this process cannot be reinstated again. Though courses withdrawn from shall be shown with a 'W' grade under student academic history, they will not be listed in the semester Grade Sheet and Consolidated Grade Sheet. The courses with 'W' grades will not be included for the calculation of the grade point. Registered backlog courses cannot be withdrawn. Withdrawal from a course is permitted subject to meeting the minimum credit limits for course registration as specified in Section 7.3. When a withdrawn course is registered again or substituted by another course, students need to pay re-registration charges at the time of registration / Withdrawal, as announced through circulars.

## 7.7. Course Prerequisites

Some courses may have specific prerequisites to be met before a student can register for the course. Generally, the student is expected to have cleared all the prerequisite courses at the time of Course Registration. Students who had received an 'F' grade in a prerequisite course are also permitted to register the next level course, assuming that they have attained the required 'exposure' by attending that course. In case the student has met the minimum attendance as stipulated in Section 8, eligible to write the FAT, and also has written the FAT of a prerequisite course, but the result for the course is not yet declared (but not withheld) by the University, it will be assumed that the student has met the prerequisite condition by obtaining the required 'exposure' in that course. Under such circumstances, the student is permitted to register a higher-level course, with this course as prerequisite. Subsequently, when the results are declared by the University and if the student is awarded

an 'F' grade in the course, which was a prerequisite course, the Registration made for the higher-level course will not be cancelled. This stand is adopted so that the student can make further progress towards earning credits and his/her progress need not be pulled down by backlog courses.

Similar to a prerequisite, a course may have an anti-requisite and/ or co-requisite. When two courses having almost similar/ same course contents, considered as equivalent, are made available to a student to choose, in order to prevent students crediting both the courses, the anti-requisite option can be used. Similarly, an independent laboratory course can be coupled to a theory-alone course through a co-requisite thereby forcing a student to register both the courses together.

## 8. Attendance

A student is expected to maintain 100% attendance in all courses. Considering the fact that a student may need leave due to ill-health or to attend some family emergency, a student is permitted to maintain a minimum of 75% attendance (i.e. absent for 25% of instructional hours) in each course, without producing any proof for the absence. This 25% absence includes medical, personnel, casual, official leave of absence for organizing events/ seminars/ workshops/ technical/ cultural festivals/competitions/ participation in co-curricular/ extra-curricular events/ NSS & NCC camps, or any other (valid or otherwise) reason. Computerized attendance monitoring system is adopted for posting the attendance by the faculty. Since no one is exempted from the minimum attendance conditions stipulated as below, students who fail to maintain the minimum attendance criteria will not be permitted to write the next evaluation component of the course (CAT/FAT Exam component fixed by the course faculty in case of courses under CAL) and they will be considered as 'debarred from writing the exam'. The attendance software shall indicate the student status of that exam component as 'Debarred' if the student drops below the minimum attendance requirement. Such display will be enabled one day prior to the examination. Students who are 'debarred' from writing the FAT component of a course shall be awarded an "N" grade and they have to re-register the course again and clear with a performance grade. The attendance percentage will be calculated from the 'date of registration' into a course or as stipulated in the attendance portal to one day before the start of the exam component. The minimum attendance requirement for the continuous assessment tests and the final assessment test is 75%.

To encourage students to attend seminars, conferences, workshops, training programs, short duration courses offered by specialized institutions, etc. who otherwise shy off availing such benefits due to losing of attendance in various courses, students with CGPA of 9.00 and above ( $CGPA \geq 9.00$ ) and with no current backlog courses are exempted from the minimum attendance requirements. It is expected that these students will continue to attend all the classes without absence and will not take this as an advantage to skip classes. If such students' CGPA falls below 9.00, at any point of time, they will be subjected to the minimum attendance requirements again. For this purpose, the nine-pointers list will be dynamically generated and applied at the time of preparation of debarred list of each exam component (CAT/FAT) of a course. Hence the exemption status may change before any exam component depending on the declaration of results. However, no retrospective effect will be given to earlier decisions of inclusion/ exclusion from debarred list based on the CGPA the students had at that time. In view of the short duration of

the summer/ inter-session semesters, such exemptions are not applicable to any student and therefore all students are required to maintain the minimum 75% attendance for attending the said examinations.

Students who are absent due to prolonged illness or any other valid reason from the classes beyond the 25% absence shall be advised to request for 'Break of Study' on medical grounds for a semester as indicated in Section 19. This may result in extension of minimum time period of completion of the program.

The university has declared sectional holidays for Meelad-un-Nabi, Muharram, Bakrid, Telugu New Year's Day and Good Friday. The students who are availing the sectional holidays which is declared as instructional day have to submit their request to the HoD / Program Chair through the Proctor for consideration of attendance.

## **9. Assessment/ Evaluation**

The performance of a student in a theory/ lab course under CBL shall be assessed through a series of Continuous Assessment Tests (CAT), Assignments which include quizzes, seminars, group discussions, class/take home assignments (and several others) and a Final Assessment Test (FAT). In general, CAT will be a formative assessment and FAT will be a summative assessment.

### **9.1. Class Based Learning**

Assessment for class-based learning consists of Continuous Assessment Marks (CAM) and one Final Assessment Test (FAT) for each course offered under CBL. CAM shall have various components like CAT-I and CAT-II exams, Assignments and Projects depending on the credit distribution (LTPJC Components) as given in Annexure - V. Each CAT exam will be conducted for 90 minutes, for a maximum of 50 marks. The marks, scored by students for 50, are rescaled to 15%. CAT-II examination will be of 'open book' type and will be conducted for 90 minutes, for a maximum of 50 marks. The marks will be rescaled to 15%. A Final Assessment Test for 3 hours shall be conducted for a maximum of 100 marks. The exam type will be intimated by the University through circulars.

The total of CAT-I, CAT-II, and Digital Assignments accounts to 60% of the Continuous Assessment marks. The FAT is attributed the remaining 40% weightage and corresponds to the End semester Examination. The digital assignment marks of 30% in a theory component of the course for continuous assessment will be decided by the concerned teacher who has the liability to go for either assignment or any other mode of continuous assessment with corresponding weightages suitable to the course. However, the assessment mode and weightage should be decided before the commencement of courses in the semester as approved by the HoD/Program Chair, and intimated to the students. All exams, other than the FAT, will be conducted by the program School concerned or centralized arrangement. FAT will be conducted centrally. Improvement of marks in any of the examinations is not permitted by a repeat exam or by any other means. Weightage of marks for different components in a given credit structure is given in the Annexure - V. The conventional CAT-I and CAT-II can be replaced by weekly assessments, midterm test or any other assessment modes, in selected programs / batches, upon seeking approval from the Academic Council or from the special committee constituted by the Vice-Chancellor. Considering the short duration of the special terms, CAT can be replaced with a mid-term test with a weightage of 30% (combination of two CATs).

## 9.2. Questions based on HOTS

To test the learner's skills, involving analysis, evaluation and synthesis, acquired by the students in their progression, questions based on Higher Order Thinking Skill (HOTS) has been introduced in all CATs and FAT examinations. As per the dictum provided in Bloom's taxonomy, the easiest way of acquiring knowledge is to learn the facts by heart, whereas higher -order skills include the ability to think critically, analyze affably and solve any problem competently. Hence, as per Bloom's Taxonomy, 80% of the questions set in both CAT-1 & FAT would be pertaining to HOTS. Nonetheless in CAT-II, 100% questions would be HOTS in nature.

## 9.3 Eligibility for Examinations

All the students who have registered for a particular course are eligible to write the CAT and FAT (Theory/Lab) of that course, provided he/she is not debarred from writing the exam, due to one or more of the reason/s listed below:

1. Shortage of attendance;
2. Acts of indiscipline;
3. Withdrawal of a registered course.

## 9.4 Grading System

At the end of a semester, a student gets a 'Letter Grade' in every registered course, provided his/her aggregate performance in any specific course in the whole semester is apt. The letter grade and its 'Grade Point' indicate the results of both qualitative and quantitative assessment of the student's performance in a course.

