MINUTES

37th Meeting of the Academic Council

Dated: 03/02/2023 at 11:00 AM

(Venue: Conference Room, Administrative Block, CUH)

The 37th Meeting of the Academic Council of the Central University of Haryana was held on February 03, 2023 at 11:00 A.M. in the Conference Room, Administrative Block, Central University of Haryana in blended mode.

The following members attended the meeting:

1. **Prof. (Dr.) Tankeshwar Kumar, Vice Chancellor - Chairperson**
2. Prof. (Dr.) Sushma Yadav, Pro-Vice-Chancellor
3. Prof. (Dr.) Param Jeet Singh - (Online Mode)
4. Prof. B.B. Goel - (Online Mode)
5. Prof. Sathans - (Online Mode)
6. Prof. Ram Singh - (Online Mode)
7. Dr. Annapoorni Subramanian - (Online Mode)
8. Dr. (Mrs.) Shimla - (Online Mode)
9. Prof. Suresh Kumar - (Online Mode)
10. Dr. Narender Hooda - (Online Mode)
11. Dr. P.K. Khurana - (Online Mode)
12. Dr. Ashwani Mahajan - (Online Mode)
13. Prof. Sarika Sharma
14. Prof. Sanjiv Kumar
15. Prof. Sunita Srivastava
16. Prof. Chanchal Kumar Sharma
17. Prof. Rajesh Kumar Malik
18. Prof. Neelam Sangwan
19. Prof. Vinod Kumar
20. Prof. Phool Singh
21. Prof. Pawan Kumar Maurya
22. Prof. Dinesh Kumar Gupta
23. Prof. Ravinder Pal Ahlawat

24. Dr. Monika
25. Dr. Bijender Singh
26. Dr. Ramesh Kumar
27. Dr. Dinesh Kumar
28. Dr. Rajesh Kumar Dubey
29. Prof. Vikas Garg
30. Prof. Surender Singh
31. Prof. Rajesh Kumar Gupta
32. Prof. Bir Pal Singh Yadav
33. Prof. Nand Kishor
34. Dr. Ranbir Singh
35. Prof. Vishwanand Yadav
36. Prof. Ranjan Aneja
37. Prof. Ashish Mathur, HoD (I/C)
38. Dr. Rakesh Kumar
39. Dr. Mona Sharma
40. Dr. Kanti Prakash Sharma
41. Dr. Ashok Kumar
42. Dr. Kapil Kumar
43. Prof. Parmod Kumar
44. Prof. Gunjan Goyal
45. Prof. Ajay Kumar Bansal
46. Dr. Shantesh Kumar Singh
47. Dr. Dharam Pal Punia
48. Dr. Samiksha Godara
49. Dr. Santosh C. Hulagabali, Librarian
50. Prof. Rajiv Kaushik, COE (Special Invitee)
51. **Prof. (Dr.) Sunil Kumar, Registrar - Secretary**

The following members could not attend the meeting due to prior preoccupations and were granted leave of absence: -

1. Prof. Raj Kumar
2. Dr. Markanday Ahuja
3. Prof. P.C. Pattnaik
4. Prof. Anand Sharma
5. Prof. Suneel Kumar
6. Prof. Ranvir Singh (Special Invitee)
7. Dr. Rajendra Parsad Meena
8. Dr. Keshav Singh Rawat

9. Dr. Jitendra Kumar
10. Prof. Harish Kumar
11. Dr. Ravinder Kaur

At the outset the Chairperson, Academic Council, extended hearty welcome to all the esteemed members of the Academic Council and apprised about the recent developments. The Chairman, on behalf of the Council, expressed thanks for the valuable contribution of the outgoing members, and also welcomed the new members of the Council.

Item No.	DESCRIPTION
37.1	Confirmation of the Minutes of the 36th meeting of the Academic Council held on 07.10.2022. **(Minutes already circulated)** **Resolution Passed:** **Approved.**
37.2	To report, record and confirm the action taken on the resolutions of the 36th meeting of the Academic Council held on 07.10.2022. **(Annexure-I, Page-11 to 15)** **Resolution Passed:** The action taken on the resolutions of the 36th meeting of the Academic Council held on 07.10.2022, was reported, recorded and confirmed.
	ITEMS FOR CONSIDERATION
37.3	To consider the draft amended Ordinance-XV (Revised) related to PROGRAMMES LEADING TO THE AWARD OF POSTGRADUATE DEGREES/DIPLOMAS, as recommended by the Committee constituted to review the Ordinances of the University, in light of the various Guidelines and Regulations issued by the UGC in the light of NEP-2020. These include: - UGC (Establishment and Operation of Academic Bank of Credits in Higher Education) Regulations, 2021 - Guidelines on Multiple Entry and Exit - UGC Curriculum and Credit Framework for UG Programmes - Guidelines for Apprentices/Internship embedded degree programme - Guidelines for Pursuing Two Academic Programmes simultaneously **Resolution Passed:** Resolved that the amended Ordinance-XV (Revised) related to PROGRAMMES LEADING TO THE AWARD OF POSTGRADUATE DEGREES/DIPLOMAS be approved with minor corrections and recommended to the Executive Council for consideration. **(Annexure-II, Page-16 to 33)** The Council further resolved that an Examination Reforms Committee be constituted by the Vice-Chancellor and also authorised the Vice-Chancellor to take appropriate action on the recommendations of the Committee.
37.4	To consider the proposal for increase of Intake Capacity by 10% in programmes of study for the Academic Session- 2023-24, except for the programmes which are governed by NCTE/AICTE/PCI/BCI/RCI.

	Resolution Passed: Resolved that the seats may be increased in the Departments wherever desirable on the recommendations of the concerned Head of the Department. The seats may be increased for the programmes with intake capacity of less than 50. The Council also resolved that the University should conduct Special Drive for filling the reserved category (SC/ST) seats. In case, the reserved seats (SC/ST) remain vacant, additional seats in proportion to the vacant seats may be increased in UR category to fill-up maximum number of seats as per the Intake.
37.5	To consider the recommendations of the Board of Studies of the Department of Civil Engineering dated 07-09-2022 and School Board of School of Engineering and Technology dated 29-09-2022, for minor changes in the scheme of B.Tech. Civil Engineering for the 7th semester w.e.f. the Academic Session-2023-24 & 8th semester, w.e.f. the Academic Session-2022-23. **(Annexure-III, Page-34 to 41)** *(In 7th semester, seminar is added in place of general fitness for the same credits. In 8th semester, two groups of schemes are proposed, Group 'A' will study in campus and will do project work, Group 'B' will do internship at Industry. Students can choose one group in 8th semester.)* **Resolution Passed:** Approved with minor changes.
37.6	To consider the recommendations of the Board of Studies of the Department of Printing and Packaging Technology dated 12-09-2022 and School Board of School of Engineering and Technology dated 29-09-2022, for the minor changes in the scheme of B.Tech. Printing and Packaging Technology for the 7th semester, w.e.f. the Academic Session-2023-24. **(Annexure-IV, Page-42 to 57)** *(In 7th semester, one paper of Seminar is added (BT PPT710A.)* **Resolution Passed:** Approved.
37.7	To consider the recommendations of the Board of Studies of the Department of Printing and Packaging Technology dated 12-09-2022 and School Board of School of Engineering and Technology dated 29-09-2022, for the minor changes in the scheme of B.Tech. Printing and Packaging Technology for the 8th semester, w.e.f. the Academic Session-2022-23. **(Annexure-V, Page-57 to 64)** *(In 8th semester, two groups of schemes are proposed, Group 'A' will study in campus and will do project work, Group 'B' will do internship at Industry. Students can choose one group in 8th semester. One GEC online paper from the existing scheme was removed.)* **Resolution Passed:** Approved.
37.8	To consider the recommendations of the Board of Studies of the Department of Physical Education and Sports dated 15-11-2022 and School Board of School of Education dated 27-12-2022, for the change in the scheme and syllabi of M.P.Ed. programme w.e.f. Academic Session-2022-2023.

	(1. Credit for the Core Subjects of all semesters has been revised to 4 credits from 3 credits earlier. *2. Practical paper on Sports Specialization (All Semesters) has been removed.* *3. Minor changes in the Syllabus of Theory Subjects)* **Resolution Passed:** Approved with minor changes. **(Annexure-VI, Page-65 to 160)**
37.9	To consider the recommendations of the Board of Studies of the Department of Physical Education and Sports dated 15-11-2022 and School Board of School of Education dated 27-12-2022, for the revised Admission Criteria for M.P.Ed. Programme as follows: ***"50% weightage of CUET Score/ any other test Score adopted by the University, 25% weightage of the Physical Efficiency Test and 25% weightage to the Sports Merit Criteria."*** **(Annexure-VII, Page-161 to 167)** **Resolution Passed:** Approved.
37.10	To consider the recommendations of the Board of Studies of the Department of Computer Science and Engineering dated 17-01-2023 and School Board of School of Engineering and Technology dated 18-01-2023, to update the eligibility criteria for admission to M.Tech. (CSE) programme w.e.f. 2022-23 in Central University of Haryana. **(Annexure-VIII, Page-168 to 180)** **Existing Criteria:** *"Passed B.Tech/B.E. in Computer Engineering/ Computer Science/ Computer Science and Engineering/ Computer Science and Information Technology/ Computer Technology/ Information Technology/ Computer Science and Systems Engineering/ Computer Science and Technology/ Electronics and Computer Engineering/ Electronics and Information Systems/ Information Technology and Engineering/ Software Engineering or relevant/appropriate branch with 55% or above marks or equivalent grade (Relaxation of 5% to the SC/ST/PWD/ OBC (Non-Creamy Layer) candidates)"* **Proposed Criteria:** *"Passed B.E./B.Tech. or equivalent in Computer Engineering/ Computer Science/ Computer Science and Engineering/ Computer Science and Information Technology/ Computer Technology/ Information Technology/ Computer Science and Systems Engineering/ Computer Science and Technology/ Electronics and Computer Engineering/ Electronics and Information Systems/ Information Technology and Engineering/ Software Engineering/Electronics/Electronics & Communication Engg./Electronics & Telecommunication/ Electronics & Instrumentation Control or relevant/appropriate branch /M.Sc. (Maths/Physics/Computer/Electronics or equivalent)/ MCA scoring with 55% or above marks or equivalent grade (Relaxation of 5% to the SC/ST/PWD/ OBC (Non-Creamy Layer) candidates)"* **Resolution Passed:** The Council resolved that the Item may be withdrawn and the Department may submit the proposal to the Vice-Chancellor for approval.

	It was also resolved that the Departments shall revisit the eligibility criteria for various Academic Programmes in tune with NEP-2020. The revised eligibility criteria be submitted to the Vice-Chancellor through Standing Committee (Admissions).
37.11	To consider the recommendations of the Board of Studies of the Department of Teacher Education dated 19-12-2022 and School Board of School of Education dated 27-12-2022, regarding request of Prof. Gaurav Singh, Department of Teacher Education to transfer MOOC's on "Research Ethics and Plagiarism", as a course of Department of Teacher Education under School of Education, Central University of Haryana as host Institute and IGNOU will remain as a National Coordinator. **(Annexure-IX, Page-181 to 188)** **Resolution Passed:** The Council approved the proposal and resolved that the students may opt for the MOOC with the approval of respective Board of Studies. It was further resolved that the existing course on "Research and Publications Ethics" centrally offered by Central Library shall continue.
37.12	To consider the recommendations of the Board of Studies of the Department of Teacher Education dated 19-12-2022 and School Board of School of Education dated 27-12-2022, regarding 50% seats for Science and 50 % seats for Arts/Humanities/Commerce candidates in B.Ed. Programme. **Resolution Passed:** Approved.
37.13	To consider the proposal for setting up of TV Studio and Community Radio Station in Central University of Haryana in consultation with Broadcast Engineering Consultants India Limited (A Government of India Enterprise under Ministry of Information and Broadcasting). **(Annexure-X, Page-189 to 203)** **Resolution Passed:** The Council resolved to approve the proposal in principle subject to availability of funds, and resolved that the Department may be advised to explore the options for financial support/ grants from Ministries/ UGC/ any other Funding Agency for the establishment of TV Studio and Community Radio Station.
37.14	To consider the recommendations of the School Board of School of Engineering and Technology dated 29-09-2022, regarding Admission to B.Tech. Programmes through Joint Seat Allocation System (JOSSA) based on Joint Entrance Examination (JEE-Main) from the Academic Session-2023-24 onwards. **(Annexure-XI, Page-204 to 205)** **Resolution Passed:** After detailed deliberations and request to Dean, School of Engineering and Technology the Council resoled as under: Admission to B.Tech. Programmes be offered 50% through Joint Seat Allocation System (JOSSA) based on Joint Entrance Examination (JEE-Main) and 50% through CUET from the Academic Session-2023-24 onwards. In case seats remain vacant in any of the group, the same may be mutually converted/transferred.

37.15	To consider adoption of the UGC "**Guidelines for Optimum Utilization of the Resources Available in Central Universities/Higher Educational Institutions**". **(Annexure-XII, Page-206 to 211)** **Resolution Passed:** The Council resolved to adopt the UGC guidelines and operational modalities may be framed, accordingly.
37.16	To consider the proposal for starting of the following short term courses in the Department of Library and Information Science: **(Annexure-XIII, Page-212 to 215)** a. ICT Tools and Techniques for Research b. Bibliometric Analysis and Research Trends *(Duration of the courses : 04 months; Course fee: Rs. 10,000/-)* **Resolution Passed:** After detailed deliberations the Council approved the proposal in principle, and resolved that the detailed proposal of the respective Department containing Intake Capacity, revised course fee, duration, mode, feasibility, grading and certification, may be got examined by a Committee constituted by the Vice-Chancellor. The Council authorised the Vice-Chancellor to take appropriate action on the recommendations of the Committee.
37.17	To consider the proposal for starting of the following short term courses in the Department of Environmental Studies: **(Annexure-XIV, Page-216 to 217)** a. Environmental Impact Assessment ***(Duration of the course : 03 months/12 weeks; Course fee: Rs. 15,000/-)*** **Resolution Passed:** After detailed deliberations the Council approved the proposal in principle, and resolved that the detailed proposal of the respective Department containing Intake Capacity, revised course fee, duration, mode, feasibility, grading and certification, may be got examined by a Committee constituted by the Vice-Chancellor. The Council authorised the Vice-Chancellor to take appropriate action on the recommendations of the Committee.
37.18	To consider the proposal for a three-month water, wastewater treatment and recycling training programme in the Department of Environmental Studies. **(Annexure-XV, Page-218 to 221)** ***(Duration of the course : 12 weeks; Intake capacity: 27 per batch)*** ***Course fee:*** *Rs. 25,000/- for Consultants, Industries, SPCB's, Engineers, Environment Managers* ***Rs. 20,000*** *for academicians, NGOs and researcher;* ***Rs. 12, 000*** *for students excluded GST as per norms)* **Resolution Passed:** After detailed deliberations the Council approved the proposal in principle, and resolved that the detailed proposal of the respective Department containing Intake Capacity, revised course fee, duration, mode, feasibility, grading and certification, may be got examined by a Committee constituted by the Vice-Chancellor. The Council authorised the Vice-Chancellor to take appropriate action on the recommendations of the Committee.

37.19 To consider the following amendments in the guidelines for award of Gold Medals to the students in the University Convocation:

Existing	Proposed
a. He/she shall be topper in respective programme by CGPA.	a. He/she shall be topper in respective programme by CGPA.
b. **He/she should have obtained minimum CGPA of 8.00 and above.**	b. **To be deleted.**
c. He/she should not have any Backlog/Reappear during his respective programme.	c. He/she should not have any Backlog/Reappear during his respective programme.
d. There should not be any semester gap due to any reason whatsoever.	d. There should not be any semester gap due to any reason whatsoever.
e. There should not be any case of Unfair Means/ Indiscipline during the programme of study.	e. There should not be any case of Unfair Means/ Indiscipline during the programme of study.
f. In case of tie between two or more students, the overall percentage shall be taken as next criteria for selection.	f. In case of tie between two or more students, the overall percentage shall be taken as next criteria for selection.

Resolution Passed:

The Council approved the proposal with the following amendments:

Existing	Proposed
a. He/she shall be topper in respective programme by CGPA.	a. He/she shall be topper in respective programme by CGPA.
b. **He/she should have obtained minimum CGPA of 8.00 and above.**	b. **He/she should have scored minimum first class.**
c. He/she should not have any Backlog/Reappear during his respective programme.	c. He/she should not have any Backlog/Reappear during his respective programme.
d. There should not be any semester gap due to any reason whatsoever.	d. There should not be any semester gap due to any reason whatsoever.
e. There should not be any case of Unfair Means/ Indiscipline during the programme of study.	e. There should not be any case of Unfair Means/ Indiscipline during the programme of study.
f. In case of tie between two or more students, the overall percentage shall be taken as next criteria for selection.	f. In case of tie between two or more students, the overall percentage shall be taken as next criteria for selection.

Reporting Items

37.20 To report, record and confirm the action taken by the Vice-Chancellor in approving the recommendations of the Committee/Dean (Academic) regarding counting of residency period from date of admission. **(Annexure-XVI, Page-222)**

	Resolution Passed: The Council resolved that, to do away with any sort of ambiguity, the date of admission of the student to the Ph.D. programme be counted as the date of registration for all purposes including fellowship(s), residency period, etc. This provision shall be applicable to all the students enrolled in Ph.D. as on date.
	SUPPLEMENTARY AGENDA ITEMS
37.21	To consider the draft amended Ordinance-XXXIV related to *UNDERGRADUATE PROGRAMMES AND INTEGRATED UG-PG PROGRAMMES*, as recommended by the Committee constituted to review the Ordinances of the University, in light of the various Guidelines and Regulations issued by the UGC in the light of NEP-2020. These include: - UGC (Establishment and Operation of Academic Bank of Credits in Higher Education) Regulations, 2021 - Guidelines on Multiple Entry and Exit - UGC Curriculum and Credit Framework for UG Programmes - Guidelines for Apprentices/Internship embedded degree programme - Guidelines for Pursuing Two Academic Programmes simultaneously **(Annexure-XVII, Page-223 to 247)** **Resolution Passed:** Resolved that the amended Ordinance-XXXIV related to *UNDERGRADUATE PROGRAMMES AND INTEGRATED UG-PG PROGRAMMES* be approved with minor corrections and recommended to the Executive Council for consideration. The Council further resolved that an Examination Reforms Committee be constituted by the Vice-Chancellor and also authorised the Vice-Chancellor to take appropriate action on the recommendations of the Committee.
	UNDER ANY OTHER ITEM
37.22	To consider the recommendations of the Board of Studies of the Department of Electrical Engineering dated 12-09-2022 and School Board of School of Engineering and Technology dated 29-09-2022, for minor changes in the scheme of B.Tech. Electrical Engineering for the 7th semester w.e.f. the Academic Session-2023-24 & 8th semester, w.e.f. the Academic Session-2022-23. **(Annexure-XVIII, Page-248 to 272)** *(In 7th semester, one paper of Seminar is added. In 8th semester, two groups of schemes are proposed, Group 'A' will study in campus and will do project work, Group 'B' will do internship at Industry. Students can choose one group in 8th semester.)* **Resolution Passed:** Approved.
37.23	To consider adoption of University Grants Commission (Minimum Standards and Procedures for Award of Ph.D. Degree) Regulations, 2022. **(Annexure-XIX, Page-273 to 278)** **Resolution Passed:** The Council resolved to adopt the UGC guidelines.

37.24	To consider adoption of University Grants Commission (Open and Distance Learning Programmes and Online Programmes) Regulations, 2020 with subsequent amendments. **(Annexure-XX, Page-279 to 337)** **Resolution Passed:** The Council resolved to adopt the UGC guidelines.
	The meeting ended with a vote of thanks to the Chair.

15/2/23

VICE-CHANCELLOR
(Chairperson)

REGISTRAR
(Secretary)

ACTION TAKEN REPORT

36th meeting of the Academic Council held on 07/10/2022

Item No.	Resolution Passed	Action Taken
36.1	Confirmation of the Minutes of the 35th meeting of the Academic Council held on 15.09.2022. **(Minutes already circulated)** **Resolution Passed:** The Minutes of the 35th meeting of the Academic Council held on 15.09.2022 were confirmed.	Noted
36.2	To report, record and confirm the action taken on the resolutions of the 35th meeting of the Academic Council held on 15.09.2022. **(Annexure-I)** **Resolution Passed:** The action taken on the resolutions of the 35th meeting of the Academic Council held on 15.09.2022, were reported, recorded and confirmed.	Noted
ITEMS FOR CONSIDERATION		
36.3	To consider the recommendations of the Board of Studies of the Department of Mathematics dated 10-05-2022 & 06-09-2022 and School Board of School of Basic Sciences dated 12-09-2022, for the scheme and syllabi of 5-year integrated B.Sc.-M.Sc. (Mathematics) programme, as per the CBCS, NEP-2020 and Learning Outcome Based Curriculum Framework (LOCF) guidelines, for the students of batch 2021-26 (3-6 semesters). **(Annexure-II)** **Resolution:** The Council approved the Scheme and syllabi along with course on Indian Knowledge System (IKS) presented by School of Basic Sciences applicable to all the departments of School. The syllabus of IKS be circulated to all members for record.	The Scheme and syllabi along with course on Indian Knowledge System (IKS) of 5-year integrated B.Sc.-M.Sc. (Mathematics) programme has been implemented w.e.f. Academic Session-2021-22
36.4	To consider the recommendations of the Board of Studies of the Department of Mathematics dated 10-05-2022 & 06-09-2022 and School Board of School of Basic Sciences dated 12-09-2022, for the scheme and syllabi of 5-year integrated B.Sc.-M.Sc. (Mathematics) programme, as per the CBCS, NEP-2020 and Learning Outcome Based Curriculum Framework (LOCF) guidelines, w.e.f. the Academic Session-2022-23 (1-6 semesters). **(Annexure-III)** **Resolution Passed:** Approved	The scheme and syllabi of 5-year integrated B.Sc.-M.Sc. (Mathematics) has been implemented w.e.f. Academic Session-2022-23
36.5	To consider the recommendations of the Board of Studies of the Department of Geography dated 24-08-2022 and School Board of School of Basic Sciences dated 12.09.2022, for the Scheme and Syllabi of M.Sc. (Geoinformatics) programme, as per the CBCS, NEP-2020 and Learning Outcome Based Curriculum Framework (LOCF) guidelines, w.e.f. Academic Session 2022-2023. **(Annexure-IV)**	The Scheme and Syllabi of M.Sc. (Geoinformatics) programme has been

	Resolution Passed: Approved	Implemented w.e.f. Academic Session 2022-23
36.6	To consider the recommendations of the Board of Studies of the Department of Physics and Astrophysics dated 08-08-2022 and School Board of School of Basic Sciences dated 12-09-2022, for the scheme and syllabi of 5-year integrated B.Sc.-M.Sc. (Physics) programme, as per the CBCS, NEP-2020 and Learning Outcome Based Curriculum Framework (LOCF) guidelines, for the students of batch 2021-26. **(Annexure-V)** **Resolution Passed:** Approved	The scheme and syllabi of 5-year integrated B.Sc.-M.Sc. (Physics) programme has been implemented w.e.f. Academic Session-2021-22
36.7	To consider the recommendations of the Board of Studies of the Department of Physics and Astrophysics dated 08-08-2022 and School Board of School of Basic Sciences dated 12-09-2022, for the scheme and syllabi of 5-year integrated B.Sc.-M.Sc. (Physics) programme, as per the CBCS, NEP-2020 and Learning Outcome Based Curriculum Framework (LOCF) guidelines, w.e.f. the Academic Session-2022-23. **(Annexure-VI)** **Resolution Passed:** Approved	The scheme and syllabi of 5-year integrated B.Sc.-M.Sc. (Physics) programme has been Implemented w.e.f. Academic Session-2022-23
36.8	To consider the recommendations of the Board of Studies of the Department of Physics and Astrophysics dated 08-08-2022 and School Board of School of Basic Sciences dated 12-09-2022, for the scheme and syllabi M.Sc. (Physics) programme, as per the CBCS, NEP-2020 and Learning Outcome Based Curriculum Framework (LOCF) guidelines, w.e.f. the Academic Session-2022-23. **(Annexure-VII)** **Resolution Passed:** Approved	The scheme and syllabi of M.Sc. (Physics) programme has been Implemented w.e.f. Academic Session-2022-23
36.9	To consider the recommendations of the Board of Studies of the Department of Physics and Astrophysics dated 08-08-2022 and School Board of School of Basic Sciences dated 12-09-2022, for the scheme and syllabi of Ph.D. programme, w.e.f. the Academic Session-2022-23. **(Annexure-VIII)** **Resolution Passed:** Approved	The scheme and syllabi of Ph.D. (Physics) programme has been Implemented w.e.f. Academic Session-2022-23
36.10	To consider the recommendations of the Board of Studies of the Department of Chemistry dated 06-09-2022 and School Board of School of Basic Sciences dated 12-09-2022, for the scheme and syllabi of M.Sc. (Chemistry) programme, as per the CBCS, NEP-2020 and Learning Outcome Based Curriculum Framework (LOCF) guidelines, w.e.f. the Academic Session-2022-23. **(Annexure-IX)**	The scheme and syllabi of M.Sc. (Chemistry) programme has been Implemented

	Resolution Passed: Approved	w.e.f. Academic Session-2022-23
36.11	To consider the recommendations of the Board of Studies of the Department of Chemistry dated 06-09-2022 and School Board of School of Basic Sciences dated 12-09-2022, for the scheme for first three years and syllabi for second year of 5-year integrated B.Sc.-M.Sc. (Chemistry) programme, as per the CBCS, NEP-2020 and Learning Outcome Based Curriculum Framework (LOCF) guidelines, for the students of batch 2021-26. **(Annexure-X)** **Resolution Passed:** Approved	The scheme for first three years and syllabi for second year of 5-year integrated B.Sc.-M.Sc. (Chemistry) programme has been Implemented w.e.f. Academic Session-2021-22
36.12	To consider the recommendations of the Board of Studies of the Department of Chemistry dated 06-09-2022 and School Board of School of Basic Sciences dated 12-09-2022, for the scheme and syllabi for first three years of 5-year integrated B.Sc.-M.Sc. (Chemistry) programme, as per the CBCS, NEP-2020 and Learning Outcome Based Curriculum Framework (LOCF) guidelines, w.e.f. the Academic Session-2022-23. **(Annexure-XI)** **Resolution Passed:** Approved	The scheme and syllabi for first three years of 5-year integrated B.Sc.-M.Sc. (Chemistry) programme has been Implemented w.e.f. Academic Session-2022-23
36.13	To consider and approve inclusion of independent Ph.D. guidance of DST INSPIRE FACULTY and UGC-FRC Faculty. **(Annexure-XII)** **Resolution Passed:** It is resolved that the DST INSPIRE FACULTY and UGC-FRC Faculty may be considered as Supervisor for Ph.D. supervision as per the provisions of the relevant Ordinance related to the Ph.D. programme. However, It should be sent to UGC for clarification and inclusion in guidelines.	Implemented
36.14	To consider the recommendations of the Board of Studies of the Department of Statistics dated 10-05-2022 and School Board of School of Basic Sciences dated 12-09-2022, for the scheme and syllabi of M.Sc. (Statistics) programme, as per the CBCS, NEP-2020 and Learning Outcome Based Curriculum Framework (LOCF) guidelines, w.e.f. the Academic Session-2022-23. **(Annexure-XIII)** **Resolution Passed:** Approved	The scheme and syllabi of M.Sc. (Statistics) programme has been Implemented w.e.f. Academic Session-2022-23
36.15	To consider the recommendations of the Board of Studies of the Department of Statistics dated 10-05-2022 and School Board of School of Basic Sciences dated 12-09-2022, for the scheme and syllabi of Ph.D.	The scheme and syllabi of Ph.D. (Statistics)

	(Statistics) programme, as per the CBCS, NEP-2020 and Learning Outcome Based Curriculum Framework (LOCF) guidelines, w.e.f. the Academic Session-2022-23. **(Annexure-XIV)** **Resolution Passed:** Approved	programme has been Implemented w.e.f. Academic Session-2022-23
36.16	To consider the draft Guidelines for University Research Fellowship (URF), as recommended by the Committee constituted to frame the guidelines for Non-NET Fellowship. **(Annexure-XV)** **Resolution Passed:** Approved	The guidelines has been notified on University Website for information of all stakeholders.
Under Any other Item		
36.17	To consider the recommendations of the Board of Studies of the Department of Microbiology dated 24-05-2022 and School Board of School of Interdisciplinary and Applied Sciences dated 04-10-2022, for the scheme and syllabi of Ph.D. (Microbiology) programme, as per the CBCS, NEP-2020 and Learning Outcome Based Curriculum Framework (LOCF) guidelines, w.e.f. the Academic Session-2022-23. **(Annexure-XVI)** **Resolution Passed:** Approved	The scheme and syllabi of Ph.D. (Microbiology) programme has been Implemented w.e.f. Academic Session-2022-23
36.18	To consider the recommendations of the Board of Studies of the Department of Biotechnology dated 28-06-2022 and School Board of School of Interdisciplinary and Applied Sciences dated 04-10-2022, for the scheme and syllabi of Ph.D. (Biotechnology) programme, as per the CBCS, NEP-2020 and Learning Outcome Based Curriculum Framework (LOCF) guidelines, w.e.f. the Academic Session-2022-23. **(Annexure-XVII)** **Resolution Passed:** Approved	The scheme and syllabi of Ph.D. (Biotechnology) programme has been Implemented w.e.f. Academic Session-2022-23
36.19	To consider the recommendations of the Board of Studies of the Department of Biochemistry dated 17-05-2022 and School Board of School of Interdisciplinary and Applied Sciences dated 04-10-2022, for the scheme and syllabi of Ph.D. (Biochemistry) programme, as per the CBCS, NEP-2020 and Learning Outcome Based Curriculum Framework (LOCF) guidelines, w.e.f. the Academic Session-2022-23. **(Annexure-XVIII)** **Resolution Passed:** Approved	The scheme and syllabi of Ph.D. (Biochemistry) programme has been Implemented w.e.f. Academic Session-2022-23
36.20	To consider the recommendations of the Board of Studies of the Department of Environmental Studies dated 30-05-2022 and School Board of School of Interdisciplinary and Applied Sciences dated 04-10-2022, for the scheme and syllabi of Ph.D. (Environmental Science) programme, as per the CBCS, NEP-2020 and Learning Outcome Based Curriculum Framework (LOCF) guidelines, w.e.f. the Academic Session-2022-23. **(Annexure-XIX)**	the scheme and syllabi of Ph.D. (Environmental Science) programme has been Implemented

	Resolution Passed: The Council authorised the Vice-Chancellor to approve the scheme and syllabi.	w.e.f. Academic Session-2022-23
36.21	To consider the recommendations of the Board of Studies of the Department of Pharmaceutical Sciences dated 13-05-2022 and School Board of School of Interdisciplinary and Applied Sciences dated 04-10-2022, for the scheme and syllabi of M.Pharm. (Pharmacology) programme, as per the CBCS, NEP-2020 and Learning Outcome Based Curriculum Framework (LOCF) guidelines, w.e.f. the Academic Session-2022-23. **(Annexure-XX)** **Resolution Passed:** Approved.	The scheme and syllabi of M.Pharm. (Pharmacology) programme has been Implemented w.e.f. Academic Session-2022-23
36.22	To consider the recommendations of the Board of Studies of the Department of Pharmaceutical Sciences dated 13-05-2022 and School Board of School of Interdisciplinary and Applied Sciences dated 04-10-2022, for the scheme and syllabi of M.Pharm. (Pharmacognosy) programme, as per the CBCS, NEP-2020 and Learning Outcome Based Curriculum Framework (LOCF) guidelines, w.e.f. the Academic Session-2022-23. **(Annexure-XXI)** **Resolution Passed:** Approved	The scheme and syllabi of M.Pharm. (Pharmacognosy) programme has been Implemented w.e.f. Academic Session-2022-23
36.23	To consider the adoption of the University Grants Commission "**Guidelines for Higher Educational Institutions to offer Apprenticeship/Internship embedded Degree Programme**." **(Annexure-XXII)** **Resolution Passed:** Approved.	UGC guidelines adopted.
36.24	To consider the adoption of the University Grants Commission "**Guidelines for engaging Professor of Practice in Universities and Colleges**." **(Annexure-XXIII)** **Resolution Passed:** Approved.	UGC guidelines adopted.
36.25	To consider the adoption of the University Grants Commission "**Guidelines for Admission and Supernumerary seats of International Students in Undergraduate and Postgraduate Programmes in Higher Educational Institutions in India**." **(Annexure-XXIV)** **Resolution Passed:** Approved.	UGC guidelines adopted.
36.26	To record the Bar Council of India letter No. BCI: D1453/2022: LE: BCI dated 03-10-2022, reported by Prof Rajesh Malik, Dean School of Law regarding regularisation of Second Section of three year LL.B course for the year 2020-21. **(Annexure-XXV)** **Resolution Passed:** Noted.	Noted.

ORDINANCE- XV (Revised)

PROGRAMMES LEADING TO THE AWARD OF POSTGRADUATE DEGREES/DIPLOMAS

1. Definitions of Key Words:

1.1 Choice-Based Credit System (CBCS): The CBCS provides choice for the students to select course from the prescribed courses (Elective or soft-skill courses). It provides a 'cafeteria' approach in which the students can take courses of their choice, learn at their own pace, study additional courses and acquire more than the minimum required credits, and adopt an inter-disciplinary approach to learning.

1.2 Programme: An educational programme leading to the award of a Degree, Diploma or Certificate.

1.3 Academic Year: Two consecutive (one odd + one even) semesters shall constitute one academic year.

1.4 Semester: Each Semester shall 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. The credit-based semester system provides flexibility in designing curriculum and assigning credits based on the course content and hours of teaching.

1.5 Course: Usually referred to as paper, it is a component of a Programme. All courses need not carry the same weight. Each course should define the learning objectives and the learning outcomes. A course may be designed to comprise lectures/tutorials/laboratory work/ field work/ outreach activities/ project work/ dissertation/ internship/ apprentice/ vocational training/ viva/ seminars/ term papers/ assignments/ presentations/ self-study work, etc., or a combination of some of these.

1.6 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.

1.7 Academic Bank of Credits (ABC): An academic service mechanism to facilitate students to become its academic account holders, thereby paving the way for seamless student mobility between or within degree-granting Higher Educational Institutions through a formal system of credit recognition, credit accumulation, credit transfers and credit redemption to promote distributed and flexible teaching-learning.

1.8 Academic Bank Account: An individual account with the Academic Bank of Credits opened and operated by a student, to which all academic credits earned by the Student from course(s) of study are deposited, recognised, maintained, accumulated,

transferred, validated or redeemed for the purposes of the award of Degree/Diploma/certificates etc. by an awarding institution.

1.9 **Credit Point:** It is the product of the grade point and the number of credits for a course.

1.10 **Grade Point:** It is a numerical weight allotted to each letter grade on a 10-point scale.

1.11 **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, means a letter grade assigned to a student on the basis of evaluation of a course on a ten-point scale.

1.12 **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.

1.13 **Semester Grade Point Average (SGPA):** It is a measure of performance of the 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.

1.14 **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.

1.15 **Transcript/ 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.

2. Eligibility for Admission:

A candidate may be admitted to the Master's Degree programme if he/she has obtained a Bachelor's degree under 10+2+3/**10+2+4** system, recognized by the University, or a degree recognized as its equivalent, provided that such a candidate has attained the minimum eligibility/qualification at the time of admission, as decided by the University from time to time.

The eligibility criteria for admission to various programmes offered by the University shall be as decided by the University from time to time.

3. Types of Courses:

Each programme may have Core courses, Elective courses, Self-study/Skill-based courses, Massive Open Online Courses, or any other as specified in the curriculum of a programme of study.

3.1 Core courses:

3.1.1 The core courses are those courses whose knowledge is deemed essential for the students registered for a particular Master's degree programme. Where feasible and necessary, two or more programmes may prescribe one or more common core courses.

3.1.2 The core courses shall be mandatory for all the students registered for that Master's degree programme.

3.1.3 The core courses shall be spread over all the semesters of the programme.

3.2 Elective courses:

The elective courses can be chosen from a pool of papers. These courses are intended to:

- allow the student to specialize in one or more branches of the broad subject area;
- help the student to acquire knowledge and skills in a related area that may have applications in the broad subject area;
- help the student to bridge any gap in the curriculum and enable acquisition of essential skills (e.g. statistical, computational, language, communication skills, etc.); and
- help the student to pursue an area of interest.
- The student may also choose additional elective courses offered by the University to enable him/her to acquire extra credits from the discipline, or across the discipline.

3.3 Self-study/Skill-based Courses:

The self-study courses are optional, not mandatory. Being non-credit courses, the performance of students in these courses shall be indicated either as "satisfactory" or as "unsatisfactory", instead of the Letter Grade and this shall not be counted for the computation of SGPA/CGPA.

Note: A course (Core/Elective/Self-study/Skill-based) may also take the form of a Dissertation, Project work, **Practical/ Hands-on training**, Field work or Internship/Seminar.

3.4 Massive Open Online Courses (MOOCs): The students may opt for the online courses offered through India's national Massive Open Online Course (MOOC) platform, viz. Study Web of Active Learning for Young Minds (SWAYAM) or any other online platform approved by UGC/regulatory body from time to time up to an extent as prescribed in the curriculum of an academic programme with the approval of the respective Board of Studies. *The Departments may identify upto 40% MOOC courses from SWAYAM Portal* or any other online platform approved by UGC/regulatory body from time to time *for adoption in UG/PG programmes in accordance with relevant UGC Guidelines.*

4. Mobility Options and Credit Transfer through Academic Bank of Credits (ABC):

4.1 Academic Bank of Credits, a national-level facility to promote flexibility of curriculum framework and interdisciplinary or multidisciplinary academic mobility of students across Higher Education Institutions in the country, facilitates students to choose their own learning path to attain a Degree or Diploma or Post-Graduate diploma or academic qualification, working on the principle of multiple entry-multiple exit as well as any-time, any-where, and any-level learning.

4.2 Each student shall have to register on Academic Bank of Credits (ABC) portal for creation of the unique ABC ID to avail multiple entry and multiple exit options and mobility across various disciplines and Higher Education Institutes.

4.3 The requirement of credits as well as essential components of study for award of the Post Graduate Degree or Post Graduate Diploma shall be prescribed by the University.

4.4 The norms in respect to the curriculum content, curriculum transaction, and educational technologies for the courses offered, their timing, continuous evaluation methods, attendance and novel methods of assessment shall be as decided by the University.

4.5 Credits earned and deposited with Academic Bank of Credits (ABC) shall be valid for the purpose of redemption to a degree or diploma or Post Graduate diploma or certificate, for varying duration as specified by the credit awarding and credit accepting Higher Education Institution subject to a maximum duration of seven years;

4.6 Provided that once any credit is redeemed for the award of a degree, diploma or certificate, such credit shall be irrevocably debited from the student's Academic Bank Account, and the credits earned by a student cannot be reused for the award of any other formal academic qualifications.

4.7 Students may customize or design their own degrees utilizing courses offered by one or more Higher Education Institutes registered with Academic Bank of Credits;

4.8 Provided that, the student shall be required to earn at least fifty percent of the credits from the Higher Education Institute awarding the degree, diploma or certificate;

4.9 Provided further that, the student shall be required to earn the required number of credits in the core subject area necessary for the award of the degree, diploma or certificate as specified by the university in which the student is enrolled.

4.10 A student shall be eligible for the award of degree, diploma or certificate, whichever applicable, only after fulfillment of the credit requirements, assessment processes, duration and other relevant provisions as laid down by the university.

4.11 A student can take the courses of any other university subject to equivalence of the

core/elective courses and availability of seats, adopting due administrative process and formal consent of the University/Universities through the Equivalence Committee(s).

4.12 The flexibility and mobility options doesn't entitle a student to be exempted or relaxed from any of the requisites (sessionals, attendance, assignments, end-semester examinations, programme duration etc.) for the completion of the programme.

4.13 The mobility option should not be interpreted as inter-university migration unless approved by both the Universities

4.14 The mobility across the disciplines is also subject to availability of seats, faculty, infrastructure and number of students (as fixed by the University/department from time to time).

4.15 Mobility of Credits earned by the students from GIAN (Global Initiative of Academic Networks) courses/ MOOCs (Massive Open Online Courses)/ SWAYAM (Study Webs of Active-Learning for Young Aspiring Minds)/ Swachh Bharat Internship Programme/ etc. shall be credited in accordance with the provisions made under the respective schemes, as amended from time to time; subject to compatibility of course content & assessment process with the prior approval of the Board of Studies/ School Board of the concerned department.

5. **Credits*:***

A credit defines the quantum of contents/syllabus prescribed for a course and determines the number of hours of instruction required per week. Thus, in each course, credits are assigned on the basis of the number of lectures/tutorials/laboratory work/field work and other forms of learning required for completing the contents in 15 week schedule. 2 hours of laboratory work/field work is generally considered equivalent to 1 hour of lecture.

(i) 1 credit = 1 hour of instruction per week (1 credit course = 15 contact hours of instruction per semester)

(ii) 3 credits = 3 hours of instruction per week (3 credit course = 45 contact hours of instruction per Semester)

(iii) 1 credit = 1 hour of tutorial per week (1 credit course = 15 contact hours of instruction per semester)

A core/elective course with practical component may carry up to 6 credits while a core/elective course without practical component may carry upto 5 credits; a self-study course shall normally carry not more than 3 credits. However, a dissertation/ project work/field work may carry up to 16 credits (along with other core/elective courses); and a semester-long dissertation/project work/field work may carry upto24 credits.

6. Course Coding:

Each course offered by a school/department is identified by a unique course code indicating school, department, programme, semester, course No., core (C) /elective course (E), Serial No. of the course, No. of credits attached to lectures, tutorials, practical and total number of credits for the course respectively.

For example, the course code for fifth core course of the first programme in the second semester in Department of Chemistry under the School of Basic Sciences carrying 4 credits (3 lectures and one practical) may be- SBS CHEM 01 02 05 C 3014.

However, the concerned Board of Studies/School Board may devise a specific course codification pattern with the approval of the Academic Council.

7. Duration of Programme:

The minimum duration for completion of a one-year Post-Graduate Diploma programme shall be two consecutive semesters (one odd and one even semester)and for a two-year Master's degree programme in any discipline there shall be four consecutive semesters (two odd and two even semesters).*The maximum period for completion of one-year Post Graduate Diploma shall be four semesters and for a two-year Master's degree it will be eight semesters:*

Provided that a semester or a year may be declared by the Academic Council a zero semester or a zero year for a student if he/she could not continue with the academic work during that period due to illness and hospitalization, or due to accepting a scholarship/fellowship subject to the fulfillment of requirements laid down in this respect by the regulations. Such a zero semester/year shall not be counted for calculation of the duration of the programme in the case of such a student.

8. Student Advisor:

The Department in which the student gets admitted shall appoint an Advisor for him/her from amongst the members of the faculty concerned. All faculty members of the department shall function as Student Advisors and shall have more or less equal number of students. The Student Advisor shall advise the student in choosing courses and render all possible support and guidance to him/her.

9. Course Registration

9.1 The registration for courses shall be the sole responsibility of the student. No student shall be allowed to do a course without registration, and no student shall be entitled to any credits in the course, unless he/she has been registered for the course by the scheduled date fixed by the University.

9.2 **Every student shall also register on Academic Bank of Credits (ABC) portal under the guidance of the Student Advisor.**

9.3 Every student has to register in each semester (in consultation with his/her Student Advisor) for the courses he/she intends to undergo in that semester by applying in the prescribed proforma in triplicate, duly signed by him/her, the Student Advisor and the Head of the Department, within the deadline notified for the purpose by the University.

9.4 Late registration may be permitted by the Head/Incharge of the Department up to a maximum of six weeks after the commencement of the semester, on payment of late registration fee of Rs. 100/-, as revised from time to time.

9.5 **A student shall register for a minimum of 20 credits and can register for a maximum of 30 credits in a semester (subject to 50 (±4) credits throughout the duration of the one-year PG Diploma programme), unless specified otherwise by the University for a programme of study/course.**

9.6 A student shall register for a minimum of 20 credits and can register for a maximum of 30 credits in a semester (subject to 100 (±4) credits throughout the duration of the two-year PG programme), unless specified otherwise by the University for a programme of study/course.

9.7 Withdrawal from a course may be permitted up to two weeks from the date of registration, provided the courses registered after withdrawal shall enable the student to earn a minimum of 20 credits **in a semester**. Withdrawal from a course may not be allowed for those who had late registration.

9.8 A student may be allowed by the Head/Incharge of the Department to add a course or substitute a course for another course of the same type (elective or self-study/skill-based), for valid reasons with the consent of the Student Advisor not later than two weeks from the date of commencement of the semester.

9.9 If a student registers himself/herself for more elective courses than the prescribed in the programme, while calculating the Semester/Cumulative Grade Point Average, only the prescribed number of elective courses for the programme of study shall be included in the descending order of the grades obtained by him/her.

9.10 The elective courses opted and registered by the student either from parent or other department and attempted in the end-semester examination shall have to be qualified. Such elective courses shall not be replaced. However, a student shall have the option of choosing an elective course from other departments irrespective of the semester in which the course is offered. For example; a student of odd/even Semester can opt an elective course of other department offered in any odd/even semester respectively.

10. Examination and Internal Assessment

The internal assessment work and the End-Semester examination shall have the weightage of 30% and 70%, respectively.

10.1 *Internal Assessment*

10.1.1 Internal Assessment shall be done on a continuous basis, taking into account the student's class performance, completion of assignments and performance at the two compulsory sessional tests to be conducted in a semester..

10.1.2 Internal Assessment Test 1 shall be held around the sixth week of the semester for the syllabi covered till then.

10.1.3 Internal Assessment Test 2 shall be held around the twelfth week for the syllabi covered between seventh and twelfth week.

10.1.4 Internal Assessment Test-3, if required, may be held around the fourteenth week for the syllabi covered between seventh and fourteenth week.

However, the best scores in any two sessional tests shall be counted.

