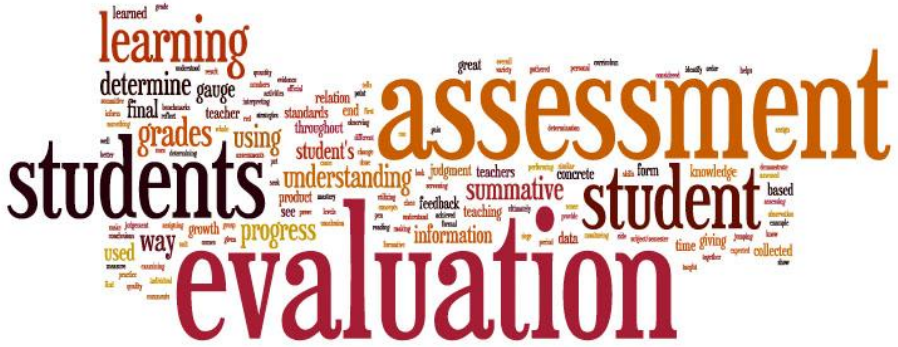
Moving Towards Choice Based Credit System (CBCS) in UG and PG Programs: A Road Map



Recommendation of National Knowledge Commission

To ensure quality, NKC has called for reform of existing universities to ensure frequent curricula revisions, introduction of course credit system, enhancing reliance on internal assessment, encouraging research, and reforming governance of institutions.

What is Lacking in the Present System?

- Teacher centric approach
- Teacher never asks, “why am I teaching this,what will students do after this exposure?”
- What are the kinds of activities student should be engaged to have “learning opportunities”?

What is Lacking in the Present System?

- Lacks context based approach
- There are no opportunities for
  - Group work
  - Individual work
  - Data collection
  - Field work
  - Quizzes
  - Class tests
  - Community involvement

What is Lacking in the Present System?

- No inter-disciplinary mobility possible
- Lack of multi-disciplinarity, closed isolated environment
- Lack of choices for the student
- No opportunity to the learner to walk out and walk in to earn a certification
- No scope to introduce latest knowledge in the curriculum
- Learning goals of the course and learning objectives of the units/submits never enunciated

Why Choice Based Credit Based System?

Report by the Times of India on Challenges of Higher Education (2010) namely what are the challenges of Globalization. Following were the conclusions on:

- Making the curriculum interdisciplinary.
- All cutting edge development in technologies occur at the interface of two or more disciplines.
- 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.

Why Choice Based Credit Based System?

- Learn at their own pace
- Choose electives from a wide range of courses
- Undergo additional courses and acquire more than required number of credits
- Adopt an interdisciplinary approach in learning
- Inter college/University transfer of Credits
- Complete a part of programme in the parent institute and get enrolled in another

Why Choice Based Credit Based System?

Institution for specialized courses

- Enhance skill/employability by taking up project work, entrepreneurship and vocational training.
- Carry on and transfer their credit
- Make best use of the expertise of available faculty.

Why Choice Based Credit Based System?

- Bridges the gap between professional and liberal education.
- Greatly improves the employability of students.
- Promotes students' mobility – horizontal as well as vertical.
- Collaboration with industry and foreign partners to foster innovations possible. This can go a long way in capacity building of students.

Choice Based Credit Based System: Elements

- Semesterisation
- What is the meaning of Choice Based System or Cafeteria Approach?
- Credit system
- Comprhensive continuous assesment
- Grading

Semesterisation

It involves clear cut identification of duration of teacher learner engagement,

duration for conduct of assessment and term end examination for evaluation and certification by declaration of grades.

As per UGC regulations in a semester there has to be a minimum of 90 teaching days for learner teacher engagement.