A student is declared to have passed in a theory only Course, theory with lab embedded Course, theory with lab and project, theory with project, lab only or project only courses, only if he/she meets the following conditions, as relevant to the type of individual courses:

- a) Should have secured a minimum of 40% marks in the theory FAT alone.
- b) Should have secured a minimum of 50% marks, out of total marks awarded to the laboratory and/or project components.
- c) Should have secured a minimum of 50% marks, out of the grand total marks awarded to the course (all component marks taken in their credit ratio for 100 marks), for all other course types except the 'theory only course'.

Students who fail to meet the above pass criteria are awarded an 'F' grade. Students who have an 'F' grade need to re-register the course again to clear it. There will be no pass/fail criteria in continuous assessments. The letter grades and their corresponding grade points are given in the Annexure - VI. The remarks column in the table describes the circumstance under which the specific grade is offered. The student registration details in FFCS will reflect the status of currently registered and yet to be completed course components as 'Y'.

A student is declared to have passed/ cleared a course, if he/she has earned any one of the following grades: 'S, A, B, C, D, E or P, called the 'Performance Grades'. Overall grade in a course is based on the credit ratio of course components (L+T:P:J).

The letter grade 'F' will be awarded, under the following circumstances.

- I. Students who fail to clear a course due to their poor performance;
- II. Student clears all the components individually, but if the grand total of that course does not meet the passing range, then "F" grade is awarded.

To clear an 'F' grade, students should re-register for the entire course in the subsequent semester(s).

The letter grade 'N' has been sub- categorized as follows:

- i. N1 : Student fails to clear one or more components of a course
- ii. N2 : Student who has been debarred due to lack of attendance
- iii. N3 : Student who remains absent in the Final Assessment Test
- iv. N4 : Student debarred in Final Assessment Test due to indiscipline / malpractice

Students who fail to write the FAT due to valid medical reasons, will be initially awarded an 'N' grade. They are eligible to apply for supplementary FAT as indicated in Section 9.10. If they fail to appear for the supplementary FAT as per the schedule for any reason – including medical or non-medical, the grade 'N' already awarded will be retained as it is and no second chance will be provided to them. The 'N' grade will be converted into a performance grade after the student takes up the supplementary FAT. However, the student is bound to appear for the auxiliary FAT within one academic year or whenever it is scheduled from the date of approval, whichever is earliest. If a student fails to write the FAT due to reasons other than the one indicated above, shall be awarded 'N' grade by treating the course as incomplete. Letter grade 'N' carries 'Zero' grade point and to qualify the course, the student has to register the course again in a subsequent semester and complete the same with a 'performance' grade. Grade 'W' is discussed in Section 7.6 and grade 'U' is discussed in Section 10 separately.

## 9.5 Absolute and Relative Grading

The letter grade awarded to a student for his/her performance in a course can be based on either the Absolute Grading or the Relative Grading concept. The 'Relative Grading' concept indicates the academic standing of a student in his/her class. All the theory component of the courses, where their class strength is more than 10, shall follow class-wise relative grading concept. In Relative Grading, the following two extreme situations, which generally are not congenial for the students' growth are annulled.

1. Majority of students scoring very high marks because, either the question paper is easy or the evaluator is very lenient.
2. Majority of students scoring very low marks because of either the question paper is tough or the evaluator is very strict.

In this system, grades are awarded to students according to their performance relative to their peers in the same class (class is defined as a unique combination of course-slot-faculty). Normally the class average mark is taken as midpoint of 'B' grade, and relative to this and depending on the sigma ( $\sigma$ , standard deviation) value, the other grades are finalized. A combination of absolute and relative grading systems is adopted in converting marks to grades as given in the Annexure VII and VIII.

However, if the mark range for F grade of that class is  $<50$  (based on mean-  $2*\sigma$ ), then that value is used to check the prerequisite of the Grand total marks instead of 50. If a course does not have an “S” grade (or) if the “S” grade boundary exceeds 100 as per the above formula, a Committee will decide the number of “S” grades and “S” grade cut-off marks. Before calculating the class average and standard deviation, the grand total marks obtained by the student is “rounded-up” to the next integer (any fraction will move to the next integer) and the same is displayed also. Marks of other evaluation components are not altered and stored up to two decimal accuracy. This and total is used to compare the grade band minimum and maximum limits that are calculated and displayed as “rounded-off” integer (fraction of 0.5 and above will be converted to the next integer and less than 0.5 will be truncated).

All the conditions stipulated in Section 9.4 for the for the Pass/Fail are applicable to relative grading, also too. While applying relative grading, if the minimum marks corresponding to ‘E’ grade happens to be less than 50, then that mark will be set as the minimum mark required to pass the course. Similarly, when the class average is high, marks above 50 may result in ‘F’ grade. Under such circumstances, the student will be awarded ‘E’ grade and declared pass. If the minimum of the grade band is less than 100%, but the maximum has exceeded 100%, then the maximum of the grade band shall be reset to 100%. But, if the minimum of the grade band exceeds 100%, it indicates that the specific letter grade or better letter grade(S) cannot be issued to that class.

If the class strength is less than or equal to 10 in a theory or lab embedded theory course, absolute grading shall be adopted, instead of the class-wise relative grading. All the laboratory and the project component of the courses shall adopt absolute grading method only, irrespective of the class strength.

### **9.6 Evaluation for Laboratory courses / Component and Project Course / Component**

A few skill based courses may have only laboratory/ project component without a theory and/or tutorial component. To make students attend lab classes without fail and to increase the importance given to the lab classes, the practical component will be evaluated based on the performance of the students in each experiment. Students who do not earn a minimum of 50% marks (sum of the marks awarded for all the assessments of the course) are declared as ‘Fail’ in the lab course/component with an ‘N’ grade and they have to re-register the lab only course/or lab component of a course. As in the case of Theory courses, laboratory courses will also have a Final Assessment Test. The weightage for the internal assessment will be 60% and for the Final Assessment will be 40%.

The project component will be assessed separately by the faculty by conducting a minimum of *three* periodic reviews. These three periodic reviews would be conducted (1) before CAT I, (2) between CAT I and CAT II, (3) between CAT II and FAT. The ratio of the marks assessments for these reviews will be 20:30:50. No CAT/FAT will be conducted for the project components. For the Project course/component, the students who do not earn a minimum 50% marks (sum of three reviews with 20:30:50 distribution) are declared as ‘Fail’ in the project component /course, and consequently will be bracketed under ‘not completed’ course, and hence an “N” grade will be awarded. The total marks of the course shall be calculated based on the ratio between the theory (including tutorials), laboratory and the project credits i.e.  $(L+T):(P/2):(J/4)$

## 9.7 Viewing Internal Assessment Marks

Internal assessment marks will be available in the student login for all the registered courses, at least one week before the FAT. Any discrepancies noticed by the student in his / her internal assessment marks should be intimated to the Proctor and School Dean within Two (02) days from the commencement of FAT. Late requests cannot be accepted.

## 9.8 Perusal of answer sheets, Re-evaluation and Declaration of results

Post-CAT evaluation, the answer scripts will be handed over to students. Any discrepancy in the appraisal will be corrected in person by the course faculty. However, after the completion of the FAT, the marks entered by the faculty-member online will be made visible to the students as per the schedule announced by the University. Subsequently, students desirous of seeing their FAT answer scripts have to apply for the same within the stipulated time -period and by paying the prescribed fee. If the student believes that the answer-script is needed to be re-evaluated because of any discrepancy in the evaluation, they have to apply within the time period specified and by paying the prescribed fee. Upon re-evaluation, if there is a change in marks to the extent of 5% deviation from the original marks, the better of the two will be considered for grading. However, if the change in the mark is more than 5%, it will be evaluated again by a different examiner and the better of the three will be considered for grading. Final letter grades will be awarded, based on the earlier calculated 'grade band' range of marks (no re-calculation of mean & SD again).

