



BMS COLLEGE OF ENGINEERING, BENGALURU-19
Autonomous Institute, Affiliated to VTU

REGULATIONS FOR POST GRADUATE PROGRAMME – MCA DEGREE

Applicable from the Academic year 2016-17

1. SHORT TITLE AND COMMENCEMENT

- 1.1 The regulations listed under this head are for the MCA programme offered.
- 1.2 The regulations are subject to amendments as may be made by the Academic Council of the college from time to time, keeping the recommendations of the Board of Studies in view. Any or all such amendments will be effective from such date and to such batches of candidates including those already undergoing the programme, as may be decided by the Academic Council.

2. DEFINITIONS

- (a) “University” refers to Visvesvaraya Technological University (VTU).
- (b) “College” refers to BMS College of Engineering (BMSCE).
- (c) “Commission” refers to University Grants Commission (UGC).
- (d) “Council” refers to All India Council for Technical Education (AICTE).
- (e) “Statute” refers to VTU Autonomous College Statute, 2006.
- (f) “Academic Autonomy” refers to freedom granted by the University to the College in all aspects of conducting its academic programmes for promoting academic excellence.
- (g) “Autonomous College” refers to a college notified as an autonomous college as per the VTU Autonomous College Statute, 2006.
- (h) “Regular Students” refers to students who are admitted to MCA Programme after graduation.
- (i) “Lateral Entry” refers to students who are admitted to the third semester MCA (second year) programme after completing Degree in the respective discipline.
- (j) “Course” means a subject either theory or practical identified by its title and code number. *For example, 16MCAD1DCPS*, is offered from Academic year 2016-17 (**16**), by MCA Department (**MCA**), during semester **1**, of type Department Core (**DC**), titled “**Problem Solving**” (**PS**).

3. NOMENCLATURE OF ACADEMIC PROGRAMMES

The nomenclature and the corresponding abbreviation shown below, shall continue to be used for the degree programmes under the University, as required by the Commission and Council:

Master of Computer Applications (MCA)

4. DURATION OF THE ACADEMIC PROGRAMMES

As a flexible credit system is followed, it is to be noted that the programme duration shall be dictated by the period in which a student earns the prescribed credits for the award of degree. Hence, it is possible for an outstanding student to qualify for the award of degree in a shorter time than that of the duration specified for the concerned programme.



BMS COLLEGE OF ENGINEERING, BENGALURU-19
Autonomous Institute, Affiliated to VTU

4.1 Normal Duration

- 4.1.1 The duration of an academic programme shall be three years for MCA programme.
- 4.1.2 The duration of an academic programme shall be two years for MCA lateral entry Programme.

4.2 Maximum Duration

- 4.2.1 The maximum period which a student can take to complete a full time academic programme shall be twice the normal duration of the programme, that is six years for MCA, and four years for lateral entry MCA.
- 4.2.2 The maximum period for a programme shall also be dictated by the fact that a student has to demonstrate the prescribed minimum academic performance by registering for the prescribed minimum number of credits in every semester, for continuing with the programme. This period can be equal to or lesser than the maximum period indicated as in 4.2.1.

4.3 Admission of Students

- 4.3.1 The admission of students to MCA programme shall be made by following the State Government and/or University Policies/Practices.
- 4.3.2 The candidates with a degree or any other equivalent qualification approved by the Council and the Commission are eligible to join the degree programmes at the beginning of the second year (third semester), as per the prevailing practice in the University (Lateral Entry).
- 4.3.3 The eligibility criteria for admission of students to MCA degree programme shall be the same as those prescribed by the University from time to time.
- 4.3.4 The eligibility criteria for admission of students from a non-Autonomous College to an Autonomous College, from one Autonomous College to another Autonomous College and from University Scheme at an Autonomous College to its Autonomous scheme, shall be as fixed by the Academic Council. The eligibility criteria for admission of students from other Universities to an Autonomous College shall be fixed by the Academic Council by getting the individual cases examined through the concerned Board(s) of Studies, after which, the names of eligible candidates (qualifying for admission as per norms laid down by the University from time to time) are recommended to the University for its Approval.

4.4 Semester Scheme

The semester scheme is being adopted since it provides several benefits to technical education programmes in contrast to the annual scheme of learning.



BMS COLLEGE OF ENGINEERING, BENGALURU-19
Autonomous Institute, Affiliated to VTU

4.5 Academic Calendar

An academic year consists of two regular semesters and a fast track semester; the details of which are shown in Table 1.

Table 1: A TYPICAL SCHEDULE OF ACADEMIC YEAR

Sl No	Activity	Description	
1	Number of semesters in an academic year	Two regular semesters (Odd and Even) and a Fast Track Semester	
2	Duration of Regular Semester	19 weeks	
3	Duration of Fast Track Semester	08 weeks	
4	Academic activities (duration in weeks)	Regular Semester(s) (in weeks)	Fast Track Semester (in weeks)
	Course Registration	0.5	0.1
	Course Work	15.5	7.0
	Examination preparation	1.0	0.2
	Examination (SEE)	1.0	0.2
	Declaration of Results	1.0	0.5
5	Evaluation	Continuous Internal Evaluation (CIE) and Semester End Examination (SEE), both have equal weightage in the student's performance in Theory/Laboratory Work and other activities	
6	Other Items	The total number of working days in an academic year shall be ~ 180.	
		Academic schedules prescribed by the College shall be strictly adhered to by all the concerned	
		Students failing in any Course(s) shall register for the same again (re-register) and shall secure CIE and SEE afresh in each course(s). This shall continue until a pass grade is obtained in the said course(s).	
7	Fast Track Semester	Fast Track Semester (refer Regulation - 8) Conducted for the benefit of the students to clear their failed courses, if any.	

