

**D.C.R. UNIVERSITY OF SCIENCE & TECHNOLOGY, MURTHAL, SONEPAT- 131  
039 (HARYANA)**

**ORDINANCE FOR CREDIT BASED SYSTEM**

*For*

**MASTER OF TECHNOLOGY**

**(wef from the academic session 2008-09)**

**(Including amendment suggested by 2<sup>nd</sup> meeting of the Academic Council)**

**1 Preliminaries**

- 1.1 This ordinance shall apply to PG programme (Master of Technology) in the University Teaching Departments.

**PG Programme**

| <b>Courses</b>       | <b>Normal duration</b>     | <b>Extended duration</b> |
|----------------------|----------------------------|--------------------------|
| M. Tech. (full time) | Two Years (04 semesters)   | Four Years               |
| M. Tech. (part time) | Three Years (06 semesters) | Six Years                |

An academic year shall consist of two semesters (**odd & even**) of approximately **20 weeks** duration inclusive of the period of examination and semester break. The eligibility criteria for admission to each programme, fee structure, academic calendar, scheme of studies and examinations, examination schedule, sports calendar and cultural activity calendar etc. for the academic year shall be published in the prospectus.

**2. ORDINANCE: MASTER OF TECHNOLOGY**

Notwithstanding anything contained in any other ordinance with regard to the matter hereunder, the courses of study for the Degrees of Master of Technology and the conditions for admission thereto shall be as under:

- 2.1 A Person holding, B E /B Tech. or any other equivalent degree in relevant discipline, as defined clearly in the prospectus, from any recognized Indian/foreign University with at least 55% marks in aggregate or equivalent grade, shall be eligible for admission.
- 2.2 Seats will first be filled by GATE qualified candidates and any remaining vacant seats will be offered to NON-GATE candidates on the basis of admission criterion adopted by the university time to time. However, it will be mentioned in the prospectus.
- 2.3 Part-time Candidates: A whole-time regular employee (teaching and technical staff) of DCRUST, Murthal shall be admitted as a part-time candidate against sponsored category seats, if he /she is eligible and falls in the merit list prepared for this category. Such sponsored part-time candidates of DCRUST, Murthal will be required to pay total tuition fee of the programme spread over 3 years. However, these part-time candidates will be required to pay University fee in full every year similar to a regular candidate. The

- classes of part time candidates shall be held along with the regular candidates. Such part-time candidate shall be allowed to take not less than 2 and not more than 3 theory courses in a semester.
- 2.4 Relaxation up to 5% in the qualifying examination marks shall be provided to SC / ST candidates as per Haryana Govt. rules.
  - 2.5 The Master of Technology Degree courses shall extend over a **minimum period of two & three academic years for regular and part time students, respectively**. Teaching in each academic year shall be divided into two semesters, each semester extending to 20 weeks including practical, semester examination and semester break. Teaching for odd semesters will normally be from August to December and for even semesters from January to May.
  - 2.6 At the end of the each semester, there shall be an examination wherein candidates shall be examined in the courses studied by them in that semester. Each semester examination shall be designated as First Semester Examination, Second Semester Examination, and Third Semester Examination and so on.
  - 2.7 The Examination for all semester will normally be held in **December/January** and also in **May/ June** on such dates as may be fixed by the Controller of Examination as per the Schedule provided by the University. The date(s) of commencement of examination as well as the last date(s) for the receipt of examination forms and fees shall also be notified by the controller of Examinations to the concerned University Teaching Departments.
  - 2.8 The courses of the study and the subjects of examinations shall be as approved by the **Academic Council from time to time**. The medium of instructions and Examination shall ordinarily be **English** except otherwise decided by the Academic Council. The question paper will be set in English, except otherwise decided by the board of studies concerned and approved by the Academic Council. Every candidate shall be examined in the subjects as laid down in the syllabus approved by the Academic Council from time to time. The credits for each subject as also the contact hours per week will be mentioned in the scheme of studies approved by the Academic Council.

