

ACADEMIC REGULATIONS FOR MASTER OF COMPUTER APPLICATIONS (2-YEAR PROGRAMME) UNDER FACULTY OF TECHNOLOGY AND ENGINEERING

SHORT TITLE, APPLICATION AND COMMENCEMENT:

- a) These regulations shall be called as **Academic Regulations for Master of Computer Applications (2-Year Programme)** under Faculty of Technology and Engineering.
- b) They shall apply to all students admitted in Two year Master of Computer Applications programme under Nirma University.
- c) They shall come into force from the date of their publication in the notification with the approval of Board of Governors, Nirma University.

DEFINITIONS: IN THESE REGULATIONS, UNLESS THE CONTEXT OTHERWISE REQUIRES

PROGRAMME	-- Master of Computer Applications (2-Year Programme)
COURSE	-- One of the constituent subjects of the Programme
SEMESTER	-- Duration for studying a course
TERM	-- A portion of an academic year, normally coinciding with a semester. The words “Term” and “Semester” are generally used synonymously.
REGISTRATION	-- Procedure for getting enrolment in a Course
LETTER GRADE	-- A letter associated with a particular performance level of the student. A qualitative meaning and a numerical index are attached to each grade. A+ to C+ are Passing grades, C - Conditional pass, FF - Fail, IF - Interim fail.
CREDIT	-- A numerical figure associated with a course. On passing the course, the student earns this “credit”
GRANTING A TERM	-- This expression is used to indicate whether the in-semester performance of the student is up to acceptable standards. GT - Term granted, NT - Term not granted

REGULAR APPROVAL -- If a student is unable to attend the institute or appear in an examination on account of unavoidable reasons like illness, accident or unforeseen circumstances, prior / prompt intimation and request to HOD is necessary for seeking approval for the absence. The approval of HOD so obtained will be referred as Regular Approval.

SHORT FORMS

Institute	--	Institute of Technology
Director	--	Director of Institute of Technology
Dean	--	Dean of the Faculty of Technology and Engineering
HOD	--	Head of concerned Department
Appeal Committee	--	Appeal Committee consisting of Director, Dean and Three Professors nominated by Director
IR	--	Initial Registration
RPR	--	Repeat Registration
RL	--	Repeat Registration for LPW
RS	--	Repeat Registration for studying all components of a course
NT	--	Term Not Granted
RER	--	Re - examination Registration
REC	--	Re-examination Registration for CE component of a course
RES	--	Re-Examination Registration for SEE component of a course
CE	--	Continuous Evaluation
LPW	--	Laboratory/Project work
SEE	--	Semester end examination
SPE	--	Supplementary examination
R. MCA (PG)	--	Regulation of Master of Computer Applications

R.MCA. (PG) 1. PROGRAMMES

The Post Graduate Degree Programme in Computer Application, leading to the degree of Master of Computer Applications, is offered by Institute of Technology. The programme is full time, of two years duration and is approved by Nirma University.

R.MCA. (PG) 2. ELIGIBILITY FOR ADMISSION

- 2.1** The students seeking admission in the 1st year of MCA (2-Year Programme) leading to Master Degree of Computer Applications shall have passed the qualifying examination with minimum % of marks, as prescribed by the Govt. of Gujarat/ AICTE from time to time.
- 2.2 Merit for the admission:** The method of determining the merit for the admission will be decided by the Director General, Nirma University from time to time depending upon the requirement.

R.MCA. (PG) 3. CATEGORIES OF COURSES:

The following categories of courses are offered in the programmes.

3.1 CREDIT COURSES

These are Core and Elective courses. They are included in the schedules of various semesters. Credits earned for these courses will be considered for evaluating the academic performance levels of the student.

3.2 SUPPLEMENTARY COURSES

These courses will be offered as and when necessary. They are compulsory courses. They are not included in the schedules of the semesters but are shown as additional courses, wherever applicable.

No credits are assigned to these courses. However performance in these courses will be considered while deciding continuation of the student in the Programme or his registration in higher semester.

The Dean of the Faculty of Technology and Engineering is empowered to decide these courses, their curriculum, teaching & examination schemes, passing standards and such other matters as may be necessary for efficient conduct of courses.

3.3 SUMMER INTERNSHIP

In certain Programmes, the teaching scheme will include, if necessary, summer vacation training in industry / professional / research organizations.

Note: Hereafter, the Credit Courses will be referred to simply as “courses”. Supplementary courses will be specifically mentioned as such.