10.1.5 For conducting Internal Assessment, one or more assessment tools, such as written tests, assignments, oral quizzes, paper presentation, laboratory work, etc., suitable to the course may be employed.

10.1.6 The Internal Assessment for theory shall consist of the following components with marks indicated against each:-

(i) Attendance	5 marks
Below 75%	Nil
75% to <80%	1 mark
80 % to <85%	2 marks
85% to <90%	3 marks
90% to <95%	4 marks
95% to 100 %	5 marks
(ii) Assignments/Presentations/Class Participation etc.	5 marks
(iii) Internal Assessment Test-1	10 marks
(iv) Internal Assessment Test-2	10 marks

This **criterion** shall be made known to the students at the commencement of each semester.

10.1.7 For practical examination, 70 percent of the marks will be awarded through an end

semester practical exam and remaining 30 percent of the marks will consist of internal assessment to be awarded by concerned faculty member(s) of the concerned department. Maximum 05 marks to be awarded for attendance of students (Same as mentioned in case of internal assessment for theory examination).

10.1.8 The seminar paper shall be assessed on the basis of the contents of the paper submitted and its presentation, equally. The assessment will be made by the concerned teacher/advisor/supervisor. A Seminar presentation paper will not exceed 4 credits per semester.

10.1.9 The Head/Incharge of the Department may allow a student to repeat one sessional test within the same semester if his/her application in this regard is considered as genuine on valid grounds.

10.1.10 A student is required to secure a minimum of 'P' grade in the Internal Assessment and in the End-Semester examinations in the aggregate. However, he/she shall have to pass the practical examination separately, with a minimum of 'P' grade.

10.2 End-Semester Examination:

10.2.1 The End-semester Examinations covering the entire syllabus prescribed for the course and carrying 70% of weightage, shall be conducted by the Examination Branch of the University, in consultation with the Head of the Department.

10.2.2 The Examiners or Board of Examiners shall be appointed for each course by the Board of Studies of the Department concerned.

10.2.3 The distribution of weightage for the valuation of semester-long project work/ dissertation shall be:

I. Periodic Presentations : 30%

II. Project Report : 40%

III. Viva-Voce : 30%

Or

as decided by the Board of Studies of the Department concerned.

10.2.4 The hall ticket/admit card shall be issued to the student on the recommendation of the Head of the Department, subject to the following conditions:

(i) Having fulfilled the requirement of attendance as prescribed in the relevant Ordinance, and,

(ii) Submission of a "No dues" certificate in the prescribed form.

10.3 ***Letter Grades and Grade Points*:**

An absolute grading system shall be adopted to grade the students.

10.3.1 Under the absolute grading system, marks shall be converted to grades based on pre-determined class intervals.

10.3.2 In the End-semester theory or practical examinations, the examiner shall award the marks and these marks shall be further converted into Grades/Grade points by the examination branch in accordance with the provisions of the Ordinance.

10.3.3 Detail Marks Sheet issued at the end of the semester or the programme shall carry marks/percentage and equivalent grades both.

10.3.4 The University shall adopt the 10-point Grading System, with the Letter Grades as given under:

Letter Grade	**Grade Point (SGPA/CGPA)**	**Range of Grade Point (SGPA/CGPA)**	**Class Interval (in %)**
O (Outstanding)	10	Above 9 to 10	Above 90 and < 100
A+ (Excellent)	9	Above 8 to 9	Above 80 and <90
A (Very Good)	8	Above 7 to 8	Above 70 and < 80
B+ (Good)	7	Above 6 to 7	Above 60 and < 70
B (Above Average)	6	Above 5 to 6	Above 50 and < 60
C (Average)	5	Above 4.5 to 5	Above 45 and < 50
P (Pass)	4	4 to 4.5	40 to 45
F (Fail)	0		< 40
Ab (Absent)	0		Absent

Note:

(i) F= Fail, and the students graded with 'F' in a programme or course shall be required to re-appear in the examination. However, students appearing in their final Semester Examination, may be permitted to appear in the reappear papers of the preceding odd Semesters.

(ii) The minimum qualifying marks for a course or programme shall be 40% (i.e., 'P' grade), unless specified otherwise

(iii) The students shall have to qualify at the Internal Assessment and the End-Semester examinations in the aggregate, and in the practical examinations, separately.

(iv) There shall be no rounding off of SGPA/CGPA.

(v) The SGPA/CGPA obtained by a student shall be out of a maximum of 10 points.

(vi) In order to be eligible for the award of the Master's degree of the University, a student must obtain CGPA of 4 at the end of the programme.

(vii) Provided that the student who is otherwise eligible for the award of the Degree/Diploma but has secured a CGPA of less than 4 at the end of the permissible period of semesters may be allowed by the Department concerned to repeat the same course(s) or other courses of the same type in lieu thereof in the extra semesters provided in Clause 7 on "Duration of Programme".

(viii) The Cumulative Grade Point Average (CGPA) obtained by a student shall be classified into the following division/Class:

CGPA	**Class/ Division**
Above 9	Outstanding
Above 8 to 9	First Class (With Distinction)
6 to 8	First Class
5.5 to <6	High-Second Class
5 to <5.5	Second Class

10.3.5 ***Setting*** **of question papers and Evaluation:** The question papers for the End-Semester theory examination shall be set and evaluation of answer books shall be done by the examiners (Internal and/or External ordinarily in the ratio of 60:40) out of the Panel of Examiners recommended by the Board of Studies of the Department concerned on the basis of their expertise/ specialization. In case of External Examiner, the question paper setting may be given to Professor/ Associate Professor or Assistant Professor with minimum five years of regular teaching experience at relevant level i.e. UG/PG.

Provided that in case of non-availability of external examiners, the Vice Chancellor may allow the question paper setting and evaluation to be performed by the Internal examiners so that the conduct of examination and declaration of results is not delayed.

10.3.6 In the case of the practical examination of the courses, the assessment shall be jointly undertaken by the internal and external examiners. The External examiners shall be invited from amongst the panel of examiners proposed/recommended by the Head of the Department/Dean of the School of the concerned Department/School in consultation of faculty members of the Department.

10.3.7 In case of the Project reports, Thesis and Dissertation, the assessment shall be jointly carried out by the internal and external examiners. External examiners shall be invited from amongst the panel of examiners (ordinarily not below the rank of Associate Professor) approved by the competent authority.

10.3.8 The result of the students shall be subject to moderation by a Board of Moderators appointed by the University for each programme/course.

10.3.9 **Pattern of Question Papers in End-Semester Examinations**:

Unless otherwise specified by the respective Board of Studies, the pattern of Question Papers for End-Semester Examinations shall be as under:

- Question No. 1: Shall consist of short answer type questions of specific word length from all the units with internal choice.
- Remaining questions will consist of questions from all the units with internal choice.
- The question paper shall be set in consonance with the defined outcomes specified in LOCF-based curriculum.

10.4 Re-appear Examination/Improvement of Grades

Re-appear Examination: The students failing to score minimum grade required to qualify a course/programme may be allowed to re-appear in those papers where they couldn't score 'P' grade in the extra semesters provided in Clause 7 on "Duration of Programme" with the following provisions:

10.4.1 A student securing "F" Grade in a course shall be permitted to repeat/ reappear in the End-Semester Examination of the Course for a maximum number of three times i.e. a student with arrears on account of "F" Grade, shall be permitted to repeat / reappear in the End Semester Examination for a maximum of three times (including the first appearance), along with the subsequent End Semester Examinations.

10.4.2 If a student secures "F" Grade in a Project Work/Project Report/Dissertation/Field Work Report/Training Report etc., he/she shall be required to resubmit the revised Project Work/Project Report/Dissertation/Field Work Report/Training Report etc. as required by the evaluator(s). Provided further that a student shall be permitted to re-submit the Project Work/Project Report/Dissertation/Field Work Report/Training Report etc. for a

maximum of three times (including the first submission).

10.4.3 Such students may avail the chance to re-appear only within the maximum duration of the programme.

10.4.4 Re-appear examination of even semesters shall be conducted with the end-semester examinations of even semesters and similarly examinations of odd semesters shall be conducted with the end-semester examinations of odd semesters. However, a student in the final semester is allowed to re-appear in the courses of both odd and even semesters.

10.4.5 A 'Re-appear' examination shall be based on the syllabi of the course in force at the time of initial registration to the course/programme.

10.4.6 A student who has got the migration certificate issued from the university shall not be allowed to re-appear at any examination.

10.4.7 **In exceptional circumstances, the University may allow Mercy chance to the students to clear the backlog for which the candidate shall be charged a Fee of Rs. 2000/- per course/paper, as revised from time to time. The Vice-Chancellor shall decide in this regard on case to case basis on the recommendations of the Head of the Department/Dean of the School of the respective Department/School.**

10.4.8 In case of students participating in NSS, NCC, Sports, Cultural, Extension Activities or activities of similar nature, with the prior approval of the Vice Chancellor on the recommendations of the respective Head(s) of the Department, during the duration of the scheduled term-end examinations, special examinations may be conducted. The Vice-Chancellor shall decide in this regard on case to case basis on the recommendations of the Head of the Department/Dean of the School of the respective Department/School.

10.4.9 The Vice Chancellor/ Controller of Examinations, shall also have right to award grace marks in marginal cases of failure and /or division change. The maximum grace marks could be 1% of the total maximum marks assigned to the semester to the best advantage of the student.

10.5 Improvement of Grades

For improvement of grades, a student shall have to apply on the prescribed form available on the University website or the Examination Branch of the University, along with the original Detailed Marks Certificate or the copy of the result sheet and the prescribed fee, as revised from time to time.

10.5.1 A student shall be allowed to improve the division only after qualifying required number of credits as prescribed for the programme.

10.5.2 The student may be allowed to avail only two chances for improvement within the maximum duration of the programme.

10.5.3 Improvement examination of even semesters shall be conducted with the end-semester examinations of even semesters and similarly examinations of odd semesters shall be conducted with the end-semester examinations of odd semesters.

10.5.4 Improvement examination shall be based on the syllabi of the course/programme in force at the time of initial registration to the course/programme.

10.5.5 A student shall be allowed to improve his performance/grades in not more than 30% of total courses prescribed in the programme for improvement of division only.

A student improving the Division/grade shall not be considered for Gold Medal/Rank Certificate.

10.6 *Re*-evaluation/Re-checking:

A student may apply for **re-evaluation**/rechecking of his/her answer scripts within thirty days of the declaration of the result.

10.6.1 For re-evaluation/re-checking of the answer scripts, a student shall have to apply on the prescribed form available on the University website or the Examination Branch of the University, along with the original Detail Marks Certificate or the copy of the result sheet and a Fee of Rs. 1000/- for each Course/Paper, as revised from time to time. **Re-checking shall be conducted at the level of Controller of Examinations.**

10.6.2 (a) If, after the first re-evaluation, the difference of the original marks and re-evaluated marks is up to plus or minus 5% of the maximum marks of the paper, there shall be no change in the marks originally scored by the student. However, in view of students' interest, this condition won't apply in case of change of character i.e. 'fail to pass' or change of division.

(b) If after the first re-evaluation, the difference of the original marks and re-evaluated marks is more than 5% and less than 10%, the average of the two scores will be considered as final score and the result shall be revised accordingly. However, if, after re-evaluation, there is change of character to the higher side i.e. 'fail to pass' or change of division, original marks scored after re-evaluation shall be considered.

(c) If after the first re-evaluation, the difference comes to more than plus or minus 10% of the maximum marks of the paper, the answer script shall be re-evaluated by a third examiner.

(d) After the second re-evaluation, the average of the *nearest* two awards/marks shall be taken as final and result shall be revised accordingly.

10.7 *Minimum* Credit requirements and Exit Options

10.7.1 For a one-year Post Graduate programme, the credit requirements for the award of the Post Graduate Diploma shall be **50 credits** (±4 Credits), including a minimum of 9 credits from the elective courses (of which at least 4 credits shall be from elective course offered by another Department). In case of Library Science, the student shall be awarded Bachelor's of Library and Information Science on successful completion of one-year programme with required number of credits as specified in the curriculum.

10.7.2 For a two-year Master's Degree programme, the credit requirements for the Master's degree shall be 100 credits (±4 Credits), including a minimum of 18 credits from elective courses (of which at least 8 credits shall be from elective courses offered by other Departments).

10.7.3 **A student may exit after the successful completion of the first year or two semesters of the two-year Master's Degree programme with fulfillment of minimum requirement of 50 credits ((±4 Credits). Such student shall be eligible to be awarded with One-year Postgraduate Diploma in the respective discipline.**

10.7.4 **A student will be allowed to enter/re-enter only at the odd semester and can only exit after the even semester. The validity of credits earned and deposited with ABC will be to a maximum period of seven years or as specified by the Academic Bank of Credits from time to time.**

11. Computation of SGPA and CGPA

The University shall follow the following procedure to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA):

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

$$SGPA\ (Si) = \sum(Ci \times Gi)/\sum Ci$$

where Ci is the number of credits of the i^{th} course and Gi is the grade point scored by the student in the i^{th} course.

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

$$CGPA = \sum(Ci \times Si)/\sum Ci$$

where Si is the SGPA of the i^{th} semester and Ci is the total No. of credits in that semester.

11.3 The SGPA and CGPA shall be rounded off to 2 decimal points.

12. Illustration of the Computation of SGPA and CGPA

12.1 Illustration of Computation

Course	Credit	Grade Letter	Grade Point	Credit Point
Course I	3	A	8	3 x 8 = 24
Course II	4	B+	7	4 x 7 = 28
Course III	3	B	6	3 x 6 = 18
Course IV	3	O	10	3 x 10 =30
	Total credits for the semester=13			Total Credit points earned= 100

Thus, SGPA= 100/13= 7.69

12.2 Illustrations for computing CGPA:

Semester I	Semester II	Semester III	Semester IV	Semester V	Semester VI
Credit: 20	Credit: 22	Credit: 25	Credit: 26	Credit: 26	Credit: 25
SGPA: 6.9	SGPA: 7.8	SGPA: 5.6	SGPA: 6.0	SGPA: 6.3	SGPA= 8.0

Thus,

$$\text{CGPA} = \frac{((20 \text{ x } 6.9) + (22 \text{ x } 7.8) + (25 \text{ x } 5.6) + (26 \text{ x } 6.0) + (26 \text{ x } 6.3) + (25 \text{ x } 8.0))}{(20 + 22 + 25 + 26 + 26 + 25)}$$

= (969.4/144) =6.73

Note: Formula to calculate percentage from CGPA/SGPA= CGPA or SGPA x 10; and formula to calculate percentage to CGPA or SGPA = Percentage/10

e.g. In case of example mentioned in table 12.2, the percentage of CGPA = 6.73x10 =67.30.

12.3 Transcript (Format): Based on the above, letter grades, grade points, SGPA, and the CGPA, the Transcripts/**Detailed Marks Certificates (DMCs)/Grades** Certificates shall be issued to the candidates for each semester and a consolidated transcript indicating the performance in all the semesters. The percentage of marks shall be reflected in the DMC of the final semester on the basis of the CGPA.

13. Removal of the Name of a Student from the Programme:

13.1 The name of a student falling under any one of the following categories shall automatically stand removed from the rolls of the University:

(a) A student who has failed to fulfil the minimum grade point requirements prescribed for the programme during the maximum duration of the programme.

(b) A student who has already exhausted the maximum duration allowed for completion of the Programme and has not fulfilled the requirements for the award of the degree /diploma.

(c) A student who is found to be involved in misconduct, forgery, indiscipline or any other objectionable conduct, upon recommendation of the Discipline Committee/ Proctorial Board, and

(d) A student who has failed to attend the classes as stipulated under Ordinance-XV(A).

13.2 Promotion Rules

(a) A student will be promoted from an odd semester to the next even semester without any restrictions on the minimum number of credits earned. However, for promotion from an even semester to the next odd semester, a student should have earned at least 50% of the credits of the current and all previous semesters taken together. A student failing to earn at least 50% of the credits from the prescribed courses of all present and all previous semesters taken together will be treated as an 'Ex-student' and will be allowed to repeat in the end semester examination of the previous semesters as applicable (for example for a student going from semester 4 to 5 who becomes an Ex. Student, he/ she shall be required to repeat all the papers of semester 3 and semester 4 in the next odd/even semester). However, such student will not be allowed to repeat the internal assessment for the said paper/s of the respective semester/s as the case may be. After passing the said semesters, the student shall be promoted to the next odd semester and shall be treated as a 'Regular' student.

(b) A student shall be declared to have passed the programme of study and award of the degree if he/she has secured the required credits with at least 'P' grade.

14. Pursuance of Two Academic Programmes Simultaneously: A student may pursue two academic programmes simultaneously in accordance with the UGC "Guidelines for Pursuing Two Academic Programmes Simultaneously", as amended from time to time.

15. Miscellaneous

a The University shall provide the facility of Academic Bank of Credits in consonance with UGC (Establishment and Operationalisation of Academic Bank of Credits (ABC) Scheme in Higher Education) Regulations, 2021, as amended from time to time.

b For any programme approved by the Academic Council, if a regulation is issued by the Academic Council, which is at variance with the provisions of this Ordinance, then the Ordinance shall prevail.

c In addition to the provisions contained in this Ordinance, the Academic programmes governed by a Regulatory Authority shall also comply with essential requirements as prescribed by the respective Regulatory Authority.

d Relevant provisions regarding multiple entry-multiple exit options, academic bank of credits, dual degree programmes etc. shall be applicable in accordance with the University Ordinance(s)/relevant UGC Regulations, as amended from time to time.

Notwithstanding anything stated in this Ordinance, for any unforeseen issue arising, and not covered by this Ordinance, or in the event of difference in interpretation, the Vice-Chancellor may take an appropriate decision.

-_-_-_-_-_-_-_-_-_-_-_-_-

Central University of Haryana, Mahendergarh
Civil Engineering Department

Minutes of Meetings for Board of Studies on 7th September, 2022

A meeting of the Board of Studies in Civil Engineering was held **7th September, 2022** at 5:00 P.M. in online mode through Google meet https://meet.google.com/ete-dduj-ryq

The following were present: -

1. Dr. Baldev Setia, Director, PEC Chandigarh (Professor, NIT, Kurukshetra)
2. Dr B S Chahar, Professor, Civil Engineering Deptt, IIT Delhi
3. Dr. Vikas Garg, Professor & Head, Civil Engg. Deptt., CUH
4. Dr. Neeraj Kumar, Assistant Professor, Civil Engg. Deptt., CUH

Minutes of the meeting are as follows:

1. The scheme of B. Tech- 8th semester was discussed and modified as students are not able to opt theory subjects at the time of industrial internship. Two groups are offered "A & B" in eight semester scheme with 20 credits each (Annexure 1). Group A contains Project work along with theory subjects and Group B contains full semester industrial internship. Students can choose one group from A & B.

2. DRC meeting was held and their minutes of the meeting approved by BOS members. All the PhD topics were approved which finalized during DRC meeting.

3. The meeting ended with vote of thanks to the Chair.

Dr Baldev Setia

Dr B S Chahar

Dr Vikas Garg 07/9/22

Dr. Neeraj Kumar 7/9/22

School of Engineering and Technology
Central University of Haryana, Mahendergarh

Proceedings/Minutes of the School Board Meeting
of School of Engineering & Technology, Held on 29.09.2022

School Board Meeting of School of Engineering and Technology consisting of four departments 1) Department of Computer Science, 2) Department of Electrical Engineering, 3) Department of Civil Engineering and 4) Department of Printing and Packaging Technology was held on 29th September 2022 at Room No 107, SOET Block, Central University of Haryana, Mahendergarh. The following members were present in the meeting through online and offline mode:

Link for online meeting: **https://meet.google.com/rhd-rnot-wsi**

- Prof. Phool Singh, Dean SoET & HOD PPT - Chairperson
- Prof. Ashutosh Kumar Singh, Professor, NIT Kurukshetra, Subject Expert-Member
- Dr. Dhirendra Singhal, Professor, DCRUST Murthal, Subject Expert-Member
- Dr. Sarbjeet Singh, Professor, Panjab University, Subject Expert-Member
- Prof Sathans, Professor, NIT Kurukshetra
- Dr. Rajesh Kumar Dubey, HoD-EE – Member
- Prof. Vikas Garg, HoD, Civil Engineering-Member
- Dr. Rakesh Kumar, HoD, CSE-Member
- Prof. Kalpana Chauhan, Professor, Chemistry, Member
- Dr. Sumit, Assistant Professor, EE, CUH-Member
- Dr. Neeraj Kumar, Assistant Professor, Civil Engineering, CUH-Member
- Sh. Shammi Mehra, Assistant Professor, PPT, CUH-Member
- Dr Manoj Kumar Singh, Associate Professor, Physics- Special Invitee

The Dean of SoET welcomed all the members and after deliberations, it was resolved/recommended by the School Board members as follows:

- The Scheme and syllabi for B.Tech. (Electrical Engineering) for 8th Semester (Annexure-1) recommended by Board of studies, Electrical Engineering in the minutes of meeting held on 12.09.2022 are approved for B. Tech. (Electrical Engineering) for session 2022-23 onwards.
- In B. Tech. (Electrical Engineering) programme, course code of Industry Internship is changed from BTEE801A to BTEE810A and the course code of Project Stage II from BT EE801A to EE800A as approved by Board of studies, Electrical Engineering in the minutes of meeting held on 12.09.2022.
- In B. Tech. (Electrical Engineering) programme, 8th semester course code BT EE810A (Industry Internship) will be evaluated for 20 credits and 500 Marks, while BT EE800A (Project Stage II) will be evaluated for 13 credit and 300 Marks.
- In M. Tech. (Energy System Management) Programme, course code MTESM-212 (Specialization specific Current Topic Presentation -2) and MTESM-306 (Specialization specific Current Topic Presentation -3) will be evaluated at department level similar to MTEMS-112 (Specialization specific Current Topic Presentation -1) for 100 marks and for 2 credits each, which was already approved in BOS. (Revised scheme attached as Annexure -II).
- In Ph. D. (Electrical Engineering) programme, the evaluation of Seminar (SOET 020103C0022) of 2 credits will be evaluated for 100 marks at departmental level. (Revised scheme attached as Annexure -III).

- The Scheme and syllabi for B. Tech. (Civil Engineering) for Semesters 7th and 8th (Annexure-1V) recommended by Board of studies, Civil Engineering in the minutes of online meeting held on 07.09.2022 are approved for B. Tech. (Civil Engineering) for session 2022-23 onwards.
- The Scheme and syllabi for B. Tech. (PPT) for 8th Semester (Annexure-V) recommended by Board of studies, PPT in the minutes of meeting held on 12.09.2022 are approved for B. Tech. (PPT) for session 2022-23 onwards.
- The committee recommended to introduce Seminar paper in BTech Scheme. Accordingly, BTech Electrical Engineering, Civil Engineering and PPT has introduce Seminar in 7th semester of their BTech scheme and committee approve to the same. B. Tech. Computer Science and Engineering had Seminar paper in their 6th Semester. Revised 7th semester scheme of BTech Electrical Engineering, Civil Engineering and PPT will be implemented from 2023-24 session onwards. (Annexure I, IV and VI)
- The Committee approved the new general elective courses (GEC) of Green Technologies (BTAS200), Environmental Pollution and Human Health (BTAS201) and Accounting and Financial Management (BTAS202) and their syllabi in SoET (Annexure VII).
- Committee deliberated the draft MTech ordinance and recommend to consider the same in the next School Board meeting after due incorporation of the suggestions of the committee.
- Admission to BTech Programmes of SOET is recommended through Joint Seat Allocation System (JOSSA) based on Joint Entrance Examination (JEE- Main) from 2023-24 session onwards.

Meeting ended with vote of thanks to the chair.

29/9/2022

Prof. Phool Singh,
Dean SoET

Prof. Ashutosh Kumar Singh
NIT Kurukshetra

Prof. Dhirendra Singhal
DCRUST Murthal

Prof. Sarbjeet Singh
Panjab University

Prof Sathans,
NIT Kurukshetra

Dr. Rajesh Kumar Dubey,
HoD-EE

29/9/2022

Prof. Vikas Garg,
HoD, Civil Engineering

Dr. Rakesh Kumar, HoD,
CSE

Prof. Kalpana Chauhan,
Chemistry

29/9/2022

Dr. Sumit, EE

Dr. Neeraj Kumar,
Civil Engineering

Sh. Shammi Mehra, PPT

Dr Manoj Kumar
Singh, Physics

Annexure-II

CENTRAL UNIVERSITY OF HARYANA
MAHENDARGARH

SCHEME OF STUDIES & EXAMINATIONS
B. Tech. in CIVIL ENGINEERING

Choice Based Credit System
(w.e.f. Session 2020-21)

Central University of Haryana
Department of Civil Engineering
B. Tech. 4th YEAR (SEMESTER – VII)
Scheme of Studies and Examinations

S. No.	Course No.	Course Title	Teaching Schedule			Credits
			L	T	P	
1	BTCE 701A	DESIGN OF HYDRAULIC STRUCTURES	3	-	-	3
2	BT CE 702A	EARTHQUAKE ENGINEERING	3	-	-	3
3	BT CE 703A	MINOR PROJECT	-	-	8	4
4	BT CE 704A	SUMMER INTERNSHIP	-	-	2	1
5	BT CE 705A	SEMINAR	-	-	2	0
6	BT MGT 706A	ENTREPRENEURSHIP AND STARTUPS	3	-	-	3
7	DCEC– III		3	-	-	3
8	DCEC – IV		3	-	-	3
Total			**15**	**0**	**12**	**20**

L = Lecture, T = Tutorial, P = Practical, & C = Credits

List of Departmental Core Elective Course (DCEC III)

S. No.	Code	Subject
1	BT CE -721A	DESIGN OF CONCRETE STRUCTURES-II
2	BT CE -722A	DESIGN OF STEEL STRUCTURES-II
3	BT CE-723A	BRIDGE ENGINEERING

List of Departmental Core Elective Course (DCEC IV)

S. No.	Code	Subject
1	BT CE-724A	GROUND IMPROVEMENT TECHNIQUES
2	BT CE-725A	GEOTECHNICAL EXPLORATION AND INSTRUMENTATION
3	BT CE-726A	DESIGN WITH GEOSYNTHETICS

Note

1. Students will be permitted to opt for any one elective run by the other department. The choice of the students to choose any elective from any other department of university, those are offering electives for UG course.
2. Students will be permitted to opt for any two program elective (one from each basket) run by the department (DCEC). The minimum strength of the students should be 20 to run an elective
3. Assessment of Summer Internship, undergone at the end of VI semester, will be based on seminar, viva-voce, report and certificate of Summer Internship obtained by the student from the industry, institute, research lab, training center etc
4. The students will be allowed to use non-programmable scientific calculator. However, sharing/exchange of calculator is prohibited in the examination.
5. Electronics gadgets including Cellular phones are not allowed in the examination.

Central University of Haryana
Department of Civil Engineering
B. Tech. 4th YEAR (SEMESTER – VIII)
Scheme of Studies and Examinations

S. No.	Course Code	Course Title	Teaching Schedule			Credits
			L	T	P	
1	BTCE 801A	MAJOR PROJECT	-	-	16	8
2	BT CE 802A	DISASTER MANAGEMENT	3	-	-	3
3	DCEC – V		3	-	-	3
4	GEC – III		3	1	-	4
5	GEC – IV		3	1	-	4
Total			**12**	**2**	**16**	**22**

L = Lecture, T = Tutorial & P = Practical

Or

S. No.	Course Code	Course Title	Teaching Schedule			Credits
			L	T	P	
1	BTCE 801A	INDUSTRY INTERNSHIP	-	-	44	22
Total			**0**	**0**	**44**	**22**

List of Departmental Core Elective Courses (DCEC V)

S. No.	Code	Subject
1	BT CE -821A	PAVEMENT EVALUATION AND MANAGEMENT
2	BT CE -822A	AIRPORT PLANNING AND DESIGN
3	BT CE-823A	GROUNDWATER ENGINEERING
4	BT CE-824A	WATERSHED MANAGEMENT

List of General Elective Course (GEC) offered by the department

S. No.	Subject
1	ELEMENTS OF EARTHQUAKE ENGINEERING
2	ROAD SAFETY AUDIT
3	DISASTER MANAGEMENT

CENTRAL UNIVERSITY OF HARYANA
School of Engineering and Technology
Department of Printing and Packaging Technology

Date: 12/09/2022

Minutes of Meeting

A meeting of the Board of Studies (BoS) in the Department of Printing and Packaging Technology was held through **online mode on 12 September,2022**. The following members were present:

1. Prof. Phool singh, Dean (SoET) & HoD (PPT) -Chairman
2. Prof. Ambrish Pandey -External Member
3. Mr. Sandeep Boora - TIC, PPT
4. Mr. Shammi Mehra -Internal Member
5. Mr. Anil -Special Invitee
6. Mr. Tarun Singh -Special Invitee

The chairman welcomed the committee members and elaborated the agenda of the meeting.

After deliberations, Board of studies (BoS) has recommended the followings:

1. It was discussed and decided to revise the B. Tech. 8th semester's scheme as the students are facing difficulty in opting theory subjects along with industrial internship. Updated the Scheme and Syllabus of 8th semester of B.Tech (PPT) for academic session 2022-23 onwards (Annexure 1).
2. Approved the panel of External Examiners for odd Semester academic session 2022-23 (Annexure 2).
3. Approved the list of Practical Examiners for Term End Examinations of odd semester for academic session 2022-23 (Annexure 3).
4. Approved the names of Moderators for Term End Examinations of odd semester for academic session 2022-23 (Annexure 3).

The meeting ended with vote of thanks to chair.

12/9/2022
Chairman, BOS

Scheme & Syllabus for B.Tech in Printing and Packaging Technology according to Choice Based Credit System (CBCS)

(Semester VII)

Department of Printing and Packaging Technology
w.e.f. Session 2023-24

School of Engineering & Technology
CENTRAL UNIVERSITY OF HARYANA
MAHENDERGARH-123031
HARYANA

Central University of Haryana
School of Engineering and Technology
Department of Printing and Packaging Technology
B.Tech. 4th YEAR (SEMESTER – VII)

S. No.	Course Code	Course Title	Teaching Schedule			Credits
			L	T	P	
1	BT PPT701A	Print Entrepreneurship	3	0	0	3
2	BT PPT702A	Minor Project	0	0	10	5
3	BT PPT703A	Summer Internship Presentation	0	2	0	2
4	**Program Elective-4 (Any one)**					
	BT PPT704A	Book Publishing	3	0	0	3
	BT PPT705A	Printing Ink Technology	3	0	0	3
5	**Program Elective-5 (Any one)**					
	BT PPT706A	Packaging Machineries and Processes	3	0	0	3
	BT PPT707A	Paper Substrate in Packaging	3	0	0	3
6	**Program Elective-6(Any one)**					
	BT PPT708A	Hybrid Printing Technology	3	0	0	3
	BT PPT709A	Printing Organization and Plant Layout	3	0	0	3
7.	BT PPT710A	Seminar*	0	2	0	2
Total			**12**	**4**	**10**	**21**

L = Lecture, T = Tutorial, P = Practical, & C = Credits

*The Seminar will be of 50 marks and evaluation will be done at departmental level.

B. Tech Printing and Packaging Technology
SYLLABI OF EXAMINATIONS
B. Tech 4th Year (2023-24)

Program Name: B. Tech Printing and Packaging Technology

Course Code: BT PPT701A	**Course Name: Print Entrepreneurship**	**L**	**T**	**P**	**C**
		3	**0**	**0**	**3**
Year and Semester	**4th Year 7th Semester**	**Contact hours per week:** (3 Hrs.)			
Prerequisite of course	**Management**	**Evaluation**			
		CIE: 30		**TEE: 70**	

Course Level Learning Outcomes: On completion of the course, student would be able to:

- Explain Entrepreneurship.
- Outline the new business start methods.
- Discuss types of business & plans of business.
- Describe different forms of ownership & entrepreneurship development.

Unit	COURSE SYLLABUS
1	Entrepreneurship: Definition, Types of Entrepreneurs, qualities and pre-requisites of entrepreneur, Entrepreneurship spirits, Significance of entrepreneur in Economic Development, Economic, social and psychological need for entrepreneurship, Identifying & Evaluating Business opportunities.
2	Quick Start Method: Methods and Procedures to start and expand one's own business, Franchises, creating your own franchise, Multi-Level marketing schemes, Buying an existing business.
3	Business Planning Process: Requirement of good business plan .Business Plan-the major benefits, sub plan, Business plan-blueprint to success and financing, Small manufactures business plan, Feasibility Report, Project Reports.
4	Forms of Ownership: Different forms of ownership-sole proprietorship, partnership, joint stock company, Selling, Selling your venture, planning for succession, Valuation of a business, Responsibility of a good employer, Risk management, Entrepreneurship development Programmes, Role of Govt. and promotional agencies in entrepreneurship development.

Suggested readings:

1. B Janakiram, *Management & Entrepreneurship*, Excel book India, 2010.
2. B Janakiram, *Entrepreneurial Development*, December 2007.
3. Jasmer Singh Saini, *Entrepreneurship Development Programmes & Practices*, Deep and Deep Publications, 2002.
4. Jose Paul, N. Ajith Kumar, *Entrepreneurship Development & Management*, Himalaya Publishing House, 2000
5. Tata McGraw-Hill, *Entrepreneurship Development* - Colombo Plan Staff College for Technician Education, 1998

B. Tech Printing and Packaging Technology
SYLLABI OF EXAMINATIONS
B. Tech 4th Year (2023-24)

Program Name: B. Tech Printing and Packaging Technology

Course Code: BT PPT702A	Course Name: Minor Project	L	T	P	C
		0	0	10	5
Year and Semester	4th Year 7th Semester	Evaluation			
Prerequisite of course	Nil	CIE: 45		TEE: 105	

B. Tech Printing and Packaging Technology
SYLLABI OF EXAMINATIONS
B. Tech 4th Year (2023-24)

Program Name: B. Tech Printing and Packaging Technology

Course Code: BT PPT703A	Course Name: Summer Internship Presentation	L	T	P	C
		0	2	0	2
Year and Semester	4th Year 7th Semester	Evaluation			
Prerequisite of course	Knowledge of printing processes	CIE: 15		TEE: 35	
Report of summer internship will be evaluated by a committee duly constituted by the HOD/Dean.					

B. Tech Printing and Packaging Technology
SYLLABI OF EXAMINATIONS
B. Tech 4th Year (2023-24)

Program Name: B. Tech Printing and Packaging Technology

Course Code: BT PPT704A	**Course Name: Book Publishing**	**L**	**T**	**P**	**C**
		3	**0**	**0**	**3**
Year and Semester	**4th Year 7th Semester**	**Contact hours per week:** (3 Hrs.)			
Prerequisite of course	**Basics of design and management**	**Evaluation**			
		CIE: 30		**TEE: 70**	

Course Level Learning Outcomes: On completion of the course, student would be able to:

- Describe the basic knowledge of book publishing houses.
- Explain the structure of press organization.
- Discuss the marketing & distribution in book publishing.
- Write the legal aspects in book publishing.

Unit	**COURSE SYLLABUS**
1	Definition and concept, parts of a book, basic steps in book publishing, areas of publishing - general publishing, educational publishing, professional publishing and reference publishing house - the role of commissioning editor, the desk editor, the designer, the production manager, the sale/marketing manager, the publicity manager, the warehouse or distribution department, the accounts department, the management.
2	Press Organization Hierarchy - editorial organization, mechanical aspects of organization - composition, printing, basic operations business aspects of organization, flowcharts of staff in organization, Circulation and Advertisement departments, distribution channels.
3	Marketing and Distribution in Book Publishing Home market, export market, closed market, advertising and publicity, types of distribution, conventional and modern channels of distribution. International book trade and barriers. Import and export of books. Relationship of the Editor with the manuscript. Evaluation procedures. External review and its associated problems. Editorial Organization in Publishing The editorial functions in newspapers, journals, magazines and books.
4	Legal Aspects in book Publishing Copyright, types of agreement between author and publishers, the outright sale of the copyright, profit sharing agreement, the royalty system, commission agreements The press and the law-libel, defense against libel, mitigation & damages.

Suggested readings:

1. Sinha & Sinha, *Computer Fundamentals: Concepts, Systems & Applications,* BPB Publications; 6th edition (30 November 2004).
2. Hugh Speirs, *Introduction to Prepress*, Pira International (January 1, 2003).
3. Winn L. Rosch, *Hardware Bible, QUE*; 6th edition (21 February 2003).
4. Adobe Creative Team, *Adobe PageMaker 6.5 Classroom in a Book*, Adobe; Pap/Cdr edition (16 May 1997).
5. David Bergsland, *Printing in a Digital World*, Delmar Cengage Learning; 1st edition (21 September 1996).
6. Frank J. Romano, *Desktop Typography with QuarkXPress*, TAB Books Inc; 2nd edition (1 December 1992.

B. Tech Printing and Packaging Technology
SYLLABI OF EXAMINATIONS
B. Tech 4th Year (2023-24)

Program Name: B. Tech. - Printing and Packaging Technology

Course Code: BT PPT705A	**Course Name: Printing Ink Technology**	**L**	**T**	**P**	**C**
		3	**0**	**0**	**3**
Year and Semester	**4th Year 7th Semester**	**Contact hours per week:** (3 Hrs.)			
Prerequisite of course	**Basics of printing inks**	**Evaluation**			
		CIE: 30		**TEE: 70**	

Course Level Learning Outcomes: On completion of the course, student would be able to:

- Describe various ingredients and vehicles used in printing ink.
- Discuss drying mechanisms used for ink drying.
- Explain ink requirements for various printing processes.
- Discuss security inks and various tests for printing ink.

Unit	**COURSE SYLLABUS**
1	Introduction, solvent based inks, water based ink, ingredients in Ink- pigments properties, types, carbon black, inorganic pigments, organic pigments, physical characteristics of organic pigments. Vehicles- vehicles for liquid inks, vehicles for paste inks, UV curing vehicles. Additives - driers, extenders, anti-oxidants, waxes. Oils- vegetable drying oils, semi drying oils, non-drying oils.
2	Drying mechanisms - physical drying mechanisms, absorption drying, evaporation drying, chemical drying systems, oxidation polymerization drying, radiation drying and curing, microwave drying, infrared drying. Viscosity - Newtonian flow, units of viscosity, viscosity & temperature, factors influencing viscosity, simple low viscosity inks, complex high viscosity inks. Ink requirements for printing processes.
3	Ink requirements for printing processes – offset, letterpress, flexography, gravure, screen printing. Optical properties of ink films, rheology and ink transfer requirements, ink distribution and transfer on the press, method for the direct measurement of ink setting on coated paper. Paste inks - single roll mill, twin roll mill, triple roll mill, ball mill, twin horizontal mixer, uni-roll mill, high speed stirrer milling. Liquid inks - ball mill, pearl mill, sand mill, bead mill, shot mill. Trends and developments in the ink manufacturing process.
4	Security Inks: Range of security inks, special security features - fluorescence, phosphorescence, reflected by improved filters, magnetism, security printing inks for cheques. Tests for chemical resistance, light fastness, rub resistance test, crumpling resistance test, grinding control, color control, control of the rheological properties, control of drying time, control of various specific properties. Introduction to Nano inks.

Suggested readings:

1. Krishan Kumar Aggarwal, *Complete Printing Inks Industries*, Creative publication, 2018.
2. Alfred Seymour, *Modern Printing Inks: A Practical Handbook for Printing Ink Manufacturers and Printers*, Forgotten Books, 2018.
3. NIIR Board, *the Complete Technology Book on Printing Inks*, Asia Pacific Business Press Inc., 2018.
4. Robert Leach, Ray Pierce, *The Printing Ink Manual*, Springer; 4th Edition, 1999 edition (30 September 1993).

B. Tech Printing and Packaging Technology
SYLLABI OF EXAMINATIONS
B. Tech 4th Year (2023-24)

Program Name: B. Tech. - Printing and Packaging Technology

Course Code: BT PPT706A	**Course Name: Packaging Machineries and Processes**	**L**	**T**	**P**	**C**
		3	**0**	**0**	**3**
Year and Semester	**4th Year 7th Semester**	**Contact hours per week:** (3 Hrs.)			
Prerequisite of course	**Basics of packaging materials**	**Evaluation**			
		CIE: 30		**TEE: 70**	

Course Level Learning Outcomes: On completion of the course, student would be able to:

- Describe manufacturing process of metal cans.
- Discuss different packaging machineries used for line operations and systems.
- Explain various machineries used for conversions of different packaging materials.
- Outline the filling machine required for the line operations.

Unit	**COURSE SYLLABUS**
1	Introduction and Manufacturing Metals Cans & Drums: Introduction, Machineries used for conversion, online packaging, Ancillaries Machines and equipment, Online and Offline inspection equipment. Metal Cans-Three piece, can manufacturing machine and its various sections-Coating Equipments. Metal drum-Types-Different machines used in manufacturing.
2	Machineries for Manufacturing of Sacks, Flexible Laminates & Corrugated Box: Sacks-Types-Machine used in manufacturing of bags. Folding Cartons -Types of Cartons-Machine used in carton manufacturing. Flexible Laminates-Types of lamination techniques-Different components of the Lamination Machine. Corrugated Box-Board construction-Machine used in manufacturing.
3	Wrapping Machines & Equipments: Wrapping Machine-Style of wrapping-Machines used, Shrink Wrapping Machine-Machine types and its parameters, Stretch Wrapping Machine-Pre-stretching film-Types of Wrapper models.
4	Types of fillers, VFFS, HFFS and Multiwall Sack filling: Filling machineries by count-Filling machineries-Liquid-Carbonated, Design consideration and selection of fillers. Types of Solid fillers. Vertical Form fill seal (VFFS), Horizontal Form fill seal (HFFS) Machines- Machine overview, and Types-Different section on the machine-New technologies available. Multiwall bag-Types of filling technique.

Suggested readings:

1. Shrikant P. Athavale, *Handbook of Printing, Packaging and Lamination: Packaging Technology*, Notion Press; 1st edition (12 September 2018).
2. F Joseph Hanlon, *Handbook of Package Engineering*, McGraw-Hill, 2016.
3. Soroka, Walter, *Fundamentals of Packaging Technology*, Institute of Packaging, Professionals, St. Charles, IL (2014).
4. Anne Emblem, *Packaging Technology: Fundamentals, Materials and Processes*, Wood head Publishing; 1st edition (29 October 2012).
5. John Henry, *Packaging Machinery Handbook: The Complete Guide to Automated Packaging Machinery Including Packaging*, Create Space Independent Pub. (17 November 2012).
6. Richard Crowson, *Assembly Processes, Finishing, Packaging, and Automation*, CRC Press, January 13, 2006.
7. Jeffrey H. Hooper, *Confectionery Packaging Equipment*, Springer; 1999th edition (30 September 1998.

B. Tech Printing and Packaging Technology
SYLLABI OF EXAMINATIONS
B. Tech 4th Year (2023-24)

Program Name: B. Tech Printing and Packaging Technology

Course Code: BT PPT707A	**Course Name: Paper Substrate in Packaging**	**L**	**T**	**P**	**C**
		3	**0**	**0**	**3**
Year and Semester	**4th Year 7th Semester**	**Contact hours per week:** (3 Hrs.)			
Pre-requisite of course	**Basics knowledge of paper**	**Evaluation**			
		CIE: 30		**TEE: 70**	

Course Level Learning Outcomes: On completion of the course, student would be able to:

- Describe raw materials used in paper.
- List of various pulping processes.
- Explain paper making processes.
- Discuss various properties of paper.

Unit	**COURSE SYLLABUS**
1	Raw Materials and Preparation: Fibrous raw materials –Soft and Hard Wood, Wood structure and morphology, Non wood fibers and recycled paper, Non fibrous Additives, Sizing Agents, Binders, Fillers and Additives, Wood harvesting, logging, sorting, Debarking, Chipping, Screening & Storage.
2	Pulping: Types- Mechanical, Chemical and semi-chemical- Mechanical pulping, Stone ground wood, pressurized grinding, Refiner pulping, refiner plates, Assisted mechanical pulping, thermo mechanical, chemi-mechanical, chemithermo-mechanical, Chemical pulping- Kraft and Sulfite – Pulping Chemistry - Liquor Chemicals and reactions- Digester Temperature and Pressure - Chemical recovery and environmental effects- Pulp properties – Processing of pulp for paper making.
3	Paper Making: Preparation of pulp – Repulping/dispersion, Beating and Refining, Bleaching, Recycled paper – Deinking, Washing and Flotation Foudrinier Paper Machine- Dry and Wet end operations- Surface treatments- Sizing, Coating and Super calendaring.
4	Paper properties: Optical properties – Color, brightness, smoothness, gloss, opacity and rub resistance, Strength properties–thickness, grammage, tensile, tear, bursting strength, stiffness, Grain direction, Wire and Felt sides. End use property testers – Abrasion, compression, crush resistance.

Suggested readings:

1. Herbert Holik, *Hand book of Paper and Board*, Wiley-VCH, 2006.
2. Mark J. Kirwan, *Paper and paperboard Packaging Technology*, Blackwell Publishing, 2005.
3. Herbert Sixta, *Handbook of Pulp*, Vol.1, Wiley-VCH, 2005.
4. G.A. Smook, *Handbook for pulp and paper technologists*, Angus Wilde Publications, 2001..

B. Tech Printing and Packaging Technology
SYLLABI OF EXAMINATIONS
B. Tech 4th Year (2023-24)

Program Name: B. Tech Printing and Packaging Technology

Course Code: BT PPT708A	**Course Name: Hybrid Printing Technology**	**L**	**T**	**P**	**C**
		3	**0**	**0**	**3**
Year and Semester	**4th Year 7th Semester**	**Contact hours per week:** (3 Hrs.)			
Prerequisite of course	**Digital and conventional printing**	**Evaluation**			
		CIE: 30		**TEE: 70**	

Course Level Learning Outcomes: On completion of the course, student would be able to:

- Overview of Printing Methods and Technologies
- Describe concept of Hybrid Printing and its application.
- Describe Hybrid Printing Systems combining Conventional Printing Technologies
- Understand in-line and off-line print production.

