

Choice Based Credit System (CBCS) – An Innovative Concept in Indian Higher Education

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ABSTRACT

India can talk of many success stories on economic restructuring, ever after the economic crisis of 1991 forcing the government to initiate major reforms and erasing out bottlenecks which were long prevailing in our economy. There has been no looking back ever since and have marched ahead to be the front runners among top economies of the world. However, there are certain grey areas as well which can pose huge challenge and can slow down the growth story of our country in not catered timely and firmly. One of such area of concern is the prevailing education system, and in spite of being one of the youngest nations where 65 percent of the population is below the age of 35, the country still struggles in terms of skill development and employability of youths. India has been relying heavily on the structured form of educational system where students were provided with the prescribed program structure for the particular stream the student wants to undergo. They were provided no freedom in terms of picking courses of their choice and interest. With this back ground in 2015-16, the University Grant Commission (UGC) moved on from traditional marks and percentage system and introduced Choice Based Credit System at higher education levels considering of graduate and post graduate colleges and universities. The purpose of CBCS has been to give students the freedom and liberty to choose their own basket of courses based on their capabilities and interest area. Under this system the students undergo courses which are essential for particular stream and can also pick courses of their interest from other streams/areas as open or domain electives. Apart from it the students are required to undergo some soft skill courses such as communication skill courses, behavioral science courses and foreign language courses. Thus CBCS system of education is based on the philosophy of all round development of students with freedom of choice, thereby increasing their personality, knowledgebase and promotion of skills as per their interest area which was not possible under traditional system of education. The paper tries to understand the concept and functioning of CBCS system and also underlines the challenges that come across in proper implementation of this new system. The paper also comes up with important suggestions which can help in improving the utility of CBCS and help in achieving the desired results in terms of making our youth smarter, committed, skillful and employable. Information has been gathered from one of the leading private university, other secondary sources like UGC website, research papers, journals, and newspapers.

1. Introduction

The traditional system of education gave no room to students for deviating from what have been offered to them as prescribed program structure meaning that the student have to study and complete the prescribed subjects offered to them under the particular program over a period or two or three years depending upon the duration of the degree, no matter whether he or she has interest in that particular subject or not. The entire system of education was teacher centric. With the opening of Indian economy in 1991 and adaption of the policies of liberalization, privatization and globalization the education system has gradually started introducing reforms and a move towards from teacher centric to student centric. Further with information technology revolution there has been more and better communication and bonding of Indian youths with other parts of the world, hence they have been more demanding than ever before. The first step towards improving educational infrastructure in higher education was opening this sector to private and foreign players. To further improve the employability of our students and to enhance skills in them the

Government of India which takes care of higher education through a body University Grants Commission (UGC) has in the academic year 2015-16 come up with new way of imparting education in the name of Choice based Credit System (CBCS). Under the CBCS system the student is empowered to learn at own pace and is assessed based on credit system for the subjects chosen by the candidate. The CBCS system provides for choosing the subjects from the prescribed list of courses and can avail option to pick courses beyond core subjects for his/her overall development and transformation from less knowledgeable to more knowledgeable stage during the same or prescribed duration of a particular program. CBCS provides for three types of courses to students- core courses, elective courses and foundation courses. Core courses are compulsory subjects and thus are mandatory in nature, by way of elective courses the student can choose from the range of pool of subjects which are unrelated to its core field; it implies that management student can opt for an engineering subject as an elective and vice-versa. Apart from core, elective and foundation courses there are non-credit courses available as well which are assessed as 'Satisfactory' or 'Unsatisfactory'

and are not included in the computation of SGPA/CGPA. Choice based Credit system is an instrument for establishing uniformity and parity within and across the higher educational institutions both at national and international level of education delivery system. CBCS allows students an easy mode of mobility to various educational institutions spread across the world along with the facility of transfer of credits earned by students.

2. Review of Literature

Naidu, B.V.R., Sreedevi, O.V.A.M. (2016) in their paper titled "Choice Based Credit System in India: A Critical Evaluation," highlighted the pros and cons of choice based credit system and tried to find out whether the new system has been well understood by teachers. The paper also focused on the problems faced by students and teachers in implementation of this system. Apart from it paper tried to find out what modifications or improvisations are required on the system being adopted.