A Look at Typical Semester

1-8 weeks	9 Week	10-16 weeks	17-20 Week	21-24 week	25-26 week
Teaching involving lectures, tutorials and practicals interspersed with comprehensive continuous assesment in the form of quizzes, assignments, group discussions, seminars etc. followed by minor test –I	Semester Break/ vacations/ time for extra curricular activities	Teaching involving lectures, tutorials and practicals interspersed with comprehensive continuous assesment in the form of quizzes, assignments, group discussions, seminars etc. followed by minor test –II	Term End Examination to be conducted in 4 weeks duration including preparatory holidays Total duration of Semester: 24 weeks or 6 months	Evaluation of scripts, collation of raw scores of comprehensive continuous Assesment and term end examination followed by assignment of grades and declaration of results	Vacations

Levels of Certifications

Level of Certification	Minimum Duration	Maximum Duration* 1.5 times the Minimum Duration
* Maximum Duration for distance education students can be more.		
Short term courses: Level 0	less than 6 weeks	1.5 times the duration
Certificate Courses: Level 1 (e.g. in German, Computer application)	One semester	One year
Diploma Courses: Level 2 (e.g. Diploma in Computer Applications)	Two semester	One and a half year
PG Diploma Courses Level 3 (e.g. PG Diploma in Computer Applications etc)	Two semester	One and a half year
UG Degree courses (General Education and Professional Courses): Level 4 (e.g. B.A., B.Sc., B.Com., B..C.A., B.B.A etc.)	Six semester	Four and a half year

Levels of Certifications

Level of Certification	Minimum Duration	Maximum Duration*
PG Master courses (General Education and Professional Courses): Level 5 (e.g. M.A., M.Sc., M.B.A. etc.)	Four Semester	Three year
UG Technical Courses: Level 6 (e.g. B.Tech Courses)	Eight Semester	Sis years
PG Master Courses (Technical cum Professional): Level 7(e.g. MCA, LLB etc.)	Six Semester	Four and a half year
Research degrees (M.Phil, M.Tech, LLM etc.): Level 8	Two Semester	One and a half year
Research degree (Ph.D. Course work): Level 9	One Semester	One year
Research degree** (Ph.D.): Level 10	4 Semesters after M.Phil	Three years with provision for extension
Research Degree** (Ph. D.): Level 11	5 Semester without M.Phil but after Ph.D. Course work	Three and a half year with provision for more

A Look at Typical week in a Semester

Total no. of hours per week = Total no. of hours per day * Total no. of days per week = 36 Hours of teacher learner interaction						
10.00	11.00	12.00	1.00	2.00	3.00	4.00
			Lunch Break			

Total Hours /per 6 day week available for Instruction = 36 hours

Course Components

Each level of certification for a given duration has a typical structure of courses of study with **well defined name** for each course/paper, **instruction hours per week** translated into **credits**, **marks** for comprehensive continuous assesment and term end examination as percentage of total marks/grades.

Course Components (LTP)

- Lecture Sessions are the current mode of delivering the content.
- But here course offered is delivered through three components of teaching learning process:
  - Lecture Session-L
  - Tutorial Session-T
  - Practical/Practice Session-P

Course Components (LTP)

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- However, Tutorial Session Consists of participatory discussion/desk work/ problem solving/ brief seminar on a topic or any such other novel method that makes learners absorb and assimilate more effectively the contents delivered in a lecture session.
- Normally, the tutorial sheets prepared by the teacher are distributed in advance to help learner prepare for interaction systematically.
- Practical/Practice session consists of hands on experience/ laboratory experiments/ Field Studies/Case studies that equip students to acquire the much required skill component

What is a credit?

- Term Credit has a connotation of achievement or earning
- It in the present context also implies succsesfull completion of a course of study measured in terms of class room instruction hours/week in the courses being studied in that semester
- It is also an identification of credits for a learning effort
- It also measures the volume of the content to be delivered in the course being studied
- Credits of a course also indicates the weightage of a course for calculating Grade Point Average

How is a Credit Measured?

