CHAPTER II

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CBCSS: AN OVERVIEW

The Times of India (2012) reported that at a national conference of Vice-Chancellors in 2007, organized by UGC, some educational reforms were discussed. The then UGC Chairman, Sukhadeo Thorat wrote to all universities in January 2008, mentioning about the areas needed to be taken care of. An expert committee under Gnanam, former Chief of National Assessment and Accreditation Council recommended academic and administrative reforms. Based on this, UGC circulated an action plan in March 2009 to be implemented by the universities within a period of two years. The academic and administrative reforms proposed by UGC are flexible and student-friendly as in Europe and North America.

2.1 Choice Based Credit and Semester System in India

A lot of transformation has taken place in higher education. Several discussions about college autonomy started after Kothari Commission Report in 1966. Some colleges became autonomous from 1978. Autonomy was given for academic freedom so that new curricula, relevant courses and new syllabi can be designed and new evaluation methods also be framed. Flexibility is another key term. But this could not be achieved with the provision of autonomy. Even in the autonomous institutions Choice of courses, needs and interests of students were rigid.

The genesis of CBCSS system is traced to ‘cafeteria system’ in the western countries. As per the direction of UGC India too adopted the CBCSS as an instructional package which facilitates revolution in higher education. To keep pace
with the developments in higher education with other countries India adopted CBCSS.
It offers a flexible approach.

It was according to the recommendations of both the 11th Five Year Plan and the National Knowledge Commission to ensure quality in higher education. National Knowledge Commission has called for reform of existing universities to ensure frequent curricula revisions, introduction of course credit system, internal assessment and encourages research. Thus the University Grants Commission, India’s statutory body for higher education, proposed a semester pattern in curriculum instead of yearly examinations. Grades has to be given instead of numerical percentages in mark sheets with minimum 90 days of teaching.

In India, to move in tune with world class standard in the field of higher education, an action plan for reforming academic practices both at PG and UG levelshad to be accomplished. As the guideline provided by UGC for the 11th Plan to ensure high quality in teaching CBCSS was introduced in the universities of India.

2.2 Credit and Semester System Abroad

All the (archive. Manual on CBCS, University of Mumbai), major higher education institutions across the world including Central Universities are implementing a system of credits. The European Credit Transfer System (ECTS) in Europe’s universities, the ‘National Qualifications Framework’ in Australia, the Pan-Canadian Protocol on the Transferability of University Credits, Credit Accumulation and Transfer System (CATS) in UK are examples. In US and Japan also the same systems are being operated.
2.2.1 North America

In all the North American Universities, in this system, teachers have a great deal of freedom they can design their courses. For the degree programme students can choose their courses. After the enrolment, the students are given printout containing the names of courses—core, optional and extra-departmental. The value of each course is listed in units of credits. Certain number of credits are required for getting the degree. In American Universities for under-graduate programmes 120 credits are required. The students can take any number of courses to earn extra credits and so they can finish their six trimester programme in four trimesters or six semester programme in four semesters. Course teacher does the internal evaluation and there is no external evaluation scheme.

2.2.2 Canada

US and Canada has similarities in the credit system. Along with colleges, in high schools also credit system is implemented. Certain number of credits are required for the passing of a course.

2.2.3 Latin America

In Brazil, a unified academic credit system is not implemented. Higher education takes 800-1200 instruction hours in a year. It is equivalent to 60 credits in ECTS in Europe and 30 credits in United States Semester means 15 weeks. It includes classes and activities.

2.2.4 Europe

In Europe, a common credit system known as The European Credit Transfer and Accumulation System (ECTS) has been introduced. ECTS is a standard to
compare the study attainment and performance of higher education students across the European Union. In this grading system a full year has 60 credits.

2.2.5 United Kingdom

In United Kingdom, the credit system implemented is CATS i.e. Credit Accumulation and Transfer Scheme. A full year has 120 credits and grades are recorded as percentages (i.e. 0-100).

2.3 Implementation of Choice-Based Credit and Semester System

Central universities first implemented this American academic credit system. Gnanam, the then Vice-chancellor of Pondicherry University has implemented this “student-friendly” system in the university from the academic year 1992-93. Pondicherry University gave the nomenclature Choice-Based Credit system for the new dispensation. CBCSS transformed the traditional teacher-oriented education to student-centered education. Students take the responsibility of their own education in CBCSS system. Under Choice-based Credit System (CBCS), students pursue three types of courses - Compulsory Foundation Courses (relating directly to the subject of study), Elective Courses (allowing for interdisciplinary studies) and Core subjects, where it is compulsory to pursue core subjects every semester and choose electives can be chosen which may be from a pool of subjects unrelated to their disciplines. This means a Science student can opt for any subject of Commerce or Arts discipline as an elective.