In case a student is not satisfied with the re-evaluation, he/she may apply to an 'Examination Appellate Committee' with the requisite fees. The Committee consisting of the instructor, who originally corrected the answer -script and another faculty in the same field of specialization (to be drawn from the Course Committee) will re-evaluate the paper together. The marks awarded by the 'Appellate Committee' will be final. Letter grade will be awarded as per the class relative 'grading band', without re-calculating the class average and standard deviation again. There is no provision for re-evaluation in case of Lab/ Practical exams, Soft Skills, Student Project viva voce exam or Seminar/ Design/ Mini-project courses or a component of exam of type 'project' and also for comprehensive examination. The final grades awarded to each subject will be announced by the University and the same will be made available to students as well as the parents. In courses, where the class average is 90% and above, the FAT answer papers will be re-evaluated by another faculty, handling the same course/ taken that course in an earlier semester/ by a faculty drawn from the Course Committee. Although never a regular phenomenon, the faculty may be asked to provide an explanation for the high class average.

## 9.9 Calculation of GPA and CGPA

The Grade Point Average (GPA) earned by a student is a quantitative indication of his/her performance in a semester. GPA is the weighted average of the grade points obtained in all the courses registered (after add/drop/ withdrawal) by the student during the semester. For each course registered, the grade points earned is multiplied by the credits for that course. The sum of all such grade point-credits product is divided by the total credits registered in that semester to get the GPA of that semester.

The Cumulative Grade Point Average (CGPA), which indicates the overall performance of a student from the time he/she joined the University to a specific semester, is obtained by calculating the weighted average of the grade points, obtained in all the courses registered by the student since the first semester. Both GPA and CGPA are calculated as follows at the end of every semester and indicated in the Grade Sheet.

$$CGPA = \frac{\sum_i (C_i * GP)}{\sum_i C_i}$$

Where,  $C_i$  is the number of credits for the course, and GP is the grade points earned for that course.  $i$  includes all the courses registered in all semesters including those in which the student has an 'F' grade. If a student had failed more than once in a course or substituted a course, the credits will appear only once, both in the numerator and denominator. Pass-Fail ('P' grade), audit courses and courses taken towards 'Minor' or 'Honours' are not counted for the calculation of GPA or CGPA of the programme. The Consolidated Grade Sheet or Degree Certificate will not mention any 'class' or whatsoever, except the CGPA and 'Honours'. GPA/ CGPA will be indicated by rounding-up the actual values to two decimal places.

% equivalent of CGPA = CGPA \* 10

For example, a CGPA of 8.75 is considered equivalent to 87.5% (CGPA pf 8.75 x 10 = 87.5%)  
Controller of Examinations will issue obligatory-certificates to students, who request for CGPA to percentage equivalence of marks.

### 9.10 Absence from an Exam

If a student fails to write any CAT, the student will lose the percentage weightage given to the CAT exam. No Re-CAT will be conducted again to compensate the loss. This condition is also applicable to students who had been admitted in the previous batches, but have registered for an equivalent CAL course. However, due to unavoidable circumstances, if a student fails to write the CAT, then a supplementary CAT is scheduled separately for the benefit of such a students, subject to approval by the School Dean. Students who have been conferred with fellowships by Indian Academies (Science and Engineering) for undertaking research activity in prestigious Institutes / Universities are also eligible to take up the supplementary CAT. However, these students are required to satisfy the condition that their CGPA is not less than 8.0 and they take prior permission from the School Dean before availing the internship. Students who miss the CATs due to placement activities are also eligible to appear for the supplementary CATs, provided they meet the minimum attendance requirement. Supplementary CAT is also permitted for student, who fails to appear for the regular CAT, due to their hospitalization.

Under extraordinary conditions, if a student is not able to appear for the Final Assessment Test (FAT) of a theory/ Student Project (final viva voce exam), due to hospitalization (in-patient treatment) for more than a week duration or death of a family member, then the concerned student may apply to the Vice Chancellor by submitting an application through the School Dean, Head of the Department/Program Chair and the Proctor, supported by adequate evidence or proper medical certificate duly authenticated by the Chief Medical Officer (CMO) of the University, as the case may be, within 14 calendar days, after the completion of the FAT. Such applications will be scrutinized by a special committee constituted by the Vice Chancellor and if necessary, the student may be asked to appear before the Committee for presenting the

case. Any student who fails to apply for such supplementary-FAT in the prescribed manner will be deemed to have failed in the course(s) and has to repeat the course(s) by registering again in subsequent semesters. Such supplementary examinations will be conducted along with other FATs or separately, as decided and scheduled by the University. Such cases will be treated as 'first' attempt. If a student fails to write the scheduled supplementary FAT for any reason (even those mentioned above), he/ she need to register the course again and clear it. The student will be awarded 'N' grade in the course he/she failed to write. Student permitted for supplementary FAT will be awarded grade as per the class relative 'grading band', without re-calculating the class average and standard deviation again.

### **9.11 Semester Grade Sheet and Consolidated Grade Sheet**

At the end of each semester, all students will be issued a Grade Sheet. This Grade Sheet will be an accurate log of course activity of a student in each semester and hence, all courses registered (including those courses that are awarded F, N, W, U, P, substituted, re-registered, audited, grade improvement courses) will be listed semester wise. It would also be consisting of the grade points earned (performance and others grades), course credits, GPA, CGPA, etc. This will reflect the performance of a student during the specific semester.

The overall performance of a student in all semesters, since joining the programme will be shown in a Consolidated Grade Sheet. A Consolidated Grade Sheet will be issued to a student upon his/her successful completion of the programme or along with the Degree Certificate. Consolidated Grade Sheet will indicate only the CGPA, and not semester wise GPA. Since a Consolidated Grade Sheet consolidates semester Grade Sheet details, all details recorded in the semester Grade Sheets will also be listed, with a time stamp of the exam month and year. Additional courses like Audit, Minor/ Honours courses, URE (as explained later in this document) awards, etc. earned by the student will also be shown separately/ along with other courses. An Interim Consolidated Grade Sheet can also be obtained at the end of any semester, if needed. Students registering course(s) that is not a 'required course' as per his/her programme curriculum (after considering the UE, PE, Audit, Minor, Honours and Double Major requirements, if possible) are required to drop/ withdraw the course. However, if the student continues with the course, the grade awarded will be considered for the semester GPA calculation like any 'required' course. On completion of the programme, a suitable grade will be given and the CGPA will be calculated accordingly, at the time of issue of the Consolidated Grade Sheet. However, the student needs to pay the course registration charges for the course(s) as per the prevailing charges at the end of the programme. Programme wise rank list will be prepared based on CGPA and also the arrear history. In case of a tie in the CGPA, same rank will be awarded to all in tie. Subsequent students will be ranked by skipping the number of students awarded the same rank. (e.g): For instance, while deciding the 5<sup>th</sup> rank, if two students have the same CGPA, both will get 5<sup>th</sup> rank and the next rank will commence from 7.

### **9.12 Academic Malpractice**

Academic malpractice shall be viewed very seriously and penalized appropriately. In order to discourage students from indulging in such activities, each case shall be enquired by a 'Malpractice Committee', constituted by the University and suitable punishment will be given, if the malpractice is proven. If a student indulges in malpractice, in any component of the

Continuous Assessments (like CATs), zero marks will be assigned in all subjects registered in that semester, for the corresponding examination. If a student indulges in malpractice in the FAT, all the regular courses in which the student was eligible to write and attended the FAT of that semester, for which he/she registered and attended shall be awarded 'N' grade, as a retribution. However, the students will be permitted to clear those courses in subsequent semesters (as and when it is offered) by re-registration.

