



## **SCHOOL OF SCIENCES**

IG/SOS/Dir/Feedback/2020/  
3<sup>rd</sup> September 2020.

### **Sub. : School Board Item as approved by circulation.**

The following agenda item was circulated to all the School Board members for their consideration and approval.

#### **ITEM: To consider and approve the Feedback Reports on the feedback received from external subject experts and teachers**

The School of Sciences has carried out feedback studies, using feedback forms developed by CIQA (Centre for Internal Quality Assurance) for subject experts and for faculty of IGNOU. The external experts were members of our programme expert committees or course expert committees and course writers. The responses were received from 42 external subject experts and 37 teachers of the School of Sciences.

These reports are required to be placed before the NAAC Team, after getting approval of the School Board. Given the present circumstances and the urgency, the following agenda was circulated to all the School Board members for their consent.

**The School Board members have given their approval of the reports, along with some suggestions and minor corrections, which have been incorporated. The finalized reports are attached herewith for information.**

*Sujatha*

03.09.2020

Director, SoS

निदेशक / Director  
विज्ञान विद्यापीठ / School of Sciences  
इन्दिरा गान्धी राष्ट्रीय मुक्त विश्वविद्यालय  
Indira Gandhi National Open University  
मैदान गढ़ी, नई दिल्ली-65 / Maidan Gahri, New Delhi-65



## INDIRA GANDHI NATIONAL OPEN UNIVERSITY

### SCHOOL OF SCIENCES

#### FEEDBACK ANALYSIS REPORT OF SUBJECT EXPERTS ON THE DESIGN & DEVELOPMENT OF CURRICULUM

##### 1.0: Preamble

Indira Gandhi National Open University (IGNOU) was established by an Act of Parliament in 1985, with the objective to disseminate learning by a diversity of means and provide opportunities for higher education to large segment of population.

From the beginning, the university has been striving towards achieving its mandate by offering high quality, innovative and need based academic programmes to all segments of our society. IGNOU especially focuses on supporting the most disadvantaged social segments academically at affordable cost.

The objective of IGNOU is being met as team effort with IGNOU faculty and subject experts from prestigious universities and higher education institutions across India pooling their knowledge. The external subject experts form an important category of stake holders for obtaining inputs on regular basis. Such inputs are used by the IGNOU faculty towards the design, development and up gradation of the curriculum.

Self-Learning Materials (SLM) are the backbone of the Open and Distance Learning (ODL) system. IGNOU follows the 'team approach' for designing and developing the curriculum in order to ensure high standards, appropriateness of level and the quality of self-learning materials. The curriculum of every new or revised programme is designed by a 'Programme Expert Committee' appointed by the Vice-Chancellor. It comprises distinguished subject experts drawn from prestigious universities and higher education institutions representing all regions of the country, and the faculty of the University. While designing the curriculum the learner profile and their entry level qualifications are taken into consideration along with the need analysis. The Programme Expert Committee also recommends the methodology of assessment, evaluation and grading for the programme in the light of the general policy of the University. After approval of the statutory bodies of the university such as the School Board, Planning Board and the Academic Council, meetings of the Course Design Committees are held to design the detailed unitized syllabus of each course of the programme based on the broad syllabus designed by the Programme Expert Committee. When the detailed unitized syllabus of each course has been developed, a proposal for developing the programme is put up for approval of the School Board and Academic Council of the University.

After the approval of the Academic Council, orientation workshops of course writers are held by the distance education experts of the university and by IGNOU faculty along with the external experts recommended by the School Board and approved by the Vice

*S. Gupta*

Chancellor, for imparting training on development of self-learning materials. Thereafter, units are assigned to course writers including IGNOU faculty members who develop them as per the requirements of the ODL system. Feedback is given to them by the internal and external course writers on the draft units. The course is edited by renowned Expert(s) of the field (from IGNOU or Universities/Higher Education Institutions) to ensure quality. The course team from the internal faculty members of the School of Sciences finalizes the units received from the course writers and ensures that the courses are in conformity with the format of SLMs, appropriateness of level and language, and assures quality. A course coordinator from the course team is responsible for coordinating all the activities pertaining to the course development. The main objective of this exercise is to design updated content relevant to the programme/course and develop high quality print material that is presented at an appropriate level for the intended learners and enables them to study on their own.

Subject Experts play a very important and crucial role in the design of the curriculum and development of high quality SLM. To further improve the programme and course development process, the School has carried out this feedback study. The analysis of the feedback is being presented in this report.