Kaur, Arvind., Sharma, Manju. (2016) in the joint paper "Academic Curriculum Reform of Indian Higher Education: Choice Base Credit System (CBCS)," focused on knowing each & every aspect of CBCS which is internationally acknowledged system and offers opportunity and avenues to learn core subjects along with additional learning beyond the core subjects for holistic development. CBCS provides better facility to the learners like freedom, flexibility, advanced learning opportunities, fulfillment of students' academic need and aspirations, intra and inter institutional transferability and quality education. The paper further points out that, India is still facing lot of challenges in proper implementation of new system of education reason being lack of proper and good infrastructure for a universal spread of education, and proper training & educational programs. CBCS requires more attention for its proper implementation and effectiveness.

Mir, Suheel Rasool. (2017) in his paper "Issues and Challenges of Choice Based Credit System: Insights from University of Kashmir," presented the case of University of Kashmir which introduced the CBCS system for its PG courses from the academic session 2014. The paper admits that CBCS is a flexible approach to learning in which students have a freedom to choose inter-disciplinary, intra-disciplinary and skill-oriented courses making education broad-based and on par with global standards. However, during the implementation of this system in higher education institutions, there are many challenges which require attention and discussion in order to put it on the right track. The challenges which are normally experienced by institutions, teachers and students mainly relate to absence of trail version before final adaptation of the system, lack of preparation in terms of infrastructure, poor awareness among faculty as well as students, mismatch between the prescribed guidelines and existing practice etc. Apart from these loopholes the problems at the grass root level are that majority of students don't understand the basic nature of 'CBCS', hoe to differentiate the open electives and core papers and lack knowledge about UGC guidelines regarding CBCS. This system results in unnecessary juggling of students from one department to another thereby taxing heavily on their

physical and mental resources which results in more academic stress in them.

3. Objective

1. To understand the concept of Choice based Credit System (CBCS)
2. To get an insight regarding the grading system implemented under the new CBCS system.
3. To appraise oneself with the functioning of CBCS system.

4. Working of CBCS System

In order to understand the working of Choice Based Credit System it is necessary to understand the following important terms as are part of one of the important leading University of India.

- 4.1. Core Courses:** Core courses are the subjects which are the base papers to a particular program and are of compulsory in nature for all the students. These core subjects are distributed across all semesters which students have to undergo aspiring for a degree in that discipline.
- 4.2. Allied Courses:** Allied courses are also of compulsory in nature the only difference is that these courses are supportive to core subjects. These courses have to be undertaken and cleared by all students to complete the degree.
- 4.3. Value Added Courses:** With the objective of enhancing the personality of students and developing the blend of sound knowledge with good human being subjects related to Behavioral Skills, Communication Skills have been the part of students learning under CBCS system of higher education. Further to enhance employability Foreign Language has also been included under CBCS system.
- 4.4. Specialization Elective Courses:** The students under this category are given ample choice to choose courses from the interest area associated to their program as per their own liking and develop core competency in that area of specialization. For example a MBA student by opting Marketing as specialization area can offer expert services as marketing manager after getting employment opportunity.
- 4.5. Domain Elective Courses:** There are situations that the student of particular program say MBA may have interest in some course may be International Marketing but is not the part of his course curriculum related to the program opted by him, but is offered in some other program say MBA (International Business) of same level program running in the same department. In this situation if the course International Marketing is opened from other program MBA (International Business) for students of MBA program, then this type of course is treated as Domain Elective. Thus domain elective courses help students to opt for course of his own interest area related to the field of his specialization.

4.6. Open Elective Courses: In case the student has opted for Management program but has interest in interior designing as well, thus in order to keep his interest intact a subject from Interior Designing department can be opened for students of other department having interest in interior designing field. This way the students concerned can keep their interest alive and can inculcate skills in that area as well, enhancing their employability.

4.7. Semesters: The assessment is done semester wise. A student progresses on the basis of the courses taken rather than time like three years for science, arts, commerce or four years for engineering etc. Each semester will have 15–18 weeks of academic work which is equal to 90 teaching days. There is flexibility in creating the curriculum and assigning credits based on the course content and hours of teaching.

4.8. Credit system: Each course is assigned a certain credit. When the student passes that course, he earns the credits which are based on that course. If a student passes a single course in a semester, he does not have to repeat that course later. The students can earn credits according to his pace. One credit per semester is equal to one hour of teaching, which includes both lecture (L) or tutorial (T) or two hours of practical work/field work (P) per week. A study course can have only L component or only T or P component or combination of any two or all the three components. The total credits earned by a student for each semester is L+T+P.