### **Evaluation Process:**

#### **a. Major Test (Theory Examination):**

Written question papers for the semester examination shall be set by an **External/Internal paper setter** appointed by the Vice-Chancellor from a panel of examiners submitted by the chairman of the department duly approved by the BOS of the concerned department and the answer sheets shall generally be evaluated by the **internal examiners** but can be evaluated from **outside experts** with the permission of the Vice-Chancellor. At the most 50% question papers can be set by the external examiners. In case a question paper is not received in time from an external examiners or he refuses to set the question paper, the paper can be got set from an internal examiner. The evaluation of answer

sheets will be done by the examiners as per the procedure laid down by the University for the purpose. In case any internal faculty or staff member is enrolled as regular/part time, all such theory papers have to be got set and evaluated from external examiner.

**b. Practical Examination:**

Examination in practical and viva-voce shall be conducted jointly by the external and Internal Examiners appointed by the Vice-Chancellor from a panel of examiners submitted by the chairman of the department duly approved by the BOS of the concerned. If an External Examiner is not able to join, alternate examiner (including those of the same University dept) may be appointed by the Chairperson of the concerned dept. with the intimation to the Controller of Examinations in the following preferential order:

- i) From outside
- ii) from DCRUST Murthal

**c. Sessionals (Internal Assessment):**

Sessional (internal assessment)works shall be evaluated by the teachers of the various subjects based on the work done during semester on the basis of the following weightage:

| S. no. | Components of Sessional                         | Weightage |
|--------|---|-----------|
|        | <b>Theory Courses</b>                           |           |
| 1.     | Surprise Quiz/ Tutorial Test (at least 2+2 )    | 20 %      |
| 2.     | Assignment / Project / Performance in the Class | 20 %      |
| 3.     | Minor Tests (Two tests having equal weightage)  | 60 %      |
|        | <b>Lab courses</b>                              |           |
| 1.     | Objective Tests/Multiple Choice Questions       | 20 %      |
| 2.     | Lab. Work / Project/Lab Record                  | 60 %      |
| 3.     | Viva Voce                                       | 20 %      |
|        | <b>Seminar/ Project</b>                         |           |
| 1.     | Presentation                                    | 40 %      |
| 2.     | Discussion                                      | 20%       |
| 3.     | Report  | 40 %      |
|        | <b>Dissertation (Phase –I)</b>                  |           |
| 1.     | 1 <sup>st</sup> Presentation & Discussion       | 30 %      |
| 2.     | 2 <sup>nd</sup> Presentation & Discussion       | 40 %      |
| 3.     | Report  | 30 %      |
|        | <b>Dissertation</b>                             |           |
| 1.     | 1 <sup>st</sup> Presentation & Discussion       | 30 %      |
| 2.     | Pre-submission Presentation & Discussion        | 40 %      |
| 3.     | Report  | 30 %      |

Wherever the evaluation is through presentation, it will be done by a Committee constituted by the Chairman of the concerned Department under his/her chairmanship.

**Every student has to appear in both the minor tests. If a student does not take a minor test, he/she shall be awarded zero marks in that test.** The marks obtained in sessional/practical/theory/seminar/dissertation are to be submitted to the Examination Branch duly signed by the Chairperson of the department before the close of semester examination or a date fixed by the COE. The examination branch/course coordinator shall convert the marks in to equivalent grades as per the grading procedure.