Unit	**COURSE SYLLABUS**
1	Overview of Printing Methods and Technologies, Combination Variants of Hybrid Printing Systems.
2	System Concepts and Examples of Implementations. Hybrid Printing Systems combining Conventional Printing Technologies, Hybrid Printing Systems combining NIP Technologies.
3	Hybrid Printing Systems combining Conventional and NIP Technologies, Hybrid Printing Systems combining Computer to Press/Direct Imaging with NIP Technologies, Hybrid Printing Systems combining Conventional Printing Technologies with Computer to Press Technologies.
4	Hybrid Techniques for In-line Print Production, Hybrid Techniques for Off-line Print Production.

Suggested readings:

1. Michael Limburg, *Gutenberg goes digital: All You Need to Know about Computer to Plate Technology*, Blue Print, 2012
2. David Bann, *the All New Print Production Handbook*, Rotovision, 2011.
3. Bergsland, David, *Introduction to digital publishing*, Cengage Learning, 2002.
4. Kipphan, Helmut, *ed. Handbook of print media: technologies and production methods*, Springer Science & Business Media, 2001.
5. Phil Green, *Understanding Digital Color*, 2nd edition, printing Industries, 1999.
6. Robin McAllister, *Scanning and Image Manipulation*, Delmar Cengage Learning, 1996.
7. Anton & Peter Kammermeier, *Scanning & Printing*, Focal Press, 1992.

B. Tech Printing and Packaging Technology
SYLLABI OF EXAMINATIONS
B. Tech 4th Year (2023-24)

Program Name: B. Tech. - Printing and Packaging Technology

Course Code: BT PPT709A	Course Name: Printing Organization and Plant Layout	L	T	P	C
		3	0	0	3
Year and Semester	4th Year 7th Semester	Contact hours per week: (3 Hrs.)			
Prerequisite of course	Basics of management	Evaluation			
		CIE: 30		TEE: 70	

Course Level Learning Outcomes: On completion of the course, student would be able to:

- Describe print organization and management.
- Discuss strategic issues of location.
- Explain methods and types of plant layout.
- Outline of factory building and its types.

Unit	COURSE SYLLABUS
1	Printing Organization: Management- Nature scope and importance of Management, Functions of Management –Scientific, Management. Production and operations Management – Locations and Layout of plant, Maintenance management Structure: Structure of organization, Formal and Informal organization, Market research, Sales promotion and Purpose of business management. Workflow and organizational structure in a printing press.
2	Strategic issues of location. The supply-distribution system, Dynamic nature of plant location, strategy-factors influencing choice of location. State regulations on location. Backward areas and Industrial policy. Govt. Policies for decentralization, Industrial estates, comparison of locations-urban v/s rural areas advantages, sub-urban area. Economic survey of site selection. Analytical approach.
3	Objectives of good plant layout, principles of plant layout, importance of plant layout, situations in which layout problems may arise, factors influencing plant layout, Methods of plant and factory layout. Types of plant layout -product layout or live layout - process layout or functional layout-combination layout. Symptoms of bad layout. Flow pattern-line flow, L type flow, circular flow, U type flow, Characteristics and place of application. Factors governing flow patterns: Combination of line flow and S type of pattern. Combination of line flow and circular type. Work station design-Storage Space Requirements.
4	Introduction, Advantages of a good factory building, Factors affecting the factory building - nature of manufacturing process- flexibility-expandability-service facilities-employee facilities-lighting-heating- ventilating-air conditioning-appearance- durable construction-security measures- noise control. Types of factory building - single story building, high bay and monitor type buildings, multi-story buildings, building of special types. Types of construction of factory building: Wood frame construction, Brick construction, Slow burning mill construction.

Suggested readings:

1. NIIR Board of Consultants & Engineers, *The Complete Book on Printing Technology with Process Flow Diagrams, Plant Layouts and Machinery Details (Offset, Gravure, Flexographic, Security, Web Offset and Pad Printing),* 2nd Revised Edition, 1 January 2019.
2. Gerard Blokdyk, *Organization design: Implement, Administer, Manage, Create Space Independent Publishing Platform* (September 24, 2017).
3. Jack Greene, *Plant Layout and Facility Planning: Edition Two*, Create Space Independent Publishing Platform; 2nd edition (September 15, 2013).
4. Charles Conover, *Designing for Print: An In-Depth Guide to Planning, Creating, and Producing Successful Design*, Wiley; 2nd edition (25 November 2011).
5. A. John Geis, *Printing Plant Layout and Facility Design, Printing Industries Pr*; 3rd edition (1 May 2010).

Scheme & Syllabus for B.Tech in Printing and Packaging Technology according to Choice Based Credit System (CBCS)

(Semester VIII)

Department of Printing and Packaging Technology
w.e.f. Session 2022-23

School of Engineering & Technology
CENTRAL UNIVERSITY OF HARYANA
MAHENDERGARH-123031
HARYANA

Central University of Haryana
School of Engineering and Technology
Department of Printing and Packaging Technology
B.Tech. 4th YEAR (SEMESTER – VIII)
Group A

S. No.	Course Code	Course Title	Teaching Schedule			Credits
			L	T	P	
1	BT PPT801A	Major Project	0	0	24	12
2	**Program Elective – 7 (Any one)**					
	BT PPT802A	Food and Pharmaceutical Packaging	3	1	0	4
	BT PPT803A	Industrial Packaging	3	1	0	4
3	**GEC**		3	1	0	4
Total			**6**	**02**	**24**	**20**

L = Lecture, T = Tutorial, P = Practical, & C = Credits

Group B

S. No.	Course Code	Course Title	Teaching Schedule			Credits
			L	T	P	
1	BT PPT809A	Industry Internship	-	-	40	20
Total			-	-	**40**	**20**

L = Lecture, T = Tutorial, P = Practical, & C = Credits

B. Tech Printing and Packaging Technology
SYLLABI OF EXAMINATIONS
B. Tech 4th Year (2022-23)

(Group A)

Program Name: B. Tech Printing and Packaging Technology

Course Code: BT PPT801A	**Course Name: Major Project**		**L**	**T**	**P**	**C**
			0	**0**	**24**	**12**
Year and Semester	**4th Year 8th Semester**	**Evaluation**				
Prerequisite of course	**Nil**	**CIE: 90**		**TEE: 210**		

B. Tech Printing and Packaging Technology
SYLLABI OF EXAMINATIONS
B. Tech 4th Year (2022-23)

Program Name: B. Tech. - Printing and Packaging Technology

Course Code: BT PPT802A	**Course Name: Food and Pharmaceutical Packaging**	**L**	**T**	**P**	**C**
		3	**1**	**0**	**4**
Year and Semester	**4th Year 8th Semester**	**Contact hours per week:** (3 Hrs.)			
Prerequisite of course	**Basics of packaging**	**Evaluation**			
		CIE: 30		**TEE: 70**	

Course Level Learning Outcomes: On completion of the course, student would be able to:

- Describe barrier material for a specific food product based on barrier properties.
- Explain food preservation techniques.
- Discuss various characteristics of pharmaceutical drugs.
- List cosmetic packaging materials & techniques.

Unit	**COURSE SYLLABUS**
1	Introduction to Food Packaging: An overview & Introduction to the science, technology, socio economic needs and packaging functions. Types of food – Perishable / Semi-perishable, acidity of food product. Gas and Vapor permeation - Basic concepts and theory of permeation and units. Barrier materials used in Food Packaging - Food-package compatibility and migration issues.
2	Food Preservation Techniques: Drying – Cold Preservation (Refrigeration, Deep Freezing) – Pickling – Sterilization (Retort/Canning, Irradiation) Modified & Controlled Atmosphere Packaging – Gases used – Vacuum Packaging, Active Food Ingredients.
3	Packaging of Drugs: Introduction, Classification, design guidelines. Packaging of Drugs - Injectable– Material used for drug packaging: Glass, Rubber, Plastic, Aluminum, paper and board.
4	Cosmetic Packaging: Introduction, Classification, Factors affecting Cosmetics Packaging, Cosmetic packaging materials and Techniques.

Suggested readings:

1. Dipak Kumar Sarkar, *Packaging Technology and Engineering: Pharmaceutical, Medical and Food Applications*. Wiley, September 2020.
2. Shrikant P. Athavale, *Handbook of Printing, Packaging and Lamination: Packaging Technology*, Notion Press; 1st edition (12 September 2018).
3. F Joseph Hanlon, McGraw-Hill, *Handbook of Package Engineering*, 2016.
4. Alexandru Grumezescu, *Food Packaging*, 1st Edition, Academic Press, 14th September 2016.
5. Soroka, Walter, *Fundamentals of Packaging Technology*, Institute of Packaging, Professionals, St. Charles, IL (2014).
6. Gordon L. Robertson, *Food Packaging: Principles and Practice*, Third Edition, CRC Press; 3rd edition (18 January 2013).
7. Edward J. Bauer, *Pharmaceutical Packaging*, CRC Press; 1st edition (25 March 2009).

B. Tech Printing and Packaging Technology
SYLLABI OF EXAMINATIONS
B. Tech 4th Year (2022-23)

Program Name: B. Tech Printing and Packaging Technology

Course Code: BT PPT805A	**Course Name: Industrial Packaging**	**L**	**T**	**P**	**C**
		3	**1**	**0**	**4**
Year and Semester	**4th Year 8th Semester**	**Contact hours per week:** (3 Hrs.)			
Prerequisite of course	**Basics of packaging**	**Evaluation**			
		CIE: 30		**TEE: 70**	

Course Level Learning Outcomes: On completion of the course, student would be able to:

- Discuss the importance of bulk packaging.
- Explain various packaging materials.
- Describe new packaging products.
- Discuss the various hazards in packaging.

Unit	COURSE SYLLABUS
1	Introduction to packaging, meaning of Bulk Packaging, bulk packaging consideration, Product needs, Product weights. Difference between bulk packaging and retail, Application of bulk packaging, advantages and disadvantages.
2	Bulk Packaging systems: Intermediate Bulk Containers (IBC) - Rigid IBC tanks, Flexible IBC Tanks, Designing, advantages, application, acquisition and disposal, safety, container costs, container types. Flexible Intermediate Bulk Containers (FIBC) - history, Electrostatic properties, Applications, uses of flood barrier, emptying FIBC. Woven sacks- Gunny sack, paper sack, plastic bags. Bulk Shrink Wrap- Introduction, Composition, and Manufacturing, application, Stretch Wrapping- Introduction, manufacturing, functions, Application- Manual, Semi-Automatic wrappers and Automatic wrappers.
3	Material used in bulk packaging- LDPE, LLDPE, HDPE, PP, PVC, Nylon, Polyester Other materials like- Corrugated, Bags, Metals, Wood.
4	Bulk Packaging for Hazardous Materials, Industrial packaging types. Selection of proper packaging for industrial product- Flexible industrial packaging paper and plastic, rigid industrial packaging wooden, metal and plastic.

Suggested readings:

1. Shrikant P. Athavale, *Handbook of Printing, Packaging and Lamination: Packaging Technology*, Notion Press; 1st edition (12 September 2018).
2. Walter-Soroka, *Fundamentals of packaging technology*, CPP; Institute Of Packaging Professionals, Published by Institute of Packaging Professional; 5th edition (January 1, 2014), 2014.
3. Fumi Sasada, Giles Murray, *the Eight Elements of Powerful Package Design,* November 19, 2013.
4. Kit L. Yam, *The Wiley Encyclopedia of Packaging Technology*, 3rd Edition, September 2009.

B. Tech Printing and Packaging Technology
SYLLABI OF EXAMINATIONS
B. Tech 4th Year (2021-22)

(Group B)

Program Name: B. Tech Printing and Packaging Technology

Course Code: BT PPT809A	Course Name: Industry Internship	L	T	P	C
		-	-	40	20
Year and Semester	4th Year 8th Semester	Evaluation			
Prerequisite of course	Nil	CIE: 150		TEE: 350	

हरियाणा केंद्रीय विश्वविद्यालय
महेंद्रगढ़- 123031 (हरियाणा), भारत
नैक द्वारा 'ए'- ग्रेड प्राप्त विश्वविद्यालय

Central University of Haryana
Mahendergarh-123031(Haryana). India
NAAC ACCREDITED 'A' GRADE UNIVERSITY

Achieving Through Believing

क्रमांक / No.....

दिनांक / Date:.....

Minutes of Meeting of School Board, School of Education

The Meeting of the School Board, School of Education was held on 27.12.2022 at 11:30 A.M.

The following members were present:

1. **Prof. Sarika Sharma** — **Chairperson**
   Dean, School of Education &
   Head, Department of Teacher Education,
   Central University of Haryana

2. **Prof. Shamsher Singh** — **Member**
   Professor (Retd.), Department of Physical Education,
   Chaudhary Devi Lal University, Sirsa, Haryana

3. **Prof. S.V.S. Choudhary** — **Member** (Online)
   Professor (Retd.), IGNOU &
   Former Chairman, NCTE, New Delhi

4. **Prof. Jatinder Grover** — **Member**
   Professor, Department of Education,
   Panjab University, Chandigarh

5. **Prof. Gurmeet Singh** — **Member** (Online)
   Professor, Department of Physical Education,
   Panjab University, Chandigarh

6. **Prof. Ravinder Pal Ahalawat** — **Member**
   Head, Department of Physical Education and Sports,
   Central University of Haryana

7. **Prof. Parmod Kumar** — **Member**
   Professor, Department of Teacher Education,
   School of Education, Central University of Haryana

8. **Prof. Nand Kishor** — **Member**
   Professor, Department of Teacher Education,
   School of Education, Central University of Haryana

9. **Prof. Gaurav Singh** — **Member**
   Professor, Department of Teacher Education,
   School of Education, Central University of Haryana

27/12/22

10. **Dr. Jaipraksah Bhukar** — **Member**
Associate Professor, Department of Physical Education and Sports,
Central University of Haryana

11. **Dr Renu Yadav** — **Member**
Assistant Professor, Department of Teacher 1education,
School of Education, Central University of Haryana

12. **Dr. Sandeep Dhull** — **Member**
Assistant Professor, Department of Physical Education and Sports,
Central University of Haryana

At the very outset, Prof. Sarika Sharma, Chairperson, School Board of School of Education, Central University of Haryana, initiated the meeting with the warm welcome of all the members of School Board and also presented the brief report of the progress made during this year by the School of Education which was appreciated widely. The following agenda items (one by one) were taken up and discussed in the meeting for consideration and approval of the School Board:

Item No	Description
1	**Confirmation of the Minutes of School Board, School of Education held on 14.09.2021**
	School Board, School of Education endorsed the Minutes of Meeting of School Board, School of Education held on 14.09.2021 **(Annexure-I)**
2	**To consider and approve the Minutes of Board of Studies of School of Education (For B.Ed. and M.Ed. Programme) held on 23.05.2022.**
	The School Board, School of Education considered and approved the Minutes of Board of Studies of School of Education (For B.Ed. and M.Ed. Programme) held on 23.05.2022. **(Annexure-II)**
3	**To consider and approve the Minutes of Board of Studies of Department of Teacher Education held on 19.12.2022.**
	The School Board, School of Education considered and approved the Minutes of Board of Studies, Department of Teacher Education, School of Education, Central University of Haryana held on 19.12.2022. **(Annexure-III)**
4	**To discuss and approve the request of Prof. Gaurav Singh, Department of Teacher Education to transfer MOOC's on "Research Ethics and Plagiarism", as a course of Department of Teacher Education under School of Education, Central University of Haryana as host institution and IGNOU will remain as a National Coordinator.**
	The School Board, School of Education considered and approved to transfer MOOC's on "Research Ethics and Plagiarism", (2 credits) as a course of Department of Teacher Education under School of Education, Central University of Haryana as host institution and IGNOU will remain as a National Coordinator **(Annexure-IV)**

5	**To discuss and approve the new Master Level Programme on "Digital Pedagogy" proposed by Prof. Gaurav Singh, Department of Teacher Education.**
	The School Board, School of Education considered and approved the new Master Level Programme on "Digital Pedagogy" proposed by Prof. Gaurav Singh, Department of Teacher Education in principle to start the new programme as per NEP 2020 guidelines. The members of the School Board suggested that the curriculum of the programme and other need and requirement may be develop as per the university /UGC norms. The agenda item to be placed before Academic Council for consideration and approval. **Annexure V**
6	**To discuss and approve the 50% seats for Science and Arts/Humanities/Commerce candidates in B.Ed. Programme as per reservation policy of Govt. of India/NCTE**
	The chairperson presented that the Department of Teacher Education is running two teacher trainee programme i.e. B.Ed. and M.Ed. (Two Years) duly approved by NCTE and the teaching faculty was appointed as per the norms. After the detail discussion on the item the School Board, School of Education considered and approved the 50% seats for Science and Arts/Humanities/Commerce candidates in B.Ed. Programme as per the reservation policy of Government of India. Some of the Universities are following the same practices. The agenda item to be placed before Academic Council for consideration and approval. **Annexure VI**
7	**To consider and approve the Minutes of Board of Studies of Department of Physical Education held on 15th November, 2022**
	The School Board, School of Education considered and approved the Minutes of Board of Studies of Department of Physical Education held on 15th November, 2022 **(Annexure-VII)**
8	**To consider and approve the revised scheme and syllabus of M.P.Ed. Programme (2-Year)** w.e.f. 2022-2023
	The School Board, School of Education considered and approved the revised scheme and syllabus of M.P.Ed. Programme (2-Year) w.e.f. 2022-2023. The agenda item be placed before Academic Council for consideration and approval. **(Annexure-VIII)**
9	**To consider and approve the revised admission criteria for M.P.Ed. Programme w.e.f. 2023-24**
	The School Board, School of Education considered and approved the revised admission criteria for M.P.Ed. Programme w.e.f. the session 2023-24 which is approved by BOS of Department of physical Education and Sports. The admission criteria will be 50% weightage of CUET Score/ any other test Score adopted by the University, 25% weightage of the Physical Efficiency Test and 25% weightage to the Sports Merit

	Criteria. The agenda item to be placed before Academic Council for consideration and approval. **(Annexure-IX)**
10	Any other item, with the permission of Chairperson
	i. To consider and approve the separate building for School of Education
	The School of Education is offering three teacher training programmes- B.Ed. , M.Ed. and M.P.Ed. as per the NCTE norms and guidelines. And moreover, the four year ITEP B.A. B.Ed. is going to start in the very next session. Therefore, the School Board, School of Education unanimously resolve that there should be separate building for School of Education for its smooth functioning.

The Meeting was ended with vote of thanks to the Chair.

Sarika Sharma **Shamsher Singh** **S.V.S. Choudhary** **Gurmeet Singh**

Jatinder Grover **Ravinder Pal Ahalawat** **Parmod Kumar** **Nand Kishor**

Gaurav Singh **Jaipraksah Bhukar** **Renu Yadav** **Sandeep Dhull**

शारीरिक शिक्षा एवं खेल विभाग

Department of Physical Education and Sports

हरियाणा केन्द्रीय विश्वविद्यालय, महेन्द्रगढ़

Central University of Haryana, Mahendergarh

(संसद के अधिनियम संख्या 25 (2009) के तहत स्थापित, नैक से 'ए' ग्रेड प्राप्त)

(Established vide Act No. 25 (2009) of Parliament, Accredited 'A' Grade by NAAC)

CUH/2022/PHY.EDU/ 15th November, 22

Minutes of Meeting of B.O.S.

A meeting of the Board of Studies (B.O.S.) Department of Physical Education & Sports, constituted vide notification no. CUH/2020/A&C/334 dated 12.06.2020, was held on 15th November, 2022 at 11.00A.M. in the office of Dept. of Physical Education & Sports, Central University of Haryana.

The following members attended the meeting:

1. Prof. Ravinder Pal Ahlawat — Chairperson
   Head, Dept. of Physical Education & Sports, CUH
2. Dr. Anil Kalkal — External Member
   Director, Delhi University Sports Council, University Sports Complex, University of Delhi.
3. Prof. Nishan Singh Deol — External Member
   Head, Dept. of Physical Education, Punjabi University, Patiala (Punjab)
4. Dr. Jai Prakash Bhukar — Internal Member
   Associate Professor, Dept. of Physical Education & Sports, CUH
5. Dr. Sandeep Dhull — Internal Member
   Assistant Professor, Dept. of Physical Education & Sports, CUH
6. Dr. Swati Choudhary — Dept. Member
   Assistant Professor, Dept. of Physical Education & Sports, CUH
7. Dr. Kumar P. — Dept. Member
   Assistant Professor, Dept. of Physical Education & Sports, CUH

The meeting resolved the following agenda-items:

A. Considered and approved the minutes of Departmental Research Committee meeting held on 08.08.22, 19.09.22 and 19.10.22.

B. Considered and approved the topics of Ph.D research scholars enrolled in session (2021-22) (Annexure-I)

C. Considered and approved the panel of External Examiners for M.P.Ed. Programme (Annexure-II)

D. Considered and approved the panel of experts for Departmental Research Committee (D.R.C.). (Annexure-III)

E. Considered and approved the recommendations of the Staff Council regarding admission criteria for M.P.Ed. Programme as 50% weightage of CUET Score/ any other test score adopted by the University, 25% weightage of the Physical Efficiency Test (Annexure-IV) adopted by the department and 25% marks weightage to the Sports Merit Criteria (Annexure-V).

F. Considered and approved the revised Scheme and Syllabus of M.P.Ed. Programme (2-year) (Annexure-VI).

The Meeting ended with a vote of thanks to all the members.

Dr. Kumar P.

15/11/2022
Dr. Swati Choudhary

15-11-22
Dr. Sandeep Dhull

Dr. Jai Prakash Bhukar

15/11/22
Prof. Nishan Singh Deol
(External Member)

15/11/22
Dr. Anil Kumar Kalkal
(External Member)

15/11/22
Prof. Ravinder Pal Ahlawat
(Convener)

A copy of the Minutes of the meeting of the Board of Studies of the Department of Physical Education & Sports is forwarded to the following for information and necessary action.

1. Dr. Anil Kalkal, Director, Delhi University Sports Council, University Sports Complex, University of Delhi.
2. Prof. Nishan Singh Deol, Professor & Head, Dept. of Physical Education, Punjabi University, Patiala (Punjab).

Learning Outcomes-Based Curriculum Framework (LOCF)

School of Education

M.P.Ed. Programme

Central University of Haryana

Mahendergarh

1. Background
2. Programme Outcomes (PEOs)
3. Programme Specific Outcomes (PSO's)
4. Program Outcomes (PO) with Graduate Attributes
5. Structure of Undergraduate Engineering program
6. Learning Outcome Index
7. Semester-wise courses and credit distribution
8. Course Level Learning outcome
9. Teaching- Learning process
10. Blended Learning
11. Assessment and Evaluation
12. Keywords
13. References
14. Appendices

1. Background

The implementation of the curricular reforms envisioned in National Education Policy-2020 on consequent decisions taken in the Academic Council of the University to annually review and reform the curriculum of all the Under Graduate and Post Graduate programmes in alignment with the NCTE, NEP-2020 and UGC quality mandate for Higher Education Institutions 2021, the curriculum of Master of Physical Education (M.P.Ed.) is revised accordingly.

The process of revamping the curriculum was initiated with the series of webinars and discussions conducted by the University to orient the teachers about the key features of the Policy, enabling them to revise the curriculum in sync with the Policy. Orientation of the faculty about the vision and provisions of NEP-2020 made it easier for them to appreciate and incorporate the vital aspects of the Policy in the revised curriculum focused on 'creating holistic, thoughtful, creative and well-rounded individuals equipped with the key 21st century skills' for the 'development of an enlightened, socially conscious, knowledgeable, and skilled nation'.

The Department of Physical Education and Sports is committed towards preparing Physical Education Teachers by ensuring quality and excellence in its programme. The present curriculum Framework is based on NCTE Regulation-2014, UGC-LOCF and NEP-2020. Physical education and sports are an integral part of life, from school to higher education and community participation. It is the education which focuses on wholesome development of personality through physical, cognitive and functional development. Master of physical education provide opportunity to students at post graduate level toward specialized knowledge in physical education, seeking a broad based spectrum of study that crosses discrete portions of physical, biological, psychological and social science in an integrated, orderly and logical sequence. The curriculum focuses on horizontal integration of multi-facet discipline aiming at physical education specialist who can develop and promote physical education at schools, colleges and universities across the nation. The programme structure consists of formal courses and related experiences which focus on human involvement in physical education and related aspects.

Programme Name: Master of Physical Education (M.P.Ed),

Department of Physical Education and Sports,

School of Education.

Vision and Mission of Central University of Haryana

UNIVERSITY VISION

To develop enlightened citizenship of a knowledge society for peace and prosperity of individuals, nation and the world, through promotion of innovation, creative endeavors, and scholarly inquiry.

UNIVERSITY MISSION

To serve as a beacon of change, through multi-disciplinary learning, for creation of knowledge community, by building a strong character and nurturing a value-based transparent work ethics, promoting creative and critical thinking for holistic development and self-sustenance for the people of India. The University seeks to achieve this objective by cultivating an environment of excellence in teaching, research and innovation in pure and applied areas of learning.

OBJECTIVES OF DEPARTMENT OF PHYSICAL EDUCATION AND SPORTS, SCHOOL OF EDUCATION

1. To prepare outstanding Physical Education Teachers for a global platform
2. To prepare physical education professionals, who can lead to transformation of the lives of individuals and lead to the national development.
3. To develop positive attitude towards physical education and sports.
4. To train teachers in making teaching-learning healthful and joyful.
5. To prepare physical education teachers/ trainers/ educators who have a sound knowledge base, essential professional skills and humanitarian values and ethics.
6. To train teachers in Information & Communication Technology for physical education and sports.
7. To develop research and innovation aptitude in pupil teachers.
8. To build an environment for all round development of the individual.

Mapping of University Vision and Mission to Department Vision and Mission

Acclaimed as modal Centre of Learning and Research by

University Vision and Mission	**Objectives of School**
High quality knowledge society creation for peace and prosperity of individuals, nation and the world, through and scholarly inquiry	**Yes**
Promotion of innovation, creative endeavors, research and development	**Yes**
Students excellence through multi-disciplinary learning, value-based transparent work ethics, creative and critical thinking	**Yes**
Environment of excellence in teaching, research and innovation in pure and applied areas of learning	**Yes**

1. PROGRAMME OUTCOMES (POs), SCHOOL OF EDUCATION

After successful completion of the programme:

PO1 Learners will be able to comprehend the acquired knowledge during the Programme of study.

PO2 Learners will be able to reflect on the problems relating to health, discipline and society with ethical guidelines.

PO3 Learners will be able to exhibit the professional skills and competencies acquired during the Programme of study.

PO4 Learners will be able to show scientific & research capabilities in their academic, professional and general life pursuits.

PO5 Learners will be able to apply the knowledge and skills acquired in academic management and resource management according to predetermined objectives/outcomes.

PO6 Learners will be able to work as a member or a leader in various teams and multidisciplinary & diverse settings.

1. PROGRAMME SPECIFIC OUTCOMES (PSOs), M.P.Ed Programme

The M.P.Ed Two-Year Teacher Education Programme aims at:

PSO-1. Acquiring conceptual understanding of sports exercise physiology, kinesiology, psychology and other physical educational aspects with experiential learning.

PSO-2. Developing competencies in motor skills and movement analysis needed to perform variety of physical activities and reducing the risk of chronic disease and injuries.

PSO-3. To enable the students for acquiring relevant skills for entrepreneurship in contemporary fitness industry, self-defence, community development and physical literacy.

PSO-4. Providing exposure to student-teachers for digital literacy, integrated pedagogy, and training for various awareness programmes related to gender, environment, health and contemporary issues.

PSO-5. Enabling the students to develop a high level of understanding of physical education practice and policy providing with a basis for life-long learning and successful career development in physical education.

PSO-6. Developing research competencies with statistical techniques, effective way of teaching and curriculum design in physical education.

Scheme and Syllabus

M.P.Ed
(Master of Physical Education)

School of Education

Academic Session 2022-23

M.P.Ed Semester- I

S. No.	Course Credit	Course Code	Course Title	Credits (Theory)	Credits (Tutorial/ Practicum)	Credits (Practical)	Class Teaching / Field Based Activity Hours per week
1	4	SOE PES 030101 C4004	Research Methodology in Physical Education	4	0	0	4
2	4	SOE PES 030102 C4004	Theory of Athletics	4	0	0	4
3	4	SOE PES 030103 C4004	Test, Measurement and Evaluation in Physical Education	4	0	0	4
Practicum							
4	4	SOE PES 030104 C0134	Specialization Teaching of Athletics-Track Events-I	0	1	3	7
5	4	SOE PES 030105 C0134	Specialization Teaching of Game-I	0	1	3	7
6	1	SOE PES 030106 C0101	Classroom Teaching-I	0	1	0	1
Discipline Centric Elective Courses (DCEC)							
7	3	SOE PES 030101 E3003	Yogic Science	3	0	0	3
8	3	SOE PES 030102 E3003	Adapted Physical Education	3	0	0	3
Total	**24**						
	8	**Taken from other Departments/ MOOC Out of 4 Semester**					

Note: -

1. Minimum 5 Students are compulsory for Sports Specialization.
2. Students have to select sports specialization of game out of following games **(Basketball, Volleyball, Kabaddi, Kho-Kho, Football, and Table Tennis), (Handball, Wrestling, Badminton, Hockey, and Cricket).**

M.P.Ed Semester- II

S. No.	Course Credit	Course Code	Course Title	Credits (Theory)	Credits (Tutorial/ Practicum)	Credits (Practical)	Class Teaching / Field Based Activity Hours per week
9	4	SOE PES 030207 C4004	Applied Statistics in Physical Education	4	0	0	4
10	4	SOE PES 030208 C4004	Sports Medicine, Athletic care and Rehabilitation	4	0	0	4
11	4	SOE PES 030209 C4004	Information and Communication Technology (ICT) in Physical Education	4	0	0	4
Practicum							
12	4	SOE PES 030210 C0134	Specialization Teaching of Athletics- Field Events-II	0	1	3	7
13	4	SOE PES 030211 C0134	Specialization Advance Teaching of Game-II	0	1	3	7
14	1	SOE PES 030212 C0101	Classroom Teaching-II	0	1	0	1
Discipline Centric Elective Courses (DCEC)							
15	3	SOE PES 030203 E3003	Value and Environmental Education in Physical Education	3	0	0	3
16	3	SOE PES 030204 E3003	Sports Engineering	3	0	0	3
Total	**24**						
	8	**Taken from other Departments/ MOOC Out of 4 Semester**					

Note: -

1. Minimum 5 Students are compulsory for Sports Specialization.
2. The sports Specialization games will continue as per semester-I.

Generic Elective Courses (GEC)

S. No.	Semester	Course Code	Course Title	Credits (Theory)	Credits (Tutorial/ Practicum)	Credits (Practical)	Class Teaching / Field Based Activity Hours per week
1	**Second**	SOE PES 030201 GEC4004	Wellness through Games and Sports	4	0	0	4

M.P.Ed Semester- III

S. No.	Course Credit	Course Code	Course Title	Credits (Theory)	Credits (Tutorial/ Practicum)	Credits (Practical)	Class Teaching / Field Based Activity Hours per week
17	4	SOE PES 030313 C4004	Science of Sports Training	4	0	0	4
18	4	SOE PES 030314 C4004	Sports Management and Curriculum Design in Physical Education	4	0	0	4
19	4	SOE PES 030315 C4004	Sports Biomechanics and Kinesiology	4	0	0	4
Practicum							
20	4	SOE PES 030316 C0134	Specialization-III Advance Coaching and Officiating of Athletics-Track Events-III	0	1	3	7
21	4	SOE PES 030317 C0134	Specialization Coaching and Officiating of Game-III	0	1	3	7
22	1	SOE PES 030318 C0101	Classroom Teaching-III	0	1	0	1
Discipline Centric Elective Courses (DCEC)							
23	3	SOE PES 030305 E3003	Research Proposal and Preparation of Synopsis.	3	0	0	3
24	3	SOE PES 030306 E3003	Sports Journalism and Mass Media	3	0	0	3
Total	**24**						
	8	**Taken from other Departments/ MOOC Out of 4 Semester**					

Note: -

1. Minimum 5 Students are compulsory for Sports Specialization.
2. The Sports Specialization games will continue as per semester I and II.

3. The students opting for Research Proposal as Discipline Centric Elective Course will be encouraged to take Dissertation as a Discipline Centric Elective Course (DCEC) in the fourth semester.

M.P.Ed Semester- IV

S. No.	Course Credit	Course Code	Course Title	Credits (Theory)	Credits (Tutorial/ Practicum)	Credits (Practical)	Class Teaching / Field Based Activity Hours per week
25	4	SOE PES 030419 C4004	Sports Psychology	4	0	0	4
26	4	SOE PES 030420 C4004	Health Education and Sports Nutrition	4	0	0	4
27	4	SOE PES 030421 C4004	Physiology of Exercise	4	0	0	4
Practicum							
28	4	SOE PES 030422 C0134	Specialization Advance Coaching and Officiating of Athletics-Field Events-IV	0	1	3	7
29	4	SOE PES 030423 C0134	Specialization Advance Coaching and Officiating of the Games-IV	0	1	3	7
30	1	SOE PES 030424 C0101	Classroom Teaching -IV	0	1	0	1
Discipline Centric Elective Courses (DCEC)							
31	3	SOE PES 030407 E0303	Dissertation	0	3	0	3
32	3	SOE PES 030408 E3003	Physical Fitness and Wellness	3	0	0	3
Total	**24**						
	8	**Taken from other Departments/ MOOC Out of 4 Semester**					

Note:

1. Minimum 5 Students are compulsory for Sports Specialization.
2. The Sports Specialization games will continue as per semester I, II and III.

For more details regarding Credit and other Academic requirements Ordinance No-XV of the University may be referred.

Generic Elective Courses (GEC)

S. No.	Semester	Course Code	Course Title	Credits (Theory)	Credits (Tutorial/ Practicum)	Credits (Practical)	Class Teaching / Field Based Activity Hours per week
2	**Fourth**	SOE PES 030402 GEC4004	Physical Fitness and Conditioning	4	0	0	4

Number of credits per semester

Semester	Core Course	Practicum Course	Discipline Centric Elective Courses (DCEC)	Taken from other Department/ MOOC [Generic Elective Courses (GEC)]	Total
I	12	9	3	4+4 = 8	24
II	12	9	3		24
III	12	9	3		24
IV	12	9	3		24
I-IV GEC					08
				Total	104

Matching of Programme outcomes with Programme Specific outcomes

PO PSO	PO1	PO2	PO3	PO4	PO5	PO6
PSO-1	x	x	x	x	x	x
PSO-2	x	x	x	x	x	x
PSO-3	x	x	x	x	x	x
PSO-4	x		x	x	x	x
PSO-5	x	x	x	x	x	x
PSO-6		x	x	x	x	
Total	5	5	6	6	6	5

Matching of Programme outcomes with Programme Specific outcomes, Core Courses (M.P.Ed.)

PO	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6
CC-1	X	X	X	X	X	X
CC-2	X		X		X	X
CC-3		X	X	X	X	
CC-4	X		X		X	X
CC-5	X		X			X
CC-6	X				X	X
CC-7	X	X	X		X	X
CC-8	X	X	X	X	X	X
CC-9	X	X	X		X	X
CC-10	X		X	X	X	X
CC-11	X		X		X	X
CC-12	X	X				X
CC-13	X		X		X	X
CC-14	X	X	X		X	X
CC-15			X	X	X	X
CC-16	X		X	X	X	X
CC-17	X		X	X	X	X
CC-18		X	X		X	X
CC-19	X		X		X	X
CC-20	X		X		X	X
CC-21	X	X	X		X	X
CC-22	X	X	X	X		
CC-23	X	X	X	X	X	
CC-24	X	X		X	X	
CC-25	X		X		X	X
CC-26	X		X		X	X
CC-27	X		X		X	X
CC-28	X	X	X		X	X

Matching of Programme outcomes with Programme Specific outcomes, Elective Courses (M.P.Ed.)

PSO	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6
EC1	X		X	X	X	
EC2		X	X		X	X
EC3	X		X	X	X	
EC4	X	X		X	X	X
EC5	X		X	X	X	
EC6	X	X				X
EC7			X	X	X	
EC8	X		X	X	X	

Matching of Programme outcomes with Programme Specific outcomes, Generic Elective Courses (M.P.Ed.)

PSO	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6
GEC-1	X	X	X		X	X
GEC-2	X		X	X	X	X

Learning Outcome/ Course Outcome Index, Core Courses (M.P.Ed.)

PSO	PSO-1	PSO-2	PSO-3	PSO-4	PSO-5	PSO-6
CC-1	X			X	X	X
CC-2	X	X		X	X	
CC-3				X	X	X
CC-4	X	X		X	X	
CC-5	X	X		X	X	
CC-6	X	X		X	X	
CC-7	X		X		X	
CC-8			X		X	X
CC-9		X	X		X	
CC-10			X	X		X
CC-11	X	X		X	X	
CC-12	X	X		X	X	
CC-13	X	X		X	X	
CC-14	X		X		X	
CC-15	X	X		X	X	X
CC-16	X	X		X	X	
CC-17	X	X			X	
CC-18	X	X		X	X	
CC-19	X	X		X	X	
CC-20	X	X		X	X	
CC-21	X		X		X	X
CC-22	X		X		X	
CC-23	X		X	X		
CC-24	X	X		X		
CC-25	X	X		X	X	
CC-26	X	X		X	X	X
CC-27	X	X		X	X	
CC-28	X		X		X	

Learning Outcome Index, Elective Courses (M.P.Ed.)

PSO	PSO-1	PSO-2	PSO-3	PSO-4	PSO-5	PSO-6
EC1			X		X	X
EC2		X	X	X		
EC3			X	X	X	
EC4	X		X	X	X	
EC5		X		X	X	X
EC6	X		X	X	X	
EC7				X	X	X
EC8		X	X		X	

Learning Outcome Index, Generic Elective Courses (M.P.Ed.)

PSO	PSO-1	PSO-2	PSO-3	PSO-4	PSO-5	PSO-6
GEC-1	X		X	X	X	
GEC-2			X	X	X	X

Semester-I

Year	I	RESEARCH METHODOLOGY IN PHYSICAL EDUCATION	Credits	4
Semester	I		Course Code	SOE PES 030101 C4004
Learning Outcomes	At the end of the course, the students will be able to: • Explain the meaning, nature and scope of research in physical education. • Classify and formulate the different methods of research. • Choose the right techniques for data collection. • Prepare the research proposal and summarize the thesis writing.			
Course Content				
Unit -1	**Introduction of Research** • Meaning and Definition of Research – Need, Nature and Scope of research in Physical Education, Scientific and Unscientific method of Problem Solving. (Online) • Review of Related Literature. (Online) • Identification of Research Problem and Criteria for selecting research problem. • Characteristics of a good research and good researcher. (Online)			
Unit -2	**Classification of Research** • Formulation and Classification of Research Hypothesis. (Online) • Limitations and Delimitations. (Online) • Classification of Research. • Analytical Research, Descriptive Research and Case Study.			
Unit -3	**Sampling and Population** • Meaning and Definition of Sample and Population. (Online) • Types of Sampling Techniques: a) Probability Sampling Techniques. b) Non-Probability Sampling Techniques. • Construction and Development of Questionnaire. • Data Collection Tools & Techniques.			

Unit -4	**Development of Research Proposal**
	• The Proposal Process and Research Process. (Online) • Preparation and uses of tables and figures and Guidelines for Writing Research Report. • Writing Formats: a) Traditional Format. b) Journal Format. • Format of writing abstracts, Oral and poster presentation.
Teaching learning process/Transactional Strategies	Lecture cum discussion, PowerPoint presentations, assignments, school observation and report, case study, and problem solving, brainstorming.
Suggested Readings	• Ahlawat, R. P. (2016). Research Process in Physical Education& Sports Sciences. Friends Publication. • Flick, U. (2017). Introducing Research Methodology. Sage Publications. • Flick, U. (2019). An Introduction to Qualitative Research. Sage Publications. • Kahn, J. V. (2016). Research in Education (Vol. 10). Pearson Education Inc. • Kamlesh, D. M. (2019). Methodology of Research in Physical Education and Sports. Sports Publication. • Kothari, C. (2019). Research Methodology: Methods and Techniques. New Age International Publishers. • Mishra, P. D. (2018). Research and Statistics in Physical Education. Sports Publication. • Thomas, J. R. (2016). Research Method in Physical Activity. US: Human Kinetics.

Year	I	THEORY OF ATHLETICS	Credits	4
Semester	I		Course Code	SOE PES 030102 C4004
Learning Outcomes	At the end of the course, the students will be able to: • Explain the general rules and regulations of Athletics defined by IAAF. • Draw a sketch of the standard and non-standard track with the markings of the different track and field events. • Explain and demonstrate the rules and regulations of various race events. • Explain and demonstrate the rules and regulations of various field events.			
Course Content				
Unit -1	**Introduction of Track and Fields** • Introduction and history of athletics. (Online) • World Athletics / IAAF General Rules and regulation of Track Events. (Online) • World Athletics / IAAF General Rules and regulation of Field Events. (Online) • World Athletics / IAAF General Rules and regulation of Combined Events. (Online)			
Unit -2	**Standard and non-standard Track Marking procedure** • Total Area. • Stagger. • Diagonal excess. • Relay Zone Marking.			
Unit -3	**Track events marking procedure** • Sprinting, Middle and Long Distance Events. • Cross country races and Race Walking. (Online) • Hurdles (Online) • Steeplechase races marking. (Online)			

Unit -4	**Field events marking procedure** • High jump and Pole vaulting • Long Jump and Triple Jump • Shot-put and Hammer • Discuss throw and Javelin throw
Teaching learning process/Transactional Strategies	Lecture cum discussion, PowerPoint presentations, assignments, school observation and report, case study, and problem solving, brainstorming
Practicum	• Track and Field Lay out and marking. • Track and Field Rules and Regulation. • Track and Field Performance.
Suggested Readings	• Schneider, R. C. (2009). *Ethics of Sport and Athletics: Theory, Issues, and Application*. Wolters Kluwer Health/Lippincott Williams & Wilkins, xxi, 392 p.: ill.; 24 cm. • Zeigler, E. F., & Spaeth, M. J. (1975). *Administrative Theory and Practice in Physical Education and Athletics*. **Website** • https://www.worldathletics.org/about-iaaf/documents/book-of-rules • https://sportsauthorityofindia.nic.in/showimg.asp?ID=580

Year	I	TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION	Credits	4
Semester	I		Course Code	SOE PES 030103 C4004
Learning Outcomes	At the end of the course, the students will be able to: • Explain the meaning and principles of Test, Measurement and Evaluation. • Construct knowledge and specific fitness test. • Illustrate various physical fitness and motor fitness test. • Explain the difference Anthropometric Measurements.			
Course Content				
Unit -1	**Concept of Test and Measurement and Evaluation in Physical Education** • Meaning of Test, Measurement and Evaluation. (Online) • Principles of Measurement and Evaluation. (Online) • Domains of Human Performance - cognitive, affective and psychomotor. (Online) • Meaning and establishing Validity, Reliability and Objectivity, Norm referenced and Criterion referenced standards.			
Unit -2	**Guidelines for construction of test** • Criteria of test selection. (Online) • Factors Affecting Scientific Authenticity. (Online) • Procedure to Establish Scientific Authenticity. (Online) • Guidelines for constructing knowledge test and steps for construction of skill test / specific fitness test.			

Unit -3	**Assessment through Various Skill Tests**
	• Concepts and Assessment of Physical Fitness: a) AAHPERD Health Related Fitness Test and Tuttle Pulse ratio test, b) Roger's PFI. • Test for fitness components- strength, endurance, speed, flexibility and coordinative abilities. • Motor Fitness Test, Motor Ability Test and Motor Educability Test. • Skill Test of various Games/ Sports.
Unit -4	**Individual Assessment Methods**
	• Basic Concept of Psychological Traits. (Online) • Basic concept of Anthropometric Measurements. • Assessment of Body Composition. • Self-Assessment.
Teaching learning process/Transactional Strategies	Lecture cum discussion, Power Point presentations, assignments, school observation and report, case study, and problem solving, brainstorming.
Practicum	The conducted practical's should be written in a Practical Note-Book and must be signed by the Supervisor. For practical's there will be a Practical Test and Viva-Voce Examination. • Assessment of endurance through-twelve minute run/walk test; six hundred yards run walk test; Harvard step test. • Assessment of resting physiological parameters- Heart rate, Respiratory rate. • Anthropometric measurement. • Somatotyping, somato charts & indices. • Various Sports / Games (Basketball, Volleyball, Hockey, Football, Badminton, Tennis).

Suggested Readings	• Alan C. Lacy & Skip M. Williams (2018). *Measurement and Evaluation in Physical Education and Exercise Science* (Ed. 8). Routledge. • American College of Sports Medicine (2013). *ACSM's Health-Related Physical Fitness Assessment Manual*. Lippincott Williams & Wilkins. • American College of Sports Medicine (2017). *ACSM's Health-Related Physical Fitness Assessment Manual*. Lippincott Williams & Wilkins. • Karad, P.L. (2017). *Test, Measurement and Evaluation in Physical Education.* Khel Sahitya Kendra. • Lacy, A. C., & Williams, S. M. (2018). *Measurement and Evaluation in Physical Education and Exercise Science*. Routledge. • Miller, D. (2019). *Measurement by the Physical Educator Why and How* (8th Edition). McGraw-Hill Higher Education. • Yobu, A. (2010). *Test, Measurement and Evaluation in Physical Education in Physical Education and Sports*. Friends Publications.

Year	I	SPECIALIZATION (TEACHING OF ATHLETICS-TRACK EVENTS-I)	Credits	4
Semester	I		Course Code	SOE PES 030104 C0134
Learning Outcomes		At the end of the course, the students will be able to: • Describe the fundamentals of short, medium and long distance race events. • Design the make-up of standard athletic track. • Demonstrate the starting and finishing positions of different race events.		
Course Content		**General out-line of the contents of Teaching of Athletic (Track Events)**		
		Introduction of the game/sport and historical development with special reference to India, Orientation of the students to the play area and equipment used in the game/sport, Important tournaments held at National and International levels, Distinguished sports awards and personalities related to the Game/sport. Warming-up- General free hand exercises, specific work out using equipment. Fundamental skills, Lead up activities, General rules and their interpretations, Duties of officials, officiating in class competencies and Intramurals, Marking of the play area. Fundamentals of the events, rules and regulations, measurements of fields. Each student teacher is expected to take at least five lessons on track events during the course of the semester. The lessons will be supervised by the faculty members and experts who would discuss the merits and demerits of the concerned lesson and guide them for the future. In these lessons, the duration should slowly increase and all the parts of the lesson covered progressively.		