R.MCA. (PG) 4. COMPONENTS OF A COURSE

The academic schedule of the courses may consist of one or more of the following components with their respective scope as described.

- **LECTURES (LECT)** - Teaching learning processes conducted in real and virtual class rooms with various multi media aids.

- CONTINUOUS EVALUATION (CE) - Supplementary to classroom teaching. It consists of one or more of the following teaching strategies:

Each strategy will form a UNIT

Tutorial/ Exercises/ Quizzes/ Tests/ Objective questions/ Term paper

- LABORATORY WORK / PROJECT WORK (LPW) -This component consists of one or more of the following practical exercises/ projects.

Each set of practical exercises / project will form a UNIT.

Laboratory experiments and their reports, fabrication / workshop jobs, study of machine/equipment, tests on materials/components/prototypes etc.

Seminar, software development, industrial / professional training, analysis, design, research problems, Thesis work etc.

R.MCA. (PG) 5. EXAMINATIONS

For assessment of the course, Examination/s are prescribed for each component. These examinations are as follows.

LECTURES	--	Semester End Examination (SEE)
CONTINUOUS EVALUATION	--	CE examination may include written examination/s and Assignment evaluations.
LABORATORY/PROJECT WORK	--	LPW examination

R.MCA. (PG) 6. COURSE COORDINATOR, ADVISOR

The Dean will appoint faculty members for the following designations. The main functions of each designation are also mentioned.

COURSE COORDINATOR (to be appointed for each course) – to coordinate all matters related to the conduct and assessment of a course.

FACULTY ADVISOR (to be appointed for each semester) – to look after all matters, at the department level, regarding Registrations and Re-registrations of courses and also to provide guidance and counseling to students regarding these issues.

R.MCA. (PG) 7. TEACHING SCHEME

The teaching scheme for the course as a whole will be referred simply as Teaching Scheme.

The teaching scheme of the Units of CE and LPW will be referred as Supplementary Teaching Scheme.

The courses offered in each programme (semester- wise) and their teaching schemes are given in the Semester schedules. The schemes show the various courses, distribution of teaching hours, course component/s, examinations, component weights and credits allotted to each course.

The Supplementary Teaching Schemes of various Units of CE and LPW together with their *inter se* weights, (within the overall weights of CE and LPW), shall be formulated by the course coordinator in consultation with HOD. These schemes will require approval of the Faculty of Technology and Engineering before being notified to the students in the beginning of each semester.

R.MCA. (PG) 8. SEMESTER AND TERM

Normally courses will be offered semester-wise as given in the teaching scheme. However the institute may offer certain course/s of a semester in both terms of an academic year in order to help students to pursue their study more expeditiously.

R.MCA. (PG) 9. REGISTRATION IN COURSES-

9.1 Registration:

There are two categories of registration, Initial Registration (IR) and Repeat Registration (RPR). All categories of registration will collectively be referred to simply as Registration. Individual categories will be referred by their abbreviation. All Registration, wherever applicable, will be subject to the availability of courses. Registration will be done for each course.

9.2 Categories of Registration:

- a) **Initial Registration (IR)** - In order to study a course for the first time, the student will register under the IR category. This will imply regular attendance for study of all components of that course and appearing at all examinations thereof. IR registrations for courses of a Term are to be done for all courses of that Term as shown in the Teaching Scheme; IR registration will not be permitted for lesser number of courses. The student who so registers (IR) for all courses of a Term will be considered as having been registered in that Term.

b) Repeat Registration (RPR) for course and examination:

i) Repeat Registration (RS)

The student whose Term is not granted for any registered course [as per **R.MCA.(PG)-12**] will have to repeat the study of that course. Student will have to seek registration for this purpose. The category of such registration will be as follows:

Term not granted Category	Registration Category
NT	RS
RS - This category will imply regular attendance to study all components (i.e. Lecture, CE, LPW as applicable) and appearing at all examinations thereof.	

ii) Repeat Registration for Examination (RER):

This registration is necessary for appearing again in a particular examination of a course. It will not involve regular attendance for studying the course.

Repeat Registration for Examination will be in the following categories:

- Repeat Registration for the Examinations of Continuous Evaluation component of a course (REC)
- Repeat Registration for the Examination of Laboratory/Practical Work (RL)
- Repeat Registration for Semester End Examination of a course (RES)

c) Approval of Registration: Every student must apply in the prescribed form for registrations, as applicable. The decision on the student's request will be based on the availability of courses and applicable Regulations. The concerned Dean will issue appropriate orders for processing the application, including scrutiny, verification and final orders.

d) Simultaneous Registration and Repeat Registration in different categories:

1. Students registration in a Term will be in chronological order.
2. Student must first register for all RPR registrations, as applicable in his/her case. A student will not be permitted to register (IR) in the next higher Term if the total number of RPR as applicable in his case exceeds more than three courses or examinations.
3. The student who is not eligible to register in a higher term in any term must register in that term, for all RER and RPR registrations applicable in his case.