The University Grants Commission (UGC), the National Assessment and Accreditation Council (NAAC), The Distance Education Council (DEC) as well as National Knowledge Commission (NKC) made several recommendations to improve
the effectiveness and quality of higher education. As a result Choice-Based Credit and Semester System was introduced. The system is considered to be socially relevant, economically productive, individually satisfying, globally competitive, culturally sustaining. A large number of courses are offered.

Still some hindrances are there. Diverse courses cannot be conducted as infrastructural facilities may not be there in the colleges. As assessments are continuous workload of the teachers will increase. CBCSS demands multiple modes of instruction through expert sources and systems like modular mode, synchronous and asynchronous modes etc. There is very little choice being offered to students. A review of CBCS implementation revealed that few colleges have the resources to offer a wide range of innovative courses. There is no inter-disciplinary option. All students in a department must opt for the same 'elective'. Colleges cannot afford to offer any real choice.

UGC provided a model curriculum for the UG and PG courses. But some universities do not offer the courses as such. For instance, in Andhra Pradesh universities no credits are assigned to the second language and it is not compulsory to learn English as it comes under Ability Enhancement Compulsory Course. The options Environmental sciences or modern Indian language are included instead of English communication.

2.3.1 The Main Objectives of CBCSS

According to UGC the main objectives of CBCSS are:

- To bring reforms in higher education
To enhance learning opportunities

To match learners scholastic needs and aspirations

To enable interuniversity transferability of learners

To improve quality of education and excellence

To bring greater flexibility while completing the course

To make educational programmes standardized and comparable across the country.

2.3.2 The Basic Elements

The basic elements (www.hpuniv.nic.in/pdf/CBCS-IQAC 13.pdf) of CBCSS are Semester system, Credit system, Credit transfer, Comprehensive and continuous evaluation and Grading.

2.3.3 CBCSS in the Emerging Scenario

The current higher education curriculum in India does not enable students to be employable. (Interdisciplinary approach is essential. The traditional, annual method used teacher centric approach. Independent thinking was not promoted in the annual system. Curricular flexibility,( tijithomas37) learners’ mobility along with and disciplinary approach have to be introduced in the emerging socio-economic milieu. Earlier evaluation methods were largely based on memory recall processes. Students’ ability to learn, think or analyse on their own was not encouraged. CBCSS aims multi-disciplinary approach (Ravi, 2011) to undergraduate and post-graduate curriculum. Students can select courses from a wide range of disciplines to gain mastery of a subject of their choice. Uniformity and parity between Indian higher
CBCSS helps a student to enroll with in a particular course, to opt for and earn elective credits in other subjects of choice. UGC made CBCS mandatory for all 400 public universities at the undergraduate and postgraduate level beginning in the academic year 2015-2016.

2.3.4 UGC Guidelines on Adoption of CBCSS

UGC (UGC Guidelines on Adoption of Choice Based Credit System) initiated several measures to improve the higher education system in India. But due to the diversity in the system of higher education multiple approaches are adopted by different universities towards examination, evaluation and grading system. The conversion from marks to grades and the letter grades are used differently in different universities. Grading system is better than conventional mark system. But it has to be uniform in India. The student mobility across institutions within and countries will be possible only if the system has uniformity in India. For the uniformity UGC has instructed to compute Cumulative Grade Point Average (CGPA) to assess the performance of students in the examination. Guidelines has been framed by the UGC for all under-graduate and post-graduate level of degree, diploma and other certificate programmes.

2.3.5 CBCSS in B. Ed Colleges

Every country develops its system of education to express and promote its unique socio-cultural identity and also to meet the challenges of time". These words of the National Policy on Education (NPE, 1986) subsequently revised in 1992, give direction to Indian Education. The policy further emphasizes that “the Government of
India will also review, every five years; the progress made and recommend guidelines for further development”. In the light of the aforesaid statements, the National Council for Teacher Education (NCTE), came out with a Curriculum Framework for Quality Teacher Education. As a result CBCSS has been implemented in B.Ed colleges also.