Year	I	SPECIALIZATION (TEACHING OF GAME-I)	Credits	4
Semester	I		Course Code	SOE PES 030105 C0134
Learning Outcomes		At the end of the course, the students will be able to: • Explain the fundamentals of any two games opted by the student. • Sketch the ground markings of specific games. • Demonstrate and describe the rules and regulations of specific games.		
Course Content		**General out-line of the contents of teaching of theory of Games and Sports**		
		Introduction of the game/sport and historical development with special reference to India, Orientation of the students to the play area and equipment used in the game/sport, Important tournaments held at National and International levels, Distinguished sports awards and personalities related to the Game/sport. Warming-up- General free hand exercises, specific work out using equipment. Fundamental skills, Lead up activities, General rules and their interpretations, Duties of officials, officiating in class competitions and Intramurals, Marking of the play area. Each student teacher is expected to take at least five lessons from any two games opted from **(Basketball, Volleyball, Kabaddi, Kho-Kho, Football, and Table Tennis)** during the course of the semester. The lessons will be supervised by the faculty members and experts who would discuss the merits and demerits of the concerned lesson and guide them for the future. In these lessons, the duration should slowly increase and all the parts of the lesson covered progressively. **Note: students have to select any two games from the above mentioned games**		

Year	**I**	**CLASSROOM TEACHING-I**	**Credits**	**1**
Semester	**I**		**Course Code**	**SOE PES 030106 C0101**
Learning Outcomes		At the end of the course, the students will be able to: • Practice of various teaching skills in real classroom situations and develop professional competencies for profession.		
Course Content		**General out-line of the contents of classroom teaching and practical of the core subjects**		
		Each student teacher is expected to take at least five lessons during the course of the semester. The lessons will be supervised by the faculty members and experts who would discuss the merits and demerits of the concerned lesson and guide them for the future. In these lessons, the duration should slowly increase and all the parts of the lesson covered progressively. **The Students shall demonstrate teaching ability using various teaching methods. These Lessons should include practical teaching of the core subjects of the semester.**		
Teaching learning process/Transactional Strategies		Lecture cum discussion, PowerPoint presentations, assignments, school observation and report, case study, and problem solving, brainstorming		

Elective Courses (DCEC)

Year	I	YOGIC SCIENCE	Credits	3
Semester	I		Course Code	SOE PES 030101 E3003
Learning Outcomes	At the end of the course, the students will be able to: • State and exemplify the concept of ashtang yogic practices and relaxation techniques. • Demonstrate different types of asana and *Pranayama Techniques*. • Classify and exhibit various *Kriyas* and *Mudras*. • Utilize yoga for psychological and physiological preparation of an athlete.			
Course Content				
Unit -1	**Introduction to Sports Medicine and Rehabilitation** • History, Meaning, Definition, Need and Importance of Yoga. (Online) • Various types of Yoga. (Online) • Limbs of Yoga -*Yama, Niyama, Aasna, Pranayama, Prathyahara, Dharana, Dhyana, Samadhi*. • Concept of Yogic Practices; Principles of Breathing– Awareness – Relaxation, Sequence – Counter pose – Time – Place – Clothes – Bathing – Emptying the bowels – Stomach – Diet – No Straining – Age – Contra- Indication – Inverted asana – Sunbathing.			
Unit -2	**Asanas and Pranayama** • Loosening exercise: Techniques and benefits. (Online) • *Asanas*: Types- Techniques and Benefits, *Surya Namaskar*: Methods and benefits. • *Pranayama:* Types- Methods and benefits. • *Nadis and Chakaras Meaning, methods and benefits.*			

Unit -3	**Kriyas, Bandhas and Mudras**
	• *Shat Kriyas*- Meaning, Techniques and Benefits of *Neti – Dhati – Kapalapathi- Trataka –Nauli – Basti.* • *Bandhas:* Meaning, Techniques and Benefits of *Jalendra Bandha, Jihva Bandha, Uddiyana Bandha, Mula Bandha.*Meaning, Techniques and Benefits of *Hasta.* • *Mudras, Asamyuktahastam, Samyuktahastam , Mana Mudra, Kaya Mudra, Banda Mudra, Adhara Mudra.* • Meditation: Meaning, Techniques and Benefits of Meditation – Passive and active, *Saguna* Meditation and *Nirguna* Meditation.
Unit -4	**Application of Yoga Exercise**
	• Yoga Supplemental Exercise – Yoga Compensation Exercise – Yoga Regeneration Exercise. (Online) • Role of Yoga in Psychological Preparation of athlete. (Online) • Effect of Yoga on Physiological System. (Online) • Role of Yoga in holistic and spiritual life. (Online)
Teaching learning process/Transactional Strategies	Lecture cum discussion, PowerPoint presentations, assignments, school observation and report, case study, and problem solving, brainstorming
Practicum	**Note:** Laboratory Practical be designed and arranged internally.

Suggested Readings	• Anatharaman, T.N., (1996). *Ancient Yoga and Modern Science.Project of History of Indian Sciences Philosophy & Culture*. • Arya, K. (2011). *Yogic Science*. Friends Publication. • Arya, K. (2013). *Yogic Education*. Friends Publication. • Debnath, K. K. (2010). *Yogic Sciences*. Friends Publication. • Horovitz, E. G., & Elgelid, S. (2015). *Yoga Therapy: Theory and Practice*. Routledge. • Kotecha, Vaidya Rajesh. (2016). *A Beginner's Guide to Ayurveda*. Chakrapani Publications. • Kumar, Dr. Kamakhya, (2008). *Super Science of Yoga*. Standard Publications. Leslie Kamin off & Amy Matthews (2011). *Yoga Anatomy*. Human Kinetics. • Nathial, M. S. (2013). *Yogic Education*. Friends Publication. • Niranjanananda Saraswati, Swami (2012). *Gherenda Samhita*. • Pramod Kumar Sethi (2017). *Yoga and Skin Diseases*. Sports Publication. • Saini, N. (2011). *Yogic and Stress Management*. Friends Publication. • Swami Vivekananda, (2019). *The Complete Book of Yoga : Karma Yoga, Bhakti Yoga, Raja Yoga, Jnana Yoga*. Fingerprint! Publishing. • Tarak Nath Pramanik (2018). *Yoga Education*. Sports Publication.

Year	I	ADAPTED PHYSICAL EDUCATION	Credits	3
Semester	I		Course Code	SOE PES 030102 E3003
Learning Outcomes		At the end of the course, the students will be able to: • Explain the various aspects of Adapted Physical Education and develop understanding on different types of disability. • Articulate special adapted programs for various categories of physical disability. • Explain the use of various aquatic activity programme for disabled. • Classify different rehabilitation programs.		
Course Content				
Unit -1		**Role of Adapted Physical Education** • Meaning & definitions, Aims and objectives, Need and Importance of Adapted Physical Education. (Online) • Role of physical education in adapted physical education. (Online) • Specific learning disabilities: Common types of learning disabilities their causes, treatment and intervention. • Recreational Sports Opportunities, Competition Opportunities - Special Olympics, Paralympics and Deaf Olympics. Inclusive Education: Meaning, Definition, Aim and Objectives.		
Unit -2		**Understanding and Managing the Disability** • Physical education programme for disabled of: - Elementary School, Middle School and High School. (Online) • Class organization strategies: identifying the cause, embrace special needs, setting high expectations and goals. (Online) • Managing individual programmes and Special adapted programme for various types and categories of physical disability. • Classification of Disability: Visual, auditory, Neuro Muscular, Mental and Emotional Specific Guidelines for: Visual Impairment, Hearing Impairment, Intellectually challenged, Orthopedically Handicapped – Parent Teacher Association – Parents Advisory Committee, Unified Sports.		

Unit -3	**Value of Disability Events** • History of Paralympics, Special Olympics and their events. • Aquatic activity programme for disabled. • Importance of Young Athletic Programme (YAP). (Online) • Orientation of Types of Equipment- Minimum equipment, Additional Equipment, Evaluation of Equipment.
Unit -4	**Concept of Rehabilitation and Adapted Games** • Meaning, Aims & objectives and Functions of rehabilitation. (Online) • Classification of rehabilitation- Occupational rehabilitation, Psychological rehabilitation. • Provisions of special rights and privilege for disabled through legislations. (Online) • Various Adapted Games for different disabilities.
Teaching learning process/Transactional Strategies	Lecture cum discussion, PowerPoint presentations, assignments, school observation and report, case study, and problem solving, brainstorming.
Suggested Readings	• Auxter, H. (2001). *Adapted Physical Education and Reactions.* Morbey- St: Louis Mirrauri. • Auxter, D., & Pyfer, J. (1989). *Principles and Methods of Adapted Physical Education and Recreation.* Times Mirror Magazine. • Clarke, H. H., & Clarke, D. H. (1978). *Developmental and Adapted Physical Education.* • Kasser, Susan (2013). *Inclusive Physical Activity* (2nd Edition). Knowledge Warehouse Khel. • Kumar, P., Singh, R. M., & Ratnakar, A. (2018). "Role of physical education research activities and their impact in modern day life". *Asian Journal of Multidimensional Research*, 7(2), 420-425. • Sahitya Kendra (2017). *A Text Book of Adapted Physical Education & Sports.* • Sharma, S.R (2019). *Adapted Physical Education*, Friends Publication. • Thind, M. N. (2010), *Special Olympics Bharat Trainer Manuel*. Special Olympics Bharat. • Winnick, J., & Porretta, D. L. (2016). *Adapted Physical Education and Sport* (Ed. 15). Human Kinetics.

Semester-II

Year	I	APPLIED STATISTICS IN PHYSICAL EDUCATION	Credits	4
Semester	II		Course Code	SOE PES 030207 C4004
Learning Outcomes		At the end of the course, the students will be able to: • Explain the importance of statistics in the field of physical education and illustrate the graphical representation of data. • Compute Mean, Median and Mode for grouped and ungrouped data, compute parametric statistical techniques to solve various problems. • Computation of correlation matrix and regression. • Calculation of the One Way ANOVA with equal & unequal sample sizes and define type-I and Type-II errors.		
Course Content				
Unit -1		**Importance of Statistics and types of data**		
		• Meaning of Statistics and Importance of Statistics in Physical Education. (Online) • Type of statistical process – descriptive, inferential, comparative, relationship and predictive. (Online) • Parametric and Non parametric statistics, Four Levels of Data – Nominal, Ordinal, Interval & Ratio. (Online) • Meaning of raw data, single score, grouped data and Discrete & continuous Variables. Graphical representation of Data: Line Diagram, Pie Diagram and Bar Diagram, Frequency Polygon, Frequency Curve, Histogram and Ogives.		
Unit -2		**Data distribution and Construction of norms**		
		• Construction of frequency table – Range of score, Number of intervals, intervals size, tabulation of frequency table. (Online) • Application of Measures of Central tendency- Mean, Median and Mode and Application of Measures of Variability- Range, Quartile deviation, Mean deviation, Standard deviation and absolute & relative variability. • Meaning and Properties of Normal Curve and relationship of normal curve to binomial distribution and divergence from normality – Skewness and Kurtosis. • Developing norms in the form of grading, Percentile Scale, T- Scale, Scales based on difficulty ratings		

Unit -3	**Introduction of Correlation and Regression**
	• Concept of correlation & regression: Scatter diagram, linear correlation, rank correlation. (Online) • Partial correlation coefficients of first and second order. (Online) • Multiple correlation coefficients involving three variables. • Sampling Distribution of Means, Standard Error of Mean, Interval estimates and Point estimates; Coefficients interval for mean.
Unit -4	**Application of different statistical tools**
	• Testing of Hypothesis : Region of Acceptance & Region of Rejection null & alternative Hypotheses: Level of Significance, type I & Type II errors, one tailed & two tailed Tests, degrees of freedom, procedure in testing of hypothesis. (Online) • Large Sample test (z-test) for means for one sample and two samples; Small sample test (t-test) for means for one sample and two samples – dependent and independent samples**,** F-test and interpretation of results. • Chi- Square Test for goodness of fit and testing independence of attributes with interpretation of results. • One way Analysis of Variance (ANOVA), One Way Analysis of Co-variance (ANCOVA) Post- hoc Tests – LSD & Scheffe with interpretation of results using SPSS.
Teaching learning process/Transactional Strategies	Lecture cum discussion, PowerPoint presentations, assignments, school observation and report, case study, and problem solving, brainstorming

Practicum	• To prepare the class intervals & write the frequencies by using the tally counts. • Computation of Correlation matrix. • Calculation of partial correlation and multiple correlation. • Calculation of t- ratio for related and unrelated groups. • Calculation of Z- ratio for testing the hypothesis. • Preparing the Percentile Scale. • Calculation of Chi-Square. • Calculation of the One Way ANOVA with equal & unequal sample sizes. • Calculation of the One Way ANCOVA.
Suggested Readings	• Bhunia, A. (2013). "Statistical methods for practice and research (A guide to data analysis using SPSS)". *South Asian Journal of Management*, 20(1), 154. • Cooke, D., & Clarke, G. M. (1989). *A Basic Course in Statistics*. Arnold. • De Muth, J. E. (2014). *Basic Statistics and Pharmaceutical Statistical Applications.* CRC Press. • Dhinu, M.R. (2017). *Applied Statistics in Physical Education & Sports*. Friends Publications. • Gaur Ajai S & Sanjaya S (2009). *Statistical Methods for Practice and Research: A Guide to Data Analysis Using SPSS.* SAGE Publications Pv.t Ltd. • Gupta, B. C., & Walker, H. F. (2005). *Applied Statistics for the Six Sigma Green Belt.* ASQ Press. • Kaur, S. (2017). *Research & Statistics in Physical Education*. Friends Publications. • Rajalakshmi, D. (2018). *Advanced Statistics for Physical Education*. Friends Publications. • Verma, J.P. (2011). *Statistical Methods for Sports and Physical Education*. Tata McGraw Hill Education.

Year	I	SPORTS MEDICINE, ATHLETIC CARE AND REHABILITATION	Credits	4
Semester	II		Course Code	SOE PES 030208 C4004
Learning Outcomes		At the end of the course, the students will be able to: • Explain the concept, meaning and significance of sports medicine and rehabilitation. • Develop the concept and usage of various therapeutic modalities. • List out different massage techniques and their effects on Sports performance. • Explain the management of sports injuries and demonstrate various therapeutic exercises.		
Course Content				
Unit -1		**Introduction to Sports Medicine and Rehabilitation** • Definition, Need & importance and Concept of Sports Medicine. (Online) • Role of Sports Physician and Athletic Trainer in Sports Medicine. (Online) • Categories of Athletic Injuries: Traumatic and Overuse and Signs and Symptoms of Inflammation and Stages of Healing. • Introduction to Athletic Rehabilitation, Role of Therapeutic Exercises in Rehabilitation of musculo-skeletal athletic injuries. (Online)		
Unit -2		**Concept of Therapeutic Modalities** • Meaning and Concept of Therapeutic Modalities. (Online) • Therapeutic effects, uses, and contraindications of following therapeutic modalities- Cryotherapy (Ice Therapy) and Short wave Diathermy. • Ultra sound Therapy, Transcutaneous Nerve Stimulation (TNS), and LASER Therapy.		

	• Contrast Bath and Paraffin. (Online)
Unit -3	**Massage and its Importance**
	• Meaning, Definition and the role of massage in treatment and rehabilitation of sports injuries. (Online) • Massage and Prevention of sports injuries. • Massage and Sports Performance, Pre-Competition, during and Post-Competition phase. • Psychological Aspect of Sports Massage. (Online)
Unit -4	**Tools for Rehabilitation**
	• Importance of rehabilitation equipment (Traction units, sliding sheet, shoulder wheel, quadriceps table, wrist rotators, leg curl, wall pulley, finger board). • Bandage –Types of Bandages –strapping/tapping - Application of strapping/tapping and bandage for major joints and body parts. • Low back pain, Common causes, General Care, Stretching and strengthening exercises for low back pain. • Classification of Therapeutic exercise- Active and passive exercise and Balance training, gait training, gym bell exercise.
Teaching learning process/Transactional Strategies	Lecture cum discussion, Power Point presentations, assignments, school observation and report, case study, and problem solving, brainstorming.
Practicum	• Visit to Physiotherapy Centre and Orientation of most commonly used Therapeutic Modalities (Ultrasound, Short wave Diathermy, TNS, and LASER Therapy). • Orientation of most commonly used Massage Techniques in the treatment of sports injuries.

Suggested Readings	• American College of Sports Medicine (2019). ACSM's Body Composition Assessment with Web Resource. Knowledge Warehouse. • Bindal, V.D. (2016). *Therapeutic and Sports Massage*. Agra: Associated Publishing House. • Johnson, J. C. (2011). *Postural Assessment.* Human Kinetics. • Kumar, P. (2019). "Management of Obesity Induced Forward Head Posture Deformities Through Sports". *International Journal of Physical Education, Sports and Health* 6(3): 106-107. • Madden, C. & Netter, F. (2010). *Netter's Sports Medicine*. PA: Philadelphia. Saunders/Elsevier. • Norris, C. M. (2018). *Sports and Soft Tissue Injuries: A Guide for Students and Therapists*. Routledge. • Singh, A. (2014). *Complete Guide to Sports Injuries*. Friends Publications. • Singh, A. (2016). *Athletic Care and Rehabilitation*. Friends Publications. • Uppal, A. K. (2015). *Posture, Athletic Care and First Aid.* Friends Publications.

Year	I	INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) IN PHYSICAL EDUCATION	Credits	4
Semester	II		Course Code	SOE PES 030209 C4004
Learning Outcomes		At the end of the course, the students will be able to: • Acquire knowledge of functionalities of computers in terms of its hardware and software. • Appraise the importance of information & teaching learning process. • Explain the usage of MS-Word, MS-Excel and MS- PowerPoint. • Formulate E-Learning and web-based learning programs.		
Course Content				
Unit -1		**Communication through ICT** • Concept, Elements, Process & Types of Communication and its Barriers & Facilitators. (Online) • Communicative skills of English-Listening, Speaking, Reading & Writing. (Online) • Scope, Concept, Need & Importance of ICT in Physical Education. (Online) • Administration Challenges in Integrating ICT in Physical Education. (Online)		
Unit -2		**Computer Networks and its applications** • Introduction to various Generation of Computers. • Applications of Computers Software & hardware, Input, Output & Storage Devices of Computer: • Computer Memory: Concept & Types Viruses & its Management. • Types and Functions of Computer Networks, Applications of Web Browsers, Search Engines, Legal & Ethical Issues.		

Unit -3	**Introduction of MS Office and Windows Accessories**
	• MS Word, MS Excel Power Point: Main Features & it's Uses in Physical Education. • MS Access: Creating a Database, Creating a Table, Queries, Forms & Reports on Tables and its Uses in Physical Education. • MS Publisher: Newsletter & Brochure. • Windows Accessories: Notepad, Word pad, Paint and Calculator. (Online)
Unit -4	**Web Based Learning & E-Facilities**
	• E-Learning & Web Based Learning (LMS , MOOC ,SWYAM and E-Library) • Video-communication service-Online Class Room (Google Meet, Zoom, WebEx, Microsoft Teams) • Google Applications (Google Doc, Google Sheet, Google Slides, Google Form, Jam Board, Google Drive and Google Earth). (Online) • Using grammar, Plagiarism, spell check utilities and printing a document. (Online)
Teaching learning process/Transactional Strategies	Lecture cum discussion, PowerPoint presentations, assignments, school observation and report, case study, and problem solving, brainstorming.
Suggested Readings	• Ambekar, A. (2019). Advanced Computing & ICT in Physical Education. Friends Publication. • Gupta, R. (2019). Education Technology in Phy Edu, Friends Publication. Friends Publication. • Gupta, R. (2019). Information & Communication Technology (ICT) in Physical Education. Friends Publication. • Singh, D. (2019). Educational Technologies and Methods of Teaching in Physical Education. Friends Publication. • Singh, T. N. (2019). Computer Application in Physical Education. Friends Publication.

Year	I	SPECIALIZATION	Credits	4
Semester	II	(TEACHING OF ATHLETICS-FIELD EVENTS-II)	Course Code	SOE PES 030210 C0134
Learning Outcomes		At the end of the course, the students will be able to: • Describe the fundamentals of field and throwing events in Athletics. • Prepare the sketch of various field events. • Demonstrate the holding and releasing stances in various throwing events, and takeoff and landing position in various jumping events of Athletics.		
Course Content		**General out-line of the contents of Teaching of Athletic (Field Events)** Introduction of the game/sport and historical development with special reference to India, Orientation of the students to the play area and equipment used in the game/sport, Important tournaments held at National and International levels, Distinguished sports awards and personalities related to the Game/sport. Warming-up- General free hand exercises, specific work out using equipment. Fundamental skills, Lead up activities, General rules and their interpretations, Duties of officials, officiating in class competencies and Intramurals, Marking of the play area. Fundamentals of the events, rules and regulations, measurements of fields. Each student teacher is expected to take at least five lessons on athletic field events during the course of the semester. The lessons will be supervised by the faculty members and experts who would discuss the merits and demerits of the concerned lesson and guide them for the future. In these lessons, the duration should slowly increase and all the parts of the lesson covered progressively.		

Year	I	SPECIALIZATION	Credits	4
Semester	II	(ADVANCE TEACHING OF GAME-II)	Course Code	SOE PES 030211 C0134
Learning Outcomes		At the end of the course, the students will be able to: • Illustrate and interpret the rules and regulations of the two games. • Mentor, officiate and perform other duties for the two games. • Prepare the coaching lesson plan and design the coaching schedule.		
Course Content		**General out-line of the contents of Advance Teaching, Coaching and Officiating of the Games and Sports** The students of M.P.Ed II Semester need to develop sports theory and skill proficiency in taking officiating lesson on selected above discipline. In view of this, the students shall be provided with advance mechanism of officiating in selected discipline. The duration of the lesson to be conducted by these students shall be in the range of 30 to 40 minutes depending on the class time they are going to handle at school and college level. Each student teacher is expected to take at least five lessons of Advance Teaching, Officiating and Coaching during the course of the semester. The lessons will be supervised by the faculty members and experts who would discuss the merits and demerits of the concerned lesson and guide them for the future. In these lessons, the duration should slowly increase and all the parts of the lesson covered progressively. **Note: The Students shall be encouraged to opt for the same games as opted in the First Semester.**		

Year	I	CLASSROOM TEACHING AND PRACTICAL OF THE CORE THEORY SUBJECTS-II	Credits	1
Semester	II		Course Code	SOE PES 030212 C0101
Learning Outcomes		At the end of the course, the students will be able to: • Demonstrate the class room teaching ability to teach different topics of the core subjects using various teaching methods.		
Course Content		**General out-line of the contents of classroom teaching and practical of the core subjects** Each student teacher is expected to take at least five lessons during the course of the semester. The lessons will be supervised by the faculty members and experts who would discuss the merits and demerits of the concerned lesson and guide them for the future. In these lessons, the duration should slowly increase and all the parts of the lesson covered progressively. **The Students shall demonstrate teaching ability using various teaching methods. These Lessons should include practical teaching of the core subjects of the semester.**		
Teaching learning process/Transactional Strategies		Lecture cum discussion, PowerPoint presentations, assignments, school observation and report, case study, and problem solving, brainstorming		

Elective Courses (DCEC)

Year	I	VALUE AND ENVIRONMENTAL EDUCATION IN PHYSICAL EDUCATION	Credits	3
Semester	II		Course Code	SOE PES 030203 E3003
Learning Outcomes		At the end of the course, the students will be able to: • Explain the meaning, objectives and importance of value education. • Define personal and communal value system and explain the concept of commitment to values. • Restate the background of environmental education and sustainable development in schools. • Classify and appraise the rural and urban health problems.		
Course Content				
Unit -1		**Introduction of Value Education** • Meaning and Definition, Need, Importance and Objectives of Value Education. (Online) • Need and Theories of Moral Values. (Online) • Human Value foundation. • Classification of Values: Basic Values of Religions.		
Unit -2		**Value System** • Meaning and Definition of Value System. (Online) • Personal Values - Consistency, Internally consistent, internally in consistent, Judging Value System. • Communal Values - Consistency, Internally consistent, internally in consistent, Judging Value System. • Commitment and commitment to values. (Online)		

Unit -3	**Environmental Education**
	• Historical background, Meaning, Definition, Scope and Importance of Environmental Education. (Online) • Celebration of various days in relation with environment. • Plastic recycling & prohibition of plastic bag/cover. • Role of school in environmental conservation and sustainable development, Pollution free eco- system. (Online)
Unit -4	**Concept of Rural and Urban areas**
	• Rural and Urban Health Problems and improvement of Rural Sanitation. (Online) • Education Activity and Services of Urban and Rural Area. • Fairs & Festivals of Rural and Urban Area. • Meaning, Causes and Prevention of various pollutions.
Teaching learning process/Transactional Strategies	Lecture cum discussion, PowerPoint presentations, assignments, school observation and report, case study, and problem solving, brainstorming
Suggested Readings	• Athman, J., & Monroe, M. (2004). The Effects of Environment-Based Education on Students' Achievement Motivation. *Journal of Interpretation Research*. 9(1), 9-25. • Jadhav, H., & Bhosale, V. M. (1995). *Environmental Protection and Laws*. Himalaya Pub. House. • Jitendra Kumar Thakur (2019). *Value and Environmental Education.* Sports Publication. • Mohit Chakrabarti (2008). *Value Education: Changing Perspective.*Kanishka Publication. • Singh, B. (2018). *Value and Environmental Education.* Friends Publications. • Vandana MeshramIngle (2017). *Value and Environmental Education.* Educational Publishers and Distributors.

Year	I	SPORTS ENGINEERING	Credits	3
Semester	II		Course Code	SOE PES 030204 E3003
Learning Outcomes		At the end of the course, the students will be able to: • Explain sports engineering, equipment and facility designing of sports related instruments in Physical Education. • Define the mechanical principles in general body movements. • Define Kinematics and Kinetics of particles and develop understanding of theoretical analysis of various components of cost and taxation. • Formulate the design and development, requirements, building process, and maintenance policy of the sports infrastructure.		
Course Content				
Unit -1		**Introduction to Sports Engineering and Technology** • Meaning of sports engineering. (Online) • Human motion detection and recording. (Online) • Human performance, assessment, equipment and facility designing. (Online) • Sports related instrumentation and measurement. (Online)		
Unit -2		**Mechanics of Engineering** • Concept of internal force, axial force, shear force, bending movement, torsion. • Energy method to find displacement of structure and strain energy. • Biomechanics of daily and common activities – Gait, Posture, Body levers and Ergonomics. • Mechanical principles in movements such as lifting, walking, running, throwing, jumping, pulling, pushing etc.		

Unit -3	**Sports Dynamics and Facility life cycle costing**
	• Introduction to Statics, Dynamics and Kinematics motion. • Introduction to particles – rectilinear and plane curvilinear motion coordinate system. • Kinetics of particles – Newton's laws of Motion, Work, Energy, Impulse and momentum. • Basics of theoretical analysis of cost, total life cost concepts, maintenance costs, energy cost, capital cost and taxation.
Unit -4	**Building and Maintenance:**
	• Sports Infrastructure- Gymnasium, Pavilion, Swimming Pool, Indoor Stadium, Out-door Stadium, Play Park, Academic Block, Administrative Block, Research Block, Library, Sports Hostels, etc. (Online) • Requirements: Air ventilation, Day light, Lighting arrangement, Galleries, Store rooms, Office, Toilet Blocks (M/F), Drinking Water, Sewage and Waste Water disposal system, Changing Rooms (M/F), Sound System (echo-free), Emergency provisions of lighting, fire and exits, Eco-friendly outer surrounding. (Online) • Building process: - design phase (including brief documentation), construction phase functional (occupational) life, Re-evaluation, refurnish, demolish. (Online) • Maintenance staff, financial consideration, Maintenance policy, preventive maintenance, corrective maintenance, record and register for maintenance.
Teaching learning process/Transactional Strategies	Lecture cum discussion, PowerPoint presentations, assignments, school observation and report, case study, and problem solving, brainstorming

Suggested Readings	• Charles J.A. Crane, F.A.A. and Furness, J.A.G. (1987). *Selection of Engineering Materials*. Butterworth Heiremann. • Eric C. (2010). *Sports Facility Operations Management* . Routledge. • Finn, R.A. and Trojan P.K. (1999). *Engineering Materials and Their Applications*. Jaico Publisher. • Franz K. F (2007). *The Impact of Technology on Sports II*. Springer Science & Business Media. • Franz K. F(2013). *Routledge Handbook of Sports Technology and Engineering.* Routledge. • Jenkins M.,(2003). *Materials in Sports Equipment* (Vol. I). Elsevier. • Steve Hake, (1996). *The Engineering of Sport*. CRC Press. • Verma, A.(2015). *Sports Engineering*. Friends Publications. • White, C. (2010). *Projectile Dynamics in Sport: Principles and Applications*. Routledge.

Generic Elective Course (GEC)

Year	I	WELLNESS THROUGH GAMES AND SPORTS	Credits	4
Semester	II		Course Code	SOE PES 030201 GEC4004
Learning Outcomes		At the end of the course, the students will be able to: • Explain the concept of Wellness, Recreation and develop understanding of various games organized at global platforms. • Define the facilities of different games and design the make-up of track and field events. • Classify warming-up and cooling down, distinguish aerobic and anaerobic exercises. • Define ergogenic aids and summarize the effects of doping and its types.		
Course Content				
Unit -1		**Introduction to Wellness and Olympic Games** • Meaning, definition and dimension of Health and Wellness. (Online) • Meaning, definition, Need and Importance of Physical Education and Recreation. (Online) • Meaning of the Physical Culture, Physical Training, Drill, Gymnastics, Athletics, and Aquatics. • Introduction of Olympic Games, Asian Games, Commonwealth games.		
Unit -2		**Facilities and Measurement of Sports and Games** • Introduction to track and field events. (Online) • Facilities and measurement of Track and fields. • Introduction to Sports and Games. (Online) • Facilities and measurement of play field: hockey, football, Volleyball, Basketball and badminton.		

Unit -3	**Concept of Aerobic and Anaerobic Training** • Meaning and methods of Warming-up and cooling down. • Aerobic and Anaerobic training. • Different methods of Aerobic and Anaerobic training. • Facilities required for Aerobic and Anaerobic training.
Unit -4	**Doping and Ergogenic aids** • Introduction of Ergogenic aids, Doping and its types. • Physiological and Psychological Effects of Doping. • Advantage and disadvantage of narcotics and drugs. (Online) • Role of doping agencies to control the use of drugs in sports. (Online)
Teaching learning process/Transactional Strategies	Lecture cum discussion, PowerPoint presentations, assignments, school observation and report, case study, and problem solving, brainstorming.
Suggested Readings	• Brymer, E. (2009). "The role of extreme sports in lifestyle enhancement and wellness". *In Proceedings of the 26th Achper International Conference: Creating Active Futures* (pp. 285-299). Australia: School of Human Movement Studies, Queensland University of Technology, Brisbane, QLD 4059. • Campbell, B. (2013). *Sports Nutrition: Enhancing Athletic Performance*. CRC Press. • Katz, L., Parker, J., Tyreman, H., Kopp, G., Levy, R., & Chang, E. (2006). "Virtual Reality in Sport and Wellness: Promise and Reality". *International Journal of Computer Science in Sport*, 4(1), 4-16. • Reaburn, P. R. (2014). *Nutrition and Performance in Masters Athletes*. CRC Press. • Sharma, O.P. (2010). *Handbook of Health Education & Sports*. Khel Sahitya Kendra.

Semester-III

Year	II	SCIENCE OF SPORTS TRAINING	Credits	4
Semester	III		Course Code	SOE PES 030313 C4004
Learning Outcomes		At the end of the course, the students will be able to: • Define the concept of sports training and explain the causes, symptoms and remedial measures of overload. • Recall the characteristics, types, determining factors and development of various physical fitness components. • Distinguish technique and skill and classify tactical and technical training. • Define the concept of periodization, types of competition and talent identification at early stage.		
Course Content				
Unit -1		**Introduction of Sports Training** • Sports training- its characteristics and principles. (Online) • Training load, its features, principles and adaptation process. (Online) • Means and methods of executing training load. • Overload its Causes, symptoms and remedial measures. (Online)		
Unit -2		**Training Components** • Strength- its characteristics, types of strength, factors determining strength and strength development. • Endurance- its characteristics, types of endurance, factors determining endurance and endurance development. • Speed- its characteristics, types of Speed, factors determining Speed and speed development. • Flexibility and Coordinative abilities- its characteristics, types, factors determining and development.		

Unit -3	**Technique , Skill and Planning**
	• Technique and skill- its characteristics and importance. • Different stages of technique development and technique training. (Online) • Tactics and strategy. • Planning principles and importance. (Online)
Unit -4	**Periodization and Competition**
	• Periodization- its importance, types and different phases (Preparatory, Competition and Transitional). • Competition and types of competition. (Online) • Talent identification- process and procedure. • Preparation of training schedule. (Online)
Teaching learning process/Transactional Strategies	Lecture cum discussion, PowerPoint presentations, assignments, school observation and report, case study, and problem solving, brainstorming
Suggested Readings	• Bompa, T. O., & Buzzichelli, C. (2018). *Periodization-: Theory and Methodology of Training*. Human kinetics. • Bompa, T., Bompa, T. O., & Carrera, M. (2005). *Periodization Training for Sports*(Ed. 2). Human Kinetics. • Jesudoss,S. J. (2015). *Principles of Sports Training.* Friends Publications. • Kurz, T. (2001). *Science of Sports Training: How to Plan and Control Training for Peak Performance*. Stadion. • Loehr, J. E. (1995). *PDF The New Toughness Training for Sports: Mental Emotional Physical Conditioning From One of the Worlds Premier Sports Psychologists Online Book.* • OBE, F. W. D. (2014). *Sports Training Principles: An Introduction to Sports Science*. Bloomsbury Publishing. • Singh, H. (1984). *Sports Training: General Theory & Methods*. Netaji Subhas. Nat. Inst. of Sports. • Viru, A. (2017). *Adaptation in Sports Training*. Routledge.

Year	II	SPORTS MANAGEMENT AND CURRICULUM DESIGN IN PHYSICAL EDUCATION	Credits	4
Semester	III		Course Code	SOE PES 030314 C4004
Learning Outcomes		At the end of the course, the students will be able to: • Explain the scope, principles and functions of sports management and identity the roles of manager. • Describe the role of financial and class management. • Describe different types of tournaments. • Formulate curriculum development and define the role of a teacher in curriculum development.		
Course Content				
Unit -1		**Introduction of Sports Management** • Sports Management: Meaning, Definition, Scope and Principles. (Online) • Functions of management. Planning, Organizing, Staffing, Directing, Coordinating, Reporting, and Budgeting (POSDCORB). (Online) • Roles of manager: Interpersonal roles, Informational roles, Decisional roles. (Online) • Qualities of a manager and Decision Making Process: Individual Decision Making, Rational Decision Making, Decision making Styles, Creativity in Decision Making, Participative Decision Making, Group decision making.		
Unit -2		**Planning and Management** • Programme Planning, Steps in programme planning, Principles of programme planning, Evaluation of physical education programme. (Online) • Public Relations: Meaning, Definitions, Principles, Planning and organizing public relations programme. (Online) • Financial management: Need for financial management, Principles of financial Management, preparation of budget, Sources of funds, Expenditure.		

	• Class management: Meaning, Principle, Steps in class management: Strength of class, Place and time, Uniform, Class formation, Safety measures and Discipline.
Unit -3	**Tournament and Competitions**
	• Facilities and Equipment management: Types of facility/infrastructure-indoor, outdoor, Purchase, Care and Maintenance. • Tournament organization: Types of tournament-Knock out or Elimination, League or Round Robin, Combination, Consolation, Challenge Tournaments. • Intramural Competitions: Meaning and Importance of Intramural, Objectives of Intramural, Conduct of Intramural. (Online) • Process of organizing sports events, Notifications, Invitations, Selection of officials, Monitoring, Writing reports, maintaining records.
Unit -4	**Framework of Curriculum Development**
	• Meaning and importance of Curriculum Development. • Principles of Curriculum Construction: Students centered, Activity centered, Community centered, Forward looking principle, Principles of integration. • The Role of the teacher in curriculum development. (Online) • Approaches to Curriculum; Subject centered, Learner centered and Community centered, Curriculum Framework and Evaluation of Curriculum.
Teaching learning process/Transactional Strategies	Lecture cum discussion, PowerPoint presentations, assignments, school observation and report, case study, and problem solving, brainstorming.

Suggested Readings	• Dhull, D. S. & Goel, M. (2015). *Handbook of Sports Management and Administration*. Friends Publications. • Lisa P. M. (2018). *Principles and Practice of Sport Management* (6th Edition). Jones & Bartlett Learning. • NCERT (2018). *National Curriculum Framework for School Education.* NCERT. • Pargaonkar, G. V. (2016). *Sports Management.* Friends Publications. • Sahil K. (2017). *Organization and Administration in Physical Education.* Sports Publication. • Singh, D. (2015). *Sports Management and Curriculum Designs in Phy Edu.* Friends Publications. • Vandana Meshram (2017). *Sports Management and Curriculum Designs in Physical Education.* Khel Sahitya Kendra.

Year	**II**	**SPORTS BIOMECHANICS AND KINESIOLOGY**	**Credits**	4
Semester	**III**		**Course Code**	**SOE PES 030315 C4004**
Learning Outcomes		At the end of the course, the students will be able to: • Explain the meaning, scope and importance of applied kinesiology and sports biomechanics. • Categorize and explain the action of muscles and forces. • Classify lever according to its types and define guiding principles of stability. • Explain the methods for the analysis of human movements.		
Course Content				
Unit -1		**Introduction of Kinesiology and Sports Biomechanics** • Meaning, nature, role and scope of applied kinesiology and Sports Biomechanics. (Online) • Meaning of Axis, Planes, Plane of the body and axis of motion. (Online) • Static, Dynamics, Kinematics, Kinetics, Centre of gravity & Line of gravity. (Online) • Meaning and definition of Motion and its types (Linear motion, angular motion, circular motion, uniform motion). (Online)		
Unit -2		**Muscle Action and force**		

	• Origin, Insertion and action of upper and lower extremities muscles. (Online) • Meaning and definition of force and its type. (Online) • Muscle size, shape and its force production. • Force applied at an angle Pressure -Friction -Buoyancy, Spin.
Unit -3	**Projectile and Lever**
	• Freely falling bodies and projectiles -equation of projectiles stability. • Factors influencing equilibrium - Guiding principles for stability -static and dynamic stability. (Online) • Meaning of work, power, energy, kinetic energy and potential energy. • Leverage -classes of lever - practical application and water resistance, air resistance & aerodynamics.

Unit -4	**Methods of Analysis of Human Movements**
	• Analysis of static positions of the body -Sitting, Standing. • Analysis of static positions of the body –Lying. • Analysis of Locomotion- Walking, Running. • Analysis of Locomotion - Jumping, Throwing.
Teaching learning process/Transactional Strategies	Lecture cum discussion, PowerPoint presentations, assignments, school observation and report, case study, and problem solving, brainstorming
Practicum	• Determination of center of Gravity, Centre of gravity, line of gravity. • Anatomical standing position and fundamental standing position. • Handling of various equipment and software related to Sports Biomechanics. • Mechanical analysis of techniques skills of major sports/games. • Action of muscles of upper and lower extremities by palpations method. • Stick diagram (basic techniques; anatomical posture, walking, push up, sit ups etc). • Goniometry – measurement of joint ROM / Elgon.

Suggested Readings	• Ackland, T. R., Elliott, B., & Bloomfield, J. (2009). *Applied Anatomy and Biomechanics in Sport*. Human Kinetics. • Bartlett, R. (2014). *Introduction to Sports Biomechanics: Analysing Human Movement Patterns*. Routledge. • Chapman, A. E. (2008). *Biomechanical Analysis of Fundamental Human Movements*. Human Kinetics. Knowledge Warehouse. • Kumar, P. (2019). "Biomechanical Analysis of Forward Head Posture among Pondicherry University Research Scholars Based On the Laptop Working Hours: An Analytical Study". *International Journal Of Emerging Technologies And Innovative Research*, 6 (6), 463-466. • Kumar, P., & Singh, R. R. M. (2019). "Biomechanical analysis of anisomelia among the young children's in Puducherry". *Discrepancy (LLD)*, 330, 19. • Singh, R. R. M. (2019). "Biomechanical Analysis of Footprint Measurement among School Boys: A Positive Approach to Posture". *Journal of the Gujarat Research Society*, 21(1), 167-169. • Uppal, A. K. (2018). *Kinesiology and Biomechanics*. Friends Publications.

Year	II	SPECIALIZATION	Credits	4
Semester	III	(ADVANCE COACHING AND OFFICIATING OF ATHLETICS-TRACK EVENTS-III)	Course Code	SOE PES 030316 C0134
Learning Outcomes		At the end of the course, the students will be able to: • Demonstrate advance skills and techniques of track events. • Mentor, officiate and perform various duties of track events in Athletics. • Prepare the advance coaching lesson plans for track events.		
Course Content		**General out-line of the contents of Coaching and Officiating of Athletic** The students of M.P.Ed III Semester need to develop skill proficiency in taking officiating lesson on selected above discipline. In view of this, the students shall be provided with advance mechanism of officiating in selected discipline. The duration of the lesson to be conducted by these students shall be in the range of 30 to 40 minutes depending on the class time they are going to handle at school and college level. Each student teacher is expected to take at least five lessons during the course of the fourth semester. The lessons will be supervised by the faculty members and experts who would discuss the merits and demerits of the concerned lesson and guide them for the future. In these officiating lessons, the duration should slowly increase and all the parts of the lesson covered progressively.		
Teaching learning process/Transactional Strategies		Lecture cum discussion, PowerPoint presentations, assignments, school observation and report, case study, and problem solving, brainstorming		

Year	II	SPECIALIZATION	Credits	4
Semester	III	(COACHING AND OFFICIATING OF GAME-III)	Course Code	SOE PES 030317 C0134
Learning Outcomes		At the end of the course, the students will be able to: • Explain the fundamentals of any two games opted by the student. • Sketch the ground markings of specific games. • Demonstrate and describe the rules and regulations of specific games.		
Course Content		**General out-line of the contents of teaching of theory of Games and Sports**		
		Introduction of the game/sport and historical development with special reference to India, Orientation of the students to the play area and equipment used in the game/sport, Important tournaments held at National and International levels, Distinguished sports awards and personalities related to the Game/sport. Warming-up- General free hand exercises, specific work out using equipment. Fundamental skills, Lead up activities, General rules and their interpretations, Duties of officials, officiating in class competitions and Intramurals, Marking of the play area. Each student teacher is expected to take at least five lessons of any two games opted from **(Handball, Wrestling, Gym Training, Badminton, Hockey, and Cricket)** during the course of the semester. The lessons will be supervised by the faculty members and experts who would discuss the merits and demerits of the concerned lesson and guide them for the future. In these lessons, the duration should slowly increase and all the parts of the lesson covered progressively. **Note: students have to select any two games from the above mentioned games**		

Year	II	CLASSROOM TEACHING-III	Credit	1
Semester	III		Course Code	SOE PES 030318 C0101
Learning Outcomes		At the end of the course, the students will be able to: • Demonstrate the class room teaching ability using various teaching methods.		
Course Content		**General out-line of the contents of classroom teaching and practical of the core subjects** Each student teacher is expected to take at least five lessons during the course of the semester. The lessons will be supervised by the faculty members and experts who would discuss the merits and demerits of the concerned lesson and guide them for the future. In these lessons, the duration should slowly increase and all the parts of the lesson covered progressively. **The Students shall demonstrate teaching ability using various teaching methods. These Lessons should include practical teaching of the core subjects of the semester.**		
Teaching learning process/Transactional Strategies		Lecture cum discussion, PowerPoint presentations, assignments, school observation and report, case study, and problem solving, brainstorming		

Elective Courses (DCEC)

Year	II	RESEARCH PROPOSAL AND PREPARATION OF SYNOPSIS	Credits	3
Semester	III		Course Code	SOE PES 030305 E3003
Learning Outcomes		At the end of the course, the students will be able to: • Critically think, reflect and analyze and identify an appropriate methodology for a research problem. • Understand the importance of limitation and delimitation for the research. • Formulation and classification of research hypothesis. • Utilize various library resources for review and research proposal and prepare a research proposal.		
Course Content		**Outline of Syllabus** • Identifying an appropriate methodology for a research problem. (Online) • Effective use of library resources for research. • Developing a conceptual model relevant to research. • Construction of tools for different types of research. (Online) • Formulation and classification of research hypothesis. (Online) • Developing a research proposal. • Different writing format in preparing the research proposal. (Online) • Identifying and reducing/eliminating barriers which may interfere with the development of a high quality thesis/dissertation. • Developing and following an appropriate timeline for completion of the thesis/dissertation. • Format for writing abstract. • Oral and poster presentation. • Academic dishonesty. (Online)		

Suggested Readings	• Kamlesh, D. M. (2019). Methodology of Research in Physical Education and Sports. Sports Publication. • Klopper, H. (2008). The Qualitative Research Proposal. Curationis, 31(4), 62-72. • Kothari, C. (2019). Research Methodology: Methods and Techniques. New Age International Publishers. • Mishra, P. D. (2018). Research and Statistics in Physical Education. Sports Publication. • Vivar, C. G., McQueen, A., Whyte, D. A., & Armayor, N. C. (2007). Getting Started With Qualitative Research: Developing a Research Proposal. Nurse researcher, 14(3).