5 PROCTOR SYSTEM

5.1 Introduction

The faculty advisory system (Proctoring system) is to help the students to complete their studies successfully and comfortably. The objective of assigning a proctor to every student is:

- i) To advice the students in their academic requirements
- ii) To guide/Proctor the students appropriately from time to time
- iii) To provide supportive care to the students from time to time



BMS COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous Institute, Affiliated to VTU

The Proctor shall advise on:

- 5.1.1 The student updates the Proctor Dairy in all respects from time to time.
- 5.1.2 He/she meets with the students at least twice in a semester and maintain a record of the discussions and produce as and when required
- 5.1.3 The Proctees do not partake in any sort of ragging activity inside and outside of the campus/hostel and they shall not indulge in any anti-social activities and acts unbecoming of a student.
- 5.1.4 The student maintains minimum attendance (85%) in all courses & internal marks (50%) in each of the courses, laboratories, etc. as per the regulations.

6. CREDIT SYSTEM

6.1. General

- 6.1.1. The institution follows a Choice Based Credit System (CBCS). The students have an option of choosing from a wide range of electives and complete the programme at their own pace. Value added courses are also offered as a part of extended learning in inter-disciplinary and multi-disciplinary domains. Thus the CBCS facilitates continuous learning and assessment. Credit System has many advantages over the conventional system of organizing academic programmes; in particular the CBCS for the various programmes will provide a great opportunity to the students in their preparation to meet the challenging opportunities ahead.
- 6.1.2. In the Credit System, the course work of students is unitized and one credit is assigned to each unit after a student completes the teaching-learning process as prescribed for that unit (credit) and is successful in its assessment.
- 6.1.3. **Credit Definition:** One unit of course work is assigned one credit in the regular semester (odd/even) for:
 - a) Theory Course conducted for one hour per week per semester.
 - b) Tutorials and Practical classes (Laboratory Courses) conducted for Two hours per Week per Semester.
 - c) Self-Study in a Course, for four hours per week per semester.

However, in case of fast track semester, the Course load is multiplied by two. These guidelines form the basis to fix semester course load and weekly contact hours in the regular/fast track semesters.

Note: Other student activities like, industrial visits, guest lectures shall not carry any credits.



BMS COLLEGE OF ENGINEERING, BENGALURU-19
Autonomous Institute, Affiliated to VTU

6.1.4. **Course Registration:** A student shall register for the courses to earn credits for meeting the requirements of the degree programme. Such courses together with their grades and the credits earned will be included in the Grade Card issued by the College at the end of each semester and it forms the basis for determining the student's academic performance in that semester.

6.1.5. **Audit/Value Added Courses:** In addition, a student can register for courses such as value added courses for audit only with a view to supplement his/her knowledge and/or skills. But, these shall not be taken into account in determining the students' academic performance in the semester.

6.2. Credit Structure

6.2.1 Components in a course:

Each course may consist of one or more components namely, Lecture (Theory), Tutorial, Practical and Self-study.

6.2.2 A typical Credit Structure for a course in PG Programme is shown in Table 2

Table- 2

Course	Credits				
	L	T	P	S	Total
Course-1	3	0	0	0	3
Course-2	2	1	0	0	3
Course-3	3	0	1	0	4
Course-4	3	0	1	1	5
Course-5	3	0	0	1	4

7 Course Load in regular semester(s):

7.1. The regular course load is fixed at 25 credits per semester

7.2. In higher semesters (from 3rd semester onwards), a student can re-register for one additional course in a regular semester. The variation in credits depends on CGPA in the previous semesters. This flexibility enables students to cope-up with the course work and helps in improving their academic performance and optimizes the learning outcome. This provision is based on proctors advice and is subject to satisfying the following conditions:

- a) The student has secured a CGPA ≥ 7.5
- b) The student doesn't have more than two backlogs from the previous semesters.
- c) The student shall ensure that there is no overlapping in time-table for the period and obtain concurrence from the Proctor.
- d) The student shall submit a copy of documentary evidence in respect of the above while seeking approval from the concerned HOD.



BMS COLLEGE OF ENGINEERING, BENGALURU-19
Autonomous Institute, Affiliated to VTU

- 7.3. The total number of credits required to be earned by a student to qualify for the award of the degree is as shown in Table 3:

Table 3

Programme	Normal Duration		Total number of credits to be earned
	Years	Semester	
MCA	3	6	150
MCA(Lateral Entry)	2	4	100

8. Course load in Fast Track Semester:

Course Load

The Fast Track semester is provided for helping students who have failed in their examinations. The Fast Track semester is provided to help the student to avoid losing an academic year. The department / College may offer some courses based on the availability of resources in hand. It is the discretion of the department / College whether to offer the fast track semester or not. Fast Track semester is a special semester and the student cannot demand it as a matter of right. The student has to pay a special fee prescribed by the College to register for a course in the Fast Track semester. A student is permitted to register for the maximum of **12** credits. All courses are not offered. A student has to opt from those offered by the department in a given Fast Track semester. The student may re-register in one of the two modes (as applicable) and as recommended by the proctor.