## **2.0: About the School and Experts Involved**

The School of Sciences started functioning in 1986, with the challenge of imparting good quality theoretical and practical education in four science disciplines to start with, namely, Physics, Chemistry, Mathematics and Life Sciences. In the year 2009, four new disciplines were added to the School, namely, Geography, Geology, Biochemistry and Statistics.

The functions of the School are to:

- a) Plan, develop and offer academic programmes/courses at the certificate, diploma, undergraduate, post-graduate, doctoral and awareness levels.
- b) Encourage research in discipline-based as well as systemic areas.
- c) Collaborate in the development of programmes/courses offered by other Schools of the University.
- d) Provide learner support using electronic media and ICT tools.
- e) Participate in the assessment activities and monitoring of student support services.

### **Programmes Currently Offered by the School of Sciences:**

#### **Doctoral Degree**

- Doctor of Philosophy in Biochemistry (PHDBC)

- Doctor of Philosophy in Statistics (PHDSTAT)
- Doctor of Philosophy in Geography (PHDGEOG)
- Doctor of Philosophy in Geology (PHDGY)
- Doctor of Philosophy in Mathematics (PHDMT)
- Doctor of Philosophy in Chemistry (PHDCHE)
- Doctor of Philosophy in Life Sciences (PHDLS)
- Doctor of Philosophy in Physics (PHDPH)

### **M.Phil. Degree**

- M.Phil. in Geography (MPHILGEOG )
- M.Phil. in Chemistry (MPHILCHEM)

### **Master's Degree**

- M.Sc. (Mathematics with Applications in Computer Science) (MSCMACS)

### **Bachelor's Degree**

- B.Sc. (General)
- B.Sc. Botany (Major)
- B.Sc. Zoology (Major)
- B.Sc. Physics (Major)
- B.Sc. Mathematics (Major)
- B.Sc. Chemistry (Major)
- B.Sc. General under UGC CBCS
- B.Sc. (Hons) Biochemistry

### **PG and Advance Diploma**

- Post-Graduate Diploma in Analytical Chemistry (PGDAC)
- Post-Graduate Diploma in Environment and Sustainable Development (PGDESD)
- Post Graduate Diploma in Applied Statistics (PGDAST)

### **PG and Advance Certificate**

- Post Graduate Certificate in Geoinformatics (PGCGI)

*Swati*

## Diploma

- Diploma in Aquaculture (DAQ)

## Certificate

- Certificate Programme in Laboratory Techniques (CPLT)
- Certificate Programme in Teaching of Primary School Mathematics (CTPM)
- Preparatory Course in General Mathematics

## Appreciation Course

- Appreciation Course on Environment (ACE)

In all the above-mentioned programmes, the School of Sciences has followed the guidelines for the design and development of programmes/courses described in Section 1.0. The Expert Committees, Course Design Committees and Course Writers Committees had representation of distinguished subject experts drawn from renowned universities and higher education institutions representing all regions of the country, and the IGNOU faculty.

## 3.0: Methodology

Quality is a major concern for all stake holders in distance education. For assessing and improving quality of the curriculum and self-learning materials developed by the subject experts and IGNOU faculty, a survey was conducted to obtain feedback from **subject experts** using the feedback form designed by CIQA (Centre for Internal Quality Assurance) of IGNOU.

The feedback form was sent via email to the Subject Experts who had participated in Programme Expert Committee, Course Design Committee, Course Writers' Committee. Responses were received from 42 subject experts and then analyzed. Feedback was obtained on the following aspects (Table A of Section 4.0):

- Briefing about the process and pedagogy of Curriculum Design and Development in IGNOU;
- Presentation and discussion on the Need Analysis report prior to the finalization of the Curriculum;
- Subject Expert Committees reviewed the curriculum of other universities;
- Availability of guidelines for the development of the curriculum;
- Extent of involvement of the subject experts in the curriculum review process;
- Presentation and discussion of feedback from other stake holders such as alumni and industry (wherever relevant) during the framing of curriculum;

*Sujatha*

- Making sure that the Curriculum in the area of expertise was up-to-date;
- Appropriateness of the Curriculum vis-a-vis the level of the programme;
- Orientation provided for the development of Self-Learning Materials for course writers;
- Asserting that the Self-Learning Materials were Learner Centric.

The Index Value of the assessment have been kept on 5-point basis as:

SA – Strongly Agreed

A – Agreed

N – Neutral

SDA – Strongly Disagreed

DA – Disagree

All parameters mentioned in feedback from carry equal weightage. Subject Experts provided the feedback for each parameter on a scale of 5. The responses were compiled in different tables and presented as graphs. The average of scores of each parameter has been calculated.

#### 4.0: Feedback of Subject Experts

Responses received from the subject experts on the items mentioned in Sec. 3.0 are presented in Table A and Fig. 1.