Note: -

1. Research Proposal and Dissertation would be evaluated as per the University Ordinance No-XV.
2. The distribution of weightage for the evaluation of semester Research Proposal shall be:

1. Originality	:	15%
2. Innovation	:	15%
3. Application (Research Tools)	:	10%
4. Periodic Presentation	:	15%
5. Proposal Report	:	15%
Total	:	70% weightage evaluate procedure decided by the Board of Studies of the Departmental concerned.

Year	II	SPORTS JOURNALISM AND MASS MEDIA	Credits	3
Semester	III		Course Code	SOE PES 030306 E3003
Learning Outcomes	At the end of the course, the students will be able to: • Explain the meaning, definition, mode and news agencies of sports journalism. • Critically analyse the importance of media in sports. • Construct reviews and articles for Sports Journals, and articulate commenting and interviewing of Sports personalities. • Explain the role of advertisement in Sports Journalism.			
Course Content				
Unit -1	**Introduction of Sports Journalism** • Sports Journalism: Meaning, Definition and Historical Background. (Online) • National and International Sports News Agencies. (Online) • Mode of Sport Journalism: Print, Electronic and Informal Media. • Canons and Ethics of Journalism. (Online)			
Unit -2	**Event Organization and Coverage** • News: Definition, basic news elements, organization of sports news desk, Pitfalls in use of language, Proof Reading. (Online) • Qualities and responsibilities of sports news reporters. (Online) • Organization of Pre & Post Sports Event Press Meet. • Coverage: Covering Local / National/ International sports competitions and writing of press release.			

Unit -3	**Art of Review Writing, Commentating and Interviewing** • Review Writing: Brief review of Olympic Games, Asian Games, Common Wealth Games, World Cup, National Games and Indian Traditional Games. (Online) • Writing Sports Features: Types of sports features, sports personalities and their thumb nail sketches, Writing Sports Editorials, Blogs & Column. • Art of Commentating: Commentating sports for radio and television channels. • Art of interviewing: Interview with and elite Players and Coaches.
Unit -4	**Role and Career in Sports Journalism** • Amateurism v/s professionalism: Invasion of private life, emphasis on winning, sports for charity. • Role of Advertisement in Sports Journalism. (Online) • Career in Sports Photography: Equipment's, Editing and Publishing. • Structure of Sports Bulletin and its types.
Teaching learning process/Transactional Strategies	Lecture cum discussion, PowerPoint presentations, assignments, school observation and report, case study, and problem solving, brainstorming
Suggested Readings	• Dhananjay Joshi (2010). *Value Education in Global Perspective*. Lotus Press. • Kathryn T. Stofer, James R. Schaffer (2019). *Sports Journalism: An Introduction to Reporting And Writing*. Rowman & Littlefield Publishers. • Koak, S & Sharma, R. (2015). *Media and Career in Phy Edu*. Friends Publications. • Lal, R. (2013). *Sports Journalism*. Friends Publications. • Malik, (2010). *Sports Journalism and Mass Media*. Friends Publications. • Phil Andrews (2013). *Sports Journalism* (Ed. 2). SAGE Publications Ltd.

***Note: -**

1. In Part-B, Minimum strength required of the students selecting any of the game will be 10 Students.

2. The students opting for Research Proposal as Discipline Centric Elective Course will be encouraged to take Dissertation in Discipline Centric Elective Course (DCEC) in the fourth semester.

3. Research Proposal and Dissertation would be evaluated as per the University Ordinance No-XV.

Semester-IV

Year	II	SPORTS PSYCHOLOGY	Credits	4
Semester	IV		Course Code	SOE PES 030419 C4004
Learning Outcomes	At the end of the course, the students will be able to: • Explain the concept, meaning, importance and scope of sports psychology. • Recall various learning theories and describe the types, theories and techniques of motivation. • Illustrate and identify the psychological factors affecting sports performance. • Appraise and measure team cohesion, group dynamics and leadership capabilities.			
Course Content				
Unit -1	**Role of Sports Psychology** • History, Meaning, Definition, Scope and Importance of Sports Psychology. (Online) • Meaning and types of Motivation – Theories and Techniques for Development of motivation. (Online) • Introduction to various psychological variables. (Online) • Goal Setting Interventions, Principles, Program			
Unit -2	**Psychological Learning** • Meaning and Definition of Motor Learning, Activity & Skill. (Online) • Meaning of Learning -Theories of Learning and there implication in teaching Learning Process. (Online) • Stages of Motor Learning and Plateau effect. • Meaning of Psychological Skill Training (PST) its uses and Myths.			
Unit -3	**Importance of Personality** • Meaning and Definition of Personality and Personality Traits. (Online) • Theories and Role of Personality in Sports and Exercise. • Measurement of Personality. • Areas of Individual Difference and its types.			

Unit -4	**Leadership and Cohesion** • Concept of Group Dynamics of Sports Performance and Team Cohesion. (Online) • Meaning of Leadership, Component of Effective Leadership and its Measurement. • Problems and issues working with Individual and Team Sports. • Career Transition in Athletes and Retirement Issues, Developing Life Skills in Athletes.
Teaching learning process/Transactional Strategies	Lecture cum discussion, PowerPoint presentations, assignments, school observation and report, case study, and problem solving, brainstorming
Practicum	• Assessment of Reaction Time (Hard-Eye). • Assessment of Coordination (Foot-Eye). • Analysis of Personality (Eysenck Personality Questionnaire), Big Five Personality Test. • Assessment of Achievement Motivation. • Assessment of Sport competitive anxiety test. • Inventory for factors influencing sports. • Assessment of Sociometry Questionnaire.
Suggested Readings	• Horn, Thelma (2008). *Advances in Sport Psychology*. Champaign IL : Human Kinetics Publishers, Inc. • Huber, Jeffrey (2012). *Applying Educational Psychology in Coaching Athletes*. Knowledge Warehouse. • Kamlesh, M.L. (2011). *Psychology in Physical Education and Sport* (Ed. 3). Delhi : Metropolitan Book Co. Pvt. Ltd. • Pargonkar, G. V (2015). *Sports Psychology*. Friends Publications. • Taylor, Jim (2017). *Assessment in Applied Sport Psychology*. Knowledge Warehouse. • Weinberg, R.S & Gould, Daniel (2015). *Foundations of Sport and Exercise Psychology* (Ed. 6). Champaign IL: Human Kinetics Publishers, Inc.

Year	II	HEALTH EDUCATION AND SPORTS NUTRITION	Credits	4
Semester	IV		Course Code	SOE PES 030420 C4004
Learning Outcomes	At the end of the course, the students will be able to: • Explain the meaning, aims and objectives of health education and classify communicable disease, their transmission and prevention. • Recall the concept of Non-communicable diseases and list out various programs for controlling diseases. • List out various school health services and define the role of International Organization in the Development of Health. • Plan and prepare a nutritional diet intake for various games and sports.			
Course Content				
Unit -1	**Introduction of Health Education** • Concept of Health and Health Education.(Online) • Dimension of health and wellness. (Online) • Latest trends in Health Education and global strategy in the field of Health. (Online) • Role of physical Education Professional on Individual and family in relation to Health and Health Education.(Online)			
Unit -2	**Epidemiology of Diseases** • Epidemiology of Communicable Diseases: Agent factor, Host factor, Environment factors, Mode of Transmission and Prevention of following diseases: • Health Hazards and its types. (Online) • Epidemiology of Non Communicable Diseases : Risk factors and Prevention of following diseases : • Personal Health & Hygiene care system.			

Unit -3	**School Health Services**
	• Meaning & Objective of School Health Service and Health Problem of School Child. (Online) • Role of health education in schools. (Online) • Health record, Healthful school environment, first- aid and emergency care, Mid-day School Programme. • Role of National and International Organization in the Development of Health.
Unit -4	**Nutrition for various games and sports**
	• Nutrition, Training Adaptations and Immune Function in Athletes. • Nutrition for popular team sports (Basketball, Hockey, Football, Volleyball, Kabaddi and Cricket). • Nutrition for Athletics and Endurance Sports (Long distance Swimming, Cycling and Marathon). • Nutrition for Strength and Combat sport (Wrestling, Weightlifting, Judo, Boxing, Taekwondo and Fencing).
Teaching learning process/Transactional Strategies	Lecture cum discussion, PowerPoint presentations, assignments, school observation and report, case study, and problem solving, brainstorming
Suggested Readings	• Campbell, B. (2013). *Sports Nutrition: Enhancing Athletic Performance*. CRC Press. • Eberle, S. G. (2013). *Endurance Sports Nutrition* (Ed. 3). Human Kinetics. • Fink, H. H., & Mikesky, A. E. (2017). *Practical Applications in Sports Nutrition*. Jones & Bartlett Learning. • Kumar.P (2020). "Changing The Lifestyle of Present Health Care: A Much Required Step for A Secured Future The Transmission or Reminder of Ancestor's Way of Life once again".*AlochanaChakra Journal*. Vol. IX. Issue-V. Pg-2789-2793. doi:10.01011.ACJ.2020.V9I5.00068749.01683. • Maughan, R. J., & Shirreffs, S. M. (Eds.). (2013). *Food, Nutrition and Sports Performance Iii*. Routledge. • Reaburn, P. R. (Ed.). (2014). *Nutrition and Performance In Masters Athletes*. CRC Press. • Ryan, M. (2012). *Sports Nutrition for Endurance Athletes*. Velo Press. • Sharma, O.P., (2010). *Handbook of Health Education & Sports*. Khel Sahitya Kendra . • Zinner, C., & Sperlich, B. (Eds.). (2016). *Marathon Running: Physiology, Psychology, Nutrition and Training Aspects* (pp. 1-171). Springer.

Year	II	PHYSIOLOGY OF EXERCISE	Credits	4
Semester	IV		Course Code	SOE PES 030421 C4004
Learning Outcomes	At the end of the course, the students will be able to: • Explain the meaning of Exercise Physiology in Physical Education and Sports. • Classify the different energy systems of body. • Illustrate the effect of exercise on various systems of body. • Explain the effect of Ergogenic aids and Doping in Sports.			
Course Content				
Unit -1	**Introduction to Exercise Physiology** • Meaning and Definition of Exercise & exercise physiology. (Online) • Role & Importance of Exercise Physiology in the field of Physical Education & Sports. (Online) • Impact of Exercise on work at cellular level. • Muscle- its types, characteristics and functions. Microscopic structure of muscle fiber. Sliding filament theory of muscular contraction. Types of muscle fibers and sports performance. Muscular adaptations to exercise.			
Unit -2	**Energy System and Recovery Process** • The basic energy systems (carbohydrate metabolism). • Bio-chemical aspects of exercise a) Metabolism of food products. b) Direct and indirect methods of measuring energy cost of exercise. • Recovery process – Physiological aspects of fatigue and Restoration of energy stores. (Online) • Electrolyte balance & Water balance.			

Unit -3	**Effect of Exercise on Various System**
	• Work capacity under different environmental conditions a) Hot, Humid and Cold. b) High Altitude. • Immediate effect of exercise/work on various systems of body. (Online) • Cardio-respiratory, muscular and thermo-regulatory systems, Alveolar ventilation & second wind. • Physiological Factors influencing Sports Performance. (Online)
Unit -4	**Ergogenic Aids in Sports**
	• Ergogenic aids and Doping in Sports. (Online) • Effect of drugs & doping on athletic performances. (Online) • Diet before, during & after the athletic performance. • Exercise and training in females and older people, physiological aspects of development of strength, endurance, speed, agility & coordination.
Teaching learning process/Transactional Strategies	Lecture cum discussion, PowerPoint presentations, assignments, school observation and report, case study, and problem solving, brainstorming.
Practicum	• Measurement of heart rate and Estimation of Target Heart Rate. • Body composition analysis with various methods. • Measurement of VO2 Max (Field and Laboratory Method). • Blood Pressure measurement (Sphygmomanometer). • Anthropometric equipment's. • Measurement of various lung volumes through spirometer, peak flow meter.

Suggested Readings	• Brown, R. G.(2015). *Fundamentals of Exercise Physiology.* Friends Publication. • Chandi, C. C. (2018). *Human Physiology* (Vol. 12). CBS Publishers. • Fox Stuart Ira (2016). *Human Physiology* (15th Edition). McGraw-Hill Education. • Porcari, J., Bryant, C., & Comana, F. (2015). *Exercise Physiology*. FA Davis. • Varshney & Mona Bedi (2018). *Ghai's Textbook of Practical Physiology*. Jaypee Brothers Medical Publishers. • William D. McArdle (2014). *Exercise Physiology: Nutrition, Energy, And Human Performance* (8th Edition). Lippincott Williams and Wilkins.

Year	II	SPECIALIZATION	Credits	4
Semester	IV	(ADVANCE COACHING AND OFFICIATING OF ATHLETICS-FIELD EVENTS-IV)	Course Code	SOE PES 030422 C0134
Learning Outcomes		At the end of the course, the students will be able to: • Demonstrate advance skills and techniques of field events. • Mentor, officiate and perform various duties of field events in Athletics. • Prepare the advance coaching lesson plans for field events.		
Course Content		**General out-line of the contents of Coaching and Officiating of Athletics- Field Events** The students of M.P.Ed. – IV Semester need to develop sports theory and skill proficiency in taking officiating lesson on selected above discipline. In view of this, the students shall be provided with advance mechanism of officiating in selected discipline. The duration of the lesson to be conducted by these students shall be in the range of 30 to 40 minutes depending on the class time they are going to handle at school and college level. Each student teacher is expected to take at least five lessons during the course of the fourth semester. The lessons will be supervised by the faculty members and experts who would discuss the merits and demerits of the concerned lesson and guide them for the future. In these officiating lessons, the duration should slowly increase and all the parts of the lesson covered progressively.		

Year	II	SPECIALIZATION	Credits	4
Semester	IV	(ADVANCE COACHING AND OFFICIATING OF THE GAME-IV)	Course Code	SOE PES 030423 C0134
Learning Outcomes		At the end of the course, the students will be able to: • Illustrate and interpret the rules and regulations of the two games. • Mentor, officiate and perform other duties for the two games. • Prepare the coaching lesson plan and design the coaching schedule.		
Course Content		**General out-line of the contents of Advance Teaching, Coaching and Officiating of the Games and Sports** The students of M.P.Ed. – IV Semester need to develop sports theory and skill proficiency in taking officiating lesson on selected above discipline. In view of this, the students shall be provided with advance mechanism of officiating in selected discipline. The duration of the lesson to be conducted by these students shall be in the range of 30 to 40 minutes depending on the class time they are going to handle at school and college level. Each student teacher is expected to take at least five lessons during the course of the semester. The lessons will be supervised by the faculty members and experts who would discuss the merits and demerits of the concerned lesson and guide them for the future. In these lessons, the duration should slowly increase and all the parts of the lesson covered progressively. **Note: The Students shall be encouraged to opt for the same games as opted in the third semester.**		

Year	II	CLASSROOM TEACHING-IV	Credit	1
Semester	IV		Course Code	SOE PES 030424 C0101
Learning Outcomes		At the end of the course, the students will be able to: • Demonstrate the class room teaching ability to teach different topics of the core subjects using various teaching methods.		
Course Content		**General out-line of the contents of classroom teaching and practical of the core subjects** Each student teacher is expected to take at least five lessons during the course of the semester. The lessons will be supervised by the faculty members and experts who would discuss the merits and demerits of the concerned lesson and guide them for the future. In these lessons, the duration should slowly increase and all the parts of the lesson covered progressively. **The Students shall demonstrate teaching ability using various teaching methods. These Lessons should include practical teaching of the core subjects of the semester.**		

Elective Courses (DCEC)

Year	II	DISSERTATION	Credits	3
Semester	IV		Course Code	SOE PES 030407 E0303
Learning Outcomes		At the end of the course, the students will be able to: **Develop competency in the process of conducting research** • A candidate shall have dissertation for M.P.Ed– IV Semester and must submit his/her Synopsis in department and get it approved by the D.R.C. (Departmental Research Committee). • A candidate selecting dissertation must submit his/her dissertation not less than one week before the beginning of the IVth Semester Examination. • The candidate has to face the Viva-Voce conducted by D.R.C. (Departmental Research Committee) with external examiner.		

Note: -

1. Research Proposal and Dissertation would be evaluated as per the University Ordinance No-XV.

Year	II	PHYSICAL FITNESS AND WELLNESS	Credits	3
Semester	IV		Course Code	SOE PES 030408 E3003
Learning Outcomes	At the end of the course, the students will be able to: • Define the concept of physical fitness and wellness, and identify the components, techniques and principles of physical fitness. • Recall the importance of nutrition and calories requirements, and explain the influence of food on social cultural values. • Illustrate stress assessment and management techniques, and the concept of designing a fitness training programme. • Explain the Establishment and Management of Fitness Centre and describe the Qualification and qualities for a fitness trainer.			
Course Content				
Unit -1	**Introduction of Physical Fitness and Wellness** • Meaning & Definition, Principles and Components of Physical Fitness and Wellness. (Online) • Leisure time physical activity for community development. • Current trends in fitness and conditioning. (Online) • Relationship between physical activity and lifelong wellness.			
Unit -2	**Importance of Nutrition** • Meaning and Definition of Nutrition. (Online) • Food Guide Pyramid and Daily calories intake & burning. • Influences of food on social cultural values. (Online) • Exercise and metabolism & burning.			

Unit -3	**Stress Management**
	• Stress assessment & its management, prominent health problem associated with inactivity. • Safety techniques (Spotting, proper body alignment, lifting techniques, spatial, awareness. and proper breathing techniques). (Online) • Concept of free weight vs. machine, variation of sets and repetitions, Exercise with Swiss & Medicine Ball, Thera-band and Tubing. • Concepts of designing fitness training programme and Measurement of Body Composition.
Unit -4	**Fitness Management**
	• Establishment and Management of Fitness Centre. • Principles of starting a fitness center-environment, location, policy, offer of programmes, record keeping, and public relation. • Fitness center membership and its types. (Online) • Safety aspects in a fitness center and Qualification and qualities for a fitness trainer. (Online)
Teaching learning process/Transactional Strategies	Lecture cum discussion, PowerPoint presentations, assignments, school observation and report, case study, and problem solving, brainstorming
Practicum	• Orientation and management of fitness center, various equipment's and wet zone. • Different methods of measuring Body Composition (BMI, Waist Hip Ratio, Skinfold Caliper). • Different Fitness Test (Cardio-respiratory Endurance, Strength, Strength Endurance, Flexibility, Body Composition, Anthropometric Measurements and Grip Dynamometer).

Suggested Readings	• Agrawal, M.(2016). *Aerobics Fitness & Style.* Friends Publications. • Corbin, C. (2011). *Concepts of Physical Fitness*. McGraw-Hill Higher Education. • Fahey D. Thomas(2005). *Weight Training Basis, A Complete Guide for Men and Women.* Mcgraw- Hill Companies. • Greenberg, J., Dintiman, G., & Myers Oakes, B. (2004). *Physical Fitness and Wellness.* Champaign, IL: Human Kinetics. • Hoeger, W., & Hoeger, S. (2013). *Fitness & Wellness*. Wadsworth, Cengage Learning. • Prabha, S.(2015). *Basic Fitness Assessment.* Friends Publications. • Rathee, S.(2017). *Physical Fitness and Wellness.* Friends Publications. • Robert Malt.(2001). *90-Day Fitness Plan*. D.K. publishing, Inc. 95, Madison Avenue. • The National Association for Sport and Physical Education (1900). *Concepts of Physical Education, What Every Student Needs to Know.* Association Drive Reston, VA 20191-1599 (703) 476-3410. • Uppal, A.K. (2016). *Physical Fitness and Wellness.* Friends Publications.

Generic Elective Course (GEC)

Year	II	PHYSICAL FITNESS AND CONDITIONING	Credits	4
Semester	IV		Course Code	SOE PES 030402 GEC4004

Learning Outcomes

At the end of the course, the students will be able to:

- Define the concept of warming up, cool down and calisthenics exercise.
- Give a demonstration of weight training, Swiss ball training, medicine ball, thera-band and tubing exercises for various body parts.
- Classify anthropometric measurements for assessing body composition.
- Choose and suggest appropriate exercises for back pain and neck pain, and role of exercise during pregnancy.

Course Content

Unit -1	**Concept of Physical Fitness and Conditioning**
	• Introduction of Physical Fitness variables and Conditioning. (Online) • Assessment of Health-Related Fitness • Warming up and cool down exercise for body. (Online) • Aerobic and anaerobic exercise and its differences. (Online)
Unit -2	**Importance of Training**
	• Variation of sets and repetitions and Intensity for weight training. (Online) • Exercise with Swiss & medicine ball, thera-band and tubing. • Different Types of Exercise for upper body and lower body. • Various Methods, Principles and Types of training.

Unit -3	**Body types and Assessment**
	• Anthropometric measurement for somatotyping body type. • Assessing body composition, BMI. • Introduction of Posture and its type. (Online) • Posture Deformities and its treatment.
Unit -4	**Importance of Exercise in day today life**
	• Flexibility development Exercises. • Exercise during pregnancy and Exercise for Back and Neck pain Management. • Method for determining 1-RM. (Online) • Concept of designing different fitness training programme for different age group. (Online)
Teaching learning process/Transactional Strategies	Lecture cum discussion, PowerPoint presentations, assignments, school observation and report, case study, and problem solving, brainstorming

Suggested Readings	• American Alliance for Health, Physical Education, Recreation and Dance (1999). *Physical Education for Lifelong Fitness, The Physical Best Teacher's Guide.* Human Kinetics, P.O. Box 5076, Champaign, IL 61825-5076 • Emily R. Foster, Karyn Hartiger & Katherine A. Smith.(2002). *Fitness Fun*, Human Kinetics Publishers. • Fahey D. Thomas (2005). *Weight Training Basis, A Complete Guide for Men and Women.* Mcgraw- Hill Companies.Getchell, B. (1979). *Physical Fitness: A Way of Life.* • Lawrence, Debbie. (1999). *Exercise to Music.* A & C Black Publishers Ltd. 37, Sohe Square. • Miller, D. K., & Allen, T. E. (1990). *Fitness: A Lifetime Commitment*. Macmillan Publishing Company. • Robert Malt. (2001). *90-Day Fitness Plan.* D.K. publishing, Inc. 95, Madison Avenue. • The National Association for Sport and Physical Education (1900). *Concepts of Physical Education, What Every Student Needs to Know.* Association Drive Reston, VA 20191-1599 (703) 476-3410.

Guidelines for Sports Merit Criteria for M.P.Ed. Programme (Max. 25 Marks)

1. The following marks are to be awarded for the highest performance in sports for the last three year.
   a) A person getting any of the first three positions in the Olympic / World Game/ Commonwealth Game/ World Cup Tournaments / Asian Games/ International Championship- **25 marks**
   b) A person representing India in the above said games / Tournaments- **20 marks**
   c) 1st position in All India Inter-University / Senior National approved games competition conducted by the respective Federations- **16 marks**
   d) 2nd position in the above said competitions- **15 marks**
   e) 3rd position in the above said competitions -**14 marks**
   f) 1st position in Zonal Inter-University competitions- **13 marks**
   g) 2nd position in the above said competitions- **12 marks**
   h) 3rd position in the above said competitions- **11 marks**
   i) A person representing University in the Inter-University / State in the Senior National/ Junior Nationals Competitions - **6 marks**
   j) 1st, 2nd or 3rd Position in State Competitions - **5 marks**

2. List of Games/ Sports for weightage

Team Games	Dual & Combat Sports	Individual Sports
Baseball (M); Basketball (M&W); Cricket (M&W); Football (M&W); Handball (M&W); Kabaddi (M&W); Kho-Kho (M&W); Netball (M&W); Softball (W) and Volleyball (M&W)	Badminton (M&W); Boxing (M&W); Gymnastics (M&W); Judo (M&W); Squash (M&W); Table-Tennis (M&W); Taekwondo (only Kyesugi) (M&W); Tennis (M&W) and Wrestling (only freestyle) (M&W)	Archery (only recurve and compound) (M&W); Athletics (M&W); Chess (M&W); Diving (M&W); Shooting (only 10-meter pistol and 10-meter Air Rifle) (M&W); Swimming (M&W) and Weight Lifting (M&W)

3. Resolving of ties:

In the case of a tie at any stage in the preparation of the merit list, candidates securing equal marks will be bracketed together. Their inter-se-merit will be determined according to the following criteria:

A candidate getting higher percentage of marks in the Overall merit (excluding weightage) shall rank higher in order of merit.
That if two or more candidates secure equal marks in (i), the candidate senior in age shall rank higher in the order of merit.

Appendix 1

PHYSICAL FITNESS BATTERY TEST CUH

OVERHEAD BACKTHROW

(Performance conversion table)

Men (3 kg Medicine Ball)		Women (2 kg Medicine Ball)	
Distance (in meters)	Points	Distance (in meters)	Points
15.00 and above	100	12.50 and above	100
14.50	95	12.00	95
14.00	90	11.50	90
13.50	85	11.00	85
13.00	80	10.50	80
12.50	76	10.00	76
12.00	72	09.50	72
11.50	68	09.00	68
11.00	64	08.50	64
10.50	60	08.00	60
10.00	56	07.50	56
09.50	52	07.00	52
09.00	48	06.50	48
08.50	44	06.00	44
08.00	40	05.50	40
07.50	37	05.00	37
07.00	34	04.50	34
06.50	31	04.00	31
06.00	28	03.50	28
05.50	25	03.00	25
05.00	23	02.50	23
04.50	21	02.00	21
04.00	19	01.50	19
03.50 and above	17	01.00 and below	17

STANDING BROAD JUMP

(Performance Conversion Table)

Men		Women	
Distance (Meters)	Points	Distance (in Meters)	Points
2.85 and above	100	2.35 and above	100
2.80 - 2.84	95	2.30 – 2.34	95
2.75 - 2.79	91	2.25 – 2.29	91
2.70 – 2.74	87	2.20 – 2.24	87
2.65 – 2.69	84	2.15 – 2.19	84
2.60 – 2.64	81	2.10 – 2.14	81
2.55 – 2.59	78	2.05 – 2.09	78
2.50 – 2.54	75	2.00 – 2.04	75
2.45 – 2.49	72	1.95 – 1.99	72
2.40 – 2.44	69	1.90 – 1.94	69
2.35 – 2.39	66	1.85 – 1.89	66
2.30 – 2.34	63	1.80 – 1.84	63
2.25 – 2.29	60	1.75 – 1.79	60
2.20 – 2.24	57	1.70 – 1.74	57
2.15 – 2.19	54	1.65 – 1.69	54
2.10 – 2.14	51	1.60 – 1.64	51
2.05 – 2.09	48	1.55 – 1.59	48
2.00 - 2.04	45	1.50 – 1.54	45
1.95 – 1.99	43	1.45 – 1.49	43
1.90 – 1.94	41	1.40 – 1.44	41
1.85 – 1.89	39	1.35 – 1.39	39
1.80 – 1.84	37	1.30 – 1.34	37
1.75 – 1.79	35	1.25 – 1.29	35
1.70 – 1.74	33	1.20 – 1.24	33
1.65 – 1.69	31	1.15 – 1.19	31
1.60 – 1.64	29	1.10 - 1.14	29
1.55 – 1.59	27	1.05 – 1.09	27
1.50 – 1.54	25	1.00 – 1.04	25
1.45 – 1.49	24	0.95 – 0.99	24
1.40 – 1.44	23	0.90 – 0.94	23
1.35 – 1.39	22	0.85 – 0.89	22
1.30 – 1.34	21	0.80 – 0.84	21
1.25 – 1.29	20	0.75 – 0.79	20
1.20 – 1.24	19	0.70 – 0.74	19
1.15 – 1.19	18	0.65 – 0.69	18
1.10 – 1.14	17	0.60 – 0.64	17
1.05 – 1.09	16	0.55 – 0.59	16
1.00 – 1.04	15	0.50 – 0.54	15

50 METERS SPRINT

(Performance Conversion Table)

Men				Women			
Timing (Seconds)	Points	Timing (Seconds)	Points	Timing (Seconds)	Points	Timing (Seconds)	Points
5.7 and below	100	8.6	34	6.7 and below	100	9.6	34
5.8	96	8.7	32	6.8	96	9.7	32
5.9	92	8.8	30	6.9	92	9.8	30
6.0	89	8.9	29	7.0	89	9.9	29
6.1	86	9.0	28	7.1	86	10.0	28
6.2	83	9.1	27	7.2	83	10.1	27
6.3	80	9.2	26	7.3	80	10.2	26
6.4	78	9.3	25	7.4	78	10.3	25
6.5	76	9.4	24	7.5	76	10.4	24
6.6	74	9.5	23	7.6	74	10.5	23
6.7	72	9.6	22	7.7	72	10.6	22
6.8	70	9.7	21	7.8	70	10.7	21
6.9	68	9.8	20	7.9	68	10.8	20
7.0	66	9.9	19	7.0	66	10.9	19
7.1	64	10.0	18	8.1	64	11.0	18
7.2	62	10.1	17	8.2	62	11.1	17
7.3	60	10.2	16	8.3	60	11.2	16
7.4	58	10.3	15	8.4	58	11.3	15
7.5	56	10.4	14	8.5	56	11.4	14
7.6	54	10.5	13	8.6	54	11.5	13
7.7	52	10.6	12	8.7	52	11.6	12
7.8	50	10.7	11	8.8	50	11.7	11
7.9	48	10.8	10	8.9	48	11.8	10
8.0	46	10.9	09	9.0	46	11.9	09
8.1	44	11.0	08	9.1	44	12.0	08
8.2	42	11.1	07	9.2	42	12.1	07
8.3	40	11.2	06	9.3	40	12.2	06
8.4	38	11.3 and above	05	9.4	38	12.3 and above	05
8.5	36	-----	------	9.5	36	------	------

1000 METERS RUN /WALK

(Performance Conversion Table)

Men				Women			
Timing (Seconds)	Points	Timing (Seconds)	Points	Timing (Seconds)	Points	Timing (Seconds)	Points
3:00 and Below	100	3:41-3:42	59	4:00 and Below	100	4:41-4:42	59
3:01	99	3:43	58	4:01	99	4:43-4:44	58
3:02	98	3:45	57	4:02	98	4:45–4:46	57
3:03	97	3:47	56	4:03	97	4:47–4:48	56
3:04	96	3:49	55	4:04	96	4:49-4:50	55
3:05	95	3:51	54	4:05	95	4:51–4:52	54
3:06	94	3:53	53	4:06	94	4:53–4:54	53
3:07	93	3:55	52	4:07	93	4:55–4:56	52
3:08	92	3:57	51	4:08	92	4:57–4:58	51
3:09	91	3:59	50	4:09	91	4:59–5:00	50
3:10	90	4:01	49	4:10	90	5:01–5:02	49
3:11	89	4:03	48	4:11	89	5:03–5:04	48
3:12	88	4:05	47	4:12	88	5:05–5:06	47
3:13	87	4:07	46	4:13	87	5:07-5:08	46
3:14	86	4:09	45	4:14	86	5:09–5:10	45
3:15	85	4:11	44	4:15	85	5:11–5:12	44
3:16	84	4:13	43	4:16	84	5:13–5:14	43
3:17	83	4:15	42	4:17	83	5:15–5:16	42
3:18	82	4:17	41	4:18	82	5:17–5:18	41
3:19	81	4:19	40	4:19	81	5:19–5:20	40
3:20	80	4:21	39	4:20	80	5:21–5:22	39
3:21	79	4:23	38	4:21	79	5:23–5:24	38
3:22	78	4:25	37	4:22	78	5:25–5:26	37
3:23	77	4:27	36	4:23	77	5:27–5:28	36
3:24	76	4:29	35	4:24	76	5:29–5:30	35
3:25	75	4:31	34	4:25	75	5:31–5:32	34
3:26	74	4:33	33	4:26	74	5:33–5:34	33
3:27	73	4:35	32	4:27	73	5:35–5:36	32
3:28	72	4:37	31	4:28	72	5:37–5:38	31
3:29	71	4:39	30	4:29	71	5:39–5:40	30
3:30	70	4:41	29	4:30	70	5:41–5:43	29
3:31	69	4:44	28	4:31	69	5:44–5:46	28
3:32	68	4:47	27	4:32	68	5:47–5:49	27
3:33	67	4:50	26	4:33	67	5:50–5:52	26
3:34	66	4:53	25	4:34	66	5:53–5:55	25

3:35	65	4:56	24	4:35	65	5:56–5:58	24
3:36	64	4:59	23	4:36	64	5:59–6:01	23
3:37	63	5:02	22	4:37	63	6:02–6:04	22
3:38	62	5:05	21	4:38	62	6:05–6:07	21
3:39	61	5:08	20	4:39	61	6:08-6:10	20
3:40	60	5:11 and above	19	4:40	60	6:11 and above	19

Annexure-VIII

HOD CSE <hodcse@cuh.ac.in>

Regarding Updation in Eligibility criteria for admission to M.Tech(CSE) programme w.e.f. 2022-23

5 messages

HOD-CSE, CUH <hodcse@cuh.ac.in> Tue, Jan 17, 2023 at 5:02 PM
To: Sukhwinder Singh <sukhdalip@pu.ac.in>, Anita Singhrova <nidhianita@gmail.com>, anantbara_CUH <anant@cuh.ac.in>

Dear Sir/Madam,

It is submitted to your kind information that the existing eligibility criteria for admission to M.Tech(CSE) programme in Central University of Haryana is as follows:-

"Passed B.Tech/B.E. in Computer Engineering/ Computer Science/ Computer Science and Engineering/ Computer Science and Information Technology/ Computer Technology/ Information Technology/ Computer Science and Systems Engineering/ Computer Science and Technology/ Electronics and Computer Engineering/ Electronics and Information Systems/ Information Technology and Engineering/ Software Engineering or relevant/appropriate branch with 55% or above marks or equivalent grade (Relaxation of 5% to the SC/ST/PWD/ OBC (Non-Creamy Layer) candidates)"

However, there are many desirous candidates who have done MCA, are not able to take admission even though there are many seats vacant in M.Tech(CSE). Many of the other institutes like DCRUST Murthal and YMCA Faridabad are allowing them to take admission (Copy attached). Further to bring to your notice that NEP2020 is also allowing multi-disciplinary and multi entry exit. Keeping in view of the above said facts, it is proposed to amend the eligibility criteria (w.e.f. 2022-23) for admission to M.Tech(CSE) programme in Central University of Haryana as follows:-

"Passed B.E./B.Tech. or equivalent in Computer Engineering/ Computer Science/ Computer Science and Engineering/ Computer Science and Information Technology/ Computer Technology/ Information Technology/ Computer Science and Systems Engineering/ Computer Science and Technology/ Electronics and Computer Engineering/ Electronics and Information Systems/ Information Technology and Engineering/ Software Engineering/Electronics/Electronics & Communication Engg./Electronics & Telecommunication/ Electronics & Instrumentation Control or relevant/appropriate branch /M.Sc. (Maths/Physics/Computer/Electronics)/ MCA scoring with 55% or above marks or equivalent grade (Relaxation of 5% to the SC/ST/PWD/ OBC (Non-Creamy Layer) candidates)"

As you are one of the BoS members, you are requested to kindly give your consent for the same.
Submitted for your approval, please.

Dr. Rakesh Kumar
HOD-CSE

2 attachments

YMCA Faridabad.pdf
11140K

DCRUST.pdf
790K

Anita Singhrova <nidhianita@gmail.com> Tue, Jan 17, 2023 at 10:32 PM
To: "HOD-CSE, CUH" <hodcse@cuh.ac.in>

Dear Dr. Rakesh,
I hereby accord my consent for the amended eligibility criteria (w.e.f. 2022-23) for admission to M.Tech(CSE) programme in Central University of Haryana.
Thanks and regards

On Tue, Jan 17, 2023, 5:03 PM HOD-CSE, CUH <hodcse@cuh.ac.in> wrote:

> Dear Sir/Madam,
>
> It is submitted to your kind information that the existing eligibility criteria for admission to M.Tech(CSE) programme in Central University of Haryana is as follows:-

"Passed B.Tech/B.E. in Computer Engineering/ Computer Science/ Computer Science and Engineering/ Computer Science and Information Technology/ Computer Technology/ Information Technology/ Computer Science and Systems Engineering/ Computer Science and Technology/ Electronics and Computer Engineering/ Electronics and Information Systems/ Information Technology and Engineering/ Software Engineering or relevant/appropriate branch with 55% or above marks or equivalent grade (Relaxation of 5% to the SC/ST/PWD/ OBC (Non-Creamy Layer) candidates)"

However, there are many desirous candidates who have done MCA, are not able to take admission even though there are many seats vacant in M.Tech(CSE). Many of the other institutes like DCRUST Murthal and YMCA Faridabad are allowing them to take admission (Copy attached). Further to bring to your notice that NEP2020 is also allowing multi-disciplinary and multi entry exit. Keeping in view of the above said facts, it is proposed to amend the eligibility criteria (w.e.f. 2022-23) for admission to M.Tech(CSE) programme in Central University of Haryana as follows:-

"Passed B.E./B.Tech. or equivalent in Computer Engineering/ Computer Science/ Computer Science and Engineering/ Computer Science and Information Technology/ Computer Technology/ Information Technology/ Computer Science and Systems Engineering/ Computer Science and Technology/ Electronics and Computer Engineering/ Electronics and Information Systems/ Information Technology and Engineering/ Software Engineering/Electronics/Electronics & Communication Engg./Electronics & Telecommunication/ Electronics & Instrumentation Control or relevant/appropriate branch /M.Sc. (Maths/Physics/Computer/Electronics)/ MCA scoring with 55% or above marks or equivalent grade (Relaxation of 5% to the SC/ST/PWD/ OBC (Non-Creamy Layer) candidates)"

As you are one of the BoS members, you are requested to kindly give your consent for the same.
Submitted for your approval, please.

Dr. Rakesh Kumar
HOD-CSE

Anant Rajee Bara <anant@cuh.ac.in> Wed, Jan 18, 2023 at 10:51 AM
To: "HOD-CSE, CUH" <hodcse@cuh.ac.in>
Cc: Sukhwinder Singh <sukhdalip@pu.ac.in>, Anita Singhrova <nidhianita@gmail.com>

Dear Sir,
It seems ok. Please go ahead & do the needful.

On Tue, 17 Jan 2023, 17:02 HOD-CSE, CUH, <hodcse@cuh.ac.in> wrote:

Dear Sir/Madam,

It is submitted to your kind information that the existing eligibility criteria for admission to M.Tech(CSE) programme in Central University of Haryana is as follows:-

"Passed B.Tech/B.E. in Computer Engineering/ Computer Science/ Computer Science and Engineering/ Computer Science and Information Technology/ Computer Technology/ Information Technology/ Computer Science and Systems Engineering/ Computer Science and Technology/ Electronics and Computer Engineering/ Electronics and Information Systems/ Information Technology and Engineering/ Software Engineering or relevant/appropriate branch with 55% or above marks or equivalent grade (Relaxation of 5% to the SC/ST/PWD/ OBC (Non-Creamy Layer) candidates)"

However, there are many desirous candidates who have done MCA, are not able to take admission even though there are many seats vacant in M.Tech(CSE). Many of the other institutes like DCRUST Murthal and YMCA Faridabad are allowing them to take admission (Copy attached). Further to bring to your notice that NEP2020 is also allowing multi-disciplinary and multi entry exit. Keeping in view of the above said facts, it is proposed to amend the eligibility criteria (w.e.f. 2022-23) for admission to M.Tech(CSE) programme in Central University of Haryana as follows:-

"Passed B.E./B.Tech. or equivalent in Computer Engineering/ Computer Science/ Computer Science and Engineering/ Computer Science and Information Technology/ Computer Technology/ Information Technology/ Computer Science and Systems Engineering/ Computer Science and Technology/ Electronics and Computer Engineering/ Electronics and Information Systems/ Information Technology and Engineering/ Software Engineering/Electronics/Electronics & Communication Engg./Electronics & Telecommunication/ Electronics & Instrumentation Control or relevant/appropriate branch /M.Sc. (Maths/Physics/Computer/Electronics)/ MCA scoring with 55% or above marks or equivalent grade (Relaxation of 5% to the SC/ST/PWD/ OBC (Non-Creamy Layer) candidates)"

As you are one of the BoS members, you are requested to kindly give your consent for the same.
Submitted for your approval, please.

Dr. Rakesh Kumar

HOD-CSE

Sukhwinder Singh <sukhdalip@pu.ac.in> Wed, Jan 18, 2023 at 11:10 AM
To: "HOD-CSE, CUH" <hodcse@cuh.ac.in>
Cc: Anita Singhrova <nidhianita@gmail.com>, anantbara_CUH <anant@cuh.ac.in>

On 17-01-2023 17:02, HOD-CSE, CUH wrote:

> Dear Sir/Madam,
> It is submitted to your kind information that the existing eligibility criteria for admission to M.Tech(CSE) programme in Central University of Haryana is as follows:-
>
> **"Passed B.Tech/B.E. in Computer Engineering/ Computer Science/ Computer Science and Engineering/ Computer Science and Information Technology/ Computer Technology/ Information Technology/ Computer Science and Systems Engineering/ Computer Science and Technology/ Electronics and Computer Engineering/ Electronics and Information Systems/ Information Technology and Engineering/ Software Engineering or relevant/appropriate branch with 55% or above marks or equivalent grade (Relaxation of 5% to the SC/ST/PWD/ OBC (Non-Creamy Layer) candidates)"**
>
> However, there are many desirous candidates who have done MCA, are not able to take admission even though there are many seats vacant in M.Tech(CSE). Many of the other institutes like DCRUST Murthal and YMCA Faridabad are allowing them to take admission (Copy attached). Further to bring to your notice that NEP2020 is also allowing multi-disciplinary and multi entry exit. Keeping in view of the above said facts, it is proposed to amend the eligibility criteria (w.e.f. 2022-23) for admission to M.Tech(CSE) programme in Central University of Haryana as follows:-
>
> **"Passed B.E./B.Tech. or equivalent in Computer Engineering/ Computer Science/ Computer Science and Engineering/ Computer Science and Information Technology/ Computer Technology/ Information Technology/ Computer Science and Systems Engineering/ Computer Science and Technology/ Electronics and Computer Engineering/ Electronics and Information Systems/ Information Technology and Engineering/ Software Engineering/Electronics/Electronics & Communication Engg./Electronics & Telecommunication/ Electronics & Instrumentation Control or relevant/appropriate branch /M.Sc. (Maths/Physics/Computer/Electronics)/ MCA scoring with 55% or above marks or equivalent grade (Relaxation of 5% to the SC/ST/PWD/ OBC (Non-Creamy Layer) candidates)"**
>
> As you are one of the BoS members, you are requested to kindly give your consent for the same.
> Submitted for your approval, please.
>
> Dr. Rakesh Kumar
> HOD-CSE

Dear

It seems okay. Please go ahead with the proposal.

--
With Regards
Prof. Sukhwinder Singh
Department of CSE
University Institute of Engineering and Technology
Panjab University, Sector 25

Chandigarh-160014
+91-172-2534968(O), +91-172-2547986(Fax)

HOD-CSE, CUH <hodcse@cuh.ac.in> Wed, Jan 18, 2023 at 11:30 AM
To: Dean School of Engineering & Technology <deansoet@cuh.ac.in>

Dear sir,
Permission has been taken from BoS w.r.t. the below mentioned proposal.
Submitted for approval of School Board

---------- Forwarded message ---------
From: **HOD-CSE, CUH** <hodcse@cuh.ac.in>
Date: Tue, 17 Jan, 2023, 5:02 PM
Subject: Regarding Updation in Eligibility criteria for admission to M.Tech(CSE) programme w.e.f. 2022-23
To: Sukhwinder Singh <sukhdalip@pu.ac.in>, Anita Singhrova <nidhianita@gmail.com>, anantbara_CUH <anant@cuh.ac.in>

Dear Sir/Madam,
It is submitted to your kind information that the existing eligibility criteria for admission to M.Tech(CSE) programme in Central University of Haryana is as follows:-

"**Passed B.Tech/B.E. in Computer Engineering/ Computer Science/ Computer Science and Engineering/ Computer Science and Information Technology/ Computer Technology/ Information Technology/ Computer Science and Systems Engineering/ Computer Science and Technology/ Electronics and Computer Engineering/ Electronics and Information Systems/ Information Technology and Engineering/ Software Engineering or relevant/appropriate branch with 55% or above marks or equivalent grade (Relaxation of 5% to the SC/ST/PWD/ OBC (Non-Creamy Layer) candidates)**"

However, there are many desirous candidates who have done MCA, are not able to take admission even though there are many seats vacant in M.Tech(CSE). Many of the other institutes like DCRUST Murthal and YMCA Faridabad are allowing them to take admission (Copy attached). Further to bring to your notice that NEP2020 is also allowing multi-disciplinary and multi entry exit. Keeping in view of the above said facts, it is proposed to amend the eligibility criteria (w.e.f. 2022-23) for admission to M.Tech(CSE) programme in Central University of Haryana as follows:-

"**Passed B.E./B.Tech. or equivalent in Computer Engineering/ Computer Science/ Computer Science and Engineering/ Computer Science and Information Technology/ Computer Technology/ Information Technology/ Computer Science and Systems Engineering/ Computer Science and Technology/ Electronics and Computer Engineering/ Electronics and Information Systems/ Information Technology and Engineering/ Software Engineering/Electronics/Electronics & Communication Engg./Electronics & Telecommunication/ Electronics & Instrumentation Control or relevant/appropriate branch /M.Sc. (Maths/Physics/Computer/Electronics)/ MCA scoring with 55% or above marks or equivalent grade (Relaxation of 5% to the SC/ST/PWD/ OBC (Non-Creamy Layer) candidates)**"

As you are one of the BoS members, you are requested to kindly give your consent for the same.
Submitted for your approval, please.