8.1: Mode-I: Re-registration for Course

In this mode, the student may re-register for a course (being offered), as a regular student and earn the required eligibility (attendance and CIE) to qualify for the SEE. In this case the grade earned by the student shall be awarded.

8.2: Mode-II: Re-registration for SEE:

This mode of re-registration is recommended when the student has eligibility in CIE, but has secured an F Grade. Hence, the CIE and attendance earned by the student during the previous attempt is carried forward and he/she is permitted to take directly the Semester End Examination (SEE).

*However, in this case, **one grade lower** than the actual grade will be awarded (except for 'D' grade).*

9. Curriculum Framework

- 9.1 Contact Hours: The maximum number of contact hours for the students is to be set on an average of 30 hrs./week. This will be of help to students in getting enough time and opportunity to develop their creative talents and abilities, benefitting from Add-On courses and also those taken for audit, in addition to the ones prescribed for credit under a Programme and preparing them for challenging and exciting careers ahead.

- 9.2 Curriculum framework is important in setting the right direction for a degree programme,



BMS COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous Institute, Affiliated to VTU

as it takes into account the type and quantum of knowledge necessary to be acquired by a student to qualify for award of a particular degree in his/her chosen subject area.

- 9.3** Besides, this also helps in assigning the credits for each course, sequencing the courses semester-wise and finally arriving at the total number of courses to be studied and the total number of credits to be earned by a student to fulfil the requirements for a particular conferment.

9.4 MCA Degree Programme

Table-4 shows a typical Curriculum framework for MCA degree programme

Table 4

Sl. No.	Subject Area	Percentage distribution of credits (range)	Typical Credits
1	Professional Core	40-60	80
2	Professional Elective	20-35	30
3	Humanities and Social Sciences	02-06	04
4	Industrial Training / Internship	02-04	03
5	Seminar	02-04	03
6	Project Work	15-30	30
Total			150

10 Mandatory Courses for MCA programme

The programme may also require the inclusion of certain courses as mandatory courses. Mandatory courses will not carry any credits; but, a pass in each such course after attaining required CIE requirements during the programme shall be a necessary requirement for the student to qualify for the award of Degree.

11 ATTENDANCE REQUIREMENT

- 11.1 All Students shall maintain a minimum attendance of 85% in each course registered. In case of shortfall, the concerned Head of the Department shall consider and may condone deficiency up to a limit of 10% in special cases. The relevant documents pertaining to condonation of attendance shall be maintained by the respective departmental head and produced as and when required by the head of the institution. Any student failing to meet the above standard of attendance in any course(s) registered shall not be allowed to appear for SEE of such courses(s).
- 11.2 In the event of condonation, students whose attendance is condoned are not eligible for make-up examination in that course during the semester.
- 11.3 Attendance at CIE and SEE: Attendance at all examinations, both CIE and SEE of each course registered shall be compulsory for the students and there shall not be any provision for re-examination/consideration.
- 11.4 Any student against whom any disciplinary action by the College is pending shall not be permitted to attend any SEE in that Semester.
- 11.5 Each Semester is considered as a unit and the candidate has to put in a minimum attendance of 85% in each course with a provision of condonation of 10% attendance for reasons such as medical emergencies and legitimate grounds.



BMS COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous Institute, Affiliated to VTU

- 11.6 The basis for the calculation of the attendance shall be the period prescribed by the College by its Calendar of events. For the First Semester students, the same is reckoned from the date of admission to the course.
- 11.7 The students shall take note of his/her attendance status periodically from the respective faculty and strive to make up the shortage. However, the departments shall periodically announce the attendance status of the students. Non-receipt of such information from the college will not be considered as valid reason for exemption from the attendance requirements.
- 11.8 If a student does not fulfil the attendance requirements in any course, he/she is not permitted to attend the Semester End Examination (SEE) in that course and is deemed to have been awarded "F" grade in that course.
- 11.9 In respect of Integrated Courses 85% attendance shall be maintained in theory as well as practical component of the course. Failing to maintain the 85% attendance in any one component, the student will not be permitted to take up SEE in that course.

12 ASSESSMENT

The College has effective examination and assessment system for each activity.

12.1 Achievement Testing

12.1.1 The assessment of student's performance during and/or at the conclusion of a programme has to be carried out using examinations. In general, an examination may have different objectives, like achievement testing, prediction testing, endurance testing, testing of creativity and testing for ranking.

12.1.2 Typically achievement testing is done in two parts as follows:

- a) **Sessional:** Involving **Continuous Internal Evaluation (CIE)**, to be conducted by the subject teacher all through the semester; and, to include mid-term tests, weekly/fortnightly class tests, homework assignments, problem solving, group discussions, quiz, seminar, mini-project and other means.
- b) **Terminal:** Covering **Semester End Examination (SEE)**, to be conducted by the subject teacher jointly with an external examiner at the end of a semester, on dates to be fixed at the College level; and to include a written examination for theory courses and practical/design examination with built-in oral part for laboratory/design courses.
- c) Both CIE and SEE have equal (50:50) weightage. Student's performance in a course shall be judged by taking into account the results of CIE and SEE individually and also together.