4.9. SGPA and CGPA: The students under the new system will be provided mark sheet not with percentage marks but with Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA) as applicable internationally. This will help students to reflect their academic record successfully while going for studies abroad or applying for job with international and multinational companies.

4.10. Grading: UGC has introduced a 10-point grading system. The level of student's academic performance is reflected by letter grades on a Ten Point Scale as follows:

Table 1
Ten Point Grading System under CBCS

Grade	Qualitative Meaning	Grade Point
O	Outstanding	10
A+	Excellent	9
A	Very good	8
B+	Good	7
B	Above Average	6
B-	Average	5
C+	Satisfactory	4
C	Border Line	3

F	Fail	0
Ab	Absent	0

5. Explanation with Example

One of the leading private sector University of India has very successfully implemented the CBCS style of higher education since 2015-16. It has managed all the academic related processes on line through an intranet right from admission into university to final award of degree. The student after completing admission formalities has to fill his Academic Planning Worksheet which is a detailed sheet of courses offered to him in a particular semester comprising of Core, Allied, Value Added, and Foreign Business Language, Specialization Electives, Domain and Open Courses to choose from. The students are given freedom to pick courses as per their interest area thereby providing flexibility of choice keeping them motivated and focused towards studies. Table 2 below shows a summarized break up of courses offered to a B.Com (H) Semester III student under the Choice Based Credit System.

Table 2
Range of Courses Offered under CBCS by one of the Private Sector University

1) Behavioral Science [1] [Compulsory]
2) Communication Skills [1] [Compulsory]
3) Core Courses [21] [Compulsory]
4) Domain Elective Courses [0-1]
5) Foreign Business Language [2]
6) Non-Teaching Credit Courses [0-1]
7) Open Elective Courses [0-1]

Table 3 below signifies the exhaustive academic planning worksheet which is reflected at student end and he/she has to choose courses of its own choice as per the credit instructions given in the bracket to complete 27 credits necessary for the current semester III. The sheets shows that to complete 27 credits the students have to undergo Behavioral Science Course for 1 credit, Communication Skills Course for 1 credit, Foreign Business Language course for 2 Credits (from the list of number of foreign languages), Core Courses comprising 21 credits. Total credits opted comes to 25. In order to make up for required 27 credits the students are given choice to pick 2 credit course either from Domain Elective courses offered from other programs to the students within the department or from Open Elective courses list offered from other departments or can opt for Non -Teaching Credit Course of 1 credit – Seminar. In this way students have option to cover 2 credits by opting for both Domain and Open elective courses and not opting NTCC. The other option is the student can select one Domain Elective course and one NTCC Seminar and not opting Open Elective course. The third option before the students is to opt for Open Elective course and NTCC- Seminar and not opting Domain Elective. Thus students are given liberty to design their own academic plan as per their interest area.

Table 3
Student's Academic Planning Worksheet under CBCS in one of Private Sector University

Program B.Com (H)	Semester III	Credits Required 27
<ul style="list-style-type: none"> • 1) Behavioural Science [1] [Compulsory] <ul style="list-style-type: none"> <input checked="" type="checkbox"/> BS201 - Problem Solving and Creative Thinking [1] Syllabus • 2) Communication Skills [1] [Compulsory] <ul style="list-style-type: none"> <input checked="" type="checkbox"/> BC201 - Effective Written Communication [1] Syllabus • 3) Core Courses [21] [Compulsory] <ul style="list-style-type: none"> <input checked="" type="checkbox"/> ACCT204 - Direct Tax - I [3] Syllabus <input checked="" type="checkbox"/> ACCT211 - Cost Accounting [3] Syllabus <input checked="" type="checkbox"/> FIBA201 - Fundamentals of Financial Management [3] Syllabus <input checked="" type="checkbox"/> HR201 - Fundamentals of Human Resource Management [3] Syllabus <input checked="" type="checkbox"/> IB204 - Understanding International Business Management [3] Syllabus <input checked="" type="checkbox"/> INS203 - Banking and Financial Institutions [3] Syllabus <input checked="" type="checkbox"/> QAM103 - Business Statistics [3] Syllabus • 4) Domain Elective Courses [0-1] <ul style="list-style-type: none"> <input checked="" type="checkbox"/> FIBA314 - Fundamentals of Mutual Fund Management [3] Syllabus Offered By In-house Department • 5) Foreign Business Language [2] <ul style="list-style-type: none"> <input checked="" type="checkbox"/> FREN147 - Written Expression & Comprehension in French-I [2] Syllabus • 6) Non-Teaching Credit Courses [0-1] <ul style="list-style-type: none"> <input checked="" type="checkbox"/> MSSM101 - Seminar - I [1] Syllabus • 7) Open Elective Courses [0-1] <ul style="list-style-type: none"> <input checked="" type="checkbox"/> ADVT101 - Fundamentals of Advertising [3] Syllabus Offered By ABC Department <input type="checkbox"/> VCOM202 - Photography for Beginners [1] Syllabus Offered By DEF Department 		