**Table A: Frequency Percentage, Mean and SD (Standard Deviation) of Experts agreement for the items related to the Design and Development of Curriculum**

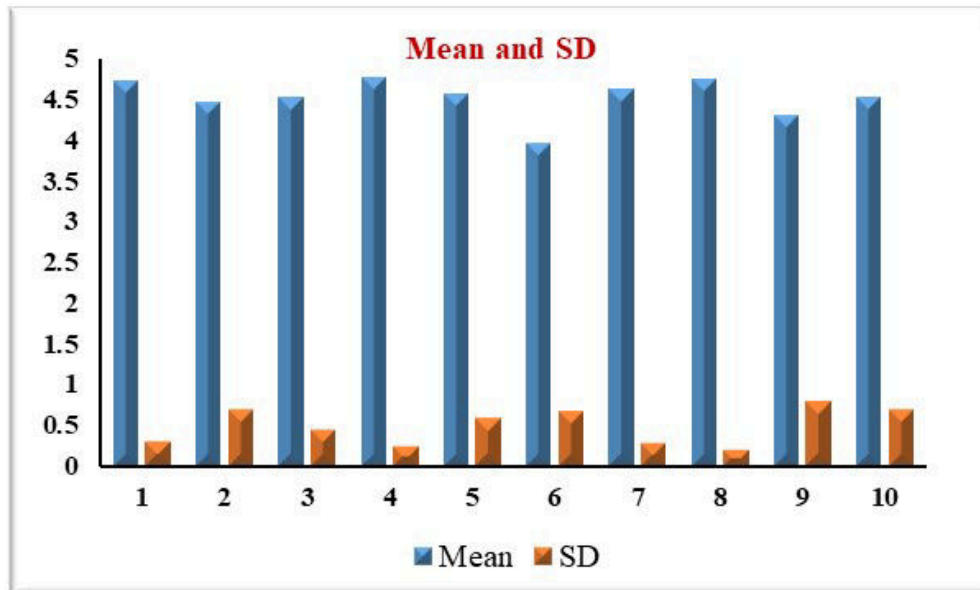
Sl. No.	Statement	Strongly Agree 5	Agree 4	Neutral 3	Disagree 2	Strongly Disagree 1	Mean	SD
1	You were briefed about the pedagogy of Curriculum Design and Development in an OU	32	8	2	0	0	4.71	0.3
		76%	19%	5%	0%	0%		
2	Need Analysis was discussed before finalizing the Curriculum	25	13	3	0	1	4.45	0.68
		60%	31%	7%	0%	2%		

*Signature*



3	Subject Expert Committees reviewed the curriculum of other universities	26	12	4	0	0	<b>4.52</b>	<b>0.44</b>
		62%	29%	10%	0%	0%		
4	Guidelines were provided for the development of the curriculum	33	8	1	0	0	<b>4.76</b>	<b>0.23</b>
		79%	19%	2%	0%	0%		
5	As subject experts you were involved in the curriculum review process	27	13	1	0	1	<b>4.55</b>	<b>0.58</b>
		64%	31%	2%	0%	2%		
6	Feedback from others like alumni and industry was discussed during the framing of curriculum	10	22	9	0	1	<b>3.95</b>	<b>0.66</b>
		24%	52%	21%	0%	2%		
7	Whether the Curriculum of your subject was updated	27	14	1	0	0	<b>4.62</b>	<b>0.28</b>
		64%	33%	2%	0%	0%		
8	Curriculum matches with the level of the programme	31	11	0	0	0	<b>4.74</b>	<b>0.19</b>
		74%	26%	0%	0%	0%		
9	Orientation was given in the development of Self Learning Material	21	14	6	0	1	<b>4.29</b>	<b>0.78</b>
		50%	33%	14%	0%	2%		
10	Self-Learning Materials are Learner-Centric	28	10	3	0	1	<b>4.52</b>	<b>0.68</b>
		67%	24%	7%	0%	2%		

*Supal*



**Fig. 1: Mean and SD values for experts' responses regarding the items mentioned in Table A**



**Fig. 2: Over all experts' agreement with 10 items**

### 5.0: Analysis of the Feedback received

The data related to item no. 1 from Table A and Fig. 1 clearly indicate that the subject experts were briefed about the pedagogy of Curriculum Design and Development in an open university (76% SA + 19% A and Mean 4.5). Regarding item no. 2 related to need analysis, most subject experts either strongly agreed or agreed (91%, Mean 4.4). Only



few experts showed disagreement for this item. These responses might be from the experts who were part of Under Graduate programme for which the School had not conducted any need analysis because IGNOU is strictly adhering to the UGC guidelines for Under Graduate programmes. As regards item no. 3, 91% respondents have either strongly agreed or agreed that they had reviewed the curriculum of other universities. Only few have shown disagreement which could be due to non-availability of similar programmes in other universities. In relation to item no. 4, most subject experts strongly agreed that guidelines were provided for the development of the curriculum (79% SA and Mean 4.76).