12.2 Question Papers

12.2.1 Achievement Testing: For an effective achievement testing of the students in a course, a good question paper needs to be used as the principle tool. This makes it necessary for the question papers used at CIE and SEE to:

- Cover all sections of the course syllabus uniformly;
- Be unambiguous and free from any defects/errors;
- Emphasize knowledge testing, problem solving and quantitative methods;



BMS COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous Institute, Affiliated to VTU

- Contain adequate data / other information on the problems assigned;
- Have clear and complete instructions to the candidates

12.2.2 **Question Paper Planning:** Question Paper to cover the entire syllabus, with a provision for the students to answer questions from the full syllabus. As students need to be given some choice in the questions included in the Paper, it is preferred for the Question Papers at SEE, in particular, to have built in choice. This factor shall be taken note of by the Board of Examiners (BOE), while planning for the Question Papers.

12.2.3 Besides, it is also necessary for the course syllabi to be well drafted, be defect-free and be properly unitized (or modularized) to enable the setting of good question papers covering the whole syllabus. These aspects have to be taken into account, in particular, by the Board of Studies (BOS).

11.2.4 **Typical Question Paper:** The questions to be included in the Question Papers at CIE and SEE can be of two types as follows and the subject teachers as well as the external examiners shall have to be well trained to set them:

- (i) Multiple Choice questions, having each question to be answered by tick marking the correct answer from the choices (commonly four) given against it; such a question paper to be useful in the testing of knowledge, skills, application, analysis, evaluation and understanding of the students; however, Question Papers for CIE may include the questions of this type.
- (ii) Comprehensive questions that have to be answered in detail. Such a question paper to be useful in the testing of overall achievement and maturity of the students in a subject, through questions of higher difficulty level relating to theoretical / practical knowledge, derivations, problem solving, application and quantitative evaluation.

12.3 Examinations/Assessment

12.3.1 Continuous Internal Evaluation (CIE):

The CIE shall be conducted by the faculty/teacher handling the Course. It is the responsibility of the faculty handling a course to spell out the teaching/assessment pattern of the CIE such as test, quiz, assignment, seminar, term paper, open ended experiments, mini-projects, two minute videos, MOOCs etc. and also the necessary rubrics to students well in advance. The faculty shall maintain transparency; announce the CIE results well in time.

12.3.2 Components in a course:

Each course may consist of one or more components namely, Lecture (Theory), Tutorial, Practical and Self-study. A given course will be classified based on the combination of one or more of these components

12.3.3 Types of Courses:

There are three types of courses – Regular/normal, integrated and Comprehensive

1. **Regular/normal Course** is a course which has only one component that is theory or practical



BMS COLLEGE OF ENGINEERING, BENGALURU-19
Autonomous Institute, Affiliated to VTU

2. **Integrated Course** is a course which has both theory and practical components
3. **Comprehensive Course** is a course which has all the three components namely theory, practical and self-study.

12.3.4 Alternative Assessment:

In order to encourage innovative methods while delivering a course, the faculty members have been encouraged to use the Alternative Assessment Tool (AAT). This AAT enables faculty to employ innovative methods and design own assessment patterns during the CIE. However, the usage of AAT is completely optional. The AAT enhances the autonomy (freedom and flexibility) of individual faculty and enables them to create innovative pedagogical practices. If properly applied, the AAT converts the classroom into an effective learning space. The AAT includes seminar, assignments, term paper, open ended experiments, mini-projects, two minute videos, MOOCs etc.

The weightage of AAT may vary from 20% to 40% of the CIE as approved in the 9th ACM in order to encourage faculty for effective learning practices.

Note: It is mandated for a faculty to obtain prior permission from the concerned HOD for implementing AAT and announce the same in the respective class before the commencement of the classes.

12.3.5 ASSESSMENT PATTERNS FOR REGULAR SEMESTER WITH 20% WEIGHTAGE FOR AAT

12.3.5.1 Assessment pattern for Regular/Normal courses:

The weightages of various components of CIE for **regular/normal courses** considering weightages of **20% to Quiz/AAT** i.e. 10 out of 50 marks are shown in the table below:

Table 5: Assessment pattern for Regular/Normal courses

Component	Theory		Total Marks
Type of Assessment	Internals I, II, III (Best Two of Three considered)	Quizzes / AAT	
Max. CIE Marks	40	10	50

12.3.5.2 Assessment pattern for Integrated Courses:

The weightages of various components of CIE for integrated courses considering weightage of 20% to Quiz/AAT ie. 10 out of 50 marks are shown in the table below:

Table 6: Assessment pattern for Integrated Courses

Component	Theory (50%)		Practical (50%)			Total Marks
Type of Assessment	Internals I, II, III (Best Two of Three considered)	One Quiz / AAT	Lab Test -I	Lab Test -II	Vice-Voce/ AAT	
Max. CIE Marks	20	05	10	10	05	50



BMS COLLEGE OF ENGINEERING, BENGALURU-19
Autonomous Institute, Affiliated to VTU

12.3.5.3 Assessment pattern for Comprehensive Courses:

The weightages of various components of CIE for comprehensive courses considering weightage of 20% to Quiz/AAT that is 10 out of 50 marks are shown in the table below:

