

MAHARSHI DAYANAND UNIVERSITY ROHTAK

Copy of extract of Reso. No. 22 of Executive Council's meeting held on 03.08.2015.

22. Introduction of Choice Based Credit System in various courses

Considered:

- i) The recommendations of the Committee constituted by the Vice-Chancellor that the Choice Based Credit System be introduced in M.A., M.Sc. , M.Com., LL.M., M.B.A., M.Tech, M.Ed., M.P.Ed and MCA courses etc. (except five years integrated Hons. courses) from the session 2015-16 being run in the University Teaching Departments and the affiliated colleges and its guidelines be prescribed accordingly as per **Annexure A/22 pages 110A-118, already circulated** for preparation of the Syllabi for various P.G. Courses by the concerned Boards of Studies; and
- ii) The following recommendations of the Academic Council made vide Reso. No.15 of its meeting held on 17.07.2015:

RESOLVED THAT THE RECOMMENDATIONS OF THE COMMITTEE IN RESPECT OF DEPARTMENT OF CHEMISTRY AND THE DEPARTMENTS COMPRISING THE FACULTY OF LIFE SCIENCES FROM THE SESSION 2015-16 BE APPROVED.

RESOLVED FURTHER THAT ALL THE REMAINING DEPARTMENTS SHOULD MAKE THE NECESSARY PREPARATIONS FOR INTRODUCTION OF CHOICE BASED CREDIT SYSTEM FROM 2016-17.

RESOLVED FURTHER THAT THE CONTROLLER OF EXAMINATIONS WILL BE MEMBER INSTEAD OF MEMBER SECRETARY OF THE UNIVERSITY CBCS BOARD AND THE ASSISTANT/DEPUTY REGISTRAR (ACADEMIC) WILL BE THE SECRETARY OF THE BOARD.

RESOLVED THAT THE RECOMMENDATIONS OF THE ACADEMIC COUNCIL AS ABOVE BE APPROVED.

Copy of the above alongwith guidelines for Choice Based Credit System is forwarded to the following for information and further necessary action.

1. All the Deans of the Faculties, M.D.University, Rohtak.
2. All the Heads of the University Teaching Departments, M.D.University, Rohtak.
3. The Director, UILMS, Gurgaon, M.D.University, Rohtak.
4. The Controller of Examinations, M.D.University, Rohtak.
5. The Deputy Registrar (R & S), M.D.University, Rohtak.
6. The Assistant Registrar (Secrecy), M.D.University, Rohtak.
7. Assistant Registrar (R-I/II/III/IV), M.D. University, Rohtak.
8. The Director, University Computer Centre, M.D. University, Rohtak for uploading on the university website.

Sd/x/x/x/x

Superintendent (Academic)

For Registrar

CHOICE BASED CREDIT SYSTEM

The UGC has desired to introduce uniform grading system in order to facilitate student mobility across institutions within and across countries and to enable potential employers to assess the performance of students. To bring in the desired uniformity, in grading system and method for computing the cumulative grade point average (CGPA) based on the performance of students in the examinations, Maharshi Dayanand University Rohtak has decided to introduce the Choice Based Credit System (CBCS) formulating the following guidelines:

Applicability of the Grading System

These guidelines shall apply to all postgraduate level degree programmes being run in the University Teaching Departments and the affiliated colleges of the University.

Definitions of Key Words

1. Academic Year: Two consecutive (one odd + one even) semesters constitute one academic year.
2. Choice Based Credit System (CBCS): The CBCS provides choice for students to select from the prescribed courses (core, elective or minor or soft skill courses).
3. Course: Usually referred to, as 'papers' is a component of a programme. All courses need not carry the same weight. The courses should define learning objectives and learning outcomes. A course may be designed to comprise lectures/ tutorials/laboratory work/ field work/ outreach activities/ project work/ vocational training/viva/seminars/term papers/assignments/ presentations/ self-study etc. or a combination of some of these.
4. Credit Based Semester System (CBSS): Under the CBSS, the requirement for awarding a degree or diploma or certificate is prescribed in terms of number of credits to be completed by the students.
5. Credit Point: It is the product of grade point and number of credits for a course.
6. Credit: A unit by which the course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical/field/dissertation work per week.
7. Cumulative Grade Point Average (CGPA): It is a measure of overall cumulative performance of a student over all semesters. The CGPA is the ratio of total credit points secured by a student in various courses in all semesters and the sum of the total credits of all courses in all the semesters. It is expressed up to two decimal places.
8. Grade Point: It is a numerical weight allotted to each letter grade on a 10-point scale.
9. Letter Grade: It is an index of the performance of students in a said course. Grades are denoted by letters O, A+, A, B+, B, C, P and F.
10. Programme: An educational programme leading to award of a Degree, diploma or certificate.
11. Semester Grade Point Average (SGPA): It is a measure of performance of work done in a semester. It is ratio of total credit points secured by a student in various courses registered in a semester and the total course credits taken during that semester. It shall be expressed up to two decimal places.