### 9.13 Promotion

All students are promoted to their next semester or year of their programme spontaneously, irrespective of the academic performance. However, at any stage of his/her study, if a student reaches a CGPA below 4.00, the student will be permitted to register for a maximum of 20 credits in subsequent semesters, until his CGPA crosses 4.00. However, the student has the choice of to re-register for the courses / courses in which he/she has obtained 'F' / N grade.

## 10. Audit

A student willing to get an exposure of a specific course not listed in his/her programme curriculum, and without undergoing the rigors of getting a 'good' grade, may be permitted to register that course as an Audit course, subject to the following conditions.

1. Students of programmes with duration of four and above can register for a maximum of two courses, whereas students of other programmes can register for only one course under 'audit' category. Such courses should be indicated as 'Audit' during the time of Registration itself. Late registration is not permitted for an Audit course.
2. A student is permitted to register for an audit course only if his/her CGPA is equal to or more than 8.0 at the time of Registration.
3. The student should maintain the minimum attendance conditions specified in Section 8, even for the 'audit' course.
4. Only courses currently offered for credit to other students can be audited.
5. A course appearing as a UC/PC course in the curriculum of a student cannot be audited (i.e. audit course cannot be converted to a credit course). However, if a student has already met the PE credit requirements as stipulated in the curriculum, then, a PE course listed in the curriculum and not taken by the student for credit, can be audited.
6. Students registering for an audit course, must undergo all the assessment procedures applicable for a credited student of that course. Only if the student obtains any performance grade, the course will be mentioned in the semester Grade Sheet and in the Consolidated Grade Sheet by a 'U' grade, and not his/her performance grade in the audited course.
7. Withdrawal of an audit course is permitted and the procedure indicated in Section 7.6 needs to be followed. If a student fails to clear an audit course, withdraws the registration, fails to maintain the minimum attendance requirements, or fails to write the FAT, etc., he/she will be awarded a 'W' grade, by treating all such conditions as course withdrawal. Any 'W' grade course will be shown in the semester grade sheet but not in the consolidated Grade sheet. Hence, as a regulation, the Audit course will not be shown in the Consolidated Grade sheet, if he/she fails to complete the course.
8. Since an audit course has no grade points assigned, it will not be counted for the purpose of GPA and CGPA calculations.
9. If a student does not write the FAT on valid medical/ non-medical reasons, no Re-FAT

request can be made for audit courses.

10. There will be no extra payment for the audit courses, limited to the number of audit courses taken as specified above.
11. The list of eligible audit options is listed under Annexure – II.
12. Only one Audit course can be registered per semester and is available only in the regular semesters. However, students at their graduating year are permitted to register for more than one audit course. The norms as related to the pre-requisites conditions are to be met in such cases.

## **11. Registering Post Graduate level courses**

Undergraduate students having a CGPA of 8.00 or more are permitted to *credit* a Post Graduate level course, in his/her major area of specialization (or related discipline), against his/her UE option only. An undergraduate student is permitted to register a Post Graduate level course as an *audit* course only, if his/her CGPA is equal to or more than 8.00 at the time of Registration. However, no relaxation of conditions indicated in Sections 6.2 and 6.3 is permitted while auditing/ crediting Post Graduate level courses.

## **12. UG Research Experience**

To provide an opportunity to students who are ambitious in pursuing a career in research or academics, an Undergraduate Research Experience (URE) award is constituted. URE has four components, coded as URE001, URE002, URE003 and URE004. They are independent of each other. As of now URE is applicable to B.Tech. programmes only.

### **12.1 URE001**

Only students having a CGPA of 8.50 and above and who can take extra work load, will be qualified for this award. The student shall involve in research and development project during his/her 2nd or 3rd year of programme, under the guidance of a faculty-member for a period of five to six months. It would be including the summer or winter vacation periods. The student works with the faculty- member with the prior approval of the Dean of the programme School and carries out manual registration of URE001. At the end of the work, if the faculty is satisfied with the quality and quantum of work carried out by the student, the faculty guide may constitute an Evaluation Committee under the Dean of the programme School to recommend the award of URE001 to the student. Then such an award will be recorded in the Grade Sheet in the semester immediately following the semester, in which the work was carried out. However, there will be no credits or grade points assigned to URE001 and listed in the Grade Sheet with a short title of the work carried out and awarded 'P' grade. This can be availed, only once by a student for the entire duration of the programme. If the evaluation committee is not satisfied with the work, then, no entry will be made in the Grade Sheet and it will be presumed that the Registration made for URE001 stands cancelled.

### **12.2 URE002**

As indicated in Section 6.4.5, a student undertakes the Student Project work under the guidance of a faculty-member, similar to any other student project. However, URE002 is awarded to truly exceptional quality and quantum of research work carried out by an individual student in lieu of his/her Student Project. If the Student Project Evaluation Committee

finds that the student has carried out a project work which is substantially advanced than what is normally expected from a B.Tech. student, then, the project work may be referred to a high-profile Committee. It would be constituted under the Dean of the programme School, with at least one external expert, preferably from a reputed Institution like IIT or IISc, Bengaluru. If this Committee certifies that the work carried out by the student is exceptional in extent and quality, then, the project shall be recommended for URE002 award. URE002 carries four credits (apart from the 20 credits for the regular Student Project getting an 'S' grade) and an 'S' grade point. This will be separately indicated in the Grade Sheet of the student with a short title of the work carried out. The advantage to the student will be that his/her CGPA will increase, given that four credits are awarded with an 'S' grade. No prior registration is needed for URE002 award.

### 12.3 URE003

Students who meet all their course and credit requirements as specified in their curriculum will have less credit load when they reach their 7<sup>th</sup> semester (only Student Project may be left to be completed). Such students, still maintaining a CGPA of 9.00 and above, may opt to work in an existing research project available in the University which is related to his/her programme of specialization in lieu of his/her Student Project. The research work should be carried out for a minimum period of one year with adequate innovativeness. This research oriented project work is expected to result in a high quality journal publication. Such Student Projects will be evaluated by a separate evaluation committee constituted in line with the M.Tech. Student Project Evaluation Committee.

Bearing in mind the quantum and quality of work put-in by the student, project work may be recommended for URE003 award. URE003 carries six credits (apart the 'capstone credit' for the regular Student Project getting an 'S' grade) and an 'S' grade. This will be indicated separately in the Grade Sheet of the student with a short title. Financial support if any for URE003 may be made available by the concerned faculty members offering the project, through their research funds, subject to the availability and provision of the work carried out. The concerned learner would be having the benefit of an improved CGPA, given that six credits are awarded with an 'S' grade. Of course, prior manual registration with the approval of Dean of the programme School is necessary. If the Committee is not satisfied with the research project work carried out by the student, then, the project shall be graded like any other regular B.Tech. Student Project work for capstone credit, and suitable performance grade may be awarded accordingly. No entry will be made in the Grade Sheet about URE003 and it will be presumed that the Registration made for URE003 stands cancelled.

### 12.4 URE004

The objective of URE004 is to bring out the innovative capability of the student, independent of his/ her specialization, and give credit to their ideas and quality and quantum of work carried out at the University. It will be of "open project" concept with 3 credits weightage and can be carried out any time within the programme period. Students who carry out such innovative projects have been winning laurels by participating events held during the technical events or competitions held at IIT/ IISc/ NIT/ reputed Universities/ Industries within the country and abroad. To get credit for their work, such students may apply to the 'URE004 Evaluation Committee' (similar to that of URE001) under the Dean of programme School which will evaluate the project outcomes and if found to have made significant contribution, then, recommend URE004 award to the student(s).