- Every one hour of lecture session/week amounts to 1 credit per semester
- A minimum of two hour session of Tutorial or Practical/Practice session/week amounts to 1 credit per semester
- A course of study may have only lecture component or only practical/practice component or combination of any two or all the three components
- The total credits earned by a student at the end of semester upon succesfully completing the course is L+T+P

Credit Patterns

- The credit pattern of the course is indicated as L:T:P format. For a 4 credit course format could be:

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

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

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

- The Concerned BOS will choose the convenient credit pattern for every course based on the requirement. However, generally a course shall be 3 or 4 credits

Relationship between number of credits and marks per paper

- Though credits are not directly related to marks, as thumb rule we may consider 1credit=25 marks
- A theory paper with 4 credits shall be assigned 100 marks
- A theory paper with 3 credits shall be assigned 75 marks.
- The concerned BOS will choose the convenient credit pattern and marks for every course based on the requirement. However, generally a course shall be 3 or 4 credits or 75 or 100 marks
- Theory paper or practical paper with 2 credits shall be assigned 50 marks

Relationship between number of credits and marks per paper

- There could be some non-credit NC courses also, for which no credits are assigned (seminars, training and group discussions, independent study, projects, thesis, presentations). However, these activities are compulsory to be completed satisfactorily (s Grade), Unsatisfactory performance shall be assigned X grade.

Conventional Number of Credits for Different Levels of Courses

Level of Certification	Minimum Duration	Number of Credits Per Semester
Short term courses: Level 0	less than 6 weeks	4 credits
Certificate Courses: Level 1 (e.g. in German, Computer application)	One semester	6-8 credits
Diploma Courses: Level 2 (e.g. Diploma in Computer Applications)	Two semester	25-30 credits
PG Diploma Courses Level 3 (e.g. PG Diploma in Computer Applications)	Two semester	25-30 credits
UG Degree courses (General Education and Professional Courses): Level 4 (e.g. B.A., B.Sc., B.Com., B..C.A., B.B.A etc.)	Six semester	20-25 credits

Conventional Number of Credits for Different Levels of Courses

Level of Certification	Minimum Duration	Mimimum Number of Credits Per Semester
PG Master courses (General Education and Professional Courses): Level 5 (e.g. M.A., M.Sc., M.B.A.)	Four Semester	25-30 credits per semester
UG Technical Courses: Level 6 (e.g. B.Tech Courses)	Eight Semester	25-30 credits
PG Master Courses (Technical cum Professional): Level 7(e.g. MCA, LLB)	Six Semester	25-30 credits
Research degrees (M.Phil, M.Tech, LLM): Level 8	Two Semester	25-30 credits with 25 credits in respect of thesis
Research degree (Ph.D. Course work): Level 9	One Semester	25 credits

Tentative Number of Credits for Different Levels of Courses

Level of Certification	Minimum Duration	Number of Credits Per Semester
Research degree** (Ph.D.): Level 10	4 Semesters after M.Phil	25 credits
Research Degree** (Ph. D.): Level 11	5 Semester without M.Phil but after Ph.D. Course work	25 credits

Labelling of Courses, Distribution of Courses and Management of Courses

- Different courses of study are labeled and earned as follows:
  - **Core Course**: A course which should be compulsorily be studied as a core-requirement is termed as a core course, some times it is also refered to as hard core course
  - **Soft Core/ Allied Core**: A core course may be a soft core if there is a choice or an option for the candidate to choose from a pool of courses from the main discipline/subject of study (also termed major) or from a sister/related discipline/subject which supports the main discipline/subject

Labelling of Courses, Distribution of Courses and Management of Courses

- **Elective Course**: Generally a course which can be chosen from a pool of courses and which may be very specific or specialized or advanced or supportive to the discipline/subject of study or which provides an extended scope or which enables an exposure to some other discipline/subject/domain or nurtures the candidates proficiency/skill is called an elective course. Elective courses may be offered by the main discipline/subject of study or by

Labelling of Courses, Distribution of Courses and Management of Courses

- **Open Elective**: An elective course chosen generally from an unrelated discipline/subject, with an intention to seek exposure is called an open elective
- **Self Study Elective**: An elective course designed to aquire a special/advanced knowledge, such as supplement study/support study to a project work, and a candidate studies such a course on his own with an advisory support by a teacher is called a self study elective.