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12. Semester: Each semester will consist of 15-18 weeks of academic work equivalent to 90 actual teaching days. The odd semester may be scheduled from July to December and even semester from January to June.
 13. Transcript or Grade Card or Certificate: Based on the grades earned, a grade certificate shall be issued to all the registered students after every semester. The grade certificate will display the course details (code, title, number of credits, grade secured) along with SGPA of that semester and CGPA earned till that semester.

Semester System and Choice Based Credit System

The credit based semester system provides flexibility in designing curriculum and assigning credits based on the course content and hours of teaching. The choice based credit system provides a 'cafeteria' type approach in which the students can take courses of their choice, learn at their own pace, undergo additional courses and acquire more than the required credits, and adopt an interdisciplinary approach to learning. It bridges the gap between the liberal and professional education and promotes students' mobility-horizontal as well as vertical. It offers wide ranging choice for students to opt for courses based on their aptitude and their career goals.

Types of Courses

Courses in a programme may be of three kinds: Core, Elective and Foundation.

1. Core Courses:

Core Courses consist of Major and Allied Courses. Major courses are offered by each of the academic departments with a number of innovative and popular courses. A core course is a compulsory paper to be studied by a candidate as a core requirement to complete the requirements of a degree. The core component is based on papers that are unique to the programme and hence imperative for study to earn a degree in a given discipline/programme.

a) Compulsory Core paper is called a *Hard Core Paper*.

b) *Soft Core*: A paper/course which a candidate can choose from a pool of papers from the main discipline or from a sister/related discipline which supports the main discipline.

2. Elective Course:

Elective course is a course which can be chosen from a pool of papers. It may be:

- Supportive to the discipline of study
- Providing an expanded scope
- Enabling an exposure to some other discipline/domain
- Nurturing student's proficiency/skill.

The elective papers are of two types:

a) Open Elective

An elective paper chosen generally from an un-related discipline with an intention to seek exposure is called an Open Elective. Each department will design syllabus of at least one paper which can be chosen as an open elective by the students of the other departments. These courses shall constitute a pool of open / general elective courses.

b) Supportive/ Foundation Elective

An elective paper opted to enhance the proficiency / skill is called support elective. These may be related to discipline of study or may be a generic proficiency enabler. Generic proficiency electives could be computer awareness, information processing, office automation programming, communication skills, Spoken English, Knowledge of an additional Foreign Language, Personality Development, soft skills, Business and Management courses, entrepreneurship development etc. Following departments of the University have been identified for preparing syllabi and teaching one or more of these courses:

- i) Department of English
- ii) Department of Psychology
- iii) Department of Computer Science
- iv) Department of Commerce
- v) Institute of Management Studies and Research

Note:

- i) A student will have the liberty as to whether he/she wants to study the open elective paper (s) or not.
- ii) A paper of one department may serve as open elective paper for the other department.
- iii) The students of an affiliated college of the University may choose and study open elective paper out of the papers being taught in the nearby colleges.

3. **Project/Field Work/Dissertation**

It is a special paper where a candidate carries out the application of knowledge in solving /studying /exploring a real life /difficult problem in a creative way. Depending upon the scope and time framework available, the project work/Field work/ dissertation may be of 2, 4, 8 or 20 credits. The project work/Field work/ dissertation shall be discipline centric, and the candidate has to study it on his own with an advisory support by the concerned teacher. The distribution of this work should be as follows:

Unit I: Identification of problem area and literature survey.

Unit II: Study of specific literature in detail pertaining to the statement of the problem.

Unit III: Developing a solution, methodology or proposing a hypothesis to solve the problem.

Unit IV: Data Collection & Analysis/Experimental analysis, results, discussion, conclusion and recommendations.

Note:

- 1. Each department shall prepare a students' handbook which shall contain complete list of courses (papers) including the core and open choice courses.
- 2. Each department shall conduct an Induction Programme to counsel the students for choosing elective papers.
- 3. The student must register for the courses he/she intends to undergo in a semester by applying in the prescribed proforma duly signed by the candidate and concerned Head/Director/Principal of the Department/Institute/Centre/College, within the stipulated time notified by the University. Withdrawal from an Elective/Optional course is permitted up to two weeks from the date of commencement of classes, which will be substituted by another

Elective/ Optional course for valid reasons. Withdrawal from a course shall not be permitted for those who take late admission/registration.