The URE004 shall carry 3 credits with a performance grade as recommended by the URE004 Evaluation Committee. After earning the credits, the student(s) registers for URE004 in the next semester. URE004 shall be considered in lieu of a University Elective course and the credits are counted towards minimum credit requirements. URE004 will be shown in the Grade Sheet and Consolidated Grade Sheet, with a short title of the work carried out. Only projects carried out at VIT will qualify under URE004. Mere winning of a prize/ award/ certificate in a competition held by any educational institution/ R&D organization/ industry/ association will not be justifying/ or be a qualifying factor for URE004 award. A maximum of 10 students are permitted to form a single group and carry out a single project. In case of group projects, the individual performance grades shall correspond to the contribution of that individual to the project, as measured by the URE004 Evaluation Committee. A student can receive only one URE004 award during his/her entire programme period. The credits earned in URE004 can be considered in lieu of a University elective.

### **13. Additional Credentials**

Many opportunities exist for students in VIT to complement and enhance their learning experience by crediting additional courses in diverse areas. Students who are academically sound can devote their extra time in each semester, by taking additional course load right from their 3<sup>rd</sup> semester. Course fee is applicable for registering additional courses.

#### **13.1 'Minor' credential**

Additional credits acquired in focused discipline *other than his/her major programme discipline* entitles a student to get a 'Minor' credential. All Schools presenting various programmes will offer 'Minors' in their varied disciplines, and will prescribe what set of courses and/or projects is necessary for earning a minor in that particular discipline. Such courses can be across the programmes also. Schools should ensure that the student will not be indirectly forced to take courses other than the ones prescribed under that 'minor' list as 'pre-requisite' courses. Students who wish to acquire a 'Minor' can register for 'minor' courses along with their regular semester course registration. If any of the courses listed under the 'minor' option is a course listed under his/her curriculum as UC/PC, then the student cannot opt for that 'minor', since all minor courses need to be earned as additional courses to his/her programme curriculum.

Students with a minimum of 8.0 CGPA qualify for registering course under 'Minor' credential. He/she accumulates credits by registering for the required courses, and if the course requirements for a particular 'Minor' are met within the prescribed minimum time limit of the programme, the minor will be awarded along with the degree and it will be mentioned in the Degree Certificate as "Bachelor of Technology in (specialization) with Minor in (specialization)." Also, the student should have a minimum average CGPA of 7.50 in the 'Minor' courses registered to become eligible for the Minor credential. This fact will also be reflected in the Consolidated Grade Sheet under a separate heading 'Minor in (specialization)' with similar details shown for registration in the middle of the programme. In case a student withdraws from the 'Minor', the 'Minor' courses successfully completed, will be converted to 'UE/ Audit' courses and indicated accordingly in subsequent Grade Sheets and Consolidated Grade Sheet.

Students have to pay extra for all the courses registered for 'Minor'. If necessary, the student may use options like registering the failed 'Minor' course again in a subsequent semester

(Section 7.4) or grade improvement (Section 15) to improve grades obtained in a 'Minor' course to raise the CGPA to the required level. A student till their admission for the AY 2018-2020 has to earn a minimum of 15 credits (4 or 5 courses), whereas the minimum credits will be 20 for students registered from AY 2019-20. At least one of the registered courses should have a lab or project component, to ensure eligibility for the 'Minor'. No relaxation will be given in the maximum number of credits, a student can register during a semester for registering courses under 'Minor' as indicated in Section 7.3. The grades obtained in the courses credited towards the 'Minor' award are not counted and shall have no influence on the GPA/ CGPA of the programme the student has registered.

### 13.2 'Honours' credential

Additional credits acquired in *his/her own major programme discipline* entitles a student to get 'Honours' credential. Students should register for additional programme elective courses listed in their curriculum to earn the 'Honours' credential. Schools should ensure that the student will not be indirectly forced to take courses other than the ones prescribed under that 'honours' list as 'pre-requisite' courses. Students who wish to acquire 'Honours' credential need to carry out 'honours' course registration along with their regular semester course registration. Students with a minimum of 8.0 CGPA qualify for registering course under 'Honours' credential. He/she accumulates credits by registering for the required courses, and if the requirements for 'Honours' are met within the prescribed minimum time limit of the programme, the 'Honours' will be awarded along with the degree. Also, the student should have a minimum average CGPA of 7.50 in the 'Honours' courses registered to become eligible for the 'Honours' award. If necessary, the student may use options like registering for the failed 'Honours' course again in a subsequent semester (Section 7.4) or grade improvement (Section 15) to improve grades obtained in a 'Honours' course to raise the CGPA to the required level.

A student has to complete a minimum of 15 credits (for students admitted till AY 2018-2019) or 20 credits (if admitted from AY 2019-2020), of which at least one course should have a lab component, to become eligible for 'Honours'. No relaxation in the maximum number of credits a student can register during a semester, as indicated in Section 7.3, will be given to students opting for 'Honours'. In case a student withdraws from the 'Honours' registration in the middle of the programme, the 'Honours' courses successfully completed will be converted to 'UE/ Audit' courses and indicated accordingly in subsequent Grade Sheets and Consolidated Grade Sheet. Students have to pay extra for all the courses registered for 'Honours'. It must be noted that Honours award will be mentioned in the Degree Certificate as "Bachelor of Technology in (specialization) with Honours". This fact will also be reflected in the Consolidated Grade Sheet under a separate heading 'Honours' with similar details shown for other credited courses and the CGPA for 'Honours' will be indicated at the end of list of courses under 'Honours'. The grades obtained in the courses credited towards the 'Honours' award are not counted and shall have no influence on the GPA/ CGPA of the 'programme' student has registered.

### 14. Course Substitution

If a student receives an 'F' grade in a PE course, and if the student wishes, he/she is permitted to take another PE course from the same basket, in lieu of PE course, the student had failed to clear, in subsequent semesters and clear the new PE course. However, the

student has to pay for the substituted course since the student has utilized the opportunity of clearing a course in first attempt.

If a student receives an 'F' grade in a UE course, and if the student wishes, he/she is permitted to take another UE course instead of the UE course the student had failed to qualify, in subsequent semesters and clear the new course. Further, the student is also permitted to choose a PE course from his/her curriculum, instead of the UE course that the student had failed to clear. However, the student has to pay for the substituted course, since the student has utilized the opportunity of clearing a course in the very first attempt. Such course substitution option can be exercised only once, either for a PE or UE, for entire duration of the programme. Course Substitution is not applicable for UC or PC courses.

## **15. Grade Improvement**

Students who wish to improve their grades will be permitted to register the same course again during a subsequent Course Registration process. This course will be treated as another course taken by the student and no relaxation in the maximum number of credits a student can register during a semester, as indicated in Section 7.3. However, the student has to pay the course fee for registering the course again. Such an option can be availed only once for a given course and only one course can be registered for course improvement per semester. Students at their graduating year or timed out students are permitted to register more than one 'Grade Improvement' courses, in order to improve their CGPA, which may help them later during their placement process. Such a course should be indicated as 'Grade Improvement' course during the Course Registration. The Grade improvement option is available only during regular semesters.

## **16. Credit Transfer**

Within the University, when a student move from one programme to another, or get re-admitted into the same programme again, Credit Transfer is a convenient way of transferring the courses and credits, the student had successfully completed/ earned. If the courses completed have the same syllabi and credits, and if the course(s)/ its equivalent(s) appear in the programme curriculum into which the student is now admitted, it is assumed that the student has earned the credits by credit transfer. A recommendation to this effect shall be forwarded by the School Dean to the Dean of Academics for effecting the credit transfer. Only such courses and credits that are completed and performance grades awarded will be transferred. Since the credit transfer takes place within the same University, the performance grades will also be transferred to their current curriculum and hence, will be counted towards their GPA/ CGPA. Hence, the need to mention 'Credit Transfer' exclusively in their 'Consolidated Grade Sheet' is not required.