2.4. Comparison of Annual System and Semester System

The course (Yousaf and Hashim, 2012) continues throughout year in the annual system. It is spread over a full year. In the annual system once the student enters the college he feels free and thinks about studying only during the exam time. The Annual examination system, as adopted by many universities, conducts the final examination at the end of the session. Once the student joins the college he studies only at the end of the academic year. The papers are annually set by the teachers. They are checked by external examiners through centralized marking, under the supervision of Controller of Examination of the university concerned. The teachers have no proper guideline to teach his subject. Most often lecture method is adopted. The failure ratio is very high. Students obtain comparatively low marks. They are not motivated towards their courses. They create disciplinary problems also.

The semester system changed the methodology of conducting examination. Tenure of semester, paper setting, valuing paper, teacher’s power and authority, student’s learning, their attitude and discipline—all these aspects have changed a lot. Teacher has more power and authority in the semester system. It reduces examination burden as the involvement of the student is more. Comparing it to a quarterly system it is more flexible and has a slower pace of studies which is good for the students. The
semester system is a very proactive system as it engages both the faculty and the students throughout the year in the academic activity. The students are busy and more focused towards what is being taught in the class. They concentrate more on curriculum. It is a very proactive system. Teaching learning is a continuous process. As the time is less, it engages both the faculty and students throughout the year in academic activity. Focussed class interaction leads to better understanding of the subject. Examinations are held twice in a year. So students have to prepare only half of the content. Some merits are:

- The inculcation of regular study habits so that learning becomes easy.
- Provides upward mobility: the student can clear the backlog in one or many subjects even after moving to the next semester.
- The student can learn at his own pace.
- Absenteeism is less
- It keeps students busy all year round with the same level of burden
- Respect towards teachers increases.
- The quality of teaching increases as the subject to be covered is less.
- More in-depth study is the outcome.

**Some drawbacks of the semester system**

- Inadequacy of time: Classes under semester system starts in July. But admission continues till August. There is no clarity about the time for first semester exam.
- Increased Work load: The declaration of result in every six months doubles the work load of teaching and non-teaching faculty.
No extra classes: Due to scarcity of time, extra classes are difficult to be conducted.

Reduction in co-curricular activities: Due to scarcity of time very few cultural activities can be conducted.

Both the education system have their own pros and cons. The annual system gives opportunity to develop from first to last concepts and texts are studied profoundly. Semester system has time constraints and concepts have to be comprehended in brief manner. Output on the basis of numerical results and the competence of students are better in the semester system.

2.5 The Need and Importance of CBCSS

At present, in the higher education specialization in given discipline is valuable so far it allows the learner to link that discipline with the real world and contextualize his own perception of life and its various phenomena. Discipline other than the major is in the form of subsidiary subjects. By their very nomenclature, these subjects are seldom regarded as serious, either for the assessment they carry, or least of all, for their content. Likewise the teaching and syllabi of these subjects, over a period of time, also became poor in quality and motivation. So there is no real learning across the disciplines. Curricular reform in this regard means integrating a given subject to which the student devotes a majority of his time with other relevant subject is therefore essential to improve the education structure. One way improving the quality of teaching of these additional subjects and stimulating student’s interest is to allow students for whom a subject is additional to study along with those for whom it is primary. For example a mathematics student should study and undergo evaluation in philosophy as an optional subject along with students for whom philosophy constitutes the primary
subject. So the students are exposed to various subjects at the same time. In the 11\textsuperscript{th} plan under the new initiative of academic reforms in the higher education institutions, UGC reiterates that universities are autonomous institutions and have necessary freedom to experiment new ideas and adopt practices which they consider appropriate for promoting relevance, quality and excellence within the framework of national policy.

2.6 Credit System

The credit based system (Dutta and Dutta, 2013) means redefining of the curriculum into smaller measurable entities or ‘modules’ with the hours required for ‘learning’. ‘Teaching’ is not the focus. These modules are combined for a certificate, diploma or degree. The completion of a single module can pave way for learning other modules. Students can study either in the same institution or elsewhere. Combination of modules can be opted according to the needs and interests of the learners. The ‘cafeteria approach’ to learning keeps the learner at the centre in all academic transactions.

2.6.1 Benefit from the Credit System for the Students

Credit system (Dutta and Dutta, 2013) will bring in a much required in shift in focus from teacher-centric to student-centric education. The workload estimated is based on the investment of time in learning, not in teaching, it helps to record course and to document learner work load realistically. All the activities are taken in to account- not only the time leaders spent in lectures or seminars but also the time the need for individual learning and the preparation of examinations etc. Learner autonomy is respected. It allows learners to choose according to their own learning
needs, interests and aptitudes and many other benefits. It also facilitates the mobility to learner from one institute to another.