Labelling of Courses, Distribution of Courses and Management of Courses

- **Audit Course:** A student has an option of auditing some courses, grades obtained in such a course are not counted towards the calculation of grade point average. However, a Pass grade is essential for earning credits for an audit course.
- **Project Work**: Project work/ Dissertation work is a special course involving application of knowledge in solving/analyzing/ exploring a real life situation/difficult problem.
  - Minor Project work (6-8 credits)
  - Major Project work (10-12 credits)

*** A core course offered in a discipline/subject may be treated as an elective by other discipline/subject/vice versa*

Coursewise Distribution of Credits

- This requires determining the amount of work to be completed (or credit points to be earned) by students
- Decision on the number of student-faculty contact hours during a semester in different programmes and levels
- Decision on the time distribution on the class room work, Tutorials, field work, laboratory work, other practices and /or other curricular work distribution will vary from subject to subject

Coursewise Distribution of Credits for a Program/level of Study

Level	Number of Courses	Say UG
Total duration level		6 semesters
Semester		Ist
Nature of Course		**Credits/per semester**
Compulsory Course		
Hard (Major)Core Course		
Soft (Allied)Core Course		
Elective Course (Departmental		
Open Elective (Course from Other Departments)		
Self Study Elective Course		
Non Credit Course		
Audit Course		
Additional Elective		
General Interest Course		
Total Credits / Semester		
Minimum Credits to be earned per semester		

Giving Courses of Study Codes

Each course is given a unique name reflecting its content and an alpha numeric code code for easy identification

Three letter alphanumeric Prefix for level	Three letter Alphanumeric code for Subject/Department	Numeric code for Semester (Double digit)	Numeric code for Course no. (Double digit)
CER	GER	01	07

CERGER0107

Sample Courses of Study Codes

Level	Prefix for level	Subject/Department Example
Certificate	**CER**	**GER**
Diploma	DIP	RUS
PG Diploma	PGD	CA
General Education Courses		
Bachelor degree	BA/BSC	ECO/PHY
Masters degree	MA/MSC	ENG/MAT
M. Phil.	MPL	SAN
Ph. D.	PHD	PHY
Professional Education and Technical Courses		
Bachelor	BTC/LLB/BBA/BED/BPED/BCM/BVC	IT/LAW/MAN/EDU/PED/COM/RET
Masters	MBA/MTC/MTA/MED/MCA/LLM/MCOM	
Short Duration Courses		
Life Long Learning	LLL	IT/MUS/ART

How are courses to be gathered togethered to mean a particular level of study?

- *See Draft Regulations for UG/PG.*

Evaluation (Calculation of Raw Score)

- Marks Distribution for evaluation with following credits & Marks
  - Course credits 4
  - Total Marks 100
  - Distribution (Theory)
    - Test Minor-1: 15 marks or 15 %
    - Test Minor-2: 15 marks or 15 %
    - End Semester Exam: 50 marks or 50%
    - Assinments/ quiz/ class test/discussion: 15 marks or 15 %
    - Attendance: 5 marks or 5%

Evaluation (Calculation of Raw Score)

- Marks Distribution for evaluation with following credits & Marks
  - Course credits 2
  - Total Marks 50
  - Distribution (Practicals/Practice)
    - Record Mark (based on continous assesment of lab /practical works considering regularity and timely submission of lab/practice records) 10 marks or 20 %
    - Viva Voce 15 marks or 30%
    - Attendance: 5 marks or 5%
    - End Semester Exam
      (Lab Experiment/Procedure writing/Tabulation of readings etc/innovation etc. as applicable: 10 marks or 20%
      Viva Voce: 10 marks or 20%

Maintenance of Record of Attendance and Comprehensive Continuous Assessment

Å Following format for course-wise maintenance of Assessment cum Attendance Register is proposed

S.No.	Reg. No.	Name		Days			
1		NAME1	Attendance				
		CCA1 (during first 8 weeks)					
		CCA2 (during second 8 weeks)					
2		NAME2	Attendance				
		CCA1					
		CCA2					

For weightage for attendance in CCA see regulations for the respective program

Converting Raw Score into Absolute Grades

- Grade is a number or a letter indicating quality on a band of raw score. It can be 10 point or 10 letter scheme.
- At the end of every course, for which a student has registered, if the candidate obtains a pass grade, the student accumulates the course credit as earned credits.
- Student has the option of auditing some courses. Grades obtained in these audit courses are not counted towards calculation of grade point average. However, a pass grade is essential for earning credits from an audit course.