A similar procedure shall be adopted during the time of admission of candidates from other Universities into various eligible programmes of the University, subject to the condition that those Universities are recognized and approved for credit transfer by VIT. During that time, only those courses that were completed and credits earned will be mapped to the courses demanded by the programme curriculum, into which the admission is sought and hence considered for credit transfer. If the other Universities follow a different system altogether, then the programme School into which the student is seeking admission/ transfer may work out an equivalence of credits that are to be transferred with valid supporting documentation.

The number of credits thus transferred will be considered for the minimum credit requirements of the programme, *but not considered for the GPA/ CGPA calculations*. The credits thus transferred will be indicated as total credits at the bottom of the Consolidated Grade Sheet as 'Total Credits Transferred from (Name of the Institute, place and Country)' and no breakup of courses will be listed. This procedure shall be applied to dual/ double/ twinning programmes, wherein the credits are shared between two Institutions.

## 17. Course Equivalence

Regular updating of curriculum and syllabi is essential to reflect advancements made in various fields. The students of Non- CAL FFCS are permitted to register in the CAL-FFCS courses. The FFCS permits a student to register a course at any time or re-register a course again to clear their backlog. By the time a student registers a course or re-registers next time, there could be some modifications carried out in the syllabus of course(s) and a new syllabus version that is different to the version indicated in his/her curriculum, be currently offered to students. If the changes effected are marginal, both the syllabi are considered to be equivalent and the student registering first time or re-registering the course has to undertake the new syllabi currently being offered. No separate classes with the older version of syllabus will be offered to the student to clear their backlog. After careful study of the syllabi, the Course Committee may also identify new courses considered equivalent to those courses that were dropped from the curriculum for various reasons. Based on the recommendations of the Course Committee, Dean of the programme School shall declare such courses as equivalent and the same may be recommended. Course equivalence is applicable to all curricula, present and the future. However, the number of credits to be earned cannot be altered and all conditions specified in Section 6 need to be adhered. All different versions of the same course are considered equivalent. The Credits of the original course (of the curriculum) will be considered as 'earned', if there is a credit difference to the equivalent course. Grade Sheet and Consolidated Grade Sheet will indicate the original course code and title only and not the equivalent course the student has registered, or written as the arrear exam.

Once a Course Equivalence is established between courses, various curricula using those courses will be automatically updated by putting both the courses into a single basket. Hence, students need to do only one course in that basket to meet their credit requirement. No explicit approval of the Academic Council is needed to this effect.

## 18. Honours Club

Students who maintain a CGPA of 9.25 and above, having no 'F' grade to their credit and have never been debarred for lack of attendance in any CAT/ any component of continuous assessment/ FAT or indiscipline, will be admitted into the Honours Club for their meritorious performance. Their admission to the club will be withdrawn, if they fail to meet any of the conditions stipulated above. Such students will be benefitted by one or more of the following means.

- given preference while the University sponsors students to attend seminar/ conference/ workshop
- issued a Certificate of Merit
- given a Cash award or scholarship for the subsequent semesters
- engaged in minor academic related activities

## 19. Time Limit for Programme Completion

For various programmes, the 'minimum period of study' (n) a student is expected to study to complete his/her is given in the Annexure - I. However, if a student has few backlog courses yet to be cleared even after the completion of the above said time limit, the student will be permitted to complete all the course and credit requirements specified in the curriculum, with an additional grace period of three years from the year of joining the University, under that programme ('n+3'). Under no circumstances, the period of study shall be extended beyond (n+3) period and thereafter his/her studentship stands cancelled automatically. No separate intimation in this regard will be sent to the student. Such cases will be brought to the notice of the Academic Council by the Dean of Academics. No formal approval of the Academic Council is required for the cancellation of such studentships.

A candidate may be recommended by the Dean of a programme School to temporarily break the study for a maximum period of one year for valid reasons such as accident or hospitalization due to prolonged ill health, and same may be forwarded to the Dean, Academics for approval. An official order will be issued by the Registrar clearly stating the conditions therein. In such cases the time limit for programme completion will be extended by the period of break of study. However, if any student is debarred / suspended for the lack of attendance or acts of indiscipline for one or more semester(s), it shall not be considered as break of study. Break - in Study option can be availed only once for the entire programme duration. If a student drops a semester after commencement of the semester, the fees paid will not be refunded and/or adjusted in the subsequent semester. Courses registered by the student will be 'dropped' and removed from the Registered Courses list and hence not indicated in the Semester Grade Sheet also. However, when the student registers those courses again in a subsequent semester, he/she has to pay the re-registration fee for each course. However, if the semester break option is availed before CAT-I, the registration course fee may be waived. If the student drops the semester prior to the commencement of the semester, he/she has to pay a semester continuation fee prescribed from time- to- time and the balance fees paid will be adjusted in the subsequent semester.

## 20. Award of Degree

After successful completion of the course and credit requirements as specified in the programme curriculum and upon meeting the minimum credit requirement as specified in Section 6.2, a Provisional Certificate will be issued to eligible students by the Controller of Examinations. The degree will be conferred on the student during the subsequent Convocation. The degree certificate will indicate the relevant branch, and specializations if any, in which the student has graduated along with minor/ honours, if earned by the student. Example: 'Bachelor of Technology in Civil Engineering', or 'Bachelor of Technology in Electrical Engineering and with Specialization in Micro-electronics' or 'Bachelor of Technology in Mechanical Engineering with Honors'; or 'Bachelor of Technology in Civil Engineering with Minor in Electrical Engineering'.

## 21. Arrear Examinations

Students who fail to clear the course should re-register / substitute for the courses as stated earlier and therefore, there is no concept of arrear examinations. However, student can avail the option to clear the courses with 'F' or 'N' grade after completion of the minimum period of study.

If the student opts to clear the backlog courses through arrear examination, then the student should appear for all the components of the course. There is no limit on the number of attempts under the arrear option. However, the student can also switch back to re-registering the course, if he/she fails to secure a pass grade in the arrear examination. During such re-registrations, the student should register for all the components of the courses.

Grading for the arrear examinations is the same as that followed for the regular examinations. The internal marks obtained by the student during the previous course registration will be taken for computing the overall grade. Additionally, to benefit the students with low internals, a concept of challenge 50 can be followed. Accordingly, if the student secures 50% in the arrear examination, the student can be declared pass (with an 'E' grade) without considering the internal marks. The overall grade is also calculated with inclusion of the internal marks and the best of the grade is awarded to the student.

## **22. Modification in Regulations**

The current FFCS-CAL Regulations Version 3.2 replaces the previous FFCS Regulations Versions and all the previous Circulars/ Orders/ Notes issued by the University on issues dealt herein. Notwithstanding anything mentioned herein, the Academic Council (or) the Academic Policy Committee headed by the Vice-Chancellor of the University has the right to add, delete or modify these regulations from time to time. In case of any dispute arising in interpreting the rules, only the interpretation given by the Academic Council (or) the Academic Policy Committee will be considered as final and binding.

## **23. Amendments incorporated in this version (compared to version 3.1.)**

- a. Introduction of arrear examination after the minimum duration of study.
- b. Change in basket and credits for 'Honours' and 'Minor' credential.
- c. Integration of the regulations for different programmes, as a single document.