Dr. Rakesh Kumar
HOD-CSE

2 attachments

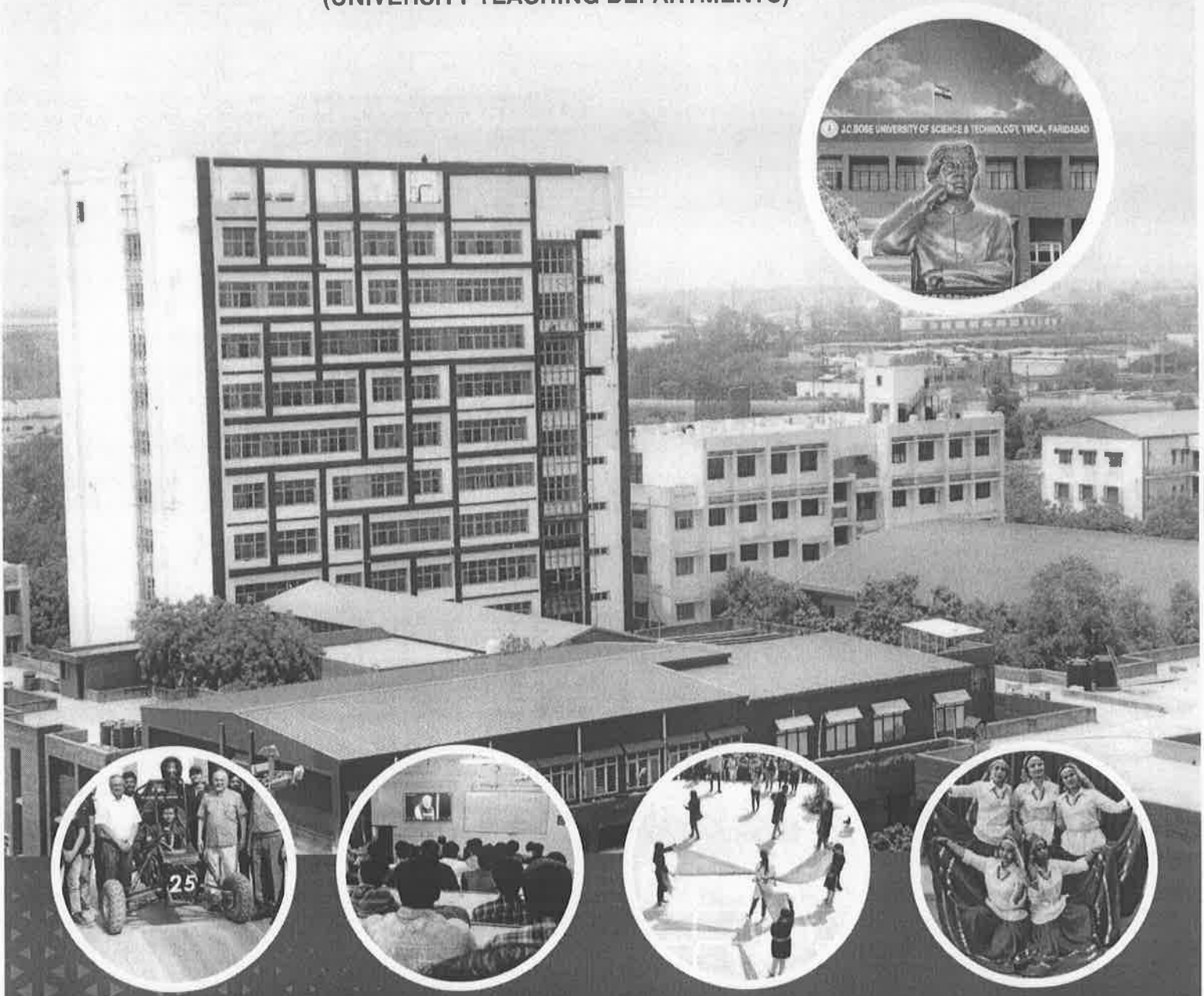
YMCA Faridabad.pdf
11140K

DCRUST.pdf
790K

J.C. BOSE UNIVERSITY
OF SCIENCE AND TECHNOLOGY, YMCA, FARIDABAD (HARYANA)

INFORMATION BROCHURE
2022-2023

for DIPLOMA/UG/PG PROGRAMS
(UNIVERSITY TEACHING DEPARTMENTS)



jcboseust.ac.in | /JCBoseUST

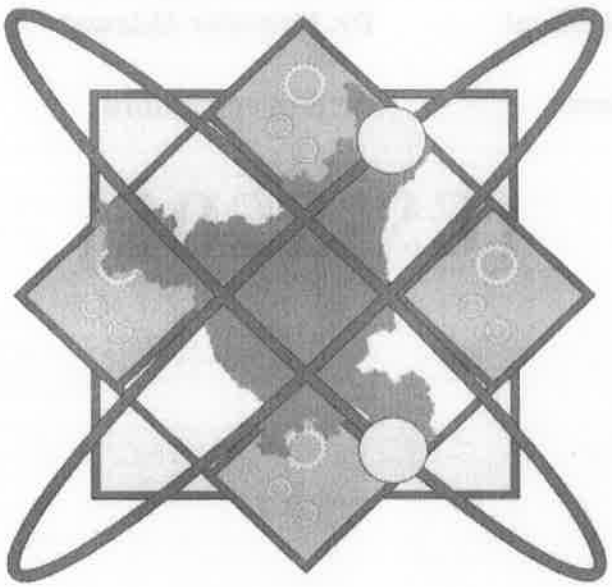
Department	Course/Programme	Eligibility	Mode of Admission
Communication and Media Technology	B.A. - Journalism & Mass Communication	Passed 10+2 or equivalent examination from any recognized Board/University with minimum 50% marks (45% for SC/ST candidates of Haryana only).	Admission shall be made on the basis of merit of qualifying examination. Percentage shall be calculated on the basis of consolidated marks secured in all the subjects mentioned in the DMC of the qualifying examination.
	Bachelor of Social Work		
	B. Sc - Animation & Multimedia		
Mechanical Engineering	M.Tech - Mechanical Engineering (Specialisation in Manufacturing & Automation Technology)	B.E. / B.Tech or equivalent degree in Mech. Engg. / Production Engg. / Industrial Engg. / Mechatronics Engg. / Automobile Engg. / Aeronautical Engg. / Industrial Engg. / Marine Engg. or in relevant branch with at least 50% marks in aggregate (45% marks for SC / ST candidates of Haryana only).	Admission shall be made firstly on the basis of valid GATE score merit. If the seats remain vacant, admission shall be made on the basis of merit of qualifying examination. **Result awaited (Qualifying Exam.) candidates can also apply.**
	Certificate Course in Applied Mechanics & Product Design	B.Tech/ M.Tech (All Branches except CE & IT), M.Sc. (Physics, Mathematics)	Admission shall be made on the basis of percentage in the relevant qualifying exam.
Electrical Engineering	M.Tech - Power Electronics & Drives	B.E. / B.Tech or equivalent degree in Electrical Engg. / Electrical & Electronics Engg. or in relevant branch with at least 50% marks in aggregate (45% marks for SC / ST candidates of Haryana only).	Admission shall be made firstly on the basis of valid GATE score merit. If the seats remain vacant, admission shall be made on the basis of merit of qualifying examination. **Result awaited (Qualifying Exam.) candidates can also apply.**
Computer Engineering	M.Tech - Computer Engineering	B.E. / B.Tech or equivalent degree in Computer Science & Engineering / Computer Engineering / Information Technology / Electronics & Communication Engineering / Electronics Engineering / Electrical & Electronics Engineering / Electronics & Instrumentation Engineering / Electrical Engineering / relevant Branch or Master of Computer Applications (MCA) or M.Sc. (Computer Science / IT / Software) or M.Sc. (Maths) or M.Sc. (Physics) from a recognized University / Institution with at least 50% marks in aggregate (45% marks for SC / ST candidates of Haryana only).	Admission shall be made firstly on the basis of valid GATE score merit. If the seats remain vacant, admission shall be made on the basis of merit of qualifying examination. **Result awaited (Qualifying Exam.) candidates can also apply.**
	M. Tech - Computer Science & Engineering		

PG / DUAL/ BCA DEGREE PROSPECTUS

(2022-23)

UNIVERSITY OF SCIENCE

DEENBANDHU CHHOTU RAM



AND TECHNOLOGY, MURTHAL

2006

DEENBANDHU CHHOTU RAM UNIVERSITY OF SCIENCE & TECHNOLOGY

MURTHAL (SONEPAT), HARYANA-131039

(Established by State Legislative Act 29 of 2006 & approved under Section 12 (B) &2 (f) of UGC Act, 1956)

(NAAC 'A' Grade State University)

www.dcrustm.ac.in

JUNE 2022

FACULTY OF INFORMATION TECHNOLOGY AND COMPUTER SCIENCE **1. Department of Computer Science & Engineering**					
1.	M. Tech.	Computer Science & Engineering	2 Years	30	B.E./B.Tech.or equivalent in Computer Science & Engg./ Information Tech./Electronics/Electronics & Communication Engg./Electronics & Telecommunication/ Electronics & Instrumentation Control M.Sc. (Maths/Physics/Computer/Electronics)/ MCA scoring at least 50% (47.50% for SC/DSC/PH) marks in aggregate.
2.	BCA	Bachelor of Computer Application	3 Years	60	10+2 in any stream, scoring not less than 50% (47.50% for SC/DSC/PH) marks in aggregate, and with Mathematics as main subject at Matriculation(10^{th}) level from a recognized Board of Education or an equivalent examination recognized as equivalent thereto by the University.
FACULTY OF HUMANITIES & SOCIAL SCIENCES **1. Department of Humanaties**					
1.	M. A.	English	2 Years	30	Bachelor or Master's Degree or equivalent in any discipline scoring not less than 50% (47.50% for SC/DSC/PH) marks in aggregate. Relaxation upto 5% in the qualifying examination marks shall be provided to students with graduation in Honours in English.
2.	Dual degree B.A. (Hons.) English – M. A. English		5 Years	60	XII Standard/10+2 Level/Equivalent examination from any of the recognized central or state education boards in India or equivalent
					or deemed to be fit by the university. The candidate must have obtained a minimum of 50% marks in her/his XII Standard/10+2 Level / Equivalent examination (47.5 % for the SC/DSC/PH)..
3.	Certificate Course	French/ German	1 Year	30 each	10+2 or equivalent from central or Haryana Education Board (or equivalent) scoring not less than 50% (47.50% for SC/DSC/PH) marks in aggregate.
FACULTY OF MANAGEMENT STUDIES **1. Department of Management Studies**					
1.	Dual Degree B.B.A.-M.B.A.		5 Years	60	10+2 or equivalent from central or Haryana Education Board (or equivalent) scoring not less than 50% (47.50% for SC/DSC/PH) marks in aggregate.

Dean School of Engineering & Technology <deansoet@cuh.ac.in>

Regarding Updation in Eligibility criteria for admission to M.Tech(CSE) programme w.e.f. 2022-23 in Central University of Haryana

13 messages

Dean School of Engineering & Technology <deansoet@cuh.ac.in> Wed, Jan 18, 2023 at 11:47 AM
To: ASHUTOSH KUMAR Singh <ashutosh@nitkkr.ac.in>, chairmancivil@drcutm.org, profanayath@gmail.com, sarbjeet@pu.ac.in, "Prof. Sathans" <sathans@nitkkr.ac.in>, "Dr. Vikas Garg" <gargvikas27@cuh.ac.in>, Rakesh Kumar <raakeshdhiman@gmail.com>, anantbara_CUH <anant@cuh.ac.in>, "Dr. Ajay Kumar Bansal" <ajaybansal@cuh.ac.in>, "Dr. Sumit Saini" <drsumiteed@cuh.ac.in>, neerajlohchab@cuh.ac.in, shammi.mehra@cuh.ac.in, Kalpana Chauhan <kalpanachauhan@cuh.ac.in>, Manoj Kumar Singh <manojksingh@cuh.ac.in>, rajesh.dubey@cuh.ac.in

Dear Sir/Madam,

It is submitted for your kind information that the existing eligibility criteria for admission to the M.Tech(CSE) programme in Central University of Haryana is as follows:-

"Passed B.Tech/B.E. in Computer Engineering/ Computer Science/ Computer Science and Engineering/ Computer Science and Information Technology/ Computer Technology/ Information Technology/ Computer Science and Systems Engineering/ Computer Science and Technology/ Electronics and Computer Engineering/ Electronics and Information Systems/ Information Technology and Engineering/ Software Engineering or relevant/appropriate branch with 55% or above marks or equivalent grade (Relaxation of 5% to the SC/ST/PWD/ OBC (Non-Creamy Layer) candidates)"

However, there are many desirous candidates who have done MCA, are not able to take admission even though there are many seats vacant in M.Tech(CSE). Many of the other institutes like DCRUST Murthal and YMCA Faridabad are allowing them to take admission (Copy attached). Further to bring to your notice that NEP2020 also allows multi-disciplinary and multi entry exit. Keeping in view of the above said facts, it is proposed to amend the eligibility criteria (w.e.f. 2022-23) for admission to M.Tech(CSE) programme in Central University of Haryana as follows:-

"Passed B.E./B.Tech. or equivalent in Computer Engineering/ Computer Science/ Computer Science and Engineering/ Computer Science and Information Technology/ Computer Technology/ Information Technology/ Computer Science and Systems Engineering/ Computer Science and Technology/ Electronics and Computer Engineering/ Electronics and Information Systems/ Information Technology and Engineering/ Software Engineering/Electronics/Electronics & Communication Engg./Electronics & Telecommunication/ Electronics & Instrumentation Control or relevant/appropriate branch /M.Sc. (Maths/Physics/Computer/Electronics)/ MCA scoring with 55% or above marks or equivalent grade (Relaxation of 5% to the SC/ST/PWD/ OBC (Non-Creamy Layer) candidates)"

As you are one of the School Board members of SoET, you are requested to **kindly give your consent for the same.** This already has been approved by the concerned BoS. We want to take this item in the forthcoming Academic Council.

I've submitted this for your approval, please.

Thanks with regards | सादर धन्यवाद
Prof Phool Singh | आचार्य फूल सिंह
Dean, School of Engineering and Technology | अधिष्ठाता, अभियांत्रिकी एवं प्रौद्योगिकी पीठ
Central University of Haryana | केंद्रीय विश्वविद्यालय हरियाणा
Jant-Pali, Mahendergarh-123031 (India) | जांट-पाली, महेंद्रगढ़-१२३०३१ (भारत)
(Established Vide Act No. 25 (2009) of Parliament, Govt. of India.
(संसद अधिनियम नंबर २५ (२००९) के तहत स्थापित), भारत सरकार
Phone | दूरभाष: +91-1285-260185/ 8376959182

2 attachments

DCRUST.pdf
790K

YMCA Faridabad.pdf
11140K

Mail Delivery Subsystem <mailer-daemon@googlemail.com> Wed, Jan 18, 2023 at 11:48 AM
To: deansoet@cuh.ac.in

Address not found

Your message wasn't delivered to **chairmancivil@drcutm.org** because the domain drcutm.org couldn't be found. Check for typos or unnecessary spaces and try again.

LEARN MORE

The response was:

```
DNS Error: DNS type 'mx' lookup of drcutm.org responded with code NXDOMAIN Domain name not
found: drcutm.org Learn more at https://support.google.com/mail/?p=BadRcptDomain
```

Final-Recipient: rfc822; chairmancivil@drcutm.org
Action: failed
Status: 5.1.2
Diagnostic-Code: smtp; DNS Error: DNS type 'mx' lookup of drcutm.org responded with code NXDOMAIN Domain name not found: drcutm.org Learn more at https://support.google.com/mail/?p=BadRcptDomain
Last-Attempt-Date: Tue, 17 Jan 2023 22:18:09 -0800 (PST)

---------- Forwarded message ----------
From: "Dean School of Engineering & Technology" <deansoet@cuh.ac.in>
To: ASHUTOSH KUMAR Singh <ashutosh@nitkkr.ac.in>, chairmancivil@drcutm.org, profanayath@gmail.com, sarbjeet@pu.ac.in, "Prof. Sathans" <sathans@nitkkr.ac.in>, "Dr. Vikas Garg" <gargvikas27@cuh.ac.in>, Rakesh Kumar <raakeshdhiman@gmail.com>, anantbara_CUH <anant@cuh.ac.in>, "Dr. Ajay Kumar Bansal" <ajaybansal@cuh.ac.in>, "Dr. Sumit Saini" <drsumiteed@cuh.ac.in>, neerajlohchab@cuh.ac.in, shammi.mehra@cuh.ac.in, Kalpana Chauhan <kalpanachauhan@cuh.ac.in>, Manoj Kumar Singh <manojksingh@cuh.ac.in>, rajesh.dubey@cuh.ac.in
Cc:
Bcc:
Date: Wed, 18 Jan 2023 11:47:47 +0530
Subject: Regarding Updation in Eligibility criteria for admission to M.Tech(CSE) programme w.e.f. 2022-23 in Central University of Haryana
----- Message truncated -----

Dr. Rajesh Kumar Dubey <rajesh.dubey@cuh.ac.in> Wed, Jan 18, 2023 at 11:57 AM
To: Dean School of Engineering & Technology <deansoet@cuh.ac.in>
Cc: ASHUTOSH KUMAR Singh <ashutosh@nitkkr.ac.in>, chairmancivil@drcutm.org, profanayath@gmail.com, sarbjeet@pu.ac.in, "Prof. Sathans" <sathans@nitkkr.ac.in>, "Dr. Vikas Garg" <gargvikas27@cuh.ac.in>, Rakesh Kumar <raakeshdhiman@gmail.com>, anantbara_CUH <anant@cuh.ac.in>, "Dr. Ajay Kumar Bansal" <ajaybansal@cuh.ac.in>, "Dr. Sumit Saini" <drsumiteed@cuh.ac.in>, "Dr. Neeraj Kumar" <neerajlohchab@cuh.ac.in>, shammi.mehra@cuh.ac.in, Kalpana Chauhan <kalpanachauhan@cuh.ac.in>, Manoj Kumar Singh <manojksingh@cuh.ac.in>

I agree & approve.

Thanks with regards.
Dr. RK Dubey
[Quoted text hidden]

Dr. Sumit Saini <drsumiteed@cuh.ac.in> Wed, Jan 18, 2023 at 12:40 PM
To: Dean School of Engineering & Technology <deansoet@cuh.ac.in>

I agree Sir

Sender notified by Mailtrack

[Quoted text hidden]

--

Thanks & Regards

Dr. Sumit Saini/ डॉ. सुमित सैनी

Assistant Professor/ (सहायक प्रोफेसर)

Department of Electrical Engineering / (विद्युतीय अभियांत्रिकी विभाग)

School of Engineering and Technology / (इंजीनियरिंग और प्रौद्योगिकी का विद्यालय)

Central University of Haryana/ (हरियाणा केंद्रीय विश्वविद्यालय)

Mahendergarh, Haryana / (महेन्दरगढ़ हरियाणा), 123031

Dr. Rakesh Kumar <raakeshdhiman@gmail.com> Wed, Jan 18, 2023 at 12:43 PM
To: Dean School of Engineering & Technology <deansoet@cuh.ac.in>
Cc: ASHUTOSH KUMAR Singh <ashutosh@nitkkr.ac.in>, chairmancivil@drcutm.org, profanayath@gmail.com, sarbjeet@pu.ac.in, "Prof. Sathans" <sathans@nitkkr.ac.in>, "Dr. Vikas Garg" <gargvikas27@cuh.ac.in>, anantbara_CUH <anant@cuh.ac.in>, "Dr. Ajay Kumar Bansal" <ajaybansal@cuh.ac.in>, "Dr. Sumit Saini" <drsumiteed@cuh.ac.in>, neerajlohchab@cuh.ac.in, shammi.mehra@cuh.ac.in, Kalpana Chauhan <kalpanachauhan@cuh.ac.in>, Manoj Kumar Singh <manojksingh@cuh.ac.in>, rajesh.dubey@cuh.ac.in

I agree & approve.

On Wed, Jan 18, 2023 at 11:48 AM Dean School of Engineering & Technology <deansoet@cuh.ac.in> wrote:
[Quoted text hidden]

--

Thanks & Regards

Dr. Rakesh Kumar
Associate Professor and Head,
Department of Computer Science and Engineering,
School of Engineering & Technology,
Central University of Haryana,
Mahendergarh(Haryana)-123031
Website: www.cuh.ac.in
Phone: +91-1285-260188(O)

Anant Rajee Bara <anant@cuh.ac.in> Wed, Jan 18, 2023 at 12:46 PM
To: Dean School of Engineering & Technology <deansoet@cuh.ac.in>
Cc: ASHUTOSH KUMAR Singh <ashutosh@nitkkr.ac.in>, chairmancivil@drcutm.org, profanayath@gmail.com, sarbjeet@pu.ac.in, "Prof. Sathans" <sathans@nitkkr.ac.in>, "Dr. Vikas Garg" <gargvikas27@cuh.ac.in>, Rakesh Kumar <raakeshdhiman@gmail.com>, "Dr. Ajay Kumar Bansal" <ajaybansal@cuh.ac.in>, "Dr. Sumit Saini" <drsumiteed@cuh.ac.in>, neerajlohchab@cuh.ac.in, shammi.mehra@cuh.ac.in, Kalpana Chauhan

<kalpanachauhan@cuh.ac.in>, Manoj Kumar Singh <manojksingh@cuh.ac.in>, "Dr. Rajesh Kumar Dubey" <rajesh.dubey@cuh.ac.in>

Dear Sir,
I approve this proposal.
[Quoted text hidden]

Shammi Mehra <shammi.mehra@cuh.ac.in> Wed, Jan 18, 2023 at 12:53 PM
To: Dean School of Engineering & Technology <deansoet@cuh.ac.in>
Cc: ASHUTOSH KUMAR Singh <ashutosh@nitkkr.ac.in>, chairmancivil@drcutm.org, profanayath@gmail.com, sarbjeet@pu.ac.in, "Prof. Sathans" <sathans@nitkkr.ac.in>, "Dr. Vikas Garg" <gargvikas27@cuh.ac.in>, Rakesh Kumar <raakeshdhiman@gmail.com>, anantbara_CUH <anant@cuh.ac.in>, "Dr. Ajay Kumar Bansal" <ajaybansal@cuh.ac.in>, "Dr. Sumit Saini" <drsumiteed@cuh.ac.in>, neerajlohchab@cuh.ac.in, Kalpana Chauhan <kalpanachauhan@cuh.ac.in>, Manoj Kumar Singh <manojksingh@cuh.ac.in>, rajesh.dubey@cuh.ac.in

Dear Sir,

I agree and approve.
[Quoted text hidden]

ASHUTOSH KUMAR Singh <ashutosh@nitkkr.ac.in> Wed, Jan 18, 2023 at 2:11 PM
To: "Dr. Rakesh Kumar" <raakeshdhiman@gmail.com>
Cc: Dean School of Engineering & Technology <deansoet@cuh.ac.in>, "chairmancivil@drcutm.org" <chairmancivil@drcutm.org>, "profanayath@gmail.com" <profanayath@gmail.com>, "sarbjeet@pu.ac.in" <sarbjeet@pu.ac.in>, "Prof. Sathans" <sathans@nitkkr.ac.in>, "Dr. Vikas Garg" <gargvikas27@cuh.ac.in>, anantbara_CUH <anant@cuh.ac.in>, "Dr. Ajay Kumar Bansal" <ajaybansal@cuh.ac.in>, "Dr. Sumit Saini" <drsumiteed@cuh.ac.in>, "neerajlohchab@cuh.ac.in" <neerajlohchab@cuh.ac.in>, "shammi.mehra@cuh.ac.in" <shammi.mehra@cuh.ac.in>, Kalpana Chauhan <kalpanachauhan@cuh.ac.in>, Manoj Kumar Singh <manojksingh@cuh.ac.in>, "rajesh.dubey@cuh.ac.in" <rajesh.dubey@cuh.ac.in>

Approved from my side.

Regards
[Quoted text hidden]

--

Prof. Ashutosh Kumar Singh

Ph. D. (IIT, BHU, India), Post Doc (University of Bristol, UK)

JSPS Fellowship (Japan), SMIEEE, MIET, Ceng (UK)

Professor

Department of Computer Applications

National Institute of Technology, Kurukshetra India

Former Associate Professor and Head

Department of Electrical and Computer Engineering

Curtin University, Australia (Sarawak Campus, Miri)

Kalpana Chauhan <kalpanachauhan@cuh.ac.in> Wed, Jan 18, 2023 at 3:13 PM
To: Dean School of Engineering & Technology <deansoet@cuh.ac.in>

Dear Sir

Agreed and approved from my side.

Best Regards

On Wed, Jan 18, 2023 at 11:48 AM Dean School of Engineering & Technology <deansoet@cuh.ac.in> wrote:
[Quoted text hidden]

--
Kalpana Chauhan

Manoj Kumar Singh <manojksingh@cuh.ac.in> Wed, Jan 18, 2023 at 3:14 PM
To: Dean School of Engineering & Technology <deansoet@cuh.ac.in>
Cc: ASHUTOSH KUMAR Singh <ashutosh@nitkkr.ac.in>, chairmancivil@drcutm.org, profanayath@gmail.com, sarbjeet@pu.ac.in, "Prof. Sathans" <sathans@nitkkr.ac.in>, "Dr. Vikas Garg" <gargvikas27@cuh.ac.in>, Rakesh Kumar <raakeshdhiman@gmail.com>, anantbara_CUH <anant@cuh.ac.in>, "Dr. Ajay Kumar Bansal" <ajaybansal@cuh.ac.in>, "Dr. Sumit Saini" <drsumiteed@cuh.ac.in>, neerajlohchab@cuh.ac.in, shammi.mehra@cuh.ac.in, Kalpana Chauhan <kalpanachauhan@cuh.ac.in>, "Dr. Rajesh Kumar Dubey" <rajesh.dubey@cuh.ac.in>

Approved from my side sir,

With regards

Dr Manoj Kumar Singh
[Quoted text hidden]

Prof. Sathans <sathans@nitkkr.ac.in> Wed, Jan 18, 2023 at 3:40 PM
To: Dean School of Engineering & Technology <deansoet@cuh.ac.in>
Cc: ASHUTOSH KUMAR Singh <ashutosh@nitkkr.ac.in>, chairmancivil@drcutm.org, profanayath@gmail.com, sarbjeet@pu.ac.in, "Dr. Vikas Garg" <gargvikas27@cuh.ac.in>, Rakesh Kumar <raakeshdhiman@gmail.com>, anantbara_CUH <anant@cuh.ac.in>, "Dr. Ajay Kumar Bansal" <ajaybansal@cuh.ac.in>, "Dr. Sumit Saini" <drsumiteed@cuh.ac.in>, neerajlohchab@cuh.ac.in, shammi.mehra@cuh.ac.in, Kalpana Chauhan <kalpanachauhan@cuh.ac.in>, Manoj Kumar Singh <manojksingh@cuh.ac.in>, rajesh.dubey@cuh.ac.in

I approve of it.

Best regards
Sathans
[Quoted text hidden]

Dr. Neeraj Kumar <neerajlohchab@cuh.ac.in> Wed, Jan 18, 2023 at 3:41 PM
To: Dean School of Engineering & Technology <deansoet@cuh.ac.in>
Cc: ASHUTOSH KUMAR Singh <ashutosh@nitkkr.ac.in>, chairmancivil@drcutm.org, profanayath@gmail.com, sarbjeet@pu.ac.in, "Prof. Sathans" <sathans@nitkkr.ac.in>, "Dr. Vikas Garg" <gargvikas27@cuh.ac.in>, Rakesh Kumar <raakeshdhiman@gmail.com>, anantbara_CUH <anant@cuh.ac.in>, "Dr. Ajay Kumar Bansal" <ajaybansal@cuh.ac.in>, "Dr. Sumit Saini" <drsumiteed@cuh.ac.in>, Shammi Mehra <shammi.mehra@cuh.ac.in>, Kalpana Chauhan <kalpanachauhan@cuh.ac.in>, Manoj Kumar Singh <manojksingh@cuh.ac.in>, "Dr. Rajesh Kumar Dubey" <rajesh.dubey@cuh.ac.in>

I approve.

Regards
[Quoted text hidden]

Sarbjeet Singh <sarbjeet@pu.ac.in> Thu, Jan 19, 2023 at 4:23 PM
To: Dean School of Engineering & Technology <deansoet@cuh.ac.in>

Ok, as approved by the concerned BoS.

Regards
Dr. Sarbjeet Singh

हरियाणा केंद्रीय विश्वविद्यालय
महेंद्रगढ़- 123031 (हरियाणा), भारत
नैक द्वारा 'ए'- ग्रेड प्राप्त विश्वविद्यालय

Central University of Haryana
Mahendergarh-123031(Haryana). India
NAAC ACCREDITED 'A' GRADE UNIVERSITY

Achieving Through Believing

क्रमांक / No.....

दिनांक / Date:.....

Minutes of Meeting of School Board, School of Education

The Meeting of the School Board, School of Education was held on 27.12.2022 at 11:30 A.M.

The following members were present:

1. **Prof. Sarika Sharma** — **Chairperson**
   Dean, School of Education &
   Head, Department of Teacher Education,
   Central University of Haryana

2. **Prof. Shamsher Singh** — **Member**
   Professor (Retd.), Department of Physical Education,
   Chaudhary Devi Lal University, Sirsa, Haryana

3. **Prof. S.V.S. Choudhary** — **Member** (Online)
   Professor (Retd.), IGNOU &
   Former Chairman, NCTE, New Delhi

4. **Prof. Jatinder Grover** — **Member**
   Professor, Department of Education,
   Panjab University, Chandigarh

5. **Prof. Gurmeet Singh** — **Member** (Online)
   Professor, Department of Physical Education,
   Panjab University, Chandigarh

6. **Prof. Ravinder Pal Ahalawat** — **Member**
   Head, Department of Physical Education and Sports,
   Central University of Haryana

7. **Prof. Parmod Kumar** — **Member**
   Professor, Department of Teacher Education,
   School of Education, Central University of Haryana

8. **Prof. Nand Kishor** — **Member**
   Professor, Department of Teacher Education,
   School of Education, Central University of Haryana

9. **Prof. Gaurav Singh** — **Member**
   Professor, Department of Teacher Education,
   School of Education, Central University of Haryana

27/12/22

10. **Dr. Jaipraksah Bhukar** — **Member**
Associate Professor, Department of Physical Education and Sports,
Central University of Haryana

11. **Dr Renu Yadav** — **Member**
Assistant Professor, Department of Teacher 1education,
School of Education, Central University of Haryana

12. **Dr. Sandeep Dhull** — **Member**
Assistant Professor, Department of Physical Education and Sports,
Central University of Haryana

At the very outset, Prof. Sarika Sharma, Chairperson, School Board of School of Education, Central University of Haryana, initiated the meeting with the warm welcome of all the members of School Board and also presented the brief report of the progress made during this year by the School of Education which was appreciated widely. The following agenda items (one by one) were taken up and discussed in the meeting for consideration and approval of the School Board:

Item No	Description
1	**Confirmation of the Minutes of School Board, School of Education held on 14.09.2021**
	School Board, School of Education endorsed the Minutes of Meeting of School Board, School of Education held on 14.09.2021 **(Annexure-I)**
2	**To consider and approve the Minutes of Board of Studies of School of Education (For B.Ed. and M.Ed. Programme) held on 23.05.2022.**
	The School Board, School of Education considered and approved the Minutes of Board of Studies of School of Education (For B.Ed. and M.Ed. Programme) held on 23.05.2022. **(Annexure-II)**
3	**To consider and approve the Minutes of Board of Studies of Department of Teacher Education held on 19.12.2022.**
	The School Board, School of Education considered and approved the Minutes of Board of Studies, Department of Teacher Education, School of Education, Central University of Haryana held on 19.12.2022. **(Annexure-III)**
4	**To discuss and approve the request of Prof. Gaurav Singh, Department of Teacher Education to transfer MOOC's on "Research Ethics and Plagiarism", as a course of Department of Teacher Education under School of Education, Central University of Haryana as host institution and IGNOU will remain as a National Coordinator.**
	The School Board, School of Education considered and approved to transfer MOOC's on "Research Ethics and Plagiarism", (2 credits) as a course of Department of Teacher Education under School of Education, Central University of Haryana as host institution and IGNOU will remain as a National Coordinator. **(Annexure-IV)**

5	**To discuss and approve the new Master Level Programme on "Digital Pedagogy" proposed by Prof. Gaurav Singh, Department of Teacher Education.**
	The School Board, School of Education considered and approved the new Master Level Programme on "Digital Pedagogy" proposed by Prof. Gaurav Singh, Department of Teacher Education in principle to start the new programme as per NEP 2020 guidelines. The members of the School Board suggested that the curriculum of the programme and other need and requirement may be develop as per the university /UGC norms. The agenda item to be placed before Academic Council for consideration and approval. **Annexure V**
6	**To discuss and approve the 50% seats for Science and Arts/Humanities/Commerce candidates in B.Ed. Programme as per reservation policy of Govt. of India/NCTE**
	The chairperson presented that the Department of Teacher Education is running two teacher trainee programme i.e. B.Ed. and M.Ed. (Two Years) duly approved by NCTE and the teaching faculty was appointed as per the norms. After the detail discussion on the item the School Board, School of Education considered and approved the 50% seats for Science and Arts/Humanities/Commerce candidates in B.Ed. Programme as per the reservation policy of Government of India. Some of the Universities are following the same practices. The agenda item to be placed before Academic Council for consideration and approval. **Annexure VI**
7	**To consider and approve the Minutes of Board of Studies of Department of Physical Education held on 15th November, 2022**
	The School Board, School of Education considered and approved the Minutes of Board of Studies of Department of Physical Education held on 15th November, 2022 **(Annexure-VII)**
8	**To consider and approve the revised scheme and syllabus of M.P.Ed. Programme (2-Year)** w.e.f. 2022-2023
	The School Board, School of Education considered and approved the revised scheme and syllabus of M.P.Ed. Programme (2-Year) w.e.f. 2022-2023. The agenda item be placed before Academic Council for consideration and approval. **(Annexure-VIII)**
9	**To consider and approve the revised admission criteria for M.P.Ed. Programme w.e.f. 2023-24**
	The School Board, School of Education considered and approved the revised admission criteria for M.P.Ed. Programme w.e.f. the session 2023-24 which is approved by BOS of Department of physical Education and Sports. The admission criteria will be 50% weightage of CUET Score/ any other test Score adopted by the University, 25% weightage of the Physical Efficiency Test and 25% weightage to the Sports Merit

	Criteria. The agenda item to be placed before Academic Council for consideration and approval. **(Annexure-IX)**
10	Any other item, with the permission of Chairperson
	i. To consider and approve the separate building for School of Education
	The School of Education is offering three teacher training programmes- B.Ed. , M.Ed. and M.P.Ed. as per the NCTE norms and guidelines. And moreover, the four year ITEP B.A. B.Ed. is going to start in the very next session. Therefore, the School Board, School of Education unanimously resolve that there should be separate building for School of Education for its smooth functioning.

The Meeting was ended with vote of thanks to the Chair.

Sarika Sharma **Shamsher Singh** **S.V.S. Choudhary** **Gurmeet Singh**

Jatinder Grover **Ravinder Pal Ahalawat** **Parmod Kumar** **Nand Kishor**

Gaurav Singh **Jaipraksah Bhukar** **Renu Yadav** **Sandeep Dhull**

क्रमांक / No. CUH/2022/DTE/ दिनांक / Date: 19.12.2022

Minutes of Meeting of the Board of Studies

A Meeting of Board of Studies, Department of Teacher Education under School of Education held on 19.12.2022 at 11:00 am in Conference Room, Department of Teacher Education, Central University of Haryana. The following members were present during the meeting:

1. **Prof. Sarika Sharma** — Chairperson
   Head, Department of Teacher Education &
   Dean, School of Education,
   Central University of Haryana
2. **Prof. Indira Dhull** — Member Expert
   Former Dean & Head, Department of Education,
   MDU, Rohtak, Haryana
3. **Prof. Vishal Sood** — Member Expert (Joined Online)
   Professor, School of Education,
   Central University of Himanchal Pradesh
4. **Prof. Parmod Kumar** — Member
   Professor, Department of Teacher Education,
   School of Education, Central University of Haryana
5. **Prof. Dinesh Chahal** — Member
   Professor, Department of Teacher Education,
   School of Education, Central University of Haryana
6. **Prof. Nand Kishor** — Member
   Professor, Department of Teacher Education,
   School of Education, Central University of Haryana
7. **Prof. Gaurav Singh** — Member
   Professor, Department of Teacher Education
   School of Education, Central University of Haryana
8. **Dr. Renu Yadav** — Member
   Assistant Professor, Department of Teacher Education
   School of Education, Central University of Haryana

19/12/22 Sarika 19.12.2022 19/12/22 19/12/22

At the outset, Prof. Sarika Sharma, Head, Department of Teacher Education & Dean, School of Education and Chairperson, welcomed Prof. Indira Dhull, Prof. Vishal Sood and all members of the Board of Studies, Department of Teacher Education and also presented the brief report of School of Education of the academic session 2021-22.Thereafter, the following agenda items (one by one) were taken up and discussed in the meeting for consideration and approval of the Board of Studies, Department of Teacher Education, School of Education, Central University of Haryana:

Item No.	Description
	Reporting Items
01	**Confirmation of the Minutes of Meeting of Board of Studies, School of Education held on 23.05.2022.**
	The Board of Studies of School of Education confirmed and approved the Minutes of the Meeting of Board of Studies, School of Education held on 23.05.2022. **(Annexure-I)**
	Items for Consideration
03	**To consider and approve the Minutes of Departmental Research Committee, Department of Teacher Education, School of Education held on 03.10.2022 and 17.10.2022.**
	The Board of Studies of Department of Teacher Education considered and approved the recommendations of Departmental Research Committee, Department of Teacher Education, School of Education held on 03.10.2022 and 17.10.2022. **(Annexure-II)**
03	**To consider and approve the Panel of Moderators, External Experts for Paper setting and practical examination of Semester-I & III of B.Ed. Programme for the Academic Session 2022 -2023.**
	The Board of Studies, Department of Teacher Education discussed and approved the Panel of Moderators, External experts for Paper Setting and Practical Examination of Semester-I & III of B.Ed. Programme for the Academic Session 2022-2023 with the suggestions given by the members. **(Annexure-III)**
04	**To consider and approve the Panel of Moderators, External Experts for Paper setting and practical examination of Semester-I & III of M.Ed. Programme for the Academic Session 2022 -2023.**
	The Board of Studies, Department of Teacher Education discussed and approved the Panel of Moderators, External experts for Paper setting and practical examination of Semester-I & III of M.Ed. Programme for the Academic Session 2022-2023 with the suggestions given by the members. **(Annexure-IV)**

05	**To consider the request of Mr. Naveen Jain, Research Scholar, Department of Teacher Education, School of Education to join as Project Assistant in NIEPA sponsored research project.**
	The Chairperson of BOS presented the request of Mr. Naveen Jain, Research Scholar, Department of Teacher Education, School of Education to join as Project Assistant in NIEPA sponsored research project and also said that he has completed the residential period as per the Ph.D. Ordinance of Central University of Haryana, date of admission was 04.07.2018 & date of registration was 03.08.2018. He shall submit his Ph.D. thesis very soon. After the detailed discussion, it is approved that Mr. Naveen Jain, Research Scholar, Department of Teacher Education, School of Education may join as Project Assistant in NIEPA sponsored research project as per Central University of Haryana rules. **(Annexure-V)**
06	**To discuss and approve the proposal of new Master Level Programme on "Digital Pedagogy".**
	Prof. Gaurav Singh, Department of Teacher Education, CUH presented the proposal to start the new Master Level Programme on "Digital Pedagogy" in BOS and after the detailed discussion on the proposal, it was approved in principle to start the new Programme through blended mode as per the NEP-2020. **(Annexure-VI)**
07	**To consider the proposal to transfer and accept the SWAYAM MOOC's on "Research Ethics and Plagiarism" (2 credits) as a course of Department of Teacher Education under School of Education, CUH as host institution and IGNOU will remain as a National Coordinator.**
	Prof. Gaurav Singh, Department of Teacher Education, CUH presented the proposal to transfer and accept the SWAYAM MOOC's on "Research Ethics and Plagiarism" (2 credits) as a course of Department of Teacher Education under School of Education, CUH as host institution and IGNOU will remain as a National Coordinator and after the detailed discussion on the proposal, it was approved. **(Annexure-VII)**
08	**To discuss and approve the 50% seats for Science and 50% seats for Arts/Humanities/Commerce candidates in B.Ed. Programme as per reservation policy of Govt. of India/NCTE.**
	The Chairperson presented that the Department of Teacher Education under School of Education is running two Teacher Training Programmes- B.Ed. & M.Ed. duly approved by the NCTE and the teaching faculty was appointed as per the norms & regulations of NCTE. After the detailed discussion on the agenda item, the same is approved by BOS, Department of Teacher Education that the 50% seats for Science and 50% seats for Arts/Humanities/Commerce candidates in B.Ed. Programme as per reservation policy of Govt. of India/NCTE. Further, it was resolved that if any seat shall remain vacant in any category of Science and Arts/Humanities/Commerce, it shall be filled-up vise-versa. **(Annexure-VIII)**

09	**Any other items with the permission of Chairperson**
	1. Approval of the Panel of External Experts for Departmental Research Committee, Department of Teacher Education, CUH. After the detailed discussion, the Board of Studies, Department of Teacher Education approved the Panel of External Experts for Departmental Research Committee, Department of Teacher Education, CUH. **(Annexure-IX)**

The meeting ended with a vote of thanks to the Chair.

Sarika 19/12/2022
Prof. Sarika Sharma

19/12/2022
Prof. Indira Dhull

Prof. Vishal Sood

19/12/22
Prof. Parmod Kumar

19/12/22
Prof. Dinesh

Prof. Nand Kishor
19/12/2022

Prof. Gaurav Singh

19/12/22
Dr. Renu Yadav

बेसिल
ISO 9001 : 2008
ब्रॉडकास्ट इंजीनियरिंग कंसल्टेंट्स इंडिया लिमिटेड
(सूचना एवं प्रसारण मंत्रालय के अधीन भारत सरकार का उद्यम) (सिमित दायित्व कम्पनी) (CIN - U32301UP1995GOI017744)
BROADCAST ENGINEERING CONSULTANTS INDIA LIMITED
(A Government of India Enterprise - Under Ministry of Information & Broadcasting) (A Mini Ratna Company)
पंजीकृत एवं कॉर्पोरेट कार्यालय : बेसिल भवन, सी-56/ ए-17, सेक्टर-62, नोएडा-201307 (उ.प्र.) फोन : +91 120 4177850, फैक्स : +91 120 4177879
Registered & Corporate Office : BECIL BHAWAN C-56/ A-17, Sector-62, Noida-201307 (U.P.) Tel. : +91 120 4177850 Fax: +91 120 4177879

BECIL/CUH/A-V/2022
November 28th, 2022

To,
Dr. Ashok Kumar
Associate Professor and Head
Department of Journalism & Mass Communication
Central University of Haryana
Mahendegarh-123031, Haryana

Subject: Expression of interest cum budgetary proposal for setting up of TV studio and Community Radio facility at Central University of Haryana, Mahendegarh-123031

Dear Sir,

Broadcast Engineering Consultants India Limited (BECIL) is a 'Mini Ratna' **Central Public Sector Enterprise (CPSE)** established under the Company Act, 1956 in the year 1995 under the Ministry of Information & Broadcasting and is wholly owned by the Government of India. BECIL was primarily established to meet the demand of the growing broadcasting market by providing consultancy in the entire spectrum of broadcasting technology and taking up projects for implementation on turnkey basis.

Our consultancy is essentially for radio and television transmission and production technology for the specialized areas of terrestrial & satellite broadcasting, IT related services including audio-video systems, access control & CCTV based surveillance system etc.

The clienteles of BECIL mainly includes Ministry of I&B, Ministry of Labour, Ministry of Road Transport, Ministry of Defense, Ministry of External Affairs, Paramilitary Forces, Law Enforcing Agencies, Intelligence Agencies, Indian Railways, Airport Authority of India, Prasar Bharti and various GoI Autonomous bodies & PSUs.

Following few points are brought to your kind notice for deciding to award the project in favor BECIL;

- BECIL is the ONLY Government owned Indian company which provides Consultancy in the area of Broadcasting (including Community Radio Facility).
- BECIL is a Master System Integrator & Aggregator which undertakes even complex projects on a turnkey basis for implementation.
- BECIL has its own designed 50W FM Transmitter, 2 bay Vertically Polarized FM Broadcast Antenna and self-supported towers.
- BECIL had completed around 200 community radio facilities and currently executing various projects of establishment of Community Radio Station throughout the country.
- BECIL has executed various prestigious projects of audio visual on turnkey basis for the Central & State Government Departments, Universities, and Institutions etc. on nomination basis. A brief list of prestigious projects executed for Government Departments is annexed.

BECIL

We would like to request for your kind attention on attached annexures as follows;

1) **Annexure 'A':** A brief list of prestigious projects executed for Central & State Government Departments on nomination basis

2) **Annexure 'B':** Suggested distribution of services between BECIL and CUH

3) **Annexure 'C':** Budgetary proposal for required works (internal studio works, transmission chain & studio equipment for CRS)

4) **Annexure 'D':** Budgetary proposal for required works (internal studio works, Equipment for video studio)

5) **Annexure 'E':** Proposal for Annual Maintenance Contract for CRS

6) **Annexure 'F':** Terms & Conditions

We assure you that BECIL can handle the entire establishment process with our own rich experience. We also assure that BECIL, being a Central Public Sector Enterprise, will ensure the flawless delivery during the entire process.

With such a vast experience competent authority may kindly consider to award the project of establishment of community radio facility to BECIL.

We are looking forward for an association with such an esteemed University.