Table 7 : Assessment pattern for comprehensive Courses

Component	Theory (50%)		Practical (30%)		Self -Study (20%)	TOTAL MARKS
	Internals I, II, III (Best Two of Three considered)	One Quiz	Lab Performance/ Record	Lab Test	AAT	
Type of Assessment						
Max. CIE Marks	20	05	10	05	10	50

12.3.6 ASSESSMENT PATTERNS WITH 40% WEIGHTAGE FOR AAT

CIE assessment pattern using AAT with more than 20% weightage, but limited to 40%. A faculty, who wishes to design AAT with more than 20% weightage, shall create a new pattern for assessment indicating weightages for all the three components. The assessment pattern shown above (11.3.5.1, 11.3.5.2 and 11.3.5.3) need not be used. It is mandated that a faculty shall submit a detailed assessment pattern and obtain prior approval (preferably one week before the commencement of classes), from the concerned Departmental Academic Committee (DAC).

12.3.7 The CIE for certain courses in MCA can also contain assessment through Reviews/Assignments/Project submission that will be predefined by the course coordinator.

Note: Students must secure a minimum of 50% in CIE and should have 85% attendance.
In case of integrated and comprehensive courses, a student must secure a minimum of 50% marks and 85% attendance in each of the components (both theory and practical). In addition, the overall CIE marks including theory, practical and self-study components shall not be less than 50%.

12.4 Semester End Examination (SEE): The SEE shall be conducted (paper setting and evaluation) jointly by the internal faculty and an external examiner appointed for this purpose by the College.

12.4.1 SEE Answer Scripts: The answer scripts of SEE are evaluated first by the course teacher; before declaring the results, a second evaluation or an external review of SEE is conducted. A committee of the College may oversee and ensure the quality and standard of evaluation and of the grades awarded in all the cases.

12.4.2 External Review of SEE: An external review shall be conducted under the aegis of the Board of Examiners (BOE) of the College by appointing a panel of subject experts from



BMS COLLEGE OF ENGINEERING, BENGALURU-19
Autonomous Institute, Affiliated to VTU

outside the College for this purpose and aiming at totality in review of SEE operation and covering such steps as, question paper review, checking random samples of answer scripts, analysis of results/grades awarded, etc. This step is necessary for confidence of the University and also of the society at large, on fairness and transparency in the system.

12.5 Passing Standards: High standards are maintained in all aspects of the examination. The absolute grading method is followed. The minimum standard of passing in respect of CIE and SEE for each course is shown in Table 8.

Table 8: Passing Standards using Absolute Grading

Evaluation Method	Passing Standard
Sessional (CIE)	Score: $\geq 50\%$
Terminal (SEE)	Score: $\geq 40\%$

The score of CIE along with SEE should be $\geq 50\%$ to pass in a particular course.

12.6 Project work Evaluation:

12.6.1 Every student shall have a Project Guide assigned to continuously monitor the progress of the Project Work.

12.6.2 The evaluation of **CIE** of the project work shall be based on the progress of the student in the work assigned by the project guide, periodically evaluated by him/her together with a Project Evaluation Committee (PEC) constituted for this purpose.

12.6.3 Project Evaluation Committee (PEC): PEC comprises two faculty of the department (common to all students of the program) and one faculty/supervisor/Project guide.

12.6.4 A seminar presentation, submission of project report and final oral examination conducted by PEC at the Programme level shall form the **SEE** of the project work.

12.6.5 All project reports shall go through the plagiarism check and the plagiarism index has to be $\leq 25\%$.

12.7 There shall be **NO RE-EXAMINATION** for any Course (Theory/Practical), in the credit system for such students who have:

- a) Absented themselves from attending CIE or SEE; without valid reasons; or,
- b) Failed (Grade F, as covered in section 13) to meet the minimum passing Standards prescribed for CIE; or,
- c) Been detained for want of attendance;

12.8 ASSESSMENT PATTERNS FOR FAST TRACK SEMESTER

12.8.1 The number of credits permitted to register in a Fast track semester shall be limited to a **maximum of 12 credits**.



BMS COLLEGE OF ENGINEERING, BENGALURU-19
Autonomous Institute, Affiliated to VTU

12.8.2 The Fast Track Semester shall be conducted with a maximum of 24 contact hours/semester with mentoring from the concerned faculty member for formative assessment. As the students who register for the course(s) in Fast Track semester have gone through the same course(s) in regular semester, refreshing the concepts coupled with home assignments will be sufficient to facilitate their learning.

For courses with Self-Study Component, the **marks obtained for self-study component in the regular semester shall be carried forward during the Fast track semester** (i.e., the marks obtained under self-study component remain same); Refer 8.1.

12.8.3 Assessment Pattern:

12.8.3.1 Regular/Normal Course:

Two tests for assessment of CIE in **regular/normal courses**.

Table 9: Assessment pattern for Regular/Normal courses

COMPONENT	THEORY		TOTAL
Type of Assessment	Test	Quiz or AAT	MARKS
Max. CIE Marks	40	10	50

12.8.3.2 Integrated Course:

Two tests for theory component and the **Lab component as carried out in a regular semester**.