2.7 Choice Based Credit System

University Grant Commission’s (UGC, 2012) “Inclusive and Qualitative Expansion of Higher education” draws attention to major challenges in higher education and also suggested reforms for the 12th Five Year Plan (FYP). Higher education in India is passing through a series of unprecedented expansion. It is marked by an explosion in the volume of students. Expansion in the number of institutions and a sudden rise in the level of public funding also has been resulted. The poor performance of the majority of our higher education institutions which are teacher-centred, raises the problem of quality and the provision of relevant education in the higher education sector. Some solutions to reduce these problems are regular revision and upgradation of curriculum, introduction of semester system, choice based credit and semester system and examination reforms. An academic year is divided into two semesters. Semester system reduces examination burden as the student is engaged in studies throughout the year.

The Choice-Based Credit System (CBCS) is a flexible approach to study as it enables a student, enrolled with a particular course, to opt for and earn elective credits in other subjects of choice. Part-completion of an academic course in the institution of enrolment and part-completion in a specialised institution is also possible in this system.

As per the report by the Times of India,(Gujarat-education.gov.in) Challenges of Higher Education (2010) can be avoided by interdisciplinary curriculum. The gap
between liberal and professional education has to be bridged. Promote horizontal and vertical mobility of students.

The learner centric contextual curriculum recommended and desired learner outcomes proposed can be achieved mainly through CBCSS. It is an advanced quality of education which ensures student participation. Universal way of single grading system is implemented to assess the overall performance of students.

2.7.1. Conceptual framework of CBCSS

A lot of transformation (Dutta and Dutta, 2013) has occurred in higher education over the years. The Kothari Commission report in 1966 paved the way for college autonomy and a few colleges became autonomous since 1978. Autonomy coupled with academic freedom, enabled many colleges to design new curricula. Some of them designed new relevant courses. New syllabi and new evaluation methods were also introduced. Flexibility for students to have a greater choice of courses according to their needs and long-term goals is not available even in autonomous colleges. A rigid and compartmentalized system is implemented even in these colleges. In large universities, greater diversity and more flexibility in course structures has to be adopted. This would be a beginning of a transition to a course credit system. Degrees are granted after completion of a required number of credits from different courses. Students with choices have to get a minimum number of credits to be promoted.

Even though students are getting more knowledge about their subjects and having more choices, rules regarding the number of students in each class and the number of hours per week for the students creates problem. Students have to take two
years of language course of their mother tongue. They are not encouraged to take courses according to their abilities and pace. A first year student cannot take an advanced course or a third year student to take an introductory course. Independent learning is not there since students have to attend the class five hours a day.

Limited faculty, diverse courses along with lack of resourcefulness leads to many problems there is no choice. Choice Based Credit System increases workload of the teaching faculty since the choices are more. Wider the choice leads to more demands of the society on the education system. CBCSS needs different modes of instructions, like expert sources and systems. Modular mode, e-mode, synchronous and asynchronous modes, educational sourcing etc. are some other strategies. Traditional formal instruction also can be adopted. Similarly the evaluation is through different techniques like electronic evaluation rubrics, continuous and internal online, in addition to paper-pen methods. The methods are activity-oriented and practicum based. CBCSS, the cafeteria like system, enables the students to take up the responsibility of their own education. 

For implementing CBCSS (UGC- Action Plan, 2009) the following steps are to be taken:

- Review of curricular contents including study papers, term papers, ‘assignment’, workshop-assignment, experiments.
- All the curricular contents are to be divided into units and sub-units and they have to be given credits.
- The department faculty decides the core courses and electives
- They evaluate the weightage of core and elective credits.
- Decides the total credits to be earned for each academic programme
• Core credits would be unique to the programme but elective-credits are likely to overlap with other programmes.

• Students enrolled in a particular programme would be free to choose and earn elective-credits.

CBCSS will be operated on modular pattern based on module/units called ‘credits’ wherein ‘credit’ defines the quantum of contents/syllabus prescribed for a course/paper and determines the minimum number of teaching-learning hours required. The university (Dutta and Dutta, 2013) adopts Choice Based Credit System (CBCS) and permits students:

• To learn at his own pace.

• Can choose subjects from a wide range of elective courses offered by the institutions.

• Adopt an interdisciplinary approach in learning.

• Inter college or university transfer of credits.