Thanking You,

BECIL

Khuswinder Singh Bhatia
Asst General Manager

Annexure 'A'

BRIEF LIST OF PROJECTS EXECUTED FOR GOVERNMENT DEPARTMENTS ON NOMINATION BASIS

Sr. No.	Client	Project Name	Project Cost (in Cr)
1	Electronics Media Monitoring Centre	Audio/Video	90
2	Electronics Media Monitoring Centre	Continuing Central Sector scheme Strengthening	40
3	Automation of Broadcasting wing, Ministry of Information &Broadcasting	Audio/Video	10
4	Rajya Sabha TV Channel	Audio/Video	64
5	Ministry of Home Affairs	Indian Cyber Crime Coordination Center(I4C)	5.5
6	Lok Sabha TV Channel	Audio/Video	10
7	Visva Bharati	SITC of Radio/Television and internet based media services	5
8	Satyajit Ray Film and Television Institute	SITC of Electronic and Digital Media	6
9	Satyajit Ray Film and Television Institute	SITC of TV Studio facilities	4.05
10	Delhi Police	CCTV	0.4
11	Social Media Communication Hub, Ministry of I&B	Audio/Video	6
12	Agriculture and Processed Food Products Export Development Authority(APEDA)	Audio/Video	0.41
13	President Secretariat	Audio/Video	0.3
14	Educational Multimedia Research Centre	Audio/Video	5
15	Consortium for Educational Communication(CEC)	Audio/Video	8
16	Election Commission of India	Audio/Video	0.5
17	National School of Drama (NSD)	Audio/Video	0.14
18	Sangeet Natak Academy (SNA)	Audio/Video	2
19	Noida Metro Rail Corporation (NMRC)	Audio/Video	2
20	CCS Haryana Agricultural University for six community radio station at Krishi Vigyan Kendra	Community Radio	2
21	Ranchi University, Ranchi, Jharkhand	Community Radio	0.4
22	Up gradation of audio studio facility at Indian Institute of Mass Communication, New Delhi	Community Radio	0.4
23	National Institute of Open Schooling (under Ministry of HRD)	Community Radio	0.5
24	National Institute of Open Schooling (under Ministry of HRD)	TV Studio	2.1
25	Dibrugarh University, Dibrugarh, Assam	Community Radio	0.35
26	Junagadh Agricultural University, Junagadh, Gujarat	Community Radio	0.25
27	Farm Information Bureau, Government of Kerala	Community Radio	0.35
28	Punjab University	Community Radio	0.25
29	District Project Livelihood College Society	Community Radio	0.25
30	Airport Authority of India	Sound system & acoustic	1.14
31	Indian Institute of Management, Indore, MP	Audio/Video	3.5
32	National Institute of Mental Health & Neuro Sciences, Bangalore	Audio/Video	0.16
33	Jawaharlal institute of Post Graduate Medical Education & Research (JIPMER), Puducherry	HD TV Studio, Audio studio, Digital signage	4.31
34	Sardar Vallabhbhai Patel Rashtriya Ekta Trust, Kevadia, Gujarat	Community Radio	1.45
35	King's George Medical University, Lucknow	Community Radio	0.38
36	DUVASU, Mathura	Community Radio	0.38
37	Alagappa University, Karaikudi, Tamilnadu	Community Radio	0.21

Suggested distribution of work between BECIL & Central University of Haryana

To be provided by **BECIL**

- Acoustic treatment on studio walls.
- Acoustically treated observation window (OW) and door, false ceiling, vinyl flooring etc.
- Supply & fixing of internal electrical distribution panel, electrical / light fitting
- Supply & fixing of electrical wiring for equipment, lighting etc.
- Recessed conduit for cabling like mic & audio cable
- Painting & polishing of studio area and fixtures (internal)
- Anti-termite treatment for studio facility (internal)
- Supply of 30 meters self-mast structure including aviation light, lighting arrestor
- Electrical earth pits for the safety of equipment, for the tower/antenna for safety and protection of the RF transmission equipment against lightning hazard.
- Supply & installation of studio & transmission equipment including required installation material like audio & mic cables, connectors, speaker cable, audio conduit etc. as per the site condition and requirement.
- Supply & fixing of technical furniture i.e. studio tables etc.
- Revolving chairs
- Air conditioner units with stabilizer
- Installation, commissioning and briefing on technical operation and advice on maintenance of the facility.

To be provided by **CUH**

- All civil modification based on the final design as per the site condition and finalization except above mentioned interior work.
- Civil construction related to foundation of tower structure as per the requirement
- Power supply to be made available for studio facility
- If telephone hybrid is required then a separate telephone line (fixed land line) and networking facility for the radio station to be provided
- It's required that the execution team i.e. workers and supervisor deputed by BECIL to stay at or near site and to work in flexible schedule.

BECIL

BUDGETARY PROPOSAL FOR REQUIRED WORKS (CRS)

S. No.	Description	Value (Rs.)
1.	Budgetary estimation for Internal studio works for On Air Studio, Voice Over Studio, Production Control Room and Transmitter Room (includes acoustic treatment, false ceiling, flooring, electrical distribution, wiring, cabling, earthing, conduits, air conditioning, painting, polishing, technical furniture, acoustic & non acoustic doors, observation window etc.)	24,30,150
2.	Budgetary estimation for transmission chain (includes 50W FM transmitters, antenna, RF cable, dummy load, patch panel, processor)	6,63,551
3.	Budgetary estimation for 30 meter mast (includes fabrication, galvanization, erection & painting, aviation light and lighting arrestor but excluding civil work related to foundation of tower)	3,80,000
4.	Budgetary estimation for on air studio equipment (includes broadcast console, monitors, microphone, headphone, amplifier, sound card, work station, automation software, miscellaneous installation material)	5,39,600
5.	Budgetary estimation for production studio equipment (includes analogue mixer, monitors, microphone, headphone, amplifier, sound card, work station, editing software, miscellaneous installation material)	5,76,100
6.	Budgetary estimation for redundant power supply (includes 3 KVA online UPS with SMF batteries for 40 mins back up)	51,400
7.	Budgetary estimation for internet streaming (includes hybrid mobile application, streaming server charges for first year, uploading of application on respective app/play store)	1,96,000
8.	Budgetary estimation for logger facility (includes work station, logger software)	1,20,000
7.	Freight/transportation till actual site	To be claimed as per actual
	Total (Basic value)	49,56,801
	GST 18% and 28%	8,94,584
	Total (with tax value)	**58,51,385**

BECIL

BUDGETARY PROPOSAL FOR REQUIRED WORKS (TV- Studio)

S. No.	Description	Value (Rs.)
1.	Budgetary estimation for Internal studio works (includes acoustic treatment, false ceiling, flooring, lighting grid, electrical distribution, wiring, cabling, earthing, conduits, air conditioning, painting, polishing, technical furniture, acoustic & non acoustic doors, observation window etc.)	29,66,102
2.	Budgetary estimation for TV studio equipment (includes indoor & outdoor recording camcorder, PTZ camera, tripods, dolly, teleprompter, workstation, production switcher, virtual studio system, smart display for multiview, smart display for studio fold back, interactive display panel, filed monitor and recorder, audio delay unit, video streaming encoder, video recorder & player, analog audio mixing console, powered speakers/monitors, digital signal processor, audio amplifier, microphone, amplifiers, converters etc.)	1,25,53,814
3.	Budgetary estimation for installation charge	5,08,475
4.	Budgetary estimation for training charge	2,54,237
5.	Comprehensive Annual Maintenance charges for three years	31,38,453
	Total (Basic value)	1,94,21,081
	GST 18% and 28%	34,95,794
	Total (with tax value)	**2,29,16,875**

BECIL

Summary of cost / budgetary estimation for the CRS and TV studio

S. No.	Description	Value (Rs.)
1.	Budgetary proposal for required works (CRS)	49,56,801
2.	Budgetary proposal for required works (TV studio)	1,94,21,081
	Sub Total	2,43,77,882
	BECIL Professional charges (@9% on basic value)	21,94,009
	Sub Total	2,65,71,891
	Contingency funds @3%	7,97,157
	Net amount	2,73,69,048
	GST	49,28,789
	Grand Total	**3,22,97,837**

Rs. Three Crore Twenty Two Lakh Ninety Seven Thousand Eight Hundred Thirty Seven Only

Annual Maintenance Contract for CRS

- During the annual maintenance contract period, BECIL will provide two preventive maintenance visits every year.
- Any other break-down call will be attended and the response/reporting time will be 72 hours or as per mutual agreement.
- Complaints regarding the technical issues will be sorted out telephonically/remotely, however in case of fault related to manufacturing defect or equipment needs service or repair, the equipment is to be sent to authorize services center of OEM within a week of the complaint registration. The freight/courier charges would be claimed as per actual expenses.
- Invoicing from BECIL would be done in equated half yearly installment against the Annual Maintenance Contract and payment to be released on half yearly basis as an advance of that period.
- If replacement of any spare is required for any equipment during the servicing, cost of spares etc. would be informed and approval from your end would be requested in writing.
- The AMC doesn't include any license renewal (either statuary license or software licenses), such annual subscription are not included in the proposal.
- Frequent visits for minor issues related to equipment are not included under AMC i.e. special visit to change light in studio (if any), to repair nut bolts etc., to change fuse of transmitter or any other equipment, aviation light etc. These would be checked during half yearly visits and if required would be changed on additional cost basis.

Sr. No	Description	Basic value (Rs)	GST (Rs)	Total value (Rs)
1	Charges towards two preventive maintenance visits in a year	80000	14400	94400
	Sub Total			**94400**

Note: Above charges are for non-comprehensive AMC (half-yearly visits), cost of spares etc. (if any for repair/service of equipment) will be as per actual.

If required, comprehensive AMC can also be opted as;

1) Annual maintenance contract after the standard warranty of one year can be signed (on mutually agreed terms) at the rate of 12% for first year, 14% for second year, 16% for third year, 18% for fourth year and 20% for fifth year.
2) The AMC would be charged on the actual value of project/equipment.

Terms and condition:

Annexure 'F'

1	**Price**	:	Prices are exclusive of Octroi/entry tax of the state or any other charges to be paid locally, which will claimed extra at actual (wherever applicable)
2	**Billing**	:	The estimated bill of material / equipment is taken based upon preliminary assumption of requirement of community radio operation. However the exact requirement and number of items/equipment can be decided by the end user.
3	**Tax**	:	Shown above as per the current prevailing rate, however the taxes would be charged as per the prevailing rates at the time of billing.
4	**Payment**	:	a) 80% payment as mobilization funds along with work order. b) Balance payment to be released immediately after installation. c) After the completion of the project, BECIL shall submit the tax invoice based upon the actual expenses. Accordingly the balance payment shall be released by Authority. d) The final settlement needs to be completed within 30 days of submission of request. Beyond 30 days, interest @12% will be applicable on the balance amount.
5	**Delivery**	:	Internal works would be initiated within a month of work order/agreement and after two weeks from the date of building/space is ready and completely cured. Internal works may take appx 3 months once the site is handed over. Equipment shall be dispatched within 8 weeks and commissioning is expected to be completed within 2 weeks after completion of internal studio works
6	**Warranty**	:	Equipment would be under warranty for any manufacturing defects for the period of 12 months from the date of invoicing. In case of faults in equipment, it needs to be send to the service centre. Equipment fault due to mishandling or due to site condition will not be covered under warranty. Perishable items such as cables, connectors, glass, fuses, switches etc. will not be covered under warranty.
7	**Validity**	:	The estimates given are valid for 60 days
8	**Insurance & Freight**	:	Transit insurance & transportation till actual site would be claimed as per actual expenditure

Sincerely Yours,

Khuswinder Singh Bhatia
Asst General Manager

Annexure-III

सी सेंथिल राजन
संयुक्त सचिव (प्रसारण–II)
C SENTHIL RAJAN
Joint Secretary (Broadcasting-II)

सत्यमेव जयते

आज़ादी का अमृत महोत्सव

भारत सरकार
सूचना और प्रसारण मंत्रालय
शास्त्री भवन, नई दिल्ली-110001
Government of India
Ministry of Information & Broadcasting
Shastri Bhawan, New Delhi-110001

Dated: 2nd November 2022

D.O. No. 35018/38/2022/O/o AD (CRS)

HOD, JMC

Respected Sir,

I would like to share with you, the concept of Community Radio, which is an important means for empowering communities, particularly rural and remote areas. The Community Radio Stations are small (low power) FM radio stations with a coverage area of around 10-15 KM radius and provide a platform to the Communities for Broadcasting Radio programmes with emphasis on, agriculture, health, education,environment, social welfare, community development and cultural programmes. The Community Radio Stations also play a significant role in dissemination of information about government schemes, weather forecast, local information etc.

2. As per the Policy Guidelines for setting up of Community Radio Stations, "not-for profit" educational institutions, *among others,* are eligible for setting up of Community Radios in India. As on date, there are a total of 392Community Radios out of which approximately 161 stations are being run by educational institutions.The Government of India is willing to grant permissions to more and more well established educational institutions like IITs, IIMs and Central Universities in the larger public interests.

Room No. 659, 6th Floor 'A' Wing, Shastri Bhawan, New Delhi-110 001
Tel : +91-11-23382507 Fax No. : +91-11-23381043 E-mail : jsb2.moib@gov.in

3. Keeping the above in view, your institute may consider setting up and operationalize Community Radios in the institute premises. The application can be made through online mode through MIB portal new.braodcastseva.gov.in. A template for setting up and operationalization of CRS is attached herewith for ready reference.

4. For any further information, Additional Director (CRS), at Tel. No.: 011-2338 6547, E-mail I.D.: crscell-moib@nic.in, may be contacted.

5. I look forward to your engagement and cooperation to make the Community Radio initiative a great success in the country.

Thanking You,

Yours Sincerely,

C. Senthil Rajan

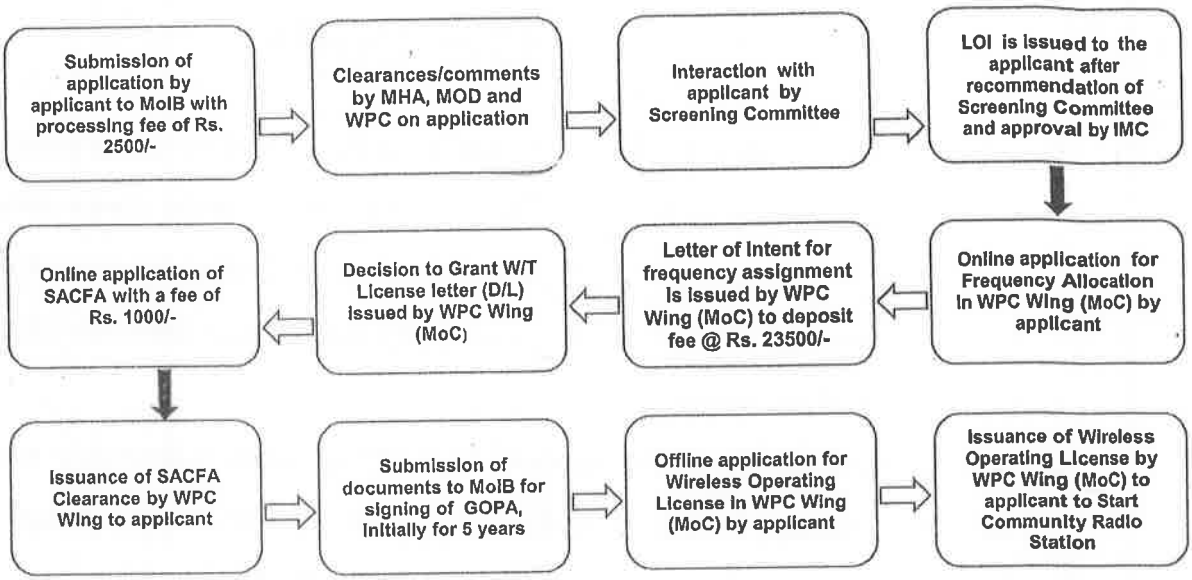
(C. Senthil Rajan)

To

Central Universities

Community Radio

- **What is Community Radio:** Community Radio is a community centric radio broadcasting service owned and managed by not-for profit community based organizations. The basic objective of the Community Radio broadcasting is be to serve the cause of the community by involving members of the community in the broadcast of their programmes.
- **What is Community Radio Station:** Community Radio Station is a low power FM Radio station having coverage of around 12-15Kms. The setup cost of Community Radio ranges between Rs. 10.00 Lakhs to 15 Lakhs.
- **What are the benefits of Community Radio:** Community Radio offers an opportunity for organisations to provide a platform to local community to broadcast programmes having immediate relevance for the community. Since the broadcast is in local language and dialect, people are able to relate to it instantly.
- **Who are eligible for setting up of Community Radio Stations?:** Not-for Profit organisations/institutions such as Educations institutions, Krishi Vigyan Kendras, ICAR institutions, NGOs, registered societies, public charitable trusts etc. are eligible to apply for setting up of Community Radio stations.
- **Selection of location for setting up of CRS:** Intuitions/organizations applying for Community Radio Station should select a location where they are deeply engaged with the community. Survey may be conducted to know the needs and aspirations of communities for having community Radio stations. The CRS should be housed at a location that is easily accessible to people.
- **Selection Process & Processing of the applications:** The process is given below:



- **Setting up of Equipment:** The equipment required for community radio is robust and easy to maintain and it does not need support from professional broadcasting engineers. However, before planning for setup of community radio, the organisation should visit existing nearby Community Radio Stations. Basic Cost of setting of CRS ranges from Rs. 15 Lakhs to 20 Lakhs. The Running cost is approximately Rs. 6.00 per annum.

- **Community Engagement:** - Community radio is of, for and by the people. Based on this tenet, the station should engage community at all the stages on programming. A group of community members can be formed as advisory group for the station to look into its various content, community engagement needs. There could be varied ways of engaging the community; through recordings, calls, feedback, and others. Radio is the best suited platform for local voices and talent to be showcased. Promoting local talent through radio station, engaging local resource persons from government departments, civil society, can help generate regular content for the station. Celebration of special days with the community can also help increase awareness about an issue/topic and also involve communities.
- **Content production:** Community Radio Stations (CRSs) are required to produce programmes which should be immediate relevance to the community. It requires needs base analysis, research and resources. The following suggestive programme themes can be adopted by the CRS:
    - Local issues
    - Agricultural
    - Health
    - Educational

- Environmental
- Social welfare
- Community development
- Cultural programmes and
- Theme of National/State and Regional importance

- **Human resource:** People sustainability is key to a station. Radio empowers an individual so there is high turnout rate. In order to have the show going, the station should have a floating group of people who are ready to take up when people leave. Having a local team is important, rather than external professionals who are distanced from the community.

- **Sustainability- financial, technical sustainability and maintenance aspects etc.**
  Financial sustainability can be achieved with a regular flow of local ads, DAVP ads, and project funding and sponsored programs. The station management should encourage community participation in terms of time and money. Crowdfunding options can be explored by CRS to run campaigns based on social issues. Exposure tours of radio station for the general public with minimal fee. There should be at least one person in the team at all times who is aware of the equipment in and out and can overcome any technical glitch occurring at the station. Partnerships- Public, Private, community partnership model can add to all the sustainability aspects

State-wise List of Central Universities (55)

S. No.	State	Name of Central University
1.	Andhra Pradesh	**Central University of Andhra Pradesh,** Transit Campus, JNTU IT, Incubation Centre, Chinmaya Nagar, Ananthapuramu – 515 002, Adhra Pradesh
2.		**Central Tribal University of Andhra Pradesh,** Kondakarakam (PO), Cantonment (SPO), Vizianagaram – 535003, Andhra Pradesh
3.		**The National Sanskrit University,** Tirupati – 517 507, Andhra Pradesh.
4.	Arunachal Pradesh	**Rajiv Gandhi University,** Rono Hills, P.O. Doimukh, Itanagar, Arunachal Pradesh – 791 112.
5.	Assam	**Assam University,** PO: 63 (Assam University), Silchar – 788 011.
6.		**Tezpur University,** Distt. Sonitpur, P.B.No.72, Tezpur – 784 001
7.	Bihar	**Central University of South Bihar,** SH-7, Gaya- Panchanpur Road, Village – Karhara, Post-Fatehpur, P.S. – Tekari, District – Gaya, Bihar – 824236.
8.		**Mahatma Gandhi Central University,** Camp Office : Opposite, Circuit House, Motihari, District – East Champaran, Bihar – 845 401.
9.		**Nalanda University,** Rajgir, Dist. Nalanda, Bihar – 803 116.
10.		**Dr. Rajendra Prasad Central Agricultural University,** Pusa, Samastipur – 848125, Bihar, India
11.	Chhattisgarh	**Guru Ghasidas Vishwavidyalaya,** Main Campus, Bilaspur, Chhattisgarh – 495 009.
12.	Delhi	**University of Delhi,** Delhi – 110 007.
13.		**Jamia Millia Islamia,** Jamia Nagar, New Delhi – 110 025.
14.		**Jawaharlal Nehru University,** New Mehrauli Road, New Delhi – 110 067.
15.		**Indira Gandhi National Open University,** Maidan Garhi, New Delhi – 110 068.
16.		**Shri Lal Bahadur Shastri National Sanskrit University,** Katwaria Sarai, New Mehrauli Road, New Delhi – 110 016
17.		**South Asian University,** Akbar Bhawan, Chanakyapuri, New Delhi – 110 021.
18.		**The Central Sanskrit University,** 56-57, Institutional Area , Janakpuri, New Delhi-110058
19.	Gujarat	**Central University of Gujarat,** Sector – 29, Gandhinagar – 382 030.
20.	Haryana	**Central University of Haryana,** Jant-Pali Villages, Mahendergarh, Haryana – 123 029.
21.	Himachal Pradesh	**Central University of Himachal Pradesh,** Dharamashala, Dist – Kangra, Himachal Pradesh – 176 215.
22.	Jammu & Kashmir	**Central University of Kashmir,** Green Campus, Duderhama, Ganderbal – 191201, (J & K)
23.		**Central University of Jammu,** Bagla (Rahya-Suchani), District Samba, Jammu – 181 143, (J & K)
24.	Jharkhand	**Central University of Jharkhand,** Village – Cheri-Manatu, P.O. Kamre, P.S.- Kanke, Ranchi – 835 222, Jharkhand
25.	Karnataka	**Central University of Karnataka,** Kadaganchi, Aland Road, Aland Taluk, Gulbarga – 585 311, Karnataka.
26.	Kerala	**Central University of Kerala,** Tejaswini Hills,Periye (PO), Kasaragod (DT), Kerala – 671316.
27.	Ladakh	**Sindhu Central University,** Melongthang Leh-Ladakh near FRL, -194101.
28.	Madhya	**Dr. Harisingh Gour Vishwavidyalaya,** Sagar, Madhya Pradesh - 470 003.

School of Engineering and Technology
Central University of Haryana, Mahendergarh

Proceedings/Minutes of the School Board Meeting
of School of Engineering & Technology, Held on 29.09.2022

School Board Meeting of School of Engineering and Technology consisting of four departments 1) Department of Computer Science, 2) Department of Electrical Engineering, 3) Department of Civil Engineering and 4) Department of Printing and Packaging Technology was held on 29th September 2022 at Room No 107, SOET Block, Central University of Haryana, Mahendergarh. The following members were present in the meeting through online and offline mode:

Link for online meeting: **https://meet.google.com/rhd-rnot-wsi**

- Prof. Phool Singh, Dean SoET & HOD PPT - Chairperson
- Prof. Ashutosh Kumar Singh, Professor, NIT Kurukshetra, Subject Expert-Member
- Dr. Dhirendra Singhal, Professor, DCRUST Murthal, Subject Expert-Member
- Dr. Sarbjeet Singh, Professor, Panjab University, Subject Expert-Member
- Prof Sathans, Professor, NIT Kurukshetra
- Dr. Rajesh Kumar Dubey, HoD-EE – Member
- Prof. Vikas Garg, HoD, Civil Engineering-Member
- Dr. Rakesh Kumar, HoD, CSE-Member
- Prof. Kalpana Chauhan, Professor, Chemistry, Member
- Dr. Sumit, Assistant Professor, EE, CUH-Member
- Dr. Neeraj Kumar, Assistant Professor, Civil Engineering, CUH-Member
- Sh. Shammi Mehra, Assistant Professor, PPT, CUH-Member
- Dr Manoj Kumar Singh, Associate Professor, Physics- Special Invitee

The Dean of SoET welcomed all the members and after deliberations, it was resolved/recommended by the School Board members as follows:

- The Scheme and syllabi for B.Tech. (Electrical Engineering) for 8th Semester (Annexure-1) recommended by Board of studies, Electrical Engineering in the minutes of meeting held on 12.09.2022 are approved for B. Tech. (Electrical Engineering) for session 2022-23 onwards.
- In B. Tech. (Electrical Engineering) programme, course code of Industry Internship is changed from BTEE801A to BTEE810A and the course code of Project Stage II from BT EE801A to EE800A as approved by Board of studies, Electrical Engineering in the minutes of meeting held on 12.09.2022.
- In B. Tech. (Electrical Engineering) programme, 8th semester course code BT EE810A (Industry Internship) will be evaluated for 20 credits and 500 Marks, while BT EE800A (Project Stage II) will be evaluated for 13 credit and 300 Marks.
- In M. Tech. (Energy System Management) Programme, course code MTESM-212 (Specialization specific Current Topic Presentation -2) and MTESM-306 (Specialization specific Current Topic Presentation -3) will be evaluated at department level similar to MTEMS-112 (Specialization specific Current Topic Presentation -1) for 100 marks and for 2 credits each, which was already approved in BOS. (Revised scheme attached as Annexure -II).
- In Ph. D. (Electrical Engineering) programme, the evaluation of Seminar (SOET 020103C0022) of 2 credits will be evaluated for 100 marks at departmental level. (Revised scheme attached as Annexure -III).

- The Scheme and syllabi for B. Tech. (Civil Engineering) for Semesters 7th and 8th (Annexure-1V) recommended by Board of studies, Civil Engineering in the minutes of online meeting held on 07.09.2022 are approved for B. Tech. (Civil Engineering) for session 2022-23 onwards.
- The Scheme and syllabi for B. Tech. (PPT) for 8th Semester (Annexure-V) recommended by Board of studies, PPT in the minutes of meeting held on 12.09.2022 are approved for B. Tech. (PPT) for session 2022-23 onwards.
- The committee recommended to introduce Seminar paper in BTech Scheme. Accordingly, BTech Electrical Engineering, Civil Engineering and PPT has introduce Seminar in 7th semester of their BTech scheme and committee approve to the same. B. Tech. Computer Science and Engineering had Seminar paper in their 6th Semester. Revised 7th semester scheme of BTech Electrical Engineering, Civil Engineering and PPT will be implemented from 2023-24 session onwards. (Annexure I, IV and VI)
- The Committee approved the new general elective courses (GEC) of Green Technologies (BTAS200), Environmental Pollution and Human Health (BTAS201) and Accounting and Financial Management (BTAS202) and their syllabi in SoET (Annexure VII).
- Committee deliberated the draft MTech ordinance and recommend to consider the same in the next School Board meeting after due incorporation of the suggestions of the committee.
- Admission to BTech Programmes of SOET is recommended through Joint Seat Allocation System (JOSSA) based on Joint Entrance Examination (JEE- Main) from 2023-24 session onwards.

Meeting ended with vote of thanks to the chair.

29/9/2022

Prof. Phool Singh,
Dean SoET

Prof. Ashutosh Kumar Singh
NIT Kurukshetra

Prof. Dhirendra Singhal
DCRUST Murthal

Prof. Sarbjeet Singh
Panjab University

Prof Sathans,
NIT Kurukshetra

Dr. Rajesh Kumar Dubey,
HoD-EE

29/9/2022

Prof. Vikas Garg,
HoD, Civil Engineering

Dr. Rakesh Kumar, HoD,
CSE

Prof. Kalpana Chauhan,
Chemistry

29/9/2022

Dr. Sumit, EE

Dr. Neeraj Kumar,
Civil Engineering

Sh. Shammi Mehra, PPT

Dr Manoj Kumar
Singh, Physics

ज्ञान-विज्ञान विमुक्तये

सत्यमेव जयते

विश्वविद्यालय अनुदान आयोग
University Grants Commission
(शिक्षा मंत्रालय, भारत सरकार)
(Ministry of Education, Govt. of India)
बहादुरशाह जफ़र मार्ग, नई दिल्ली-110002
Bahadur Shah Zafar Marg, New Delhi-110002
Ph.: 011-23236288/23239337
Fax : 011-2323 8858
E-mail : secy.ugc@nic.in

प्रो. रजनीश जैन
सचिव
Prof. Rajnish Jain
Secretary

D.O. NO.F.13-10/2022(CU) **11th January 2023**

11 JAN 2023

Subject : Optimal Utilization of resources by Higher Educational Institutions(HEIs)

Respected Madam/Sir,

As you are aware, the Government of India/UGC has been supporting Central Universities as well as other Higher Educational Institutions (HEIs) in setting up infrastructural facilities and resources in order to bring about qualitative improvement in research and development activities. Since continuous funding is required for the upkeep and maintenance of the infrastructural facilities, it has been felt that the HEIs should adopt measures to share their infrastructure with other HEIs for optimum use of the available resources by charging a nominal amount. This additional revenue would help the host institutions to maintain their resources in a better way, apart from making these state-of-the-art resources available to the needy ones. For this, HEIs may allow their resources, like libraries, laboratories, equipment etc., to be shared/used during free time by students and researchers of other HEIs.

In view of the above, the Guidelines on the optimal utilization of resources are enclosed herewith for your ready reference. All the HEIs are requested to kindly take appropriate measures for the implementation of the UGC Guidelines so as to extend the benefits to the UG/PG students and researchers.

With kind regards,

Yours sincerely,

(Rajnish Jain)

Encl. as above

To

The Vice-Chancellors of all Universities

Guidelines for Optimum Utilization of the Resources Available in Central Universities/Higher Educational Institutions

Resource forms the basis of fueling any developmental activity including education. Optimum utilization of existing resources will increase the output without the investment of additional resources. Cooperation and collaboration among higher educational institutions in terms of sharing their academic as well as infrastructural resources will go a long way in providing an accessible and equitable education to the masses. In this regard, the following process and manner of sharing resources between the **host institution** (the institution which is sharing its resources) and **guest institution (**the institution which is going to utilize the resources of the host institution) may be as follows:

1. Degree of ease of access to resources

At the outset, it is very important to determine the available resources of the host institution which can be shared with the guest institution and thereafter steps be taken to facilitate the process of sharing.

1.1. Determination of the available resources of the host institution

1.1.1. Determine the capacity of the host institution to accommodate guest students at different levels, namely undergraduate, post-graduate and research. Effective timetable (no classroom should remain unoccupied at any point in time)

1.1.2. The information of resources/facilities of the host institution which are open for sharing with guest institutions should be made readily available on the website of the host institution.

1.1.3. Common minimum charges for specific resources should be made available.

1.2. Initiating the process of resource sharing

1.2.1. Memorandum of understanding (MoU) should be drawn up between the collaborating institutions and signed by the authorized representatives of the two institutions.

1.2.2. Such MoU should provide the following:

1.2.2.1. Constitution of a coordination committee which will look into the details of the collaboration, such as formulation of an effective timetable (no

classroom should remain unoccupied at any point in time) and synchronize it with the collaborating institution; minimise overlapping between the host and guest institutions regarding the use of the resources.

1.2.2.2. A single point of access should be identified in each institution.

1.2.2.3. Mechanism of the on-boarding of the guest students (means students of the guest institution) to enable access to the resources of the host institution, such as issuance of unique identity cards etc.

1.2.2.4. A formula be devised for the sharing of maintenance and upkeep cost as well as operational costs, such as lab assistants, security personnel and soon.

2. Facilities to be opened for sharing (when collaborating institutions are in the same city i.e. **City model)**

The facilities that may be opened for sharing in the case of educational institutions which are within the same city or physically closely located may be categorised as follows:

2.1. Resource sharing at the **Research level** may be between peer to peer or lab to lab(i.e. Principal Investigator to Principal Investigator)or department to department.

2.2. Resource sharing at the **Postgraduate level** may be between department to department or at the institutional level.

2.3. Resource sharing at the **Undergraduate level** may be between institution to institution.

2.4. Sharing of high end equipment - e.g. CIF (Central instrumentation facility), on a minimum and no-profit no-loss, cost sharing basis.

2.5. Library resources (on premise sharing) may be done between institution to institution(e.g. reading space).

2.6. E-books, databases, online resources may be provided access to the students of both institutions through central licenses applicable to all the collaborating universities. It should be ensured that sharing of resources does not give rise to copy-right violations or data-privacy infringements etc. Sharing parties need to be clearly identified.

In the context of electronic resources including Anti-plagiarism software, it is desirable that INFLIBNET provides a single point of access to all. This shall reduce the amount spent by individual institutions to get access to electronic resources.

2.7. Classrooms and their infrastructure may be shared between institution to institution (within local boundaries).

2.8. Sports grounds, stadium, conference halls etc. may be shared on a need/requirement basis.

3. Layering/categorization of the resources in terms of their skills and requirements(UG/PG/Ph.D.)

Usage of resources such as those available in a laboratory depends on the level of the experiment to be conducted, which again has a direct correlation with the level of program the guest students (who are going to use the facilities of the host institution)are enrolled in. Accordingly, layering or categorization of the resources may be done for the purpose of resource sharing, appropriate to the level of guest students. In the case of sciences(laboratory specific),the resources may be identified and shared based on the skill mapping between the collaborating institutions for the below mentioned levels:

- Ph.D./research
- P.G.level
- U.G.level

While in the case of resources pertaining to non-sciences, the facilities of the host institutions that are not academic level specific, may be shared with the guest students of the guest institution at all levels (i.e.UG/PG/Ph.D.)

4. Terms & Conditions of the use of host institution's facilities(financial implications and logistics)

4.1. The overall philosophy of sharing resources is driven by the optimum utilization of machines and manpower resources so that the tendency to "monopolise" among stakeholders is reduced. At the same time, "sharing right" cannot be demanded, but rather negotiated. Keeping in view this philosophy, it is important that both the collaborating institutions at the start are clear about what is to be shared, how it is to be shared, and the financial liability and cost, if any, that are to be shared.

4.2. Few points on which consensus between the collaborating institutions is required are as follows:

4.2.1. For effective time sharing of resources, there should be

- Mutually agreeable academic calendars
- non-overlapping timetables

4.2.2. Amount to be paid towards consumables, maintenance, including wear, tear or damage of equipment.

5. **Sharing of facilities between distantly located collaborating institutions (Distant model)**

5.1. When collaborating institutions are distantly situated, the sharing of physical infrastructure is foreclosed and the only possibility of sharing is that of academic resources. Such academic resources which may be shared include institutional learning repositories viz. online lectures, videos, learning materials, and access to LMS (Learning Management Systems).

5.2. The Registration/ Onboarding process of guest students shall be through online platform.

5.3. Training of teachers or Faculty development programmes may be held in collaboration.

6. **Cost analysis for sharing resources– methods and factors for determining the cost**

6.1. The principle guiding the costing for usage under this collaboration should be no profit no loss basis.

6.2. Based on the usage pattern of the equipment/experiments at different levels, the cost may be determined in terms of the maintenance cost and consumables per usage for the entire academic calendar (semester/annual).

6.3. The cost analysis may also have to be worked on per use basis.

7. **Collaborative funded research**

7.1. There is also a possibility of resource sharing between two higher educational institutions for research purposes. To promote such research collaborations, the following may be kept in view:

7.1.1. One single platform is required where there can be mapping of the needs of the HEIs (intra & inter) and industries. Such platform shall also promote knowledge sharing, knowledge transfer, technology development, capacity building and capacity sharing.

7.1.2. Wherever large-scale and extensive long-term sharing of resources/platforms is involved, it is advisable that the partners either enter into an MOU or set up a collaboration on mutually agreeable terms.

7.1.3. The type of collaborations that may be developed can be in the areas of technology, biosciences, sciences, applied sciences, agricultural management etc. and the reason for collaboration may be any one or more of the following:

- Funded research

- Joint research-Creation of IP and ownership
- Prototype development
- Modelling and simulation
- Data analysis and visualization
- Commercialization of research finding
- Emerging areas

8. <u>Operation of the classrooms and laboratory facilities</u>

For optimum utilization of resources, the classrooms and laboratory facilities be opened at least from 8 a.m. to 8 p.m. on all working days.

DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

Proposal for

Short Term Courses

1. **ICT Tools and Techniques for Research**
2. **Bibliometric Analysis and Research Trends**

SCHOOL OF INTERDISCIPLINARY AND APPLIED SCIENCES

CENTRAL UNIVERSITY OF HARYANA

MAHENDERGARH

2023

Background:

Research is the creation of new knowledge by the use of existing knowledge in a new and creative way so as to generate new methodologies, concepts and understandings. To make the process of conducting research better or easy, various technologies tools are being developed and utilised. With the advances in technologies, the tools are developed as a support tool and the whole research process has been changed the way research used to be conducted in the past. Now, Researchers don't necessarily have to go to library for literature on a particular area, they can access literature just sitting at their own preferred place through electronic device. Similarly, there are many software for the analysis of any kind of data, may it be qualitative data or quantitative data, that used to be a tedious process before. Even the requirements for publishing in scholarly communication requires knowledge online journal systems. Reputed journals ask for submission of research data for sharing and so on. There are also many tools that help to understand the trend and make reviews in the chosen area of research. So, technology has affected researches at every step and has changed the way research has been conducted.

The short-term courses are designed for those who wants to broaden their area of interest in research with the easy-to-use technological tools. These short-term courses will help the student and researchers in how ICT tools and techniques can be helpful in research, gaining insights into the growth and development of the research areas and about research trends.

Target Audiences:

1. Four Year Degree
2. Students of third/fourth semester of the two-year PG programme of Central University of Haryana or any other university.
3. Registered research students of CUH or any university
4. Scientists/researchers/teachers working in private or public sector

Time Period: 4 months

Fee: Rs.10,000

Teaching Learning Process: Blended mode

Course Structure: As given below

Course-1: ICT Tools and Techniques for Research

Course Objectives: To make aware and give exposure to the ICT tools and techniques useful at various stages of research from using resources, organization; analysis, presentation and visualization of data and publishing and sharing of researches across the discipline.

Learning Outcomes

On studying this course, students/scholars shall be able to:

1. Understand the applications of different technologies in research process in order to better organization and outcomes;
2. Familiar with different resources, services, tools useful for carrying out research; and
3. Acquaint with the knowledge and skill towards the applications of the new ways of conducting research.

Topics to be covered:

- Search engines, directories and gateways, abstracting and indexing databases
- Online full text databases, online-journals, Open Access Journals (DOAJ),
- OERs and MOOCs on research processes and other related areas
- Citation index databases (SCOPUS, SCI), Google Scholar etc.
- Databases of electronic theses (like Shodh Ganga), institutional repositories,
- Open e-archives, web-scale discovery services
- Digital libraries, video archives, etc.
- Tagging and micro-blogging, RSS Feeds
- Online questionnaires (using google forms, question pro, survey monkey, etc.)
- Reference management tools, Research information system: Shodhchakra
- Grammar and summary making/ paraphrasing
- Data sharing and collaborative writing (Google drive & drop box)
- Researcher's webpage/Blog
- Academic identity
- Researchers' networks
- Social networking tools

Course-2: Bibliometric Analysis and Research Trends

Course Objective: To expose with the growing importance of bibliometric analysis in order to understand the research trends using various resources and tools.

Learning Outcomes

On studying this course, students/scholars shall be able to:

1. To be familiar with changing nature of scholarly communication and know about the basic concept of bibliometric analysis in the present time
2. Know about various data sources including citation indexes, like Web of Science, SCOPUS, Google Scholar and search and retrieve useful information for conducting studies
3. Understand the indicators of the publication productivity- country-wise, institution wise, subject/theme wise, journal wise and author wise.
4. Use of tools and software for bibliometric analysis and research trends

Topics to be covered

- Growth of literature and changing nature of scholarly publications
- Concept of bibliometrics and related terminologies
- Theoretical foundation of Bibliometrics and Scientometrics
- Classical laws of Bibliometrics - Broadford's Law, Zipf s Law, Lotka's Law
- Theoretical foundations of Citation Analysis
- Historical Perspectives of Evaluative Bibliometrics
- Publication productivity dynamics - Journal level, Institutional level, Regional level, National level, Global level, Discipline level publication
- Research Collaboration Dynamics-Individual, Institutional, Regional, National and Global
- Bibliometric data sources: Scopus, Web of Science, Google Scholar; Crossref
- Journal citation measures based on Web of Science and Scopus
- Individual Impact measures-H-Index, g-index, etc
- Co-Citation Analysis, Bibliographic coupling
- Scientometrics Analysis Tools, Publish or Perish, Bibexcel, R Software -Bibliometrix
- Network Visualization Software – Vosviewer; Pajek, Sci^{2}Tools, CiteSpace, etc
- Altmetrics and Webometric data source and Analysis
- Responsible Research Metrics – DORA declaration, Leiden Manifesto, etc.

Draft Short Term Course Proposal

Course Name: Environmental Impact Assessment

Propose by: Department of Environmental Studies, Central University of Haryana, Mahendergarh

Background

The course is designed to highlight the application value of the theory and practice of EIA as operated internationally to emerging and practicing professionals dealing with the development and implementation of projects modulating development. This course introduces the field of integrated environmental management focusing on procedures, tools and techniques for Environmental Impact Assessment (EIA) with a special emphasis on impacts caused by human interventions on the multiple dimensions of environment and means of regulating them.

Environmental Impact Assessment (EIA) is a process of evaluating the likely environmental impacts of a proposed project or development, taking into account inter-related socio-economic, cultural and human-health impacts, both beneficial and adverse. EIA is basically a tool used to assess the positive and negative environmental, economic and social impacts of a project. This is used to predict the environmental impacts of a project in the pre-planning stage itself so that decisions can be taken to reduce the adverse impacts. In this course students will develop basic understanding of the history, need, structure, process, involved methods and challenges. Students will also learn criteria for selecting method for impact assessment, overview of methods, parameters for public participation ad technique for writing reports.

Objectives

The course is designed to highlight the application value of the theory and practice of EIA as operated internationally to emerging and practicing professionals dealing with the development and implementation of projects modulating development. This course introduces you to the field of integrated environmental management focusing on procedures, tools and techniques for Environmental Impact Assessment (EIA) with a special emphasis on impacts caused by human interventions on the multiple dimensions of environment and means of regulating them.

Intended audience

The course will be helpful to the planning and management professionals, persons working in development projects in public or private sector, academicians, engineers, planners, biologists, geographers, architects, archeologists, environmental consultants, self-employed practitioners, NGOs working in environmental sectors, relevant Government departments, journalists, science/ engineering graduates and post graduates.

Eligibility

Professionals (Graduate, Post graduate in Sciences/Technology) Minimum 50% marks

Duration 03 months/ 12 weeks

Course fee: Rs. 15000/ per individual, accommodation during the course may be provided on payment as per University rule and availability.

Course layout

Week 1: Introduction to Environment Management & EIA

Week 2: Legal, Policy & Regulatory Framework

Week 3: EIA Procedure - Scoping & Screening and Establishing Baseline Conditions

Week 4: EIA Methodologies

Week 5: Connectedness: connected spaces and subspaces, Connectedness of the real line, Intermediate value theorem

Week 6: EIA Methods, Tools and Techniques

Week 7: Public Involvement in EIA

Week 8: Impact Management - Mitigation & Preparation of Environment Management Plans (EMP)

Week 9: EIA Reporting & Review of EIA Quality

Week 10: Decision Making & Project Management

Week 11: Implementation & Follow up

Week 12: EIA Case Examples

Books and references

1) Wathern P., "Environmental Impact Assessment: Theory and Practice",Routledge Publishers,1990

2) Marriott B., "Environmental Impact Assessment: A Practical Guide", McGraw-Hill Publication,1997

3) Shrivastava A.K., Baxter Nicola, Grimm Jacob, "Environmental Impact Assessment", APH Publishers, 2003

4) Anjaneyulu Y., Manickam Valli, "Environmental Impact Assessment Methodologies", CRC Press 2011

5) Glasson J., Therivel Riki, Chadwick Andrew, "Introduction to Environmental Impact Assessment", Oxford Brookes University 2012/ 4th edition

Course Details

Title: Certificate course in water, wastewater treatment and recycling

Proposed by: Dr. Dushyant Kumar (Assistant Prof. Env. Sci. under SoET)

The fast growing economy, rapid industrialization and growing urban population which subsequently generate the enormous volume of the wastewater are the reasons for concern and reiterate the need for appropriate water management practices. To keeping this in the mind we design a twelve week training programme to provide the practical exposure to participants on wastewater treatment for industrial and urban wastewater management including reuse and recycle.

Details:

Total Duration	12 weeks
Intake capacity	27 per batch

Goals:

1. The purpose of the program is to provide a new approach to wastewater management and to protect the environment. Water sources are contaminated by improper wastewater management, which poses a risk to human health and the environment. Throughout the country and across the globe, this has been a major issue, which requires actions suitable to the specific environmental circumstances and economy.
2. This training program provides a comprehensive overview of current practices in wastewater management, focusing on industry-specific wastewater treatment. This program aims at developing students' skills and entrepreneurial capabilities. Those interested in wastewater management, environmental protection and entrepreneurship are welcome to attend the course.

Program Outcomes

Upon completion of the certification program, the participants will be able to:

1. **Water management knowledge:** Apply the knowledge gained during the course in practice to the solution of complex water and wastewater problems.
2. **Problem analysis:** Analyze industrial and societal wastewater problems.

3. **Solution development:** Formulating solutions to wastewater problems and designing systems, processes, or components that address the specified needs while taking cultural, societal, and environmental aspects into consideration.
4. **Application of modern tools:** Implement techniques, resources, and modern tools to complex water and wastewater management activities with an understanding of their limitations.
5. **Ecological and environmental sustainability:** Demonstrate an understanding of the importance of wastewater management practices on society and the environment, and establish a need for sustainable development.
6. **Long-term learning:** Understand the importance of, as well as possess the required preparation and abilities to engage in independent and lifelong learning in the water and wastewater management field.

Key Benefits of Training Program:

1. Exposure to working culture of Engineering, Procurement and Construction Companies.
2. Thorough Knowledge provided to understand the project activities.
3. Introduction of interactive methods within the departments.
4. Understanding of Deliverables to function smoothly and quality output.
5. Training of relevant soft-skills helps to improve attitude and efficiency.
6. Acquire the knowledge of Advance technologies used currently in the Industry.
7. Enrich the knowledge of International codes and standards for perfection in design.
8. Enhance the knowledge of Current engineering practices used.
9. Introduction to relevant advance software (wherever applicable).

Eligibility:
Fresh/ Experienced, Diploma/Degree In any Engineering discipline & B.Sc Graduate.