Converting Raw Score into Grades

% Absolute Marks intervals (Raw Score)	Grade Point	Letter Grade
96 and above	10	S+
91-95	9.5	S
86-90	9.0	D++
81-85	8.5	D+
76-80	8.0	D
71-75	7.5	A++
66-70	7.0	A+
61-65	6.5	A
56-60	6.0	B+
51-55	5.5	B
46-50	5.0	C+
40-45	4.5	C
Below 40	0	F

Final Result Grades

CGPA	Letter Grade	Description
9.51 and above	S+	First Class Exemplary
9.01-9.50	S	
8.51-9.00	D++	First Class Distinction
8.01-8.50	D+	
7.51-8.00	D	
7.01-7.50	A++	First Class
6.51-7.00	A+	
6.01-6.50	A	
5.51-6.00	B+	Second Class
5.01-5.50	B	
4.51-5.00	C+	Third Class
4.00-4.50	C	
Below 4.00	F	Fail

List of CGPA in ascending and descending order is used for award of gold medals

Credit Weighed Marking System: Performance Evaluation

- Performance of a student is evaluated in terms of earned credit weighed marking system
- Earned credits are defined as the sum of course credits in which grade points above a certain cut off have been obtained for declaring learner pass in that course
- Points earned in a semester:

  Σ(course credits earned x Grade points)

  summed over all courses in which gradepoints above a ceertain cut off have been obtained
- In this way two performance indices emerge
  - Semester Grade Point Average for the current semester
  - Cummulative Grade Point Average is for all the completed semesters at any point in time

Credit Weighed Marking System: Performance Evaluation (SGPA)

- In this way two performance indices emerge
  - Semester Grade Point Average (SGPA) for the current semester which is calculated on the basis grade points obtained in all courses, except audit courses and courses in which satisfactory or course continuation has been awarded

  SGPA= Σ(course credits earned x Grade points)/Σ(Total course credits in the semester except satisfactory, audit credits or course continuation credits)

  Or SGPA=Points secured in the semester/ (credits registered in the semester excluding audit, satisfactory courses and course continuation courses)

Credit Weighed Marking System: Performance Evaluation (CGPA)

- Cummulative Grade Point Average (CGPA) for the is calculated on the basis of all pass grades obtained in all courses, except audit courses and courses in which satisfactory or course continuation has been awarded, obtained in all completed semesters

CGPA= Σ(course credits earned x Grade points) over all semesters/Σ(Total course credits in all the semesters except satisfactory, audit credits or course continuation credits)

Or CGPA=cummulative Points secured in all passed courses/ (Cummulative earned credits excluding audit, satisfactory courses and course continuation courses)

Absolute Grading vs Relative Grading

- Absolute Grading: It is done by having a grades on the basis of absolute marks.
- Relative Grading: Relative grading is based on fitting the performance of the class to a defined statistical model. In the present case the statistical model chosen is law of normal distributions, according to which in any unbiased sample of the population, distribution of marks will show a bell shaped curve.The grade points so obtained provides relative standing of the learner in the class based on his/her grades

Absolute Grading vs Relative Grading

- In a normal distribution 50% of the values are less than mean 50% values are larger than the mean. 68% of the values lies between mean and plus/minus one standard deviation. 95% of the value lie between mean and plus minus two standard deviations, 99.7% of the values lie between mean and plus/minus three standard deviations. And only 0.26% of the value lies beyond plus/minus three standard deviations
- The procedure, therefore is as follows:
  - Calculate the mean
  - Calculate the standard deviation
  - Divide the students in the class into following categories