• Can complete a part of programme in the parent institute and enroll in another institution for specialized courses.

• Enhances skill by taking up projects and gets vocational training

• Makes best use of the faculty across the institution in addition to the particular department faculty.

• Participatory teaching and learning and continuous evaluation process increase knowledge and employability.

• Evaluation is done on a scientific basis and grades are calculated relative weighing of the performance is done.
• Even though learning process is made continuous, evaluation is not continuous. But it is learner-centric and recognizes the abilities of the individual.

• Among so many educational reforms implemented in India, CBCSS is the latest. So the result will be yielded subsequently.

The Course (UGC Guidelines on Adoption of Choice Based Credit System, collegesat.du.ac.in/UGC-credit-guidelines.pdf)

2.7.2 Meaning of the Key Words Used in CBCSS (UGC)

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 work/field 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.

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.

There are three types of courses in CBCSS. They are linear core, soft core and elective courses. Hard core papers are compulsory and fundamental. Soft core papers can be chosen from a detailed list. It may be within or outside a department. Elective papers are concept papers and offered by each department. They are general in nature.

2.7.3 Pattern of the Programme

In this system ‘papers’ are referred as ‘courses’. BA/BSc courses are known as programmes. In CBCSS every paper is treated as equal. In syllabus, weightage of courses is mentioned.

This weightage is known as ‘credits’. A paper with four contact hours per week per semester is considered as a full paper/course. Its weightage is four or it carries higher credits or as a four credit course. A paper with two credits is like a half paper. Example is seminar. Projects carry higher credits. The marks are not added directly. The marks are multiplied by their weightages (credits) to arrive at the aggregate is considered as having a weightage of 4, or as a 4-credit course. A paper with 2-credits is like half paper. An example is a seminar. Dissertation Projects typically carry higher credits. Instead of adding all marks directly, they are meaningfully multiplied by their weightages (ie, credits) to arrive at the aggregate. So it becomes equivalent to give marks for more important papers or for activities such as projects and dissertations. In this system, total credits to be earned is specified, instead of specifying number of courses/papers.

For a 6-semester UG programme 120 credits are required means, an average 20 credits has to be earned in each semester. It can be earned in different ways such
as: i. five 4 credit courses (five full papers) or ii. 4 four-credit courses and two 2 credit courses (four full papers) (4 full papers and 2 half papers) or iii. Six 3 credit courses and one 2 credit course.

Discussions are going on in Kerala State Higher Education Council for a common course across all degree programmes. In this age of globalization, such a system will enable students to transfer their credits not only across institutions in India, but also institutions across the world.

2.7.4 Continuous Assessment

In the annual system students’ assessment is done through university exam held at the end of the year. Class test does not have much significance. But in the semester system, written tests, projects, seminars, field trips all are conducted as a part of internal assessment or formative assessment. It is spread throughout the duration of the course. For this continuous assessment continuous feedback is provided to students. It will motivate the students to learn. This continuous assessment as it spread, measures non-cognitive tasks also. The end-semester exam measures only cognitive aspect. Taking into consideration the conditions of the classroom, the teacher who teaches the student can assess his performance. The concerned teacher must provide marks to the students. It implies teaching, learning and evaluation must be inseparably linked.

Continuous assessment often leads to two problems- victimization of students by some teachers and generous granting of marks in profit- motivated institutions. Transparent and structured assessment system will reduce this problem. By publishing the assignment questions and grading policies in advance transparency can be attained. Grievance redressal system has to be introduced. While providing assignments, clear instructions has to be given about grading.
2.7.5 Grading: The Basic Idea

The higher education institutions in the world and India (like IIT’s and central universities) had been implemented grading for a last few decades. In Kerala KSHEC proposed letter grades in the UG courses. Initially five-point grading system was introduced. After the report of the Hridayakumari Committee appointed by KSHEC a seven-point indirect grading system was introduced.

Transfer the credits from one institution to another is provided in CBCSS. There are provisions in the rules of the autonomous colleges and universities to accept transfer of credits. CBCS which facilitates a student to have some freedom in selecting his own choices in the curriculum for completing a Master’s degree programme. CBCSS is an advanced model of learning system focused towards a student’s choice in providing a wide range of modules available in single campus across various disciplines offered by experts in the subjects.