4. *The information on list of all the courses offered in every department specifying the credits, the prerequisites, a brief description of syllabus or list of topics, the department who is offering the course and the time slot may be made available in the University website.*
5. *The registration for the open elective course shall be on first come first served basis, provided the student fulfils prerequisites for that course, if any. The number of students to be registered shall be based on the class room and laboratory capacity. Every effort shall be made by the Department/Centre to accommodate as many students as possible.*
6. *No paper shall be offered unless a minimum of 5 students are registered.*
7. i) *For a two-years PG programme, a student should accumulate the total credit score as under:*

Semester	Credits					Total
	Hard Core	Soft Core	Open Elective	Allied Elective/ Foundation	Project/ Field work/ Dissertation	
1 st	20-28	0-4	0-6	0-4	-	20-36
2 nd	12-24	0-8	0-6	2-4	-	21-36
3 rd	0-16	0-20	0-6	0-4	X (=0 or 2 or 4 or 8 or 20)	20-36
4 th	0-16	0-20	-	-	Y (=0 or 4 or 8 or 20)	20-36
Minimum Credits required	44 or 64-(X+Y) according to whether X+Y ≤ or > 20. (Please see Annexure II)	28-(X+Y) or 8 according to whether X+Y ≤ or > 16. (Please see Annexure II)	0-12	2-4	X+Y	82

- (ii) *For a three-years PG programme, a student should accumulate the total credit score as under:*

Semester	Credits					Total
	Hard Core	Soft Core	General/Open Elective	Supportive/Allied Elective/Foundation	Project	
1 st	24-28	0-4	-	-	-	24-28
2 nd	24-28	0-4	-	2-4	-	26-32
3 rd	24-28	0-4	-	0-4	-	26-32
4 th	16-20	8-12	0-6	-	-	27-34
5 th	16-20	8	0-6	-	4	31-38
6 th	-	-	-	-	20	20
Minimum Credits required	104	16	0-6	2-4	24	154

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Structure of Courses

It is proposed that courses/papers wherever possible should be structured such as to include a section to be taught through class room lectures (L), a tutorial component for participatory discussion / problem solving / brief seminar on a topic / assignments / self study or through other appropriate method that may potentiate the extent of assimilation by the student (T), followed by practical/Practice session consists of hands on experience / laboratory experiments / field work / case studies etc (P).

L: 1 hour / week amounting to 1 credit of learning / semester by a student in a paper.

T: 1 hour / week amounting to 1 credit of learning per semester by a student in a paper.

P: 2 hours / week amounting to 1 credit of learning per semester by a student in the paper.

Depending upon the content, volume of content, and nature of the course to be taught generally the papers can be of 3 credits or 4 credits and occasionally there may be papers of 2 credits and rarely of 5 credits. The Concerned BOS will choose the convenient credit pattern for every course based on the requirement.

The total credits earned by a student at the end of semester upon successfully completing the course is L+T+P. The credit pattern of the course is indicated as L:T:P format. For a 4 credit course format could be:

4:0:0 3:1:0 3:0:1 2:0:2 2:1:1 1:0:3 0:0:4

Size of Groups for

Tutorial: 20 Students

Practical: 15 Students

For dissertation/project/field work, 1 hr per week per student will be counted for the purpose work load of a teacher. No teacher will be allotted more than 8 students for dissertation/project/field work.

Examination and Assessment

As per the recommendation of the UGC, the following 10-point grading system with the following letter grades is proposed to be implemented in awarding the grades and CGPA under the credit based semester system:

Table 1: Intervals of Marks, Grades and Grade Points

Interval of Marks	Grade	Grade Points
> or = 80 but < or = 100	O (Outstanding)	10
> or = 70 but < 80	A+(Excellent)	9
> or = 65 but < 70	A (Very Good)	8
> or = 55 but < 60	B+ (Good)	7
> or = 50 but < 55	B (Above Average)	6
> or = 45 but < 50	C (Average)	5
> or = 40 but < 45	P (Pass)	4
Less than 40	F (Fail)	0
	Ab (Absent)	0

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Note:

- i. A student obtaining Grade F shall be considered failed and will be required to reappear in the examination.
- ii. For non credit courses 'Satisfactory' or 'Unsatisfactory' shall be indicated instead of the letter grade and this will not be counted for the computation of SGPA/CGPA.

Fairness in Assessment:

Assessment is an integral part of system of education as it is instrumental in identifying and certifying the academic standards accomplished by a student and projecting them far and wide as an objective and impartial indicator of a student's performance and hence it must be carried out in fair manner. In this regard, the following system of checks and balances is recommended:

- i. In case of at least 50% of core courses offered in different programmes across the disciplines, the paper setting of the theoretical component towards the end of the semester should be undertaken by external examiners from outside the university to be appointed by the Controller of Examinations out of the panel provided by the Board of Studies of the Concerned Department.
- ii. In case of the assessment of practical component of such core courses, the team of examiners should be constituted on 50 - 50 % basis, i.e. half of the examiners in the team should be invited from outside the university.
- iii. In case of the assessment of project reports/theses/dissertations etc. the work should be undertaken by internal as well as external examiners.