Regarding item no. 5 related to curriculum review process, 64% respondents strongly agreed that they were involved in this process. Only 24% strongly agreed with the item no. 6 related to the feedback from others like alumni and industry being discussed during the framing of the curriculum. This low agreement could be due to the fact that the School of Sciences offers only a few programmes which fulfil the educational requirements of persons working in industry. The database of our alumni is in the process of creation.

As regards item nos. 7 and 8, majority of the respondents found that the curriculums of their subjects were updated (64% SA + 33% A. Mean 4.62) and curriculum of the courses also matched with the level of the programmes (74 % SA+ 26% A and Mean 4.74). Regarding item no. 9, 83% of the experts (50% SA and 33% A, Mean 4.29) expressed their agreement that they were oriented for the development of Self-Learning Materials. I item no.10, 91% respondents shown their agreement that Self-Learning Materials are Learner-Centric (67% SA, 24% A, Mean 4.52).

Further higher mean, i.e., greater than 4 for most of the items clearly indicates that subject experts had agreement with most of items on which feedback was sought. This is also supported by Fig. 2, which depicts the overall agreement for the items in our feedback form.

### **Some Notable Suggestions of Subject Experts**

- Periodic revision and update of the curriculum are needed for most of the programmes offered by the School of Sciences.
- The learning materials are sound in content and well-crafted with the learner in mind. It could be enriched further with opportunity for learning by introducing the topics using suitable demonstrations to enhance student interest.
- Curriculum should be more jobs oriented.
- More emphasis should be laid on the monitoring of the programmes.
- Application-oriented programmes should be introduced at diploma level as well.

- The improvement/updating of the contents should be done regularly.

## 6.0: Conclusion and Recommendations:

Analysis of the feedback responses clearly indicates that most subject experts were in agreement with the process of designing and developing the curriculum being followed by the university. However, some experts indicated the need of keeping the curriculum updated. There was only one item for which we have received comparatively less responses that is feedback from alumni and industry. This will be kept in view while developing future programmes. Some experts also expressed the need of more orientation for the development of courses.

## 7.0: Annexure

### FEEDBACK FORM FOR SUBJECT EXPERTS

#### Background Information

Name:

Age Group: 20-30 30-40 40-50 50 and above

Male:

Female:

Place of Employment:

Are You Associated with IGNOU: Yes No

If Yes, in what Capacity:

Subject /Discipline:

**Teaching-Learning is an important component in any Open University. Feedback is very important for University to grow. You have contributed in the design and development of the curriculum. To improve the system, kindly respond to the following statements.**

SA: Strongly Agree, A: Agree, DA: Disagree, SDA: Strongly Disagree

S. No	Statement	SA	A	Neutral	SDA	DA
1	You were briefed about the pedagogy of Curriculum Design Development in an OU					
2	Need Analysis was discussed before finalizing the Curriculum					
3	Subject Expert Committees reviewed the curriculum of other universities					

*Suvalta*

4	Guidelines were provided for the development of the curriculum					
5	As subject experts you were involved in the curriculum review process					
6	Feedback from others like alumni and industry was discussed during the framing of curriculum					
7	Whether the Curriculum of your subject was updated					
8	Curriculum matches with the level of the programme					
9	Orientation was given in the development of Self Learning Material					
10	Self-Learning Materials are Learner-Centric					

**List the areas that need attention to bring desired improvement in the system.**

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


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# Agenda

## **ITEM: To consider and approve the Feedback Reports on the feedback received from the Subject Experts and Teachers**

School of Sciences has carried out feedback studies using feedback forms developed by CIQA (Centre for Internal Quality Assurance) for 'Subject Experts' and 'Teachers' who were members of our programme expert committee meetings, course expert committee meetings and course writers' committee meetings for the design and development of curriculum. The feedback form was sent via email to the Subject Experts and Teachers who had participated in the meetings mentioned above. The filled feedback forms of the Experts and Teachers were collected. The responses were received from 42 subject Experts and 37 Teachers of School of Sciences. The Feedback Analysis Reports (two) on the basis of feedback received from Subject Experts and Teachers are placed for consideration and approval of the School Board of School of Sciences.

  
निदेशक / Director  
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