2.7.6 The Requirements of Choice Based Credit and Semester System

In every three years curricula and course content has to be updated by the university. University must ensure continuous updating of the curriculum. To introduce credit based courses curricular flexibility and student mobility are essential. Course duration has to be given in terms of credit hours. To provide flexibility to students, a minimum and maximum permissible span of time in which a course can be completed by a student has to be provided. Student mobility can be done only through credit accumulation. Higher education institutions need a uniform calendar. Delay in declaration of result and issue of mark list will affect the career mobility and academic progression of students. Annual system is replaced by the semester system in India.
UGC has introduced CBCSS in academic institutions to enhance the academic quality in all aspects. But drafting the entire (Sindhi, 2015) new syllabus, defining the credit system, training the staff, encouraging students for continuous evaluation, motivating them to improve their attendance are heavy tasks in CBCSS. Syllabus includes details of reading, textbooks, examinations and other issues. The academic boards in the universities has to prepare the new syllabus within a short period and must provide measures to overcome the challenges. The teaching learning process and evaluation system have been restructured.

Since the choice of subjects offered are more, CBCSS increases the need for more faculty. the workload of the teachers also increases. The pedagogic issues related to the new syllabus were not much considered as a result problems in core areas has been increased. Review of curricular contents, subdividing into units and subunits, assigning credits has to provided at the beginning of the course.

2.7.7 The Academic Liberal Environment of the Universities

UGC (India Education Review) designed curricula for undergraduate course. The syllabi by the experts have been forwarded for public opinion before finalizing. The elective subjects offered will only be from the subjects which are in the Universities / Institutes. Hence teaching load of the teachers will not increase much. Also there will be no inter-institute/inter-college migration transfer of teachers. The academic liberal environment of the university will not be reduced due to the innovative student-friendly learning system.
2.7.8 **Strategy of CBCSS**

1. To introduce Semester system

2. To develop a structured programme for CBCS that would
   - Enable students to have a flexible learning within a structured model
   - Enable students to have wider choices outside their discipline of their study
   - Enable students to have an exposure to real life experience by participation in internships as well as vocational training
   - Enable students to have facility of Credit transfer across the country

3. To design the curriculum with sufficient/appropriate/adequate provision for Value oriented courses, Interdisciplinary courses and Vocational courses. Each course shall have a clearly defined course objective and course outcome.

4. Teacher training and capacity building

5. Revamping of learning processes by changing in teaching pedagogy by
   - Use of ICT, Sandhan, ALM, computer laboratories to be set up across the state as learning,

6. Concept of Teacher fellow(TF) and Course Assistant (CA)

7. Content preparation as per the curriculum means both textual content as well as E content.

8. Question Banks are prepared

9. Facilities for On Demand On Line Examination (ODOLE)
2.7.9 Methodology and Plan of Action

The methodology to introduce CBCS will follow the sequence as:

1. Having enough room for flexibility for horizontal as well as vertical migration of students
2. The curriculum with appropriate course labels.
3. Content for each course has to be prepared
4. Teacher training
5. Classroom revamping is essential
6. Question bank
7. ODOLE which would facilitate E learning as well

The University Grants Commission reminded all colleges in the state to implement the Choice – based Credit and Semester system (CBCSS) at the earliest. The Joint secretary UGC sent a letter to all colleges on October 16. The letter said that the UGC’s action plan for academic and administrative reforms during the XIth plan should be implemented the earliest. The action plan comprised aspects like semester system, choice-based credit system, curriculum development, admission procedures and examination reforms. These reforms are necessary for the promotion of quality education. These would be linked with accreditation as well as UGC funding. The UGC asked the colleges to implement the system. The government issued an order, according to the KSHEC’s recommendations.

Hridayakumari Committee (University of Calicut) appointed by the Govt. of Kerala, in its report submitted to the Govt. has suggested changes/reforms on the Choice Based Credit Semester System, in the Universities in Kerala. The Executive Council of Kerala State Higher Education Council considered Hridayakumari
Committee Report and made 11 recommendations for consideration by the Universities in Kerala. The Kerala State Higher Education Council further requested the Vice Chancellors of the concerned Universities to consider those 11 recommendations and to start the process of reforming.