R.MCA. (PG) 10. GRADES

PERFORMANCE LEVELS

The Performance Level of the student in any examination will be adjudged in terms of the letter grades given in Table 1:

Table 1

Grade (G)	Qualitative Meaning (GQ)	Equivalent Grade Point (g)
A+	Excellent	10
A	Creditable	9
B+	Very Good	8
B	Good	7
C+	Satisfactory	6
C	Conditional Pass	5
FF	Fail	0
IF	Interim Fail	0

R.MCA. (PG) 11. SCOPE OF EXAMINATIONS AND ASSESSMENT

In order to pass a course, the students will have to pass all examinations of that course. The scope of the examinations and the method of assessment will be as follows:

- 11.1** In all assessment, the overall percentage marks, if fractional, will be rounded off to the next higher integer value.

11.2 CE EXAMINATION (IR and RPR registration)

All exercises in CE will be continuously assessed during the semester and given marks. Oral examination will be included in the assessment at all possible stages. The total marks of all Units of CE will be aggregated based on their *inter se* weights to give the overall percentage of marks in the CE examination.

If the student fails in CE examination, the student will not be permitted to appear in SEE of that course and the student will have to seek fresh registration. as REC in subsequent semester, if the student is otherwise eligible.

11.3 LPW Examination (IR and RL/RS)

All assignments in Laboratory work and Project Work will be continuously / periodically assessed (as applicable) during the semester. In addition there will be an overall assessment at the end of the semester. Oral examination will be included in the assessment at all possible stages. Each assessment will be given marks.

The total marks of all Units of LPW/PW will be aggregated based on their *inter se* weights to give the overall percentage of marks in the LPW/PW examination. The course coordinator will notify the procedure for assessment, review, viva voce etc to the students in advance.

If the student fails in LPW examination, the student will not be permitted to appear in SEE of that course and the student will have to seek fresh registration. as RL in subsequent semester, if the student fulfills the condition of granting the term (R-12).

**11.4 SEMESTER END EXAMINATION (SEE)
(IR and RPR)**

The expression “Semester end examination” refers to the written examination of a course taken at the end of a semester. This will cover the full syllabus.

The assessment will be mark based as per normal practice in written examinations.

SEEs of all courses of the programme, as per the teaching scheme, will be held at the end of both terms.

- 11.5** If the course coordinator desires that there should be an open book examination in a course in any SEE, he may make a suitable recommendation to the HOD. Final approval of the Dean will be necessary before the scheme is implemented. This method of examination must be announced to the students at the beginning of the semester. The same must be informed to the examiners also. The Dean should report all such decisions to the Faculty of Technology and Engineering.

11.6 Absence in any examination with or without Regular Approval will be assigned Zero (0) mark.

11.7 SUPPLEMENTARY EXAMINATION (SPE)
(RER Registration, Grade IF in SEE)

The institute may decide to hold a Supplementary Examination after SEE for students who have obtained grade IF in SEE. Such students will have to seek RER registration.

11.8 SCHEDULES OF SEE AND SPE

SEEs of all courses of the programme, as per the Teaching Scheme, will be held at the end of each Term. The Supplementary Examinations (SPE) will be held after the SEEs of the respective Term as decided by the concerned Institute.

R.MCA. (PG) 12. GRANTING OF TERM

12.1 The Term will be granted course-wise

12.2 The granting of Term for all the students (IR, RPR) will depend on the compliance of maintaining minimum 85% attendance in all components of the course (as applicable) Regular approval for remaining absent up to 15% is necessary.

Note: In the case of long duration training or project work, where final examination is not possible before the Term ends, a certificate by the course coordinator that the student's progress is satisfactory will be acceptable.

12.3 The student who has been given category NT may appeal to the Appeal Committee giving full reasons for his default. The decision of the Committee in all such cases will be final.

12.4 The student who is given NT category will not be permitted to appear in SEE of the concerned course. He will also be given grade FF in that course.

R.MCA. (PG) 13. GRADES IN EXAMINATIONS

13.1 CE and LPW EXAMINATIONS

Grades for the CE and LPW examinations will be given on the basis of the percentage marks obtained by the student in the respective examinations.