## 2.9 DISSERTATIONS:

- (a) A candidate shall prepare his / her dissertation under the supervision of one or at the most two supervisors. Wherever there are two supervisors, one must be from the concern department and the other may be Intra-departmental, Inter-departmental, External Institution or Industry). However, the reasons for recommendation of other supervisor will be recorded in the Dissertation Allotment proceedings. Supervisors' prior written consent must be submitted by the candidate to concerned Department.
- (b) The dissertation shall contain a critical account of a candidate's research. It should be characterized by discovery of facts or fresh approach towards interpretation of facts & theories or significant contribution to knowledge of design or development, or a combination of them. It should demonstrate candidate's capacity for analysis and judgment as also his ability to carry out independent investigation in design or development. A dissertation may be supplemented by published work, if any. No part of the dissertation or supplementary published work should have been submitted elsewhere for the award of any other degree.
- (c) The dissertation shall present an orderly and critical exposition of existing knowledge of the subject or shall embody results of original investigation & demonstrate the capacity of the candidate to do independent research work. While writing the dissertation, the candidate shall lay out clearly the work done by him / her independently and the sources from which he / she has obtained other information.
- (d) A candidate shall submit his/her Dissertation at the end of 4<sup>th</sup> semester (6<sup>th</sup> semester for part-time candidate) provided that he/she has qualified in all courses included in the Scheme of Exams. The result of dissertation shall be declared only after the candidate has passed all the courses. In case a candidate's dissertation is rejected he/she must complete it within the stipulated period of **four years**. However, he/she has to register each semester depositing **Continuation fee** as decided by the University.

- (e) Every student will be required to submit 3 bound copies of his / her dissertation to the office of concerned Dept. Out of these, one copy will be kept for departmental record and one copy shall be for the supervisor. A copy of it will be sent to the external examiner by mail by the concerned department, after his / her appointment and intimation from the University.
- (f) Dissertation will be evaluated by a committee of examiners consisting of Chairman of concerned Dept., dissertation supervisor(s) and one external examiner. There is no requirement of a separate evaluation report on the Dissertation from the external examiner.

Two external examiners shall be approved in an order of preference by the Vice-Chancellor from a panel of examiners approved by the BOS and sent to Controller of Examinations. The first examiner shall be called by the Department to conduct the Dissertation Exam. & in case of his/her refusal, the second examiner shall be called. In case both the external examiners so appointed by the University do not turn up, the Vice-Chancellor, on recommendation of concerned Chairman of Department shall appoint, in an order of preference, another set of two external examiners.

- (g) The student will defend his / her dissertation work through presentation before the examiners and the committee will award marks in percentage. A student scoring  $\neq$  grade in the Dissertation examination shall have to resubmit his/her Dissertation after making all corrections / improvements and this dissertation shall be evaluated as above.
- (h) The Dissertation Examination shall be held at least twice a year. If a candidate is not available for Dissertation Examination due to some unforeseen reasons, he / she shall be allowed for the same in the next scheduled exam. The examination shall be open to a candidate who:

2.10 The examination shall be open to a candidate:

- has attended regularly the prescribed courses of studies for the relevant semester examination in the department recognized by the University for the degree of Master of Technology.
- has his/her name submitted to the Controller of Examinations by the Chairperson of the department.
- has a good moral character (certificate be issued by the chairperson of the department concern if required ).
- has attended **not less than 75% of the total classes held in each theory/lab/seminar/ dissertation etc.** This requirement shall be fulfilled separately

for each subject of study. A deficiency up to **10% may be condoned by the Chairman** of the department. A further condonation of **5% in attendance** may be allowed in severe/ Compassionate circumstances by the Vice-Chancellor. **However it may not be treated as a matter of right by the students.** (In case a student fails to fulfill the necessary requirement of the attendance in any subject(s) in any semester, he/ she shall not be promoted to next semester and will have to repeat that academic semester in the next academic session along with regular students.)

- 2.11 The examinations for reappear in any subject(s) in the **odd semester** and that of in the **even semester** shall be held in the respective semesters along with the regular students. In addition to above, examination for reappear in the subjects in odd semesters will also be held during the even semesters examinations and vice-versa.

The amount of Exam/Reappear/ Re-evaluation/ Improvement fee to be paid by the candidates shall be as prescribed by the University from time to time. A candidate who has paid dues for the higher class and is dropped for want of fulfillment of any of the above conditions shall not be required to pay his dues again on re-admission after fulfillment of above conditions.

Re-evaluation is permitted only for major tests (Theory course) as per University rules for re-evaluation.