6. Understanding SGPA Calculation with Illustration

The Semester performance of a student is indicated as "Semester Grade Point Average (SGPA). The SGPA is weighted average of Grade Points of all letter grades received by a student for all the Course units in the semester. The formula for computing SGPA is given below:

$$SGPA = \frac{ACU_1 \cdot GP_1 + ACU_2 \cdot GP_2 + \dots + ACU_n \cdot GP_n}{ACU_1 + ACU_2 + \dots + ACU_n}$$

ACU = Credits Associated with Courses
 GP = Grade Point of the letter grades awarded in the respective course.

Table 4
Semester I Result and Calculation of SGPA

Course Code (Col. 1)	Course Title (Col. 2)	Max Total (Col. 3)	Associated Credit Units (Col. 4)	Grade Obtained (Col. 5)	Grade Point (Col. 6)	CP (Col.4 * Col.6)
ACCT103	Financial Accounting - I	100	3	A-	8	24
BS101	Understanding Self for Effectiveness	100	1	B	6	6

ECON125	Micro Economics	100	4	B-	5	20
ENG101	English Language Usage Essentials	100	1	A-	8	8
EVS103	Environmental Studies - I	100	2	B	6	12
FIBA304	Introduction to Indian Financial System	100	3	A	9	27
LAW211	Mercantile Law	100	3	A-	8	24
MGMT101	Management Foundation	100	3	A-	8	24
QAM102	Business Mathematics I	100	3	B	6	18
SPAN144	Introduction to Hispanic Culture & Language	100	2	B	6	12
Total			25			175

$$SGPA = \frac{ACU_1 \cdot GP_1 + ACU_2 \cdot GP_2 + \dots + ACU_n \cdot GP_n}{ACU_1 + ACU_2 + \dots + ACU_n}$$

$$SGPA = \frac{24+6+20+8+12+27+24+24+18+12}{3+1+4+1+2+3+3+3+3+2}$$

$$SGPA = \frac{175}{25} = 7.00 \text{ (Semester I)}$$

CGPA is not applicable in first semester

Table 5
Semester II Result and Calculation of SGPA and CGPA

Course Code (Col. 1)	Course Title (Col. 2)	Max Total (Col. 3)	Associated Credit Units (Col. 4)	Grade Obtained (Col. 5)	Grade Point (Col. 6)	CP (Col.4 * Col.6)
ACCT113	Financial Accounting - II	100	3	B+	7	21
BS102	Individual Society and Nation	100	1	B	6	6
ECON135	Macroeconomics	100	4	B	6	24
ENG111	Introduction to Communication Skills	100	1	B	6	6
EVS102	Environmental Studies - II	100	2	B	6	12
INS322	Basics of Rural Banking	100	2	B-	5	10
LAW201	Fundamentals of Corporate Law	100	3	A-	8	24
MGMT304	Ethics and Corporate Governance	100	3	B+	7	21
MKTG101	Principles of Marketing	100	3	A-	8	24
QAM104	Business Mathematics li	100	3	B+	7	21
SPAN103	Spanish Grammar – I	100	2	B-	5	10
Total			27			179

$$SGPA = \frac{21+6+24+6+12+10+24+21+24+21+10}{3+1+4+1+2+2+3+3+3+3+2}$$

$$SGPA = \frac{179}{27} = 6.63 \text{ (Semester II)}$$

7. Calculation of CGPA

The Cumulative Grade Point Analysis (CGPA) is the cumulative grade point obtained by students at the end of every year. It takes in to consideration of previous semesters