Table 10: Assessment pattern for Integrated Courses

COMPONENT	THEORY		PRACTICAL			TOTAL
Type of Assessment	Test	Quiz/AAT	Lab Test - I	Lab Test - II	Viva-voce /AAT	MARKS
Max. CIE Marks	20	05	10	10	05	50

12.8.3.3 Comprehensive Course:

The assessment of **comprehensive course** is similar to that of Integrated Course in respect of Theory and Practical components. The **marks obtained for self-study component in the regular semester shall be carried forward during the Fast track semester** (i.e., the marks obtained under self-study component remain same)

Table 11 : Assessment pattern for comprehensive Courses

Component	Theory (50%)		Practical (30%)		Self-Study (20%)	Total Marks
Type of Assessment	Test	Quiz	Lab Performance/ Record	Lab Test	AAT	
Max. CIE Marks	20	05	10	05	10	50

13. GRADING

13.1 General

13.1.1 Absolute Grading: The College has adopted the absolute grading system.



BMS COLLEGE OF ENGINEERING, BENGALURU-19
Autonomous Institute, Affiliated to VTU

13.1.2 As in recent years, the grading system has replaced the evaluation of student's performance in a Course based on absolute marks. This is to ensure uniformity in the grading practice at different autonomous colleges to facilitate the migration of students or transfer among Autonomous Colleges under the University.

13.1.3 Letter Grades: A letter grade is basically a qualitative measure (an alphabet/letter) giving the performance of a student, such as, Outstanding (S), Excellent (A), Very Good (B), Good (C), Satisfactory (D) and Fail(F), based on the raw score (marks, as in conventional practice) obtained by the student. The marks awarded in CIE and SEE, are converted into Grades.

13.2 Grade Points

13.2.1 Depending on the letter grades assigned, a student earns certain grade points. As the grading system can have different grade points, like 5, 8 and 10, more number of points in the scale, will be necessary to provide a better understanding in the performance assessment.

The College follows the 10-point grading system, as given in the Table – 12:

Table – 12: Grade Points Scale (Absolute Grading)

Level	Out-standing	Excellent	Very Good	Good	Satisfactory	Fail
Grade	S	A	B	C	D	F
Grade Points	10	09	08	07	05	00
Score(Marks) Range (%)	90 to 100	80 to 89	70 to 79	56 to 69	50 to 55	< 50

13.2.2 The grade points given in Table – 12 help in the evaluation of credit points earned by the student in a Course as the credit points are equal to the number of credits assigned to the course multiplied by the grade points awarded to the student in that Course. This shall be used in arriving at the credit points earned by the student for all the Courses registered in that semester.

13.2.3 Earning of Credit: A student shall be considered to have completed a course successfully and earned the credits if he/she secures an acceptable letter grade in the range S to D. Letter grade 'F' in any Course implies failure of the student in that Course and no credits earned.

13.2.4 Transitional Grades: The transitional grades, such as, 'I' and 'X' shall be awarded to a student in the following cases. These transitional grades shall be converted into any one of the letter grades (S to F) after the student completes his/her Course requirements, including examination.

13.2.4.1 **Grade 'I':** Awarded to a student having satisfactory attendance at classes and meeting the passing standard at CIE in a course, but remained absent from SEE for valid and convincing reasons acceptable to the College, like:

- (i) Accident or severe illness leading to hospitalization, which disables the student from attending Semester End Examination (SEE);



BMS COLLEGE OF ENGINEERING, BENGALURU-19
Autonomous Institute, Affiliated to VTU

- (ii) A calamity in the family at the time of SEE, which required the student to be away from the college;
- (iii) In the event of (i) and (ii) above, it is the responsibility of the student/parent/guardian to inform the college authorities (Mentor/HOD) immediately (before commencement of exam). The information may be in the form of either written communication, personal communication by parent/ guardian /peer or an e-mail or mobile message. Intimation is mandatory. Any intimation after the conduct of examination will not be entertained.
- (iv) The candidate needs to submit all the relevant evidences (hospital reports/police reports/certificates from competent authorities, etc.,) within two days of SEE of the said course.
- (v) The candidate will be permitted to take up the make-up examination however, there shall be no reduction in grade.

13.2.4.2 Grade X: Awarded to a student having attendance $\geq 85\%$ and CIE rating ($\geq 60\%$) in course, but SEE performance observed to be poor, which could result in an overall 'F'. Grade 'X' is awarded in this case but student's performance record is maintained separately. The Student will be provided an opportunity in the make-up examination; however, the grade awarded will be one grade lower than the actual grade except for the lowest passing grade: 'D'.

13.2.5 Make-up Examination: The Make-up Examination facility shall be available to students who may have absented themselves from SEE of one or more Courses in a semester for valid reasons and given the 'I' grade; Students having the 'X' grade shall also be eligible to take advantage of this facility. The standard of the Make-up Examination shall be the same as that of regular SEE for the Courses. The Make-up Examination shall be held as per dates notified in the Academic Calendar. However, it will be possible for the Autonomous institution to modify the Academic Calendar with the permission of the Academic Council. In the event of condonation, students whose attendance is condoned are not eligible for make-up examination in that course during the semester.

13.2.6 In the event a student fails in a Laboratory course and / or in CIE of a course in final year, the student shall be given '**I**' grade. In such a case, the concerned Chairperson of BOE may grant the student extra time not exceeding 12 weeks for completing the course with due concurrence of the faculty and Head of the Department. If such extra is sought / granted, the concerned student shall have to re-register for the course(s) in the succeeding regular semester and fulfil the academic requirements for the award of the degree.