2.8 Report of the Committee Appointed by the HEC to Study Issues Concerning the Working of the Choice Based Credit and Semester System in the Colleges affiliated to Universities in Kerala

The committee studied the following problems and suggested solutions:

a) Number of students
b) Available time
c) Language skills
d) Nature of courses and syllabi
e) Internal evaluation
f) Semester exams
g) Grading

The committee of experts constituted by the KSHEC came into being on 25th February 2012. The Vice-chairman specified 5 points for the committee to consider. They were a common name for the unification syllabi in all the universities following the systems, a common pattern and grading system, uniformity in the examination pattern and award of grades for semesters and uniform distribution of marks to internal and external semester examinations. The Chairperson of the committee was Hridayakumari.
The committee found that CBCSS is prevented in most of the foreign universities in US and UK. But the foreign system has to be adapted to the conditions of colleges in Kerala. The committee found that the old system lacked innovativeness and cannot adjust with fast changing global conditions.

1. Problem of Numbers

The teacher student ratio the UGC recommended is 1:30 but this is possible only in the PG classes. In UG classes the number of students are more (core or main subject in sciences-45 to 50, core or main subject in social sciences including languages 50 to 70 or more, commerce 50 to 70. The number of seats increases in every department as in the days of annual system. Semester system is affective only with small number of students. Semester system requires discussion of topics, encourages students participation, reduces the role of the teachers. The old lecture note method is totally outdated. But in an overcrowded class with limited time of the semester system the intellectual liveliness of the process is lost. Semester system encourages assignments and projects. But with the large number of student’s internal evaluation through these assignments and projects is entirely difficult.

2. Problem of Time

Semester system divides a year into two with 90 days. But these 90 days are available only on paper. The actual number of working days is very low due to various reasons. In Kerala the average number of working days available to a college per semester is 45-55, luckier colleges get around 60. After 3.30 pm, most of the campuses are empty.
The results have to publish after the semester university exams. But students have to study on their own with the reference book and other study aids. And the language skills and study habits are very poor. Semester system is actually a threat to the quality of education.

3. Problem of language

English is the main language of communication in the world. It is the language of higher education in India. But even after 12 years of studying students are not at ease with English. In CBCSS system, test papers and assignments are written in bad English and gradually it will become accepted. Reference books will remain foreign to the students. Low quality market notes will be spread.

4. Problem of Syllabi and Textbooks

Science teachers opined that more portions from advanced areas of contemporary science. Subjects like Social Sciences, English and Malayalam sore.

5. Problems regarding Courses

Variety becomes distraction. The rationale behind some complementary courses and open courses is not clear. Earlier there were 13 courses among which 6 were core subjects. But now from 30 Courses, 12-14 are core subjects. Informatics has so many problems-computers are not in good condition. Teachers are not competent to teach.

6. Examinations and their Problems

Examinations, internal and external together form the continuous assessment. It is the hall-mark of credit and semester system continuous arrestment keeps the
student in track. There are two assignments, 1. Seminar, and 2. test papers in a semester. Each semester has six courses. 30 assignments have to be done in 90 days. Malpractices in internal assessment is another prevalent problem. Since the number of students are more and time is less the process is a waste of effort and paper.

7 External Evaluation

Due to the frequency of external evaluation teaching time is lost.

Delay in publication of results due to workload.

The time is not enough for experiencing the subject.

8. Grading Problems

CBCSS started in UG level with direct and 5 point scale grading due to the wide range in evaluation (for eg. 62.5-87.5=B Grade). It is not an impartial evaluation and is very complicated.

9. Performance Ranking

The performance grading shall be on seven point ranking system. It is accepted by the UNESCO.

Solutions

1. Teacher student ratio should be 1:30.

Maintain the number of teachers as required by the semester system and reduce the number of students. Some colleges can go back to the old system.
2. In the present social environment no solutions can be provided. Changes in the course and examination pattern are needed to improve the pattern.

3. This problem has to be solved in school level.

4. More communication between teachers and Boards of Studies are needed. Students have to be consulted. Boards of Studies have to be in touch with renowned Indian Universities and with Indian Universities. Subject experts have to be consulted. Board of studies have to be in touch with foreign universities.

5. Uniform pattern can be adopted for Sciences and other subjects. Core papers can be the same in all departments, preferably 12 and increase their content. The variety of choices must have logical reason. Number of courses should not be increased. To reduce the he work load of the teachers the number of courses can be reduced. Informatics has to be a separate department with improved syllabus.

6. One test paper per semester for each paper can be conducted. One assignment, one seminar, one test paper for each semester for each paper can be done. Maximum points should be only 20 including five, being given to attendance. Internal evaluation can be avoided till teacher-student ratio comes into existence.

7. 180 days or two semesters together be made study cum examining unit for core, and compulsory language papers, and the semester pattern retained for other papers. Complementary courses, electives and additional languages have to be core subjects.