Absolute Grading vs Relative Grading

Category	interval	Grade Point	Letter Grade
I	S> M ±+3 S.D.	10	S+
II	M + 2.5 S.D. <S<M + 3 S.D.	9.5	S
III	M + 2 S.D. <S<M + 2.5 S.D.	9.0	D++
IV	M + 1.5 S.D. <S<M + 2S.D.	8.5	D+
V	M + 1S.D. <S<M + 1.5 S.D.	8.0	D
VI	M <S<M + 1 S.D.	7.5	A++
VII	M - 1 S.D. <S<M	7.0	A+
VIII	M – 1.5 S.D. <S<M – 1 S.D.	6.5	A
IX	M – 2.0 S.D. <S<M – 1.5 S.D.	6.0	B+
X	M – 2.5 S.D. <S<M – 2.0 S.D.	5.5	B
XI	M - 3 S.D. <S<M – 2.5 S.D.	5.0	C
XII	S<M - 3 S.D.	0.0	F (Fail)

How to go about the task of introducing CBCS?

- Preparation of guidelines
- Preparations of Regulations and Course Structure for different levels by respective deans
- Formulation of subject wise working groups (to be constituted by the chairperson board of studies of different subjects)
- Sensitization of working group members and BOS members about the guide lines
- Drafting of list of courses and their classification by subject wise working groups as per respective regulation.
- Drafting of list of courses and their classification across faculties to be coordinated by the deans of faculties with Chairperson BOS of the subject working groups to avoid any confusion
- Working groups prepare draft syllabus with volume of the content as per the credits requirement along with notes for paper setter etc.

How to go about? (contd.)

- The drafting of the syllabus/ curricula is to be carried out in terms of
  - Current knowledge
  - National and international developments
  - Relevance of new ideas, concepts and knowledge to the concerned discipline
  - Internet search eangines, latest books, journals and open course wares available across the net.
  - Development of topical courses as per the requirements of employability of the learners, academic interests of the faculty and thurst of the programme.
  - Volume of the content as per credits.
- Subject wise workshops to discuss draft syllabi for different levels and make changes as per recommendations emerging from the discussion in workshops
- BOS meets to discuss draft syllabus along with regulations, make changes if required. finalize and approve these.

How to go about? (contd.)

- Role of Working Groups/ Board of Studies of a subject (an example UG)
  - Focus on the structure of the programme as per the requirement of the award of degree with in a minimum period of three years & regulations
  - Identify courses as per the table on course wise distribution of credits and classification (Hard core, soft core, electives, open electives etc.) vis-à-vis total credit requirement.
  - Design each course content to provide for stipulated instruction hours as is envisaged by the credits assigned to the course
  - Design each course content to be spread evenly over the semester making necessary allowance for minor tests, assignments, seminars etc.
  - Design course content so that it gets divided into four units with two to three sub units mentioning credits for each sub unit.
  - In the syllabus list recommended text books, list of supplementary reading and list of internet resources should be clearly mentioned.

Template for Design of Syllabus of a Theory Course

- Header as given below with note about minor tests, major tests, continuous comprehensive assesment, term end examination (with a note to the paper setter of term end examination) and distribution of marks for each component, credits assigned to the course (L:T:P)

- Body of the syllabus
  - Unit-I
    - Subunit 1
    - …….
  - Unit-II
    - Subunit 1
    - …….

Template for Design of Syllabus of a Theory Course

- ï Unit-III
  - Å Subunit 1
  - Å …….
- ï Unit-IV
  - Å Subunit 1
  - Å …….

Å Books Recommended (in bibliographic format for books)

- ï Text Books
- ï Books for supplementary reading
- ï Internet Resources
- ï Journal resources

Template for Design of Syllabus of a Laboratory Course

- Header as given below with note about minor tests, major tests, continuous comprehensive assesment, term end examination (with a note to the paper setter of term end examination) and distribution of marks for each component, credits assigned to the course (L:T:P)

- Body of the syllabus
  - Unit-I
    - Subunit 1
    - …….
  - Unit-II
    - Subunit 1
    - …….