13.2.7 All the transitional grades ('I' and 'X') awarded to a student shall have to be converted to an appropriate letter grade after the make-up examination. Any outstanding 'I' and 'X' grades two days after the last scheduled Make-up Examinations shall be automatically converted to 'F' grade.

13.2.8 Gracing Policy:



BMS COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous Institute, Affiliated to VTU

Gracing policy is as under:

A candidate shall be eligible to a maximum of **4** grace marks in a course: theory/integrated/laboratory provided, he/she has CIE 50% (eligible to take up the SEE) and SEE 40% (Minimum passing percentage) in a course and SGPA/CGPA ≥ 5 up to the said semester and has failed only in one course in the semester, if the candidate after gracing gets minimum prescribed marks in the said course and passes the same.

Grace Marks shall be awarded for declaration of classes also. For obtaining a higher class a candidate is eligible for getting a maximum of **4** grace marks, which will be added to the total aggregate marks of the candidate and then the class will be declared.

A candidate is entitled for a total of **4** grace marks only once during the program.

13.3 Grade Point Averages

13.3.1 **SGPA and CGPA:** The credit index can be used further for calculating the Semester Grade Point Average (SGPA) and the Cumulative Grade Point Average (CGPA). Both of which are important performance indices of the student. While SGPA is equal to the credit index for a semester divided by the total number of credits registered by the student in that semester, CGPA gives the sum total of credit indices of all the previous semesters divided by the total number of credits registered in all these semesters. Credit index for a course is the product of course credits and grade points obtained.

The SGPA and CGPA will be computed as shown below:

Semester Grade Point Average (SGPA)

$$SGPA = \frac{\sum[(\text{Course Credits})(\text{Grade Points})]}{\sum[(\text{Course Credits})]}$$

considering all courses registered in that semester (including those with F Grade)

Cumulative Grade Point Average (CGPA)

$$CGPA = \frac{\sum[(\text{Course Credits})(\text{Grade Points})]}{\sum[(\text{Course Credits})]}$$

for all courses registered until that semester (excluding those with F Grade)

Both SGPA and CGPA facilitate the declaration of academic performance of a student, at the end of a semester and at the end of successive semesters respectively. Both SGPA and CGPA shall be normally calculated up to the second decimal position, so that the CGPA, in particular, can be made use of in ranking the students in a class. If two students get the same



BMS COLLEGE OF ENGINEERING, BENGALURU-19
Autonomous Institute, Affiliated to VTU

CGPA, the tie should be resolved by considering the number of times a student has obtained higher SGPA; but, if it is not resolved even at this stage, the number of times a student has obtained higher grades like S, A, B etc., shall be taken into account in ranking the students in a class.

13.3.2 An illustrative example given in Table-13 below indicates the use of the above two equations in calculating SGPA and CGPA:

Table-13: Typical example - Calculation of SGPA/CGPA

Semester	Course No.	Credits L:T:P:S	Grade	Grade Points	Credit Points	SGPA	CGPA
I	16MCA1DCPS	3:1:1:0	B	8	40	6.52 (163/25)	8.15 (163/20)
I	16MCA1DCOS	3:1:1:0	A	9	45		
I	16MCA1DCW1	3:1:1:0	F	0	0		
I	16MCA1DCCO	4:0:0:0	S	10	40		
I	16MCA1DCM1	3:1:0:0	C	7	28		
I	16MCA1DCPC	1:1:0:0	D	5	10		
Total		25			163		
II	16MCA2DCOP	3:1:1:0	C	7	35	6.48 (162/25)	7.92 (325/41)
II	16MCA2DCDS	3:1:1:0	B	8	40		
II	16MCA2DCDB	3:1:1:0	A	9	45		
II	16MCA2DCSE	3:1:0:0	F	0	0		
II	16MCA2DCM2	4:0:0:0	B	8	32		
II	16MCA2DCIE	1:1:0:0	D	5	10		
Total		25			162		
Fast Track	16MCA2DCSE	3:1:0:0	B	8	32	7.44	7.84
	16MCA1DCW1	3:1:1:0	C	7	35	(67/9)	(392/50)
Total		9			67		

13.3.3 Grade Card: Each student shall be issued a Grade Card at the end of each semester. This will have a list of all courses registered by a student in the semester along with the credits. Only courses registered for credit shall be included in the computation of student's performance that is SGPA and CGPA.

However, the Courses taken for audit will not form part of this computation. The results of mandatory courses and audit courses, which are of the non-credit type, shall also be reflected in the Grade Card as 'PP' (for Passed) / 'NP' (for Not Passed) and 'AU' (Audit) respectively. It may be noted that each PG Student shall have to obtain grade 'PP' in each mandatory course to qualify for award of the Degree by the University.

13.3.4 Vertical progression: Minimum standards for SGPA and CGPA together with the minimum number of credits are laid down for the vertical progression of student. This facilitates the mobility of students from one College to another and also avoids confusion among the students. The vertical progression of students is applied between two academic years only.

The following are the prescribed standards for vertical progression:

- Minimum standard for CGPA=5.5 (at the end of each academic year)
- Maximum Number of 'F' Grades that can be carried at the end of any academic year is

Four only



BMS COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous Institute, Affiliated to VTU

In addition, a student is eligible to register for the III year (V semester), only if he/she has cleared all courses of the I/II semester.