Table 2(a) shall be referred for converting percentage marks into corresponding Grades (G) for all examinations except CE and Table 2 (b) for CE.

<u>Table 2(a)</u>		<u>Table 2(b)</u>	
<u>All exams except CE</u>		<u>for CE</u>	
<u>% marks</u>	<u>Grade</u>	<u>% marks</u>	<u>Grade</u>
90 and above	A+	90 and above	A+
80- 89	A	80- 89	A
70-79	B+	70-79	B+
60-69	B	60-69	B
50-59	C+	50-59	C+
Less than 50	IF	45-49	C
		Less than 45	IF

13.2 GRADE IN SEE

In the normal course, a student (IR, RPR) and category GT will appear for SEE after his CE and LPW examination, in the same semester. Grade for the performance in SEE will be given on the basis of the percentage marks obtained by the student. Table 2(a) shall be referred to for converting percentage marks into corresponding grades (G) except that for categories - (i) and (ii) given below, grade IF will be given:

<u>Performance</u>	<u>Grade</u>
(i) Fail	IF
(ii) Absence	IF

Notwithstanding anything contained in terms of giving 'IF' grade as shown in (ii) in the table above, the Director of Institute will scrutinize the genuineness about remaining absence in Semester End Examination through Appeal Committee and if the Director, after said scrutiny, decides to show 'Ab' instead 'IF' in (ii) of above table then in the grade sheet, instead of 'IF', 'Ab(S)' shall be mentioned in such cases only.

13.3.1 GRADE IN SPE

The student of category (i) or (ii) of R.13.2 (with grade IF) will be eligible to appear in the SPE (with RER Registration) of that course at the end of that term. The criteria for giving grade in SPE will be the same as given in R.13.2.

- 13.3.2** The student who obtains grade IF in SPE will be allowed to appear in three consecutively available subsequent End Examinations of the concerned course. The criteria for giving grades in these three attempts will be the same as given in R. 13.2. However, grade IF in the final attempt will be converted into grade FF.

13.4 COURSE GRADE

Course grade will be given only when the student passes all component examinations. For graced passing, Grade C in CE will be allowed.

Marks of SEE/SPE, CE and LPW examinations (as applicable) shall first be aggregated on the basis of the component / *inter se* weights given in the Teaching Scheme. After the aggregate marks of the entire group are so calculated, the performance of each student in the course as a whole will be assigned a grade based on his aggregate percentage viewed in relation to the overall performance of the group.

In giving relative grades, the number and designation of various grades (G) shall be kept the same as shown in Table 2(a). The course coordinator will decide the cut off percentages of relative grading subject to the guidelines prescribed by the Academic Council.

The Transcript will show only the Course Grade and not the Component Grades.

- 13.5** The provisions of R. 13.3 are subject to the maximum permissible duration to pass courses of first two semesters and the entire Programme given in R.17.

R.MCA. (PG) 14. INTERPRETATION OF GRADES

- (a) Grade C+ is the minimum for passing. A student getting grade C in CE can improve his performance (at his option) by repeating CE in subsequent semester. Better of the grades obtained in the two examinations will be considered.
- (b) Grade FF –
 - (i) If this grade is given because of NT (R.12), the student will have to seek RS registration for repeat study of the course.
 - (ii) If the grade FF is given due to failure in the final admissible attempt in SEE, the student will have to seek RS registration for repeat study.

- (c) Grade IF - This is an interim fail grade given in CE, LPW and SEE/SPE as under:

<u>Performance</u>	<u>Grade</u>
Fail in CE	IF(C)
Fail in LPW	IF(L)
Fail in SEE/SPE	IF(S)
Fail in Overall Course	IF(O)

Note: If a student getting IF(O) in a course, then he/she can improve his/her performance by repeating CE (all components of CE) of the course in the subsequent semester depending upon his/her choice. In such case, he/she will also reappear in SEE.

R.MCA. (PG) 15. PASSING STANDARDS

15.1 PASSING A COMPONENT

The standards of passing a component / course / Programme are given below.
 (Min C+ means grade C+ or a better grade)

CE	-- Min C+ (in case of grade C, refer regulation for Gracing) R.MCA(PG)15.2
LPW	-- Min C+
SEE/SPE	-- Min C+
COURSE	-- Min C+

15.2 GRACING -- A student not satisfying condition given in R 15.1 for passing a given course will be deemed to have been Graced for passing the course if the student fulfils the following two conditions:

- Grade C in CE
- Min C+ in SEE/SPE, CE and LPW (as applicable) and Min C+ in a course.