Computation of SGPA and CGPA

The following procedure is recommended to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA):

- i. The SGPA is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the courses taken by a student and the sum of the number of credits of all the courses undergone by a student, i.e

$$SGPA (S_i) = \frac{\sum(C_i \times G_i)}{\sum C_i}$$

where C_i is the number of credits of the ith course and G_i is the grade point scored by the student in the ith course.

- ii. The CGPA is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme, i.e.

$$CGPA = \frac{\sum(C_i \times S_i)}{\sum C_i}$$

where S_i is the SGPA of the ith semester and C_i is the total number of credits in that semester.

- iii. The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.

Illustration of Computation of SGPA and CGPA and Format for Transcripts

Course	Credit	Grade Letter	Grade Point	Credit Point (Credit x Grade)
Course 1	3	A	8	3 x 8 = 24
Course 2	4	B+	7	4 x 7 = 28
Course 3	3	B	6	3 x 6 = 18
Course 4	3	O	10	3 x 10 = 30
Course 5	3	C	5	3 x 5 = 15
Course 6	4	B	6	4 x 6 = 24
	20			139

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Thus, $SGPA = 139/20 = 6.95$

Similarly, suppose the $SGPA$ for 2nd, 3rd and 4th semesters are 7.85, 5.6 and 6.0 with credits 22, 24 and 22, respectively. Then the $CGPA$ will be computed as follows:

$$CGPA = (20 \times 6.95 + 22 \times 7.85 + 24 \times 5.6 + 22 \times 6.0) / 88 = 6.57$$

ii. Transcript (Format): Based on the above recommendations on Letter grades, grade points and $SGPA$ and $CGPA$, the transcript for each semester and a consolidated transcript indicating the performance in all semesters may be issued.

Note: A student of a class who gets the highest $CGPA$ will be the topper of the class. However, if there is a tie in the highest $CGPA$, the topper will be decided using the following formula

$$\text{Overall Weighted Average of Percentage of Marks (OWAPM)} = \frac{\sum \sum (C_{ij} \times M_{ij})}{\sum C_{ij}}$$

where M_{ij} is the percentage of marks in the j th course of i th Semester and C_{ij} is the number of credits for the j th course of i th Semester. The student having highest $OWAPM$ will be the topper of the class.

University CBCS Board

There shall be a University CBCS Board comprising the following:

- a) *Dean Academic Affairs-Chairperson*
- b) **Members**
 - i) *Dean of each faculty of the University-Member*
 - ii) *Director, IQAC-Member*
 - iii) *Registrar-Member*
 - iv) *Director, Computer Centre- Member*
- c) *Controller of Examinations-Member Secretary*

The CBCS Board will

- i) recommend to the Academic Council the nomenclature and course contents for the different elective courses;
- ii) prepare the time table for the elective courses
- iii) suggest to the Academic Council for the advancement in the standards of teaching and examinations so far as the elective courses are concerned;
- iv) deal with the matter related to computation of $SGPA$, $CGPA$ and the results.

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Application Form for Registration for Open Courses under CBCS

Semester-

(To be submitted in triplicate for each Open Course applied for)

Copy 1: to be submitted to Head, Parent Department

Copy 2: to Department where student is applying for Open Course

1. Name of Student

2. Name of Department /Centre:

3. Roll Number:

4. Registration Number:

5. Name of Open Course applied for

6. Department offering Open Course

Signature of Student.....

Signature of Head of the Department with seal.....

Accepted

Not Accepted

Signature of Head of Department / Centre servicing the Open Course _____

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Minimum Credits Required with respect to X and Y

X (Project credits in 3 rd Sem)	Y (Project credits in 4 th Sem)	X+Y	Minimum Credit Required					Total
			Hard Core	Soft Core	Open Elective	Foundation / Allied Elective	Project/ Field/ Dissertation work	
0	0	0	44	28	0-6	2	-	82
0	2	2	44	26	0-6	2	2	82
0	4	4	44	24	0-6	2	4	82
0	8	8	44	20	0-6	2	8	82
0	20	20	44	8	0-6	2	20	82
4	4	8	44	20	0-6	2	8	82
4	8	12	44	16	0-6	2	12	82
4	20	24	40	8	0-6	2	24	82
8	8	16	44	12	0-6	2	16	82
8	20	28	36	8	0-6	2	28	82
20	20	40	24	8	0-6	2	40	82