and divides the total credit points of sum of each semester by total associated credit units till the current semester. It means that CGPA represents the average up to the current semester. CGPA is calculated as under:

$$\text{CGPA} = \frac{\text{Cumulative credit points secured in all passed courses in Sem I and Sem II}}{\text{Associated Credit Units in Sem I and II}}$$

$$\text{CGPA} = \frac{175 + 179}{25 + 27}$$

$$\text{CGPA} = \frac{354}{52} = 6.81 \text{ (At end of Semester II)}$$

8. Benefits of CBCS

- CBCS can be seen as a major shift from the teacher centric to learner centric education.
- The CBCS offers a 'cafeteria' approach in which the students can choose courses of their own choice by way of picking subjects of his own interest from specialization electives, open electives, domain electives, non-teaching credit courses, foreign language. Thus complete freedom is provided to student in designing its own academic plan which he wants to undergo in the given semester as per minimum credit requirement.
- The aim of CBCS is to provide students to undertake inter-disciplinary courses (as electives). Interdisciplinary approach enables integration of concepts, theories, techniques, and perspectives from two or more disciplines to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline.
- The students can opt for additional courses and can achieve more than the required credits. Thus there is additional advantage of enhanced learning beyond the minimum credit requirement.
- Inter college/university migration within the country and outside becomes easy with the transfer of Credits. This means that it will be easier for foreign universities to come and offer courses in India.
- Can opt for one part of the course in one institute and the other part in another institute. This will help in making a clear choice between good and bad colleges/ institutes.
- The students have more scope to enhance their skills and more scope of taking up projects and assignments, vocational training, including entrepreneurship.
- CBCS system of education can be helpful in improving the employability of students and better suitable for jobs.
- Choice based credit system would help take education system at par the global standard.

9. Disadvantages of CBCS

- The CBCS system as of now seems a bit complicated and not easily understood either by neither teachers nor students. It seems that the system has been implemented in haste without proper planning.
- Since the new system expresses the performance of students on SGPA and CGPA basis students are not able to get the exact estimate of marks they have scored percentage terms over all nor they are able to ascertain the marks the have scored in each individual paper as grades are offered in individual subjects.
- Students can have only partial knowledge of any new subject chosen by them as extra credit subject.
- The system could not be implemented properly the reason is that there is shortage of infrastructure facilities i.e. building, laboratory facilities, and practical class rooms.
- Most of the teachers, academic administrators and community at large are inattentive to the intricate technicalities of examinations which affect their reliability, validity & objectivity.
- Mobility or transferring of students from one institution to another one would be problematic.
- Problems of indiscipline would increase since full liberty in respect to choices of subjects is given to students.

10. Suggestions for Future

In order to make the CBCS a success and a milestone in the overhauling the higher education system in India following suggestions can play a decisive role if given due consideration by the policy makers.

- In order to remove the complexity related to implementation of new system in the field of higher education it is recommended that workshops, conferences, seminars, orientation programs for teachers as well as students and parents be conducted on regular basis for providing inputs related to CBCS system and helping all the stake holders to overcome doubts if any in timely manner.
- A separate unit should be established in each university and institution with the objective of helping

in the smooth implementation of CBCS system without any hassle.

- The CBCS system should be implemented in phased manner starting from pilot basis and from there moving to national level covering all universities and colleges gradually in a time bound manner.
- Provision of both percentage and grading system should be maintained as this will help students to understand and analyze their academic performance in a better manner.
- Equalization in standard of education system should be maintained so that mobility of students could be checked.
- Proper counseling and guidance facilities should be available at department level to help students in finalizing the choice of electives- open/domain/soft skill based papers to suit their caliber and skills.
- Focus to be put on developing quality infrastructure and its maintenance to support the labs, ICT and

class room needs as per Choice Based Credit System of higher education.

11. Conclusion

University Grants Commission has taken a long awaited decision by introducing an effective reform measure in higher education in the form of introduction of Choice based Credit System. It is expected that the new system will bring in uniformity in course structures across country and will also give liberty to students, not to confined themselves only to what is served to them rather can design their own academic plate based on their own interest and thereby widen their intellectual horizon. This system is expected to keep students interested towards education and improve their potential and employability. This system will also bring a sea change in terms of approach towards education from being teacher centric towards more students' centric. However, there are certain bottlenecks and challenges which may reduce the impact of the basic objective of introduction of CBCS if these issues are not handled timely and effectively.

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