Annexure – I

Minimum duration of the Programme

<b>Programme</b>	<b>Minimum period of Study</b>
B.Tech.	4 years
M.Tech.	2 years
M.Tech. (5 year Integrated)	5 Years
M.Sc.	2 years
M.Sc. (5 year Integrated)	5 years
MCA, MBA	2 years
BCA, B.Sc., B.Com., BBA	3 years
BA LLB, BBA LLB	5 years
M. Des.	2 years
B. Arch.	5 years
B. Des.	4 years
B. Sc. Agri.	4 years

**Annexure - II**  
**Criteria for registering UE and Audit courses**

Students from programmes listed <u>below</u> can take/ cannot take UE/ Audit courses from the programmes listed on the <u>Right side</u>	B.Tech.	M.Tech. (2 Year)	M.Tech. (5 Year Integrated)	M.Sc (2 Year)	M.Sc. (5 Year Integrated)	MCA	MBA	UG (3 year) BCA, B.Sc., B.Com., BBA	BA LLB, BBA LLB	M. Des.	B. Arch.	B. Des.	B. Sc. Agri.	Research Courses
B.Tech.	√	#	√	X	X	X	X	X	X	X	X	X	X	X
M.Tech. (2 Year)	X	√	X	X	X	X	X	X	X	X	X	X	X	#
M.Tech. (5 Year Integrated)	√	#	√	√	√	√	X	√	X	X	X	X	X	X
M.Sc (2 Year)	X	#	X	√	X	√	X	X	X	X	X	X	X	#
M.Sc. (5 Year Integrated)	√	#	√	√	√	#	X	√	X	X	X	X	X	X
MCA	X	#	X	√	X	√	X	X	X	X	X	X	X	#
MBA	X	X	X	X	X	X	√	X	X	X	X	X	X	#
UG (3 year) BCA, B.Sc., B.Com., BBA	#	X	#	#	√	#	X	√	X	X	X	X	X	X
BA LLB, BBA LLB	X	X	X	X	X	X	X	X	√	X	X	X	X	X
M. Des.	X	X	X	X	X	X	X	X	X	√	X	X	X	#
B. Arch.	X	X	X	X	X	X	X	X	X	X	√	X	X	X
B. Des.	X	X	X	X	X	X	X	X	X	X	X	√	X	X
B. Sc. Agri.	X	X	X	X	X	X	X	X	X	X	X	X	√	X
Research Courses	X	√	X	X	X	X	√	X	X	X	X	X	X	√

Eligible	√
NOT eligible	X
Eligible with conditions as per Sections 6 and 10	#

# Annexure – III Poster Template



Project Title goes here, Containing Strictly only the Essential Number of Words...  
Your name | Teacher's name | School

### Motivation/ Introduction

The page size of this poster template is A1 (59.4x84cm), portrait (vertical) format. Do not change this page size, when printing. If you need a different shape start with either a portrait (vertical) or a square poster template.

You do not need to fill up the whole space allocated by the conference organisers. Do not make your poster bigger than it is necessary just to fill that given size! The maximum size of the poster is given by the red outline. Do not exceed this. Otherwise you will have to push pins through the material of your poster.

### SCOPE of the Project

How to use this poster template...

Simply highlight this text and replace it by typing in your own text, or copy and paste your text from a MS Word document or a PowerPoint slide presentation.

The body text / font size should be between 24 and 32 points. Calibri font. This is too small!

Keep body text left-aligned, and do not justify text! The colour of the text, title and poster background can be chosen from the four colours blue red green black

### Methodology

Tips for making a successful poster...

Re-write your paper into poster format i.e.. Simplify everything, avoid data overkill.

Headings of more than 6 words should be in upper and lower case, not all capitals.

NEVER DO WHOLE SENTENCES IN CAPITAL or underline to stress your point, use bold characters instead.

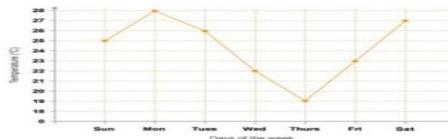
When laying out your poster leave space around you text. Don't overcrowd your poster.

Try using photographs or coloured graphs. Avoid long numerical tables.

Spell check and get someone else to proof-read.



Captions to be set in Calibri, italic, between 18 and 24 points. Right aligned if it refers to a figure on its right. Caption starts right at the top edge of the picture (graph or photo).



Ensure that the graphs are labelled. The labels should be the same as 18 points size in the poster. Graphs are best posted as high quality images to prevent them from being altered.

Equations should be written using the Microsoft Equation Editor. An example is given below.

$$\frac{\sigma_{max}}{MOR} = 1 - \beta \left( 1 - R_{max} \int_0^{2\pi} \sin x dx \right)$$

Equations should use the same font size as the text. It should be centre aligned and the variables used should be obvious to the reader.

### Results

Importing / inserting files...

Images such as photographs, graphs, diagrams, logos, etc., can be added to the poster.

To insert scanned images into your poster, go through the menus as follows: Insert / Picture / From File... then find the file on your computer, select it, and press OK.

The best type of image files to insert are JPEG or TIFF, JPEG is the preferred format.

Be aware of the image size you are importing. The average colour photo (13 x 18cm at 180dpi) would be about 3Mb (1Mb for B/W greyscale).

Do not use images from the web as they will print very poorly.

Notes about graphs...

For simple graphs use MS Excel, or do the graph directly in PowerPoint.

Graphs done in a scientific graphing programs (e.g.. Sigma Plot, Prism, SPSS, Statistica, Matlab) should be saved as JPEG or TIFF and them imported.



Captions to be set in Calibri, italic, 18 to 24 points, to the length of the column in case a figure takes more than 2/3 of column width.

Captions to be set in Calibri, italic, 18 to 24 points, should be set above the table and centre aligned

Flowrate Pipe size Ø	Capacity kg/h									
	15 mm	20 mm	25 mm	32 mm	40 mm	50 mm	65 mm	80 mm	100 mm	
90.0	0.900	173	403	745	1627	2488	4716	9612	14940	30240
92.5	0.925	176	407	756	1652	2524	4788	9756	15156	30672
95.0	0.950	179	414	767	1678	2560	4860	9900	15372	31104
97.5	0.975	180	421	778	1699	2596	4932	10044	15556	31500
100.0	1.000	184	425	788	1724	2632	5004	10152	15768	31932
120.0	1.200	202	472	871	1897	2898	5508	11196	17352	35100
140.0	1.400	220	511	943	2059	3143	5976	12132	18792	38160
160.0	1.600	234	547	1015	2210	3373	6408	12996	20160	40680
180.0	1.800	252	583	1080	2354	3589	6904	13824	21420	43200
200.0	2.000	266	619	1141	2488	3780	7200	14580	22644	45720
220.0	2.200	281	652	1202	2617	3996	7560	15336	23760	47880
240.0	2.400	288	680	1256	2740	4176	7920	16056	24876	50400
260.0	2.600	306	713	1310	2855	4356	8244	16740	25920	52200
280.0	2.800	317	742	1364	2970	4536	8568	17388	26928	54360
300.0	3.000	331	767	1415	3078	4680	8892	18000	27900	56160

### Conclusion/ Summary

Brief summary of what you discovered based on results

Indicate and explain whether or not the data supports your hypothesis

Give directions for future work in this area.

Each of the areas can be expanded as per requirement. Please use only a two columns to make it visually appealing.