A candidate who is unable to pass the Master of Technology Course within a maximum of **four consecutive academic years** from the date of his admission shall **lose the right to pursue the degree programme. In exceptional cases, mercy chance can be given by the Vice-Chancellor to a candidate if he/she applies.**

- 2.12 The minimum passing marks/grade for passing any semester Examination shall be:

- i. 40% in each major test (theory paper).
- ii. 40% in each Practical Examination/Viva-Voice Examination.
- iii. 40% marks in each Sessional (internal assessment) and end semester theory examination for each theory and practical subject provided that a candidate, who fails to obtain the requisite marks in aggregate of sessionals and end semester theory examination, shall be required to re-appear in the concerned subject in the subsequent theory/ practical examinations. Such candidates will not be required to repeat the sessional works. Grade will be awarded after adding the marks of sessional and major test/ practical examination.
- iv. SGPA of 4.0
- v. Where a course is evaluated on the basis of sessional (internal assessment) marks only i.e. there is no end-semester examination, the candidate will be required to secure at least 40% marks to pass the course.

A candidate who fails to obtain the requisite marks/grade in any course shall **be required to appear** in the concerned course in the subsequent examination(s) as per the clause 2.11.

- 2.13 The result of a student at the end of each semester Examination and after completion of course shall be declared on the basis of the **SGPA & CGPA (cumulative grade point average)** obtained by the student..
- 2.14 At the end of each semester examination, the COE shall publish the result, provided that in a case where candidate who was permitted to take examination for higher semester but has not cleared the lower semester examination his result for the higher semester examination will be declared provisionally. Each successful candidate shall be issued a copy of the result card on having passed the semester examination.
- 2.15 Notwithstanding the integrated nature of the course wherever it is spread over more than one academic year, the Ordinance in force at the time a student joins the course shall hold good only for the examination held during or at the end of the semester and nothing in this Ordinance shall be deemed to debar the University from amending the Ordinance and the amended Ordinance, if any, shall apply to all students whether old or new.

### 3. **SCHOLARSHIP:**

Scholarship may be awarded to students as per the terms and conditions stipulated by the funding agencies. However, it should be mentioned in the prospectus.

### 4. **THE CREDIT SYSTEM:**

Each Academic Program has a certain number of **credits** which describe its weightage. A student's performance is measured by the number of credits that he/she has completed satisfactorily. A minimum grade point average is required to be maintained for satisfactory progress.

Each subject (component) has a certain number of credits which reflect its weightage and is normally decided on the basis of effective contacts hours. It is mentioned in the scheme of studies and examinations.

- 4.1 The semester examination for the odd semesters shall ordinarily be held in the month of **December/January** and for the even semesters in the month of **May/June**, on such dates as may be fixed by University authority. The concerned teacher/ course coordinator should ensure that 100% syllabus is covered in each subject before the Semester Examination.
- 4.2 A faculty member shall be appointed as a **course-coordinator** by the **Chairperson** of the department who shall have the full responsibility for conducting the minor tests, evaluation work and awarding of grades.
- 4.3 The marks/grade awarded to a student in any particular subject will be based on the performance of the student evaluated throughout the semester. **The syllabus of the minor tests will be what is covered in that particular term.** The Semester Examination will be based on the entire syllabus.

- 4.4 The marks/grades will be displayed on the notice board of the department by the Chairperson before forwarding it to the Examination Branch.
- 4.5 The Chairperson of the department shall forward the awards/grades to the Examination Branch within a week after the semester ends and examination process starts. The evaluated answer sheets of minor tests are to be kept by the course coordinator for at least one year. The Examination Branch will keep the evaluated answer sheets of the semester examination for **at least one year**.