A student will be allowed a total of three Gracing in the entire programmes respectively.

No special mention about Gracing will be made in the Transcript. No Gracing will be allowed in Major Project (Thesis).

15.3 PROGRAMME - Total credits of all credit courses of the Programme with CPI min 6.0

- 15.4** FAILURE - Student not satisfying these criteria of Passing / Gracing / will be considered as having Failed in the Examination / Component / Course / Programme.
- 15.5** The student who has once passed an examination will not be allowed to appear at it again.
- 15.6** Grades/marks obtained by a student in an examination passed by the student will be carried forward as necessary.

R.MCA. (PG) 16. PERFORMANCE LEVELS

16.1 INDICES

The performance level of the student in credit courses at different stages of his study is given by the following indices. All index values will be rounded off to the second place of decimal:

- PIC -- Performance index for the course
- SPI -- Semester Performance index
- PPI -- Progressive Performance Index
- CPI -- Cumulative Performance index
- PIC = Equivalent grade point (g) corresponding to the course grade (R. 10 and 13.4)
- SPI -- (Computed at the end of each Semester)
- $$SPI = (i_1 c_1 + i_2 c_2 + i_3 c_3 + \dots) / (\text{sum of credits of all courses registered in respective Semester})$$
- where:
- i_1, i_2, i_3, \dots are PIC values of CREDIT COURSES passed and
- c_1, c_2, c_3, \dots are the credit values of the respective courses
- PPI -- (Up to any stage under consideration)
- $$PPI = (i_1 c_1 + i_2 c_2 + i_3 c_3 + \dots) / (\text{sum of credits of all courses registered up to that stage})$$
- where:
- i_1, i_2, i_3, \dots are PIC values of CREDIT COURSES passed and
- c_1, c_2, c_3, \dots are the credit values of the respective courses
- CPI -- This index refers to the entire programme. It is calculated when the student passes the programme. The method of calculation is the same as for PPI or SPI but the summation is for the courses of all semesters of the programme.

16.2 CLASS AND PERCENTAGE (%) MARKS

In case equivalence between CPI values and Class / % marks is desired, the same can be obtained as given below:

$$\% \text{ marks} = (\text{CPI} - 0.5) * 10$$

<u>CPI Value</u>	<u>Equivalent class</u>
6.00 to 6.49	Second
6.50 to 7.49	First
7.5 and above	First – with distinction

R.MCA. (PG) 17. CANCELLATION OF ADMISSION

17.1 The admission in the Programme of the following categories of students is liable to be cancelled:

- (i) Failure to pass all courses of Semester-I of the Programme within two years of admission to the Programme.
- (ii) Failure to pass all courses of Semester-II of the Programme within two and a half years of admission to the Programme.
- (iii) Failure to earn requisite number of credits to pass the entire programme within three years of admission to the programme.

The student, whose admission is so cancelled, can appeal to the Appeal Committee. The Committee may grant an extension only upto one additional semester for one of the categories falling under 17.1 (i), (ii) or (iii) for clearing the courses in deserving cases, provided the student gives a viable assurance to make up the shortfall within that period.

Notwithstanding anything contained above, the President may consider the cases of such students falling under category (i), (ii) & (iii), if the student has cleared all the courses and have earned the requisite number of credits except one course, on an appeal filed. The President will consider such appeal on the recommendation of the appeal committee prescribed under the regulations for the purpose and after considering the genuineness of the case may give one additional attempt to the student concerned to clear the remaining course.

- 17.2** The student who satisfies R. 17.1(i) and (ii) but who is unable to satisfy R.17.1(iii) only because of delay in completing the Thesis work may apply giving full reasons, to the HoD for an extension to submit his Thesis. The HoD may recommend to the Appeal Committee to grant an extension of up to one year in addition to the limit specified R. 17.1(iii). The decision of the Appeal Committee in the case will be final.
- 17.3** If a student avails of the benefit of R. 17.2, and he passes the Programme, his Grade for passing the Programme will be pegged at C+ and CPI at 6.0

R.MCA. (PG) 18. EXAMINERS

All continuous assessments will be carried out by the faculty concerned. All other assessments/ examinations will be carried out by a panel of at least two examiners. The extent of associating external experts with the examinations, selection and appointment of all examiners will be decided by the Dean in consultation with a committee appointed for this purpose.

DISCLAIMER

These regulations are the content of the original notifications issued in pursuance to the approval of the competent authorities and hence, in any dispute or doubt under this document will be verified with the original notification and the same would be final.