Template for Design of Syllabus/Instructions of a Project Work and the expectations from the learner the role of supervisor and monitoring of progress

- Header as given below with note about minor tests, major tests, continuous comprehensive assesment, term end examination (with a note to the paper setter of term end examination) and distribution of marks for each component, credits assigned to the course (L:T:P)

- Body of the syllabus
  - Unit-I
    - Subunit 1
    - …….
  - Unit-II
    - Subunit 1
    - …….

FAQôs

- *Will CBCS offer a complete freedom to choose any course of study/subject running in different departments of study in the HEI where he or she is studying or HEI outside his institute?*
- *How will a typical course structure look?*
- *How is course performance indicated*
- *How is semester performance indicated*
- *How does one decide in which courses one needs to earn credits?*
- What is an audit course
- Wiil there be a Need for Teacher Fellows, Couese Assistants, Teaching Assistants?
- What will be the role of ICT in new scenerio?

Other Issues

- How to bring in Distance Education Learner in the ambit of recommendations of Distance Education Council norms which has all the components of CCA and CBCS within the same course content as approved by BOS for regular students?
- How to bring in Private students under the ambit of CCA and CBCS? If current system prevails there will be problems of equivalence of their degree with regular and distance education students not only within the university but also outside the university. One option is to route all these candidates through distance education mode only. This may bring more students to ICDEOL also.

Other Issues

- Regulation 25.11: The BOS shall make changes, if any, in the syllabus at least a year before the commencement of the academic year/semester to which syllabus concerned pertains
- After the design of the syllabus, drafting of model question papers by BOS
- Writing of learning goals of the course and learning or instructional objectives of each topic.

Other Issues

- Maintenance of complete course file by teacher to be handed over to the designated head of Department having following documents
  - Time table for the course
  - Learning goals of the course
  - Lecture wise course plan with learning/instructional objectives
  - Attendance record
  - Tutorial sheets/Assignment sheets
  - Quizzes
  - Question papers of minor tests
  - Question paper of end semester examination
  - Complete details of Comprehensive Continuous Assesment
  - Filled Teacher Evaluation Sheets by students
  - Course Content Evaluation Sheets by students
  - Raw scores of CCA of students with authenticated copy submitted to head of the department

Final Remarks

- CBCS is the mother of student centric educational reforms. A student is provided with an academically rich, highly flexible learning system blended with abundant provision for skill practice and activity orientation that he/she could learn in depth without sacrificing his/her creativity.
- A student can exercise the option to decide his/her own pace of learning- slow, normal or accelerated plan and sequence his/her choice of paper, learn to face challenges through term work/ project work/ and may venture out to acquire extra knowledge/ proficiency through add- on facilities.

Final Remarks

- A student enjoys an extra ordinary benefit that his/her evaluation would be in terms of grades, computed through a more scientific and a logical process of normalization which imbibes the advantages of relative weighing of the performances against evaluating in an absolute way.
- The great advantage is that the learning process is made continuous and the evaluation process is not only made continuous but also made learner-centric and is designed to recognize the capability and talent of a student.
- CBCS is a process of evolution of educational reforms that would yield the result in subsequent years and after a few cycles of its implementation.

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References

1. http://www.bdu.ac.in/regulations/cbcsugreg.pdf
2. D.O. No..F.1-2/2008(XI Plan) From Chairman UGC on Examination Reforms dated Jan 31, 2008: Annexure-II, Action Plan for Academic and Administrative Reforms.
3. D.O. No..F.1-2/2008(XI Plan) From Chairman UGC on Examination Reforms dated March 2009
4. Draft Rashtriya Uchatar Shiksha Abhiyan (RUSA)-UGC published on the web on 21.1.2013: http://www.ugc.ac.in/pdfnews/5867549_rusa.pdf
5. R.K. Wanchoo, Implementation of Choice Based Credit and Grading System for UG/PG Programs: Salient Featyres A ppt, UCIET, Panjab University Chandigarh
6. http://www.nith.ac.in/UG_RP_new.pdf
7. http://www.uni-mysore.ac.in/assets/Downloads-20012/January/CBCS-HANDBOOK-2012-13-Batch.pdf
8. Handbook 2009, Distance Education Council Regulations, DEC New Delhi

Thanks