## 5 GRADING SYSTEMS:

For the award of grades in a subject, all component-wise evaluation shall be done in marks. The marks would be converted to grades as per the guidelines given below:

### 5.1 Award of Grades Based on Absolute Marks

The University will follow system of grading for all (irrespective of no. of students) based on absolute marks (**after applying moderation if any**) as given below:

| <u>Range of Marks (%)</u> | <u>Grade</u> |
|---------------------------|--------------|
| 90 to 100                 | A+           |
| 80 to 89                  | A            |
| 70 to 79                  | B+           |
| 62 to 69                  | B            |
| 55 to 61                  | C+           |
| 46 to 54                  | C            |
| 40 to 45                  | D            |
| Less than 40              | F            |

#### Note:

- (i) The awards/grades shall be submitted by the teacher concerned through course coordinator to the Chairperson of the department. **The awards/grades should be finalized within 7 days** of the semester examination.
- (ii) In case of any difficulty/issue related to **courses/conduct/moderation of awards/grades/recon-duct of paper**, the matter will be referred to a **departmental monitoring** committee comprising of **Chairperson, senior most teachers by rotation, course coordinator and faculty nominee of the Dean of Faculty**. The committee will be headed by the chairperson. The committee, on receipt of complaint from student or teacher, shall meet at the earliest and will give its decision within one week. The decision of the committee shall be final.
- (iii) While calculating percentage of marks to award grades, 0.5 or higher fraction may be raised to the next higher whole number.

### 5.2 Grade points:



The grading point of academic performance will be as under:-

| <b>Academic Performance</b> | <b>Grades</b> | <b>Grade Points</b> |
|-----------------------------|---------------|---------------------|
| Outstanding                 | A+            | 10                  |
| Excellent                   | A             | 9                   |
| Very Good                   | B+            | 8                   |
| Good                        | B             | 7                   |
| Average                     | C+            | 6                   |
| Below Average               | C             | 5                   |
| Marginal                    | D             | 4                   |
| Very Poor                   | F             | 0                   |
| Absent                      | G             | -                   |
| Audit Pass                  | AP            | -                   |
| Audit Fail                  | AF            | -                   |
| Incomplete Dissertation     | X             | -                   |

**Note:**

1. Pass Grade is Grade D and higher grades
2. Grade F is Fail grade.

**‘F’ Grade**

**The F grade denotes poor performance, i.e. failing a subject (or subject component). A student has to reappear in the semester examination only, in which he/she obtains ‘F’ grades, until a passing grade is obtained, within the stipulated time of completion of that programme.**

**‘G’ Grade**

If any student, who is otherwise eligible for appearing in the semester examination as per the ordinance, but he/she is unable to appear in the semester examination then he /she will be awarded ‘G’ grade. The candidate will be allowed to take up the examination next time along with regular students and he /she will be awarded the grade as per grade system explained above.

**AP/AF Grade**

These grades are awarded to qualifying/Non-Credit subject(s) (as per scheme supplied by concerned departments). The candidate **will not be eligible for award of degree** without qualifying these courses.

**Continuous Absence**

If a student is continuously absent from the Department for **more than four weeks** without intimation to the Chairperson of Department, his/her name will be struck off

from the roll of department. The re-admission shall not be allowed to the candidate during the same academic session.

### **‘X’ Grade**

This grade is awarded for incomplete Dissertation work as per guidelines given below and will be converted to a regular grade on the completion of the Dissertation work and its evaluation.

A student who is unable to complete his/her Dissertation may be awarded an  $\bar{X}$  grade by the Chairman/Chairperson/chairperson on the recommendation of his/her supervisor.

A student who has been awarded  $\bar{X}$  grade shall be required to formally register for the next semester and pay the requisite fee.

$\bar{X}$  grade will be awarded in exceptional circumstances beyond student’s/supervisor’s control. Normally, the following grounds may be considered for the award of  $\bar{X}$  grade:

- (a) Technical reasons/grounds such as Supervisor/equipment not being available.
- (b) Any other reason to the satisfaction of supervisor.

### **5.3 Evaluation of Performance**

The performance of a student will be evaluated in terms of Cumulative Grade Point Average (CGPA) which is the Grade Point Average for all the completed semesters at any point of time.

The CGPA is calculated on the basis of all pass grades, except audit courses, obtained in all completed semesters.