13.3.5 **Award of Class:** The class will be awarded after student earns a total of 150 credits. The Table-14 shows the conversion of CGPA into percentage of marks and the award of class thereon.

Table-14: Award of Class

Range of Grade point Average (SGPA or CGPA)	Percentage Of marks	Class
≥ 5.75 and < 6.75	≥ 50 and < 60	Second Class
≥ 6.75 and < 7.75	≥ 60 and < 70	First Class
≥ 7.75	≥ 70	First Class with Distinction

Please Note: The percentage of marks for a given SGPA / CGPA, can be computed using the formula: %MARKS SCORED = [CGPA-0.75] \times 10

14 Other Academic Matters

Time Schedules

14.1 Academic Schedules: An Academic Calendar is published before the commencement of every academic year to assist the students and faculty. The calendar includes, dates for registration of courses, dropping of courses and withdrawal from courses. This enables the students to be well prepared, minimize their chances of failure in CIE and/ or SEE and take full advantage of the flexibility provided by the credit system.

14.2 Registration of Courses: Each student shall have to register for course work at the beginning of a semester. The student has to compulsorily register for all the stipulated credits in every semester. A period of 2-3 days is assigned for this event to facilitate the students to seek faculty advice and discuss with the proctor/faculty prior to registering for courses.

14.3 Termination from the Programme

A student shall be required to withdraw from the programme and leave the college on the following grounds:

- 14.3.1 Failure (getting 'F' Grade) and not passing a course to earn credits for the same, in spite of **five attempts**.
- 14.3.2 Failure to secure a CGPA ≥ 5.5 on **three** consecutive occasions to lead the student being asked to discontinue the programme and leave the college (However, failure to secure a CGPA ≥ 5.5 at the end of any semester, to attract warning before approval of the student to continue in the following semester).
- 14.3.3 **Successive Failures:** A student who has not been able to obtain eligibility for third semester even after three academic years will be terminated from the programme. However, such a student can re-join the MCA Programme in the College as a fresh student to the First Year, as governed by Section 4.3.



BMS COLLEGE OF ENGINEERING, BENGALURU-19
Autonomous Institute, Affiliated to VTU

14.3.4 Absence from classes for more than **one regular semester** at a time without leave of absence being granted by competent authorities.

14.3.5 Failure to meet the standards **of discipline** as prescribed by the college from time to time.

14.4 Student's Feedback

14.4.1 The college obtains feedback from students on their course work and various academic activities conducted. The feedback is obtained on-line from the students at regular intervals maintaining confidentiality.

14.4.2 The feedback received from the student is reviewed / discussed by a committee constituted for the purpose and necessary corrective measures are taken.

14.5 Graduation Ceremony

14.5.1 The college conducts annual Graduation Day ceremony for the award of Degrees to students completing the prescribed academic requirements. The Graduation Day is conducted after the University Convocation.

14.5.2 The College awards Ranks and Medals to the meritorious students during the Graduation Day Ceremony to encourage the students to strive for excellence.

15 Interpretation

Any question as to the interpretation of these rules and regulations shall be decided by the College, whose decision shall be final and binding on the student in the matter. The college shall also have the power to issue clarifications to remove any doubt, difficulty or anomaly, which may arise in regard to the implementation of these regulations.

::NOTE::

These rules and regulations may be altered/changed from time to time by the academic council. Failure to read and understand is not an excuse.



BMS COLLEGE OF ENGINEERING, BENGALURU-19
Autonomous Institute, Affiliated to VTU

CALENDAR OF EVENTS FOR THE ACADEMIC YEAR 2016-17

SEM	SNo	EVENT	DATES (S)
ODD	1	Inauguration of First Year Classes	05.10.2016
	2	Induction program for fresher's	05.10.2016
		Course registration and Commencement of for First Semester	06.10.2016
	4	CIE: Quiz#1/ AAT	Before Test#1
	5	CIE: Test#1	3 rd week of October 2016
	6	CIE: Quiz#2/ AAT	Before Test#2
	7	CIE : Lab Test#1	2 nd week of November 2016
	8	CIE: Test#2	3 rd week of November 2016
	9	CIE : Lab Test#2	2 nd week of December 2016
	10	CIE: Test#3	3 rd week of December 2016
	11	Last working day	21.12.2016
	12	SEE (Semester End Examination)	26.12.2016 to 06.01.2017
	13	Make up examination	11.01.2017 to 17.01.2017
	14	Vacation for students	07.01.2016 to 17.01.2017
EVEN	15	Course registration and Commencement of Even Semester	18.01.2017
	16	CIE: Quiz #1/AAT	Before Test#1
	17	CIE: Test#1	3 rd week of February 2017
	18	CIE: Quiz#2/AAT	Before Test#2
	19	CIE: Test#2	3 rd week of March 2017
	20	CIE : Quiz#2/AAT	1 st week of April 2017
	21	CIE: Test#3	3 rd week of April 2017
	22	CIE : Lab Test/ Vive-Voce/Mini-Project	4 th week of April 2017
	23	Last working day	04.05.2017
	24	SEE (Semester End Examination)	15.05.2017 to 29.05.2017
	25	Registration for Fast Track Semester	10.06.2017
	26	Make up examination	12.06.2017 to 17.06.2017
	Vacation for students	30.05.2017 to 31.07.2017	
COMMENCEMENT OF FAST TRACK SEMESTER			10.06.2017