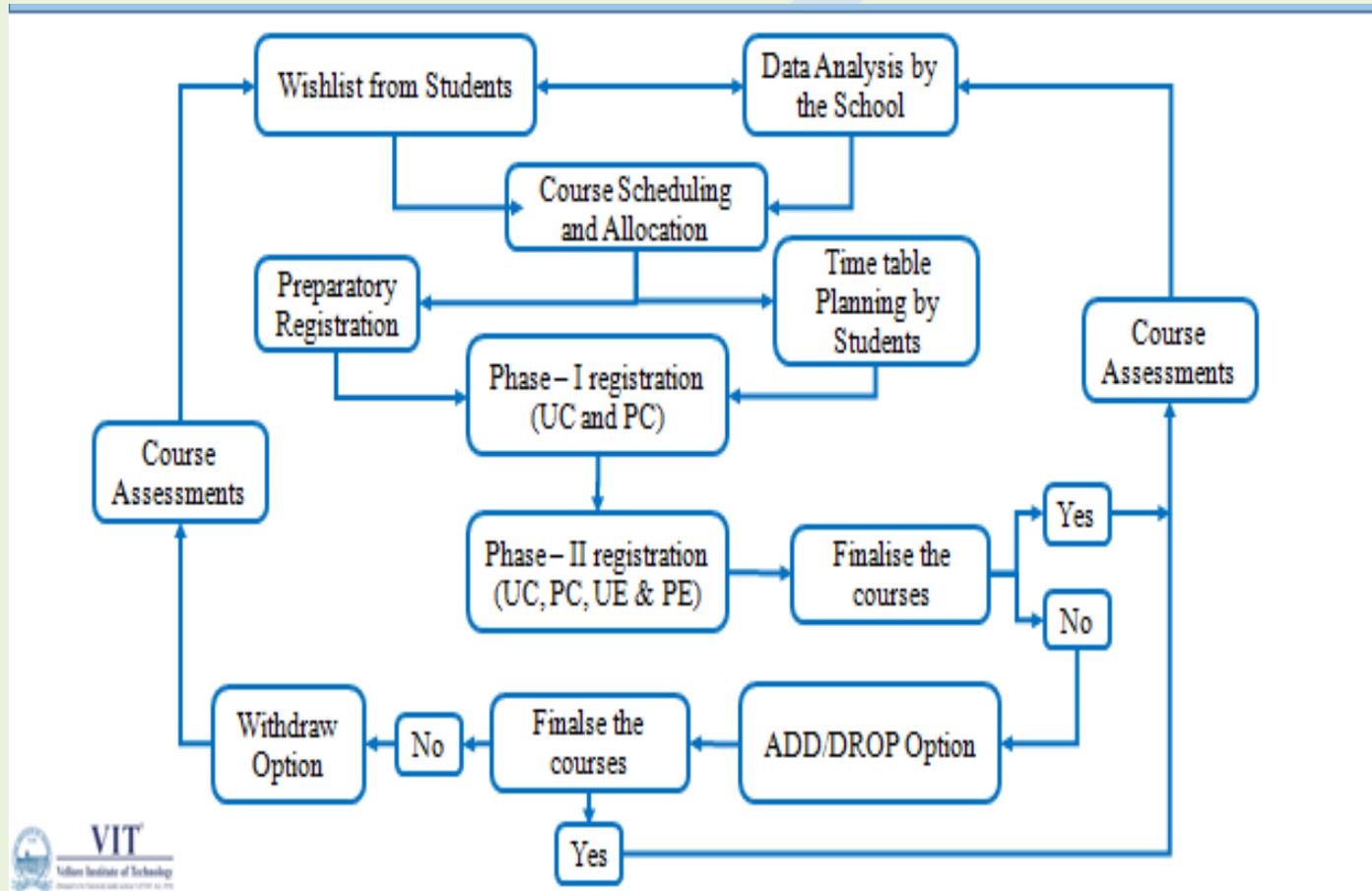
### Contact Details

Student\_email\_id@vit.ac.in

### Acknowledgments/ References

The body text / font size should be between 24 and 32 points. Calibri font

Annexure – IV  
Course Registration Process



**Annexure - V  
Distribution of marks**

	L	T	P	J	C	L	T	P	J	C	L	T	P	J	C	L	T	P	J	C	L	T	P	J	C
	✓	✓	0	0	✓	✓	0	✓	✓	✓	✓	0	✓	0	✓	✓	✓	0	✓	✓	0	0	0	✓	✓
	Theory-only Course					Project Based Course with Lab					Embedded Lab Course					PBC w/o Lab					Project only Course				
Item	Weightage (Marks)					Weightage (Marks)					Weightage (Marks)					Weightage (Marks)					Weightage (Marks)				
CAT- I	15 (50)					15(50)					15(50)					15(50)					00				
CAT - II	15(50)					15(50)					15(50)					15(50)					00				
Digital Assignments (Min.)	3X10					3X10					3X10					3X10					00				
Laboratory	00					100					100					00					00				
Project	00					100					00					100					100				
Final Asses. Test (FAT)	40					40					40					40					-				
Grade Calc. Based on Credit	2	1	0	0	3	3	0	2	4	5	2	0	2	0	3	2	2	0	4	4	0	0	0	4	1
	As it is					Ratio 3:1:1					Ratio 2:1					Ratio 3:1:1					As it is				

**Annexure -VI  
Grading System**

Letter	Grade Point	Remarks
S	10	Pass in the Course
A	9	Pass in the Course
B	8	Pass in the Course
C	7	Pass in the Course
D	6	Pass in the Course
E	5	Pass in the Course
F	Zero	Failed in the course by not securing the minimum marks required (or) Malpractice in exams/ Acts of indiscipline
N	Zero	N1 : Student fails to clear one or more components of a course N2 : Student who has been debarred due to lack of attendance N3 : Student who has been absent in the Final Assessment Test N4 : Student debarred in Final Assessment Test due to indiscipline/malpractice
W	-	Course registration Withdrawn from a credit/ Audit course
U	-	Successfully completed an Audit Course
P	-	Passed in a 'Pass-Fail' course
Y	-	Yet to complete the course component (will appear in academic history)

**Annexure – VII**

**Relative Grading - Letter Grade and its range**

Relative Grading formula	Letter Grade
Total Marks $\geq$ (Mean + 1.5 $\sigma$ ) with a minimum of 90% total marks	S
Total Marks $\geq$ (Mean + 0.5 $\sigma$ ) and Total Marks $<$ (Mean + 1.5 $\sigma$ )	A
Total Marks $\geq$ (Mean - 0.5 $\sigma$ ) and Total Marks $<$ (Mean + 0.5 $\sigma$ )	B
Total Marks $\geq$ (Mean - 1.0 $\sigma$ ) and Total Marks $<$ (Mean - 0.5 $\sigma$ )	C
Total Marks $\geq$ (Mean - 1.5 $\sigma$ ) and Total Marks $<$ (Mean - 1.0 $\sigma$ )	D
Total Marks $\geq$ (Mean - 2.0 $\sigma$ ) and Total Marks $<$ (Mean - 1.5 $\sigma$ )	E
Total Marks $<$ (Mean - 2.0 $\sigma$ )	F

**Annexure – VIII**

**Absolute Grading – Letter Grade and its range**

Letter Grade	Marks range (max. of 100)
S	$\geq$ 90
A	$\geq$ 80 but $<$ 90
B	$\geq$ 70 but $<$ 80
C	$\geq$ 60 but $<$ 70
D	$\geq$ 55 but $<$ 60
E	$\geq$ 50 but $<$ 55
F	$<$ 50



### Fully Flexible Credit System (FFCS)

Choice in the order of selection of courses for each semester.

- Choice in timings / time slots in the selection of courses.
- Choice in the selection of number of courses per semester.
- Choice of preparing his / her own Timetable and Academic Plan.
- Balanced curriculum with engineering, science, humanities and management courses.
- Project based curriculum which emphasizes learning by doing
- Ample opportunities to do inter-disciplinary courses.
- Soft on slow learners by offering important /common courses in all semesters.
- Optional Summer / Inter-session semester
- Opportunity to gain under graduate research experience.
- Value addition with double Major / Honours / Minor option.
- Branch change option in B.Tech at the end of first year for high performers.

## Curriculum for Applied Learning (CAL)

- 40% of the courses to have embedded project component.
- Focus on experiential learning.
- Courses made student-centric rather than teacher-centric.
- Students to take up real world problems and focus on multi-disciplinary and cross-disciplinary projects.
- Importance given to creativity, innovation and development of entrepreneurship skills.