- **Regarding evaluation of performance.**

The formula for calculating SGPA is as mentioned below:

$$SGPA = \frac{\sum_{SEM} (\text{Total credits earned in a subject} \times \text{Grade points out of total marks in a concerned subject}) \text{ except audit courses}}{\sum_{SEM} (\text{Total credits earned in a subject}) \text{ except audit courses}}$$

#### **Illustration for calculating SGPA/CGPA:**

##### **1<sup>st</sup> Semester**

| Course No. | Course Credits | Grade Awarded | Earned Credits | Grade Points | Point Secured |
|------------|----------------|---------------|----------------|--------------|---------------|
| (1)        | (2)            | (3)           | (4)            | (5)          | (6)           |

|        |     |    |     |    |    |
|--------|-----|----|-----|----|----|
| MALXXX | 5   | C+ | 5   | 6  | 30 |
| CSLXXX | 4   | C  | 4   | 5  | 20 |
| PHLXXX | 4   | A+ | 4   | 10 | 40 |
| PHPXXX | 1.5 | B+ | 1.5 | 8  | 12 |
| MELXXX | 4   | F  | 0   | 0  | 00 |
| AMLXXX | 4   | B  | 4   | 7  | 28 |

Credits registered in the semester (total of column 2) = 22.5

Earned Credits in the semester = 18.5

Total of column 4 (total of column 2 excluding F grade)

Point secured in this semester in passed courses = 130

$$\text{SGPA} = \frac{\text{Points secured in passed courses}}{\text{Credits earned}} = \frac{130}{18.5} = 7.027$$

## 2<sup>nd</sup> Semester

| Course No.<br>(1) | Course Credits<br>(2) | Grade Awarded<br>(3) | Earned Credits<br>(4) | Grade Points<br>(5) | Point Secured<br>(6) |
|-------------------|-----------------------|----------------------|-----------------------|---------------------|----------------------|
| MALXXX            | 5                     | D                    | 5                     | 4                   | 20                   |
| EELXXX            | 5                     | F                    | 0                     | 0                   | 00                   |
| CYLXXX            | 4                     | B                    | 4                     | 7                   | 28                   |
| CYPXXX            | 1.5                   | C+                   | 1.5                   | 6                   | 09                   |
| MELXXX            | 4                     | A                    | 4                     | 9                   | 36                   |
| HULXXX            | 2                     | AP                   | 2                     | N.A.                | 00                   |

Credits registered in the semester (total of column 2) = 21.5

Earned Credits in the semester = 14.5

Total of column 4 (total of column 2 excluding F&AP grades)

Cumulative Earned Credits (earned credits in previous semesters and current semester)  
= 18.5+14.5=33.0

Points Secured in this semester in passed courses = 93

Cumulative points secured (total of point secured in previous semesters and current semester)  
= 130 + 93 = 223

$$\text{CGPA} = \frac{\text{Cumulative points secured in all passed courses}}{\text{Cumulative earned credits, excluding audit courses}} = \frac{130 + 93}{18.5 + 14.5} = 6.757$$

Each successful candidate shall be issued a copy of the result card on having passed the semester examination.

- Regarding Conversion of CGPA into Marks

The CGPA if multiplied by 9.5 will give the equivalent marks in %age.

Candidates who pass all the prescribed subjects for all the semesters, but obtained:-

- |       |                                |   |
|-------|--------------------------------|---|
| (i)   | Less than CGPA of 5.26         | Pass class  |
| (ii)  | $5.26 \leq \text{CGPA} < 6.32$ | 2 <sup>nd</sup> Division  |
| (iii) | $6.32 \leq \text{CGPA} < 7.9$  | 1 <sup>st</sup> Division  |
| (iv)  | CGPA of 7.9 or more            | 1 <sup>st</sup> Division with Honours provided that they have passed all the semester examinations in single sitting within the normal period of course and without reappear in any paper throughout the programme. |

will be awarded aforesaid division.