8. As there is a wide range (for eg. 62.5-87.5=B Grade) the evaluation is not impartial in the 5 point scale. So the Committee recommended indirect grading system with a seven point range.
9. The method should be simple and clear for the teacher and the student. At the end of the programme final grading can be done with software. Teachers should use the marking system for each question of each course. Cumulative grading can be done for the final marklist. Even though Seven Point Range Indirect Grading is not perfect within the limits of present system it is better. Hridayakumari Committee Report is given in the Appendix I

2.8.1 Credit Bank and Credit Transfer

A credit can be opened for each student and the credit will be recorded at the end of each semester. Intra University and inter university credit transfer is possible. To transfer the credit obtained from a particular course, there must be a minimum of 20 credits in a credits bank.

2.8.2 Other Suggestions

1) Internal evaluation may be dropped or minimized to just one paper for each semester for the English courses common to all departments.

2) Exams 1,3 and 5 maybe conducted by the colleges but with university question papers. Home valuation has to be permitted. Exams 2,4 and 6 are to be centralized valuation.

3) The committee suggested 2 months summer vacation for the teachers will get at least one month free of examination work.

4) The committee suggested that the name CBCSS would do for the new system. Unification of syllabi, exam pattern in all the affiliating universities in Kerala. Common grading pattern can be helpful for inter-university student transfer.
5) The staff number in college offices may be increased to reduce the clerical work of teachers.

6) Academic staff colleges maybe setup in every university and the following courses has to be compulsory
   
   A) Methods of teaching
   
   B) Methods of setting questing paper and evaluation
   
   C) English language skills

7) Open University is necessary as the students are more

8) Semester system has to be introduced not in PG programmers first but in UG level

9) Academic freedom has to be protected by the universities.

10) CBCSS is not a threat to freedom but it has serious limitations in our social and educational environment.

11) Maximum of 4 credits can be awarded per semester to students who are actively involved in co-curricular activities.

Hridayakumari Committee setup by KSHEC to review the Choice- Based Credit and Semester System (CBCSS) has recommended 7 point grading system instead of existing 5 point grading system. Indirect and absolute grading system has to be advocated. Cumulative Grade Point Average is where by the students grades for all semesters in an academic term is calculated. Annual vacation is better than mid- semester vacation. The Committee conducted series of talks with students, teachers, college managements and stakeholders before coming with the draft.

2.9 Role of Teachers

The changes that took place in schools have changed the roles of teachers, too. In the past teachers used to be the major source of knowledge, the leader and educator
of their students' school life. Nowadays, teachers provide information and show their students how to tackle them. Although they are still considered to be a kind of leader in the class, they can be thought of as facilitators in the learning process. If we focus on the teaching process, we still realize that there are a great number of changes in this field as well, and all of them have an influence on the role of teachers. Curriculum design is a task teachers have to be prepared for, although the present generation of teachers has been growing into making up syllabi for years. Another difference between the past and present tasks of teachers is represented by the technical background they need to be able to use and handle effectively (computer, photocopier, power point, projectors, etc.) Instead of teaching chalk face, they need to be an information technology expert, a technician or/and a photocopy master. One of the biggest challenges for teachers is that their role in the school management has also changed. The school needs them as individuals, who can make decisions and cope with the stress of the changing world of schools. At the same time teachers need to be able to work in teams, co-operate with colleagues and parents. A teacher has to generate that energy in oneself and handle it in one's work of educating children. A teacher has not only to instruct but also to inspire the students.

Teachers should enjoy academic freedom while performing their professional duties. Supervision or inspection should be designed so as to encourage their professional skills. It should not be for the reduction of their freedom. Teachers work should be objective parents should get the opportunity to discuss about their children. Teachers’ organizations have to co-operate fully with the authorities. The organizations have to ensure the prestige of profession according to the codes of ethyics. Teachers have to take interest in the co-curricular activities of the pupils.
Teachers personal development is also important. Their social and public life has to be encouraged. The salary and working condition of the teachers should be according to their professional status.

Effective teaching means organizing the work of the teacher so as to avoid his time and energy. Teachers should enjoy social security. Teachers should be granted salary increments. Salary scale of the teachers should be reviewed periodically taking into account the standard of living in the country—the cost of living. The levels of qualification, years of experience should be the criteria for salary differences.

In-service training programmes have to be provided periodically according to the demands of the time if teachers are assigned supervisory duties or special educational responsibilities like counselling, the normal teaching hours has to be reduced.