Tools:
Lectures by experts, site visits to existing projects, practical group exercises, presentations by participants, reference materials and film screening.

Target audience:

The course will be beneficial for B.Tech/M.Tech/B.Sc/M.Sc/Research Scholars/Faculty members from different institutions. In addition, we will strongly encourage engineers/professionals working in any area related to waste management should consider taking advantage from this unique application orientated course. Regulators (SPCB, CPCB and MOEF professionals) and policy makers will also benefit from this course.

Fee:
The course fee is Rs. 25,000 for Consultants, Industries, SPCB's, Engineers, Environment Managers, Rs 20,000 for academicians, NGOs and researcher, Rs 12,500 for students excluded GST as per norms.

Syllabus:
Week 1: Introduction
General outline; Introduction to wastewater; Various sources and types of wastewater; Need of wastewater management; Concept of wastewater treatment and recycling

Week 2: Wastewater Generation and Characteristics: Wastewater generation and quantity estimation; Water quality parameters and standards (COD, BOD, DO, Solids, Nutrients, metals and emerging contaminants); Sources specific wastewater physical and chemical characteristics

Week 3: Natural Attenuation of Pollutants in Wastewater: Concept of natural attenuation; Wastewater discharge in rivers; Attenuation of pollutants on land application.

Week 4: Treatment Philosophy:
Objectives of wastewater treatment; Concept of mass balance; kinetics and equilibrium processes; Reactors tanks; Continuously mixed tank reactors; Plug-flow reactors Introduction to primary, secondary and tertiary treatment;

Week 5: Preliminary and Primary Treatment Processes: Screening; Grit removal; Equalization tank; Sedimentation theory; Rectangular and circular sedimentation tanks

Week 6: Secondary Treatment Processes: Biological treatment of wastewater; Microbial ecology and growth kinetics; Types of microorganisms; Aerobic and anaerobic processes; Suspended and attached growth systems; Activated sludge process; Tricking filters and Rotating biological contactors

Week 7: Secondary Treatment Processes - Anaerobic: Anaerobic treatment; Anaerobic decomposition of organic matter; Fluidized bed systems; Upflow anaerobic sludge blanket systems; Biogas production and collection; other reactor configurations
Week 8: Sludge Management: The quantity and characteristics of sewage sludge; Sludge dewatering, drying, and thickening; Sludge digestion; Aerobic and anaerobic sludge stabilization; Composting

Week 9: Tertiary (Advanced) Treatment Processes: Need and Objectives of advanced treatment; Nutrient (N and P) removal; Chemical treatment processes; Advanced oxidation processes; Adsorption and Ion-exchange; Membrane processes

Week 10: Current Treatment Approaches: Conventional systems; Integrated treatment systems; Advanced reactor configurations; SBR, MBR and MBBR; Application and case studies

Week 11: Wastewater Recycling:
Scope and demands; Types and stages of recycling; Recycling requirements; Designated reuse criteria; centralized vs decentralized recycling systems.

Week 12: Technology Selection and Decision Making: Research trends in wastewater treatment and recycling; Choice modeling and decision making; Risks and challenges; Socio economic perspectives; Case studies

Books and references

1. Wastewater Engineering (2013) by Metcalf and Eddy; Publisher - McGraw-Hill
2. Environmental Engineering (2015) by Peavy, Rowe and Tchobanoglous; Publisher - McGraw-Hill
3. Water Quality Engineering: Physical / Chemical Treatment Processes (2013) by Lawler and Benjamin; Publisher - John Wiley & Sons
4. Industrial Wastewater Treatment, Recycling and Reuse (2014) by Bhandari and Ranade; Publisher - Elsevier
5. Unit Operations and Processes in Environmental Engineering (1996) by Reynolds and Richards Publisher - CL Engineering
6. Manual on Sewerage and Sewage Treatment (2013), Publisher - CPHEEO (MoUD)
Additional reference material will be provided by the course instructor

हरियाणा केंद्रीय विश्वविद्यालय
(संसद के अधिनियम संख्या-25 (2009) के तहत स्थापित)
जांट-पाली, महेंद्रगढ़- 123031 (हरियाणा)
CENTRAL UNIVERSITY OF HARYANA
(Established vide Act No. 25 (2009) of Parliament)
Jant-Pali, Mahendergarh-123031 (Haryana)

No: CUH/2022/A&C/ 139 Date: 01.12.2022

अधिसूचना/NOTIFICATION

With the approval of the Competent Authority, it is hereby notified for information of all concerned that the Ph.D. residency period will be counted from the date of Admission. This is in compliance of the recent Gazette notification regarding University Grants Commission (Minimum Standards and Procedures for Award of Ph.D. Degree) Regulations, 2022, which provides the following:

"4. Duration of the Programme:-(1) Ph.D. Programme shall be for a minimum duration of three (3) years, including course work, and a maximum duration of six (6) years from the date of admission to the Ph.D. programme."

01/12/2022

सहायक कुलसचिव (अ.प्र.) /Assistant Registrar (A/C)
शैक्षणिक एवं परिषद शाखा/Academic & Council Branch

प्रतिलिपि सूचना एवं आवश्यक कार्रवाई के लिए निम्नलिखित को अग्रेषित की गई है
Copy forwarded to the following for information and necessary action:

1. कुलपति सचिवालय (कुलपति महोदय के सूचनार्थ), हकेवि/ Vice-Chancellor's Secretariat (for kind information of Vice-Chancellor), CUH
2. कुलसचिव कार्यालय (कुलसचिव महोदय के सूचनार्थ), हकेवि/ Office of the Registrar (for kind information of Registrar), CUH
3. सभी अधिष्ठाता/विभागाध्यक्ष/शिक्षक प्रभारी/ All Dean/HoDs/TIC, CUH
4. आईसीटी अनुभाग (विश्वविद्यालय की वेबसाईट पर अपलोड करने हेतु), हकेवि/ ICT Section (for uploading on the University Website), CUH

ORDINANCE-XXXIV

UNDERGRADUATE PROGRAMMES AND INTEGRATED UG-PG PROGRAMMES

1. Undergraduate and Integrated UG-PG Programmes of study leading to award of respective Certificates/Diplomas/Degrees shall be offered and conducted by the respective Schools/Departments/ Centres established by the University. This Ordinance pertains to Undergraduate programmes and Integrated UG-PG Programmes (introduced w.e.f. the Academic Session: 2023-24 and thereafter) with provision of Academic Bank of Credits and 'Multiple Entry and Exit' options at various stages.

2. Definition of Keywords:

2.1. Choice-Based Credit System (CBCS): The CBCS provides an opportunity for the students to choose courses from the prescribed courses comprising core, elective and skill based courses. It provides a 'cafeteria' approach in which the students can take courses of their choice, learn at their own pace, study additional courses and acquire more than the minimum required credits, and adopt an inter-disciplinary approach to learning.

2.2. Programme: An educational programme leading to the award of a Degree, Diploma or Certificate.

2.3. Academic Year: Two consecutive (one odd + one even) semesters shall constitute one academic year.

2.4. Semester: Each Semester shall consist of 15-18 weeks of academic work equivalent to 90 actual teaching days. The odd semester may be scheduled ordinarily from July to December and even semester from January to June. The credit-based semester system provides flexibility in designing curriculum and assigning credits based on the course content and hours of teaching.

2.5. Summer Term: A summer term is for eight weeks during summer break. Internship/apprenticeship/work-based vocational education and training can be carried out during the summer term, especially by students who wish to exit after two semesters or four semesters of study.

2.6. Course: Usually referred to as paper, it is a component of a Programme. All courses need not carry the same weightage. A course may be designed to comprise lectures/tutorials/laboratory work/field work/outreach activities/project work/dissertation/internship/apprentice/practical training/viva/seminars/term-papers/assignments/presentations/self-studywork/clinical component, etc., or a combination of some of these with objectives and learning outcomes.

2.7. **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.

2.8. **Academic Bank of Credits (ABC):** An academic service mechanism to facilitate students to become its academic account holders, thereby paving the way for seamless student mobility between or within degree-granting Higher Educational Institutions through a formal system of credit recognition, credit accumulation, credit transfers and credit redemption to promote distributed and flexible teaching-learning.

2.9. **Academic Bank Account**: An individual account with the Academic Bank of Credits opened and operated by a student, to which all academic credits earned by the Student from course(s) of study are deposited, recognised, maintained, accumulated, transferred, validated or redeemed for the purposes of the award of degree/diploma/certificates etc. by an awarding institution.

2.10. **Credit Point**: It is the product of the grade point and the number of credits for a course.

2.11. **Grade Point:** It is a numerical weight allotted to each letter grade on a 10-point scale.

2.12. **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. It means a letter grade assigned to a student on the basis of evaluation of a course on a ten point scale.

2.13. **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

2.14. **Semester Grade Point Average (SGPA):** It is a measure of performance of the 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.

2.15. **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.

2.16. **Transcript/ 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.

2.17. **Undergraduate Programmes:** Undergraduate Programmes of study leading to award of Bachelor's Degrees shall be offered and conducted by the respective Schools/Departments/ Centres established by the University.

2.18. **Integrated UG-PG Programmes:** Integrated Programmes of study leading to award of respective Certificates/Diplomas/Degrees shall be offered and conducted by the respective Schools/Departments/ Centres established by the University.

2.19. **Apprenticeship/Internship Embedded Degree Programme: A** programme of study containing minimum 20% of the total credits of the Degree programme assigned to apprenticeship/internship in consonance with UGC Guidelines for Higher Education Institutions to offer Apprenticeship/Internship Embedded Degree Programme**.**

2.20. **Internship/apprenticeship:** It is the position of a student/trainee who works in an organization in order to gain work experience or satisfy requirements of hands on/professional training as prescribed in the curriculum.

2.21. **Major discipline:** It is the discipline or subject of main focus and the degree will be awarded in that discipline. Students should secure the prescribed number of credits (minimum 50% of total credits) through core courses in the major discipline.

2.22. **Minor discipline:** It helps a student to gain a broader understanding beyond the major discipline. For example, if a student pursuing an Economics major obtains a minimum of 12 credits from a bunch of courses in Statistics, then the student will be awarded B.A. degree in Economics with a Minor in Statistics.

3. **Eligibility for Admission:** A candidate may be admitted to the Undergraduate/Integrated UG-PG Programme (first Degree) if he or she has attained the minimum eligibility/qualification at the time of admission i.e. Senior Secondary Certificate or Higher Secondary (12th Grade) Certificate obtained after successful completion of Grade 12 or equivalent grade, or as decided by the University from time to time.

The eligibility criteria for admission to various programmes offered by the University shall be as decided by the University from time to time.

4. **Types of Courses/Activities:** Each programme may have various types of courses/activities, namely, Core courses, Ability Enhancement Courses, Skill Enhancement Courses, Discipline Specific Electives, Generic Electives, Massive Open Online Courses(MOOCs), Self-Study Courses, Internship, Seminar, community engagement and services, field practice/projects and/ or any other as specified in the curriculum of a programme of study.

4.1. **Core Courses:**

4.1.1. The core courses are those courses whose knowledge is deemed essential for the students registered for a particular programme of study. Where feasible and necessary, two or more programmes may prescribe one or more common core courses.

4.1.2. The core courses shall be mandatory for all the students registered for that particular programme

4.2. **Elective Courses:** The elective courses can be chosen from a pool of papers. The courses may be very specific or specialized or advanced or supportive to the discipline/ subject of study or which provide an extended scope or which enable an exposure to some other discipline/subject/domain or nurtures the candidate's proficiency/skill are called an Elective Courses.

These courses are intended to:

- allow the student to specialize in one or more branches of the broad subject area;
- help the student to acquire knowledge and skills in a related area that may have applications in the broad subject area;
- help the student to bridge any gap in the curriculum and enable acquisition of essential skills (e.g. statistical, computational, language, communication skills, etc.); and
- help the student to pursue an area of interest.
- The student may also choose additional elective courses offered by the University to enable him/her to acquire extra credits from the discipline, or across the discipline.

4.3. **Discipline Specific Elective (DSE) Course:** Elective course offered under the main discipline/subject of study is referred to as Discipline Specific Elective. The respective department may offer various DSE courses based on the requirements, scope and need of the programme. The department may also offer discipline related Elective courses of interdisciplinary nature.

4.4. **Generic Elective (GE) Course:** It is an elective course chosen from an unrelated discipline/subject, with an intention to seek exposure beyond one's primary discipline. The purpose of this category of papers is to offer the students the option to explore disciplines of interest beyond the choices they make in Core and Discipline Specific Elective papers. The respective department may offer various courses under this category based on the expertise, specialization, requirements, scope and need.

4.5. **Ability Enhancement Course (AEC):** The Ability Enhancement (AE) Courses are based upon the content that leads to Knowledge enhancement; i. Environmental Science and ii. English/Hindi/MIL Communication, etc. These courses are mandatory for all disciplines particularly at undergraduate level.

4.6. **Skill Enhancement Course (SEC):** These courses may be chosen from a pool of courses designed to provide value-based and/or skill-based knowledge and should contain both theory and lab/hands-on/training/field work. The main purpose of these courses is to provide students life-skills in hands-on mode so as to increase their employability.

4.7. **Self-study Courses:** The self-study courses, if offered, are optional and not mandatory. Being non-credit courses, the performance of students in these courses shall be indicated either as "satisfactory" or as "unsatisfactory", instead of the Letter Grade and this shall not be counted for the computation of SGPA/CGPA.

4.8. **Seminar**: A course requiring students to participate in structured discussion/conversation or debate focused on assigned tasks/readings, current or historical events, or shared experiences guided or led by an expert or qualified personnel in a field of learning, work/vocation, or professional practice.

4.9. **Internship**: A course requiring students to participate in a professional activity or work experience, or cooperative education activity with an entity external to the education institution, normally under the supervision of an expert of the given external entity. A key aspect of the internship is induction into actual work situations. Internships involve working with local industry, government or private organizations, business organizations, artists, crafts persons, and similar entities to provide opportunities for students to actively engage in on-site experiential learning.

4.10. **Field practice/projects**: Courses requiring students to participate in field-based learning/projects generally under the supervision of an expert of the given external entity.

4.11. **Community engagement and service**: Courses requiring students to participate in field-based learning/projects generally under the supervision of an expert of the given external entity. The curricular component of 'community engagement and service' will involve activities that would expose students to the socio-economic issues in society so that the theoretical learning can be supplemented by actual life experiences to generate solutions to real-life problems.

Note: A course (Core/Elective/Self-study/skill-based) may also take the form of a Dissertation, Project work, Practical/Hands-on training, Field work or Internship/Seminar.

4.12. **Massive Open Online Courses (MOOCs)**: The students may opt for the online courses offered through India's national Massive Open Online Course (MOOC) platform, viz. Study Web of Active Learning for Young Minds (SWAYAM) or any other online platform approved by UGC/regulatory body from time to time up to an extent as prescribed in the curriculum of an academic programme with the approval of the respective Board of Studies. The Departments may identify up to 40% MOOC courses from SWAYAM Portal or any other online platform approved by UGC/regulatory body from time to time for adoption in UG/Integrated UG-PG programmes in accordance with relevant UGC Guidelines.

5. Mobility Options and Credit Transfer through Academic Bank of Credits (ABC):

5.1. Academic Bank of Credits, a national-level facility to promote flexibility of curriculum framework and interdisciplinary or multidisciplinary academic mobility of students across Higher Education Institutions in the country, facilitates students to choose their own learning path to attain a Certificate or Diploma or Degree or Post-Graduate diploma or academic qualification, working on the principle of multiple entry-multiple exit as well as any-time, any-where, and any-level learning.

5.2. Each student shall have to register on Academic Bank of Credits (ABC) portal for creation of the unique ABC ID to avail multiple entry and multiple exit options and mobility across various disciplines and Higher Education Institutes.

5.3. The requirement of credits as well as essential components of study for award of the Certificate/Diploma/Degree shall be as prescribed by the University.

5.4. The norms in respect of the curriculum content, curriculum transaction, and educational technologies for the courses offered, their timing, continuous evaluation methods, attendance and novel methods of assessment shall be as decided by the University.

5.5. Credits earned and deposited with Academic Bank of Credits (ABC) shall be valid for the purpose of redemption to a Certificate/Diploma/Degree, for varying duration as specified by the credit awarding and credit accepting Higher Education Institution subject to a maximum duration of seven years;

5.6. Provided that once any credit is redeemed for the award of a degree, diploma or certificate, such credit shall be irrevocably debited from the student's Academic Bank Account, and the credits earned by a student cannot be reused for the award of any other formal academic qualifications.

5.7. Students may customize or design their own degrees utilizing courses offered by one or more Higher Education Institutes registered with Academic Bank of Credits;

5.8. Provided that, the student shall be required to earn at least fifty percent of the credits from the Higher Education Institute awarding the degree, diploma or certificate;

5.9. Provided further that, the student shall be required to earn the required number of credits in the core subject area necessary for the award of the degree, diploma or certificate as specified by the university in which the student is enrolled.

5.10. A student shall be eligible for the award of degree, diploma or certificate, whichever applicable, only after fulfilment of the credit requirements, assessment processes, duration and other relevant provisions as laid down by the university.

5.11. A student can take the courses of any other university subject to equivalence of the core/elective courses and availability of seats, adopting due administrative process and formal consent of the University/Universities through the Equivalence Committee(s).

5.12. The flexibility and mobility option doesn't entitle a student to be exempted or relaxed from any of the requisites (sessional tests, attendance, assignments, end-semester examinations, programme duration etc.) for the completion of the programme.

5.13. The mobility option should not be interpreted as inter-university migration unless approved by both the Universities.

5.14. The students shall be permitted to opt inter-disciplinary/multidisciplinary courses of their choice, learn at their pace, undergo additional courses, earn more than the required credits, and adopt an interdisciplinary/ multidisciplinary approach to learning.

5.15. The mobility across the disciplines is also subject to availability of seats, faculty, infrastructure, etc (as fixed by the University/department from time to time).

5.16. Mobility of Credits earned by the students from GIAN (Global Initiative of Academic Networks) courses/ MOOCs (Massive Open Online Courses)/ SWAYAM (Study Webs of Active –Learning for Young Aspiring Minds)/ Swachh Bharat Internship Programme/ etc. shall be credited in accordance with the provisions made under the respective schemes, as amended from time to time; subject to compatibility of course content & assessment process with the prior approval of the respective Board of Studies/ School Board.

5.17. The student shall be given the equivalent credit weightage for the credits earned vide online learning credit courses through SWAYAM platform or any other platform specified by UGC and as approved by the respective Board of Studies.

6. **Credits:** A credit defines the quantum of contents/syllabus prescribed for a course and determines the number of hours of instruction required per week. Thus, in each course, credits are assigned on the basis of the number of lectures/tutorials/laboratory work/field work and other forms of learning required for completing the contents in 15-week schedule. Two hours of laboratory work/field work etc. is generally considered equivalent to 1 hour of lecture.

i. 1 Credit = 1 Theory/Tutorial period of one-hour duration, or

ii. In case of practical, 1 Credit = 1 Practical period of two-hour duration

iii. A one-credit of Seminar or Internship or Studio activities or Field practice/projects or Community engagement and service means two-hour engagements per week. Accordingly, in a semester of 15 weeks duration, one credit in these courses is equivalent to 30 hours of engagement, or as specified by the Board of Studies.

A core/elective course with practical component may ordinarily carry up to 6 credits while a core/elective course without practical component may carry up to 5 credits; a self-study course shall normally carry not more than 3 credits.

All discipline-specific courses (major or minor) may be 4 credits or as appropriate. An additional one to two credits may be allotted for tutorials or practicals.

All courses under the Multi-disciplinary, Ability Enhancement (language), and Skill Enhancement categories etc. may be of 3-credits or as appropriate;

Courses under Value Added, Summer Internship/ Apprenticeship/ Community outreach activities, etc., for all majors, may be of 2-credits or as appropriate;

Terminal year Research Project / Dissertation etc., may be of 12 credits for Undergraduate programme.

In case of Post-Graduate programme, a dissertation/ project work/field work may carry up to 16 credits (along with other core/elective courses). However, a dedicated semester-long dissertation/project work/field work may carry up to 24 credits.

7. **Course Coding:** Each course offered by a school/department is identified by a unique course code indicating school, department, programme no., semester, course no., core (C)/ ability enhancement course (AE)/ skill enhancement course (SE)/elective course (E)/ self-study courses (SS)/Internship (I) etc., number of credits attached to theory lectures, tutorials, practical and total number of credits for the course, respectively. For example, the course code for fifth core course of the first programme in the second semester in Department of Chemistry under the School of Basic Sciences carrying 4 credits (3 theory lectures and one practical) may be- SBS CHEM 01 02 05 C 3014. However, the concerned Board of Studies/School Board may devise a specific course codification pattern with the approval of the Academic Council.

8. **Duration of the Programmes:**

<table>
<tr><th>Programmes</th><th>Bachelor's Degree#</th><th>Integrated UG-PG Degree</th></tr>
<tr><td rowspan="2">Duration</td><td>The duration of the 3-year Bachelor's programme is 3years or 6 semesters.</td><td rowspan="2">The duration of the Integrated UG-PG Degree is -5 Years or 10 semesters/ -2 years or 4 semesters after obtaining a Bachelor's Degree/ 1 year or 2 semesters after obtaining a four-year Bachelor's Degree, whatever is applicable.</td></tr>
<tr><td>The duration of the Bachelor's Degree with Honours or Honours with Research is 4 years or 8 semesters.</td></tr>
<tr><td>Exit</td><td>Students who desire to undergo a 3-year UG Programme will be allowed to exit after successful completion of the 3rd year.</td><td>Students who desire to undergo a 4-year UG Programme (Honours or Honours with Research) will be allowed to exit after successful</td></tr>
</table>

	If a student wants to leave after the completion of the first or second year, the student will be given a UG Certificate or UG Diploma, respectively, provided they earn the prescribed number of credits.	completion of the 4th year, provided they earn the prescribed number of credits.
Entry	Students who exit with a UG certificate or UG diploma are permitted to re-enter within three years and complete the degree programme*.	Students who exit with a UG certificate, UG diploma or UG degree are permitted to re-enter within three years and complete the degree programme*, whatever is applicable.
Maximum Duration	Three Years period beyond the normal period to clear the backlog to be qualified for the Degree.	Three Years period beyond the normal period to clear the backlog to be qualified for the Degree.

**However, the conditions of ABC of NEP-2020 shall apply.*

 # Three-year Bachelor's Degree, Bachelor's with Honours or Bachelor's Degree (Honours with Research) or Apprenticeship/Internship Embedded Undergraduate Programme as specified by the Board of Studies of the respective Department.

a. The students enrolled in Bachelor's or Integrated UG-PG Programme shall also be eligible for multiple entry and exit as prescribed by the respective department/relevant clause of the Ordinance.

b. Provided that a semester or a year may be approved a zero semester or a zero year for a student if he/she could not continue with the academic work during that period due to illness and hospitalization, or due to accepting a scholarship/fellowship subject to the fulfilment of requirements laid down in this respect by the regulations with the approval of Academic Council. Such a zero semester/year shall not be counted for calculation of the duration of the programme in case of such a student. On re-joining, the student shall resume the academic programme with the subsequent batch. For example, a student availing zero semester in an odd semester shall resume the studies of that semester with subsequent batch of odd semester students.

9. **Syllabi and Structure of the Programmes of Study:** The Syllabi and Structure of the Programme of study shall be as approved by the Academic Council on the

recommendations of the Board of Studies/School Board of the Department/Centre/School concerned.

10. Student Advisor:

The Department shall appoint an Advisor for each student from amongst the faculty members of the Department concerned. All faculty members of the department shall act as Student Advisors and shall have more or less equal number of students. The Student Advisor shall advise the student in selection of courses and shall render all possible support, guidance and counselling to him/her.

11. Course Registration:

11.1. The registration for courses shall be the sole responsibility of the student. No student shall be allowed to do a course without registration, and no student shall be entitled to any credits in the course, unless he/she has been registered for the course by the scheduled date fixed by the University.

11.2. Every student shall also register on Academic Bank of Credits (ABC) portal under the guidance of the Student Advisor.

11.3. Every student has to register in each semester (in consultation with his/her Student Advisor) for the courses he/she intends to undergo in that semester by applying as per the prescribed proforma, duly signed by him/her, the Student Advisor and the Head of the Department, within the deadline notified for the purpose by the University.

11.4. Late registration may be permitted by the Head/Incharge of the Department up to a maximum of six weeks after the commencement of the semester, on payment of late registration fee of Rs. 100/-, or as revised from time to time.

11.5. Withdrawal from a course may be permitted up to two weeks from the date of registration, provided the courses registered after withdrawal shall enable the student to earn a minimum of 20 credits in a semester. Withdrawal from a course may not be allowed for those who had late registration.

11.6. Late registration may be permitted by the Head/Incharge of the Department up to a maximum of six weeks after the commencement of the semester, on payment of late fee prescribed by the university.

11.7. A student may be allowed by the Head/Incharge of the Department to add a course or substitute a course for another course of the same type (skill enhancement course/ elective course/ self-study course), for valid reasons with the consent of the Student Advisor not later than two weeks from the date of commencement of the semester.

11.8. If a student registers himself/herself for more elective courses than the prescribed in the programme, while calculating the Semester/Cumulative Grade Point Average, the prescribed number of elective courses for the programme of study shall be included in the descending order of the grades obtained by him/her.

11.9. The elective courses (Discipline-specific or Generic) opted and registered and attempted by the student in the end-semester examination may not be replaced, unless it is otherwise not mandatory. However, a student studying in odd or even semester shall have the option of choosing an elective course offered by the respective/allied/other department at same level from the corresponding semester i.e. students of odd semester shall opt for the courses of odd semesters and students of even semester shall opt for the courses offered by the parent or other department in even-semester. In case of an elective opted in addition to the minimum requirement of the programme, it will not be binding on the students to qualify such courses.

12. Minimum Credit Requirements:

The student shall be required to register for the credits as specified by the Board of Studies of the respective department for a programme of study, as amended from time to time. The Academic Council, on the recommendation of BoS/School Board of the respective Department/School, shall decide the curriculum with specific minimum credit requirements for Certificate, Diploma, Bachelor's Degree, Bachelor's Degree (Honours), Bachelor's Degree (Honours with Research), Postgraduate Diploma, Postgraduate Degree and Integrated UG-PG programme(s) in accordance with relevant Ordinance/UGC Regulations/Guidelines, as amended from time to time. The credit requirements for various levels of Certificate, Diploma and Degree Programmes are as under:

Table-A

Level	Certificate/Diploma/ Degree (in the field of learning and discipline)	Qualification description	Credit Requirements
5	Undergraduate Certificate	Exit after successful completion of the courses prescribed in the first year of an Undergraduate/UG-PG Integrated programme with required number of credits/grade.	40-44, including minimum credits from the elective courses (DSE/GE) or others as prescribed in the syllabi of the first year. In addition to the above, the student is required to complete one vocational course of four credits during the summer vacation of the first year.

6	Undergraduate Diploma	Exit after successful completion of the courses prescribed in the first two years of an Undergraduate/UG-PG Integrated programme with required number of credits/grade.	80-88, including minimum credits from the elective courses (DSE/GE) or others as prescribed in the syllabi of the first two years). In addition to the above, the student is required to complete one vocational course of four credits during the summer vacation.
7	Bachelor's Degree	Exit after successful completion of the courses prescribed in the first three years of an Undergraduate/UG-PG Integrated programme with required number of credits/grade.	120-132 including minimum credits from the elective courses (DSE/GE) or others as prescribed in the syllabi of the first three years).
8	Bachelor's Degree (Honours)	Exit after successful completion of the courses prescribed in the first four years of an Undergraduate/UG-PG Integrated programme with required number of credits/grade.	160-176 including minimum credits from the elective courses (DSE/GE) or others as prescribed in the syllabi of the Bachelor's Degree (Honours) programme. Honours students not undertaking research will do 3 courses for 12 credits in lieu of a research project / Dissertation
8	Bachelor's Degree (Honours with Research)	Exit after successful completion of the courses prescribed in the first four years of an Undergraduate/UG-PG Integrated programme with required number of credits/grade required for Bachelor's Degree (Honours with Research), if any such degree is specifically offered by a department.	160-176 including minimum credits from the elective courses (DSE/GE) or others as prescribed in the syllabi of the Bachelor's Degree (Honours with Research) programme. Students choosing a 4-Year Bachelor's degree (Honours with Research) are required to take up research projects under the guidance of a faculty member. The students are expected to complete the Research Project in the eighth semester. The research outcomes of their project work may be published in peer-reviewed

			journals or may be presented in conferences /seminars or may be patented.
8	Postgraduate Diploma	Exit after successful completion of the courses prescribed in the first four years of the integrated UG-PG Programme with required number of credits/grade.	166-186, including minimum 8 credits from the elective courses (DSE/GE) or others as prescribed in the syllabi of first four years of the integrated UG-PG Programme.
		Exit after the successful completion of the first year or two semesters of the two-year Master's Degree Programme with required number of credits/grade after obtaining a Bachelor's Degree.	46-54, including minimum 8 credits from the elective courses (DSE/GE) or others of which at least 4 credits shall be from elective courses offered by another Department.
9	Master's Degree	Exit after the successful completion of the two years or four semesters of the two-year Master's Degree Programme with required number of credits/grade after obtaining a Bachelor's Degree. Or	96-104, including a minimum of 16 credits from elective courses (of which at least 8 credits shall be from elective courses offered by other Departments).
		Exit after successful completion of one year or two semesters of the Master's Degree Programme with required number of credits/grade after obtaining a Bachelor's Degree (Honours or Honours with Research) or PG Diploma, if any such degree is specifically offered by the Department.	46-54 including minimum 8 credits from the elective courses (DSE/GE) or others of which at least 4 credits shall be from elective courses offered by another Department.
9	Degree in Integrated UG-PG Programme	Exit after successful completion of the courses prescribed in the first five years of the integrated UG-PG Programme with required number of credits/grade.	206-230 including minimum prescribed credits from elective courses (DSE/GE) or others of which at least 8 credits shall be from elective courses offered by other Departments).

Note(s):

i). *The Student is required to declare in writing his/her choice for exit at specific level as mentioned above (Certificate/Diploma/Degree) during registration for the terminal semester on completion of which he/she wants to exit, through respective Head of the Department.*

ii). The credit requirements for Apprenticeship/Internship Embedded Degree Programme, if offered by a department, shall be specifically prescribed in the curriculum in consonance with relevant UGC guidelines.

iii). The Academic Council of the University, on the recommendation of the Board of Studies of the respective department, may increase the minimum and maximum credits for the award of Certificate, Diploma or Degree, wherever required, to ascertain that Certificate, Diploma or Degree meets the equivalence requirements at national/international level.

13. Examination and Internal Assessment

The internal assessment work and the End-Semester examination shall have the weightage of 30% and 70%, respectively. For practical examination also, 70 percent of the marks will be awarded through an end semester practical exam and remaining 30 percent of the marks will consist of internal assessment to be awarded by concerned faculty member(s) of the department.

13.1. Internal Assessment:

13.1.1. Internal Assessment shall be done on a continuous basis, taking into account the student's class performance, completion of assignments and performance at the two compulsory sessional tests to be conducted in a semester.

13.1.2. Internal Assessment Test 1 shall be held around the sixth week of the semester for the syllabi covered till then.

13.1.3. Internal Assessment Test 2 shall be held around the twelfth week for the syllabi covered between seventh and twelfth week.

13.1.4. Internal Assessment Test-3, if required, may be held around the fourteenth week for the syllabi covered between seventh and fourteenth week.

However, the best scores in any two sessional tests shall be counted.

13.1.5. For conducting Internal Assessment, one or more assessment tools, such as written tests, assignments, oral quizzes, paper presentation, laboratory work, seminar, etc., suitable to the course may be employed.

13.1.6. The Internal Assessment for theory shall consist of the following components with marks indicated against each:

(i) Attendance:	**5 marks**
Below 75%	Nil
75% to <80%	1 Mark
80 % to <85%	2 Marks
85% to <85%	3 Marks
90% to <95%	4 Marks
95% and above	5 Marks
(ii) Assignments/Presentations/Seminars and Class Participation	**5 Marks**
(iii) Sessional Tests (Best two shall be counted)	**20 Marks**
(iv) Sessional Tests to be conducted at specific intervals	**10 Marks each**

Note: The 30% weightage shall be distributed proportionately for all the courses with maximum marks less than or greater than hundred.

This **criterion** shall be made known to the students at the commencement of each semester.

13.1.7. For practical examination, 70 percent of the marks will be awarded through an end semester practical exam and remaining 30 percent of the marks will consist of internal assessment to be awarded by concerned faculty member(s) of the concerned department. Maximum 05 marks to be awarded for attendance of students (Same as mentioned in case of internal assessment for theory examination).

13.1.8. The seminar paper shall be assessed on the basis of the contents of the paper submitted and its presentation, equally. The assessment will be made by the concerned teacher/advisor/supervisor. A Seminar presentation paper will not exceed 4 credits per semester.

13.1.9. The Head/Incharge of the Department may allow a student to repeat one sessional test within the same semester, if his/her application in this regard is considered as genuine on valid grounds.

13.1.10. A student is required to secure, in aggregate, a minimum of 'P' grade in the Internal Assessment and in the End-Semester examinations. However, he/she shall have to pass the practical examination separately, with a minimum of 'P' grade.

13.2. End-Semester Examination

13.2.1. The End-semester Examinations covering the entire syllabus prescribed for the course and carrying 70% of weightage, shall be conducted by the Examination Branch of the University, in consultation with the Head of the Department.

13.2.2. The Examiners or Board of Examiners shall be appointed for each course by the Board of Studies of the Department concerned.

13.2.3. The hall ticket/admit card shall be issued to the student on the recommendation of the Head of the Department, subject to the following conditions:

(i) Having fulfilled the requirement of attendance as prescribed in the relevant Ordinance;

(ii) Submission of a "No dues" certificate in the prescribed form.

13.2.4. The distribution of weightage for the evaluation of semester-long project work/ dissertation shall be:

I. Periodic presentation: 30%;

II. Project Report: 40%; and

III. Viva voce-: 30% or as decided by the Board of Studies of the Department concerned.

13.3. Setting of Question Papers and Evaluation

13.3.1. The question papers for the End-Semester theory examination shall be set and evaluation of answer books shall be done by the examiners (Internal and/or External ordinarily in the ratio of 60:40) out of the Panel of Examiners recommended by the Board of Studies of the Department concerned on the basis of their expertise/ specialization/area of interest.

13.3.2. In case of External Examiner, the question paper setting may be given to Professor/ Associate Professor or Assistant Professor with minimum five years of regular teaching experience at relevant level i.e. UG/PG.

Provided that in case of unavailability of external examiners, the Vice Chancellor may allow the question paper setting and evaluation to be performed by the Internal examiners so that the conduct of examination and declaration of results is not delayed.

13.3.3. In the case of the practical examination of the courses, the assessment shall be jointly undertaken by the internal and external examiners. The External examiners shall be invited from amongst the panel of examiners proposed/recommended by the Head of the Department/Dean of the School of the concerned Department/School in consultation of faculty members of the Department.

13.3.4. In case of the Project reports, Thesis and Dissertation, the assessment shall be jointly carried out by the internal and external examiners. External examiners shall be invited from amongst the panel of examiners (ordinarily not below the rank of Associate

Professor) proposed/recommended by the Head/Dean of the concerned Department and approved by the Vice Chancellor/ Vice Chancellor's nominee.

13.3.5. The result of the students shall be subject to moderation by a Board of Moderators appointed by the Vice Chancellor on the recommendation of the Controller of Examinations.

13.3.6. Unless otherwise specified by the respective Board of Studies, the pattern of Question Papers for End-Semester Examinations shall be as under:

- Question no. 1: Shall consist of short answer type questions of specific word length from all the units with internal choice.
- Remaining questions will consist of questions from all the units with internal choice.
- The question paper shall be set in consonance with the defined outcomes specified in LOCF-based curriculum.

13.4. Letter Grades and Grade Points

13.4.1. In the End-semester theory or practical examinations, the examiner shall award the marks and these marks shall be further converted into Grades/Grade points by the examination branch in accordance with the provisions of the Ordinance.

13.4.2. Detailed Marks Card issued at the end of the semester or the programme shall carry marks/percentage and equivalent grades both.

13.4.3. The University shall adopt the 10-point Grading System, with the Letter Grades as given under:

Letter Grade	**Grade Point (SGPA/CGPA)**	**Range of Grade Point (SGPA/CGPA)**	**Class Interval (in %)**
O (Outstanding)	10	Above 9 to 10	Above 90 and < 100
A+ (Excellent)	9	Above 8 to 9	Above 80 and <90
A (Very Good)	8	Above 7 to 8	Above 70 and < 80
B+ (Good)	7	Above 6 to 7	Above 60 and < 70
B (Above Average)	6	Above 5 to 6	Above 50 and < 60
C (Average)	5	Above 4.5 to 5	Above 45 and < 50
P (Pass)	4	4 to 4.5	40 to 45
F (Fail)	0		< 40
Ab (Absent)	0		Absent

Note:

(i) F= Fail, and the students graded with 'F' in a programme or course shall be required to re-appear in the examination. However, students appearing in their final Semester Examination, may be permitted to appear in the reappear papers of all preceding Semesters.

(ii) The minimum qualifying marks for a course or programme shall be 40% (i.e., 'P' grade).

(iii) The students shall have to qualify at the Internal Assessment and the End-Semester examinations in the aggregate, and in the practical examinations, separately.

(iv) There shall be no rounding off of SGPA/CGPA.

(v) The SGPA/CGPA obtained by a student shall be out of a maximum of 10 points.

(vi) In order to be eligible for the award of the Certificate/Diploma/ Degree of the University, a student must obtain CGPA of 4 at the end of the programme.

(vii) Provided that the student who is otherwise eligible for the award of the certificate/diploma/degree but has secured a CGPA of less than 4 at the end of the permissible period of semesters may be allowed by the Department concerned to repeat the same course(s) or other courses of the same nature in lieu thereof in the extra semesters within the maximum duration of the programme.

(viii) The Cumulative Grade Point Average (CGPA) obtained by a student shall be classified into the following division/Class:

CGPA	**Class/Division**
Above 9	Outstanding
Above 8 to 9	First Division (With Distinction)
6 to 8	First Division
5.5 to <6	High-Second Division
5 to <5.5	Second Division
4 to <5	Third Division

13.5. Re-appear Examination:

The students failing to score minimum grade required to qualify a course/programme may be allowed to re-appear in those papers where they couldn't score 'P' grade in the extra semesters provided in specific Clause-8 on "Duration of Programme" with the following provisions:

13.5.1. A student securing "F" Grade in a course shall be permitted to repeat/ reappear in the End-Semester Examination of the Course for a maximum number of three times i.e. a student with arrears on account of "F" Grade, shall be permitted to repeat / reappear in the End Semester Examination for a maximum of three times (including the first appearance), along with the subsequent End Semester Examinations.

13.5.2. If a student secures “F” Grade in a Project Work / Project Report/ Dissertation / Field Work Report / Training Report etc, he/she shall be required to resubmit the revised Project Work / Project Report/ Dissertation / Field Work Report / Training Report etc. as required by the evaluator(s). Provided further that a student shall be permitted to resubmit the Project Work / Project Report / Dissertation / Field Work Report/ Training Report etc. for a maximum of three times (including the first submission).

13.5.3. Such students may avail the chance to re-appear only within the maximum duration of the programme.

13.5.4. Re-appear examination of even semesters shall be conducted with the end-semester examinations of even semesters and similarly examinations of odd semesters shall be conducted with the end-semester examinations of odd semesters. However a student in the final semester/exit stage is allowed to re-appear in the courses of both odd and even semesters.

13.5.5. A ‘Re-appear’ examination shall be based on the syllabi of the course/programme in force at the time of initial registration to the course/programme.

13.5.6. A student who has got the migration certificate issued from the university shall not be allowed to re-appear at any examination.

However, the credits earned by the student shall be credited to the Academic Bank of Credits as per the relevant guidelines/Ordinance, as amended from time to time.

13.5.7. In exceptional circumstances, the University may allow Mercy chance to the students to clear the backlog for which the candidate shall be charged a Fee of Rs. 2000/- per course/paper, as revised from time to time. The Vice-Chancellor shall decide in this regard on case to case basis on the recommendations of the Head of the Department/Dean of the School of the respective Department/School.

13.5.8. In case of students participating in NSS, NCC, Sports, Cultural, Extension Activities or activities of similar nature, with the prior approval of the Vice Chancellor on the recommendations of the respective Head(s) of the Department, during the duration of the scheduled term-end examinations, special examinations may be conducted. The Vice-Chancellor shall decide in this regard on case to case basis on the recommendations of the Head of the Department/Dean of the School of the respective Department/School.

13.5.9. The Vice Chancellor/ Controller of Examinations, shall also have right to award grace marks in marginal cases of failure and /or division change. The maximum grace marks could be 1% of the total maximum marks assigned to the semester to the best advantage of the student.

13.6. Improvement of Grades

For improvement of grades, a student shall have to apply on the prescribed form available on the University website or the Examination Branch of the University, along with the original Detailed Marks Certificate or the copy of the result sheet and the prescribed fee, as revised from time to time.

13.6.1. A student shall be allowed to improve the division only after qualifying required number of credits as prescribed for the programme.

13.6.2. The student may be allowed to avail only two chances for improvement within the maximum duration of the programme.

13.6.3. Improvement examination of even semesters shall be conducted with the end-semester examinations of even semesters and similarly examinations of odd semesters shall be conducted with the end-semester examinations of odd semesters.

13.6.4. Improvement examination shall be based on the syllabi of the course/programme in force at the time of initial registration to the course/programme.

13.6.5. A student shall be allowed to improve his performance/grades in not more than 30% of total courses prescribed in the programme for improvement of division only.

13.6.6. A student improving the Division/grade shall not be considered for Gold Medal/Rank Certificate.

13.7. Re-evaluation/Re-checking:

13.7.1. A student may apply for revaluation/rechecking of his/her answer scripts within thirty days of the declaration of the result.

13.7.2. For re-evaluation/re-checking of the answer scripts, a student shall have to apply on the prescribed form available on the University website or the Examination Branch of the University, along with the original Detail Marks Certificate or the copy of the result sheet and a Fee of Rs. 1000/- for each Course/Paper, as revised from time to time. **Re-checking shall be conducted at the level of Controller of Examinations.**

13.7.3. Declaration of Result after Re-evaluation:

(a) If, after the first re-evaluation, the difference of the original marks and re-evaluated marks is up to plus or minus 5% of the maximum marks of the paper, there shall be no change in the marks originally scored by the student. However, in view of students' interest, this condition won't apply in case of change of character i.e. 'fail to pass' or

change of division.

(b) If after the first re-evaluation, the difference of the original marks and re-evaluated marks is more than 5% and less than 10%, the average of the two scores will be considered as final score and the result shall be revised accordingly. However, if, after re-evaluation, there is change of character to the higher side i.e. 'fail to pass' or change of division, original marks scored after re-evaluation shall be considered.

(c) If after the first re-evaluation, the difference comes to more than plus or minus 10% of the maximum marks of the paper, the answer script shall be re-evaluated by a third examiner.

(d) After the second re-evaluation, the average of the *nearest* two awards/marks shall be taken as final and result shall be revised accordingly.

14. Award of Certificate/Diploma/ Degree:

14.1. Unless otherwise prescribed/amended by the University Grants Commission or the respective regulatory body, the Certificate/Diploma/ Degree shall be awarded on successful completion of prescribed courses with minimum credit/grade requirements as specified by the department.

14.2. The student registered for an Undergraduate or Integrated UG-PG programme of study may avail multiple Exit options as under:

14.2.1. If a student enrolled in Undergraduate or integrated UG-PG programme exits after successful completion of the courses prescribed in the first year of an Undergraduate programme with required number of credits/grade, he/she shall be awarded a Certificate.

14.2.2. If a student enrolled in Undergraduate or integrated UG-PG programme exits after successful completion of the courses prescribed in the first two years of an Undergraduate programme with required number of credits/grade, he/she shall be awarded Undergraduate Diploma.

14.2.3. If a student enrolled in Undergraduate or integrated UG-PG programme exits after successful completion of the courses prescribed in the first three years of an Undergraduate programme with required number of credits/grade, he/she shall be awarded Bachelor's Degree.

14.2.4. If a student enrolled in Undergraduate or integrated UG-PG programme exits after successful completion of the courses prescribed in the first four years of an Undergraduate programme (Honours/ Honours with Research), if offered by a department, with required number of credits/grade, he/she shall be awarded Bachelor's Degree (Honours/ Honours with Research).

14.2.5. If a student enrolled in integrated UG-PG programme exits after successful completion of the courses prescribed in the first four years of the integrated UG-PG Programme with required number of credits/grade, he/she shall be awarded Postgraduate Diploma.

14.2.6. If a student enrolled in integrated UG-PG programme exits after successful completion of the courses prescribed in the first five years of the integrated UG-PG Programme with required number of credits/grade, he/she shall be awarded integrated UG-PG Degree.

14.3. In addition to the above, the entry and exit options shall also be available as under:

14.3.1. Postgraduate Diploma for those who exit after the successful completion of the first year or two semesters of the two-year Master's Degree Programme with required number of credits/grades specified for the programme after obtaining a Bachelor's Degree.

14.3.2. Master's Degree for those who exit after the successful completion of two years or four semesters of the two-year Master's Degree programme with required number of credits/grade specified for the programme after obtaining a Bachelor's Degree.

14.3.3. Master's Degree for those who exit after the successful completion of one year or two semesters of the two-year Master's Degree programme with required number of credits/grade specified for the programme after obtaining a four-year Bachelor's Degree (Honours or Honours with Research) or Postgraduate Diploma.

15. Computation of SGPA and CGPA

The University shall follow the following procedure to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA):

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

$$SGPA\ (Si) = \sum(Ci \times Gi)/\sum Ci$$

Where Ci is the number of credits of the i^{th} course and Gi is the grade point scored by the student in the i^{th} course.

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

$$CGPA = \sum(Ci \times Si)/\sum Ci$$

where Si is the SGPA of the i^{th} semester and Ci is the total no. of credits in that semester.

15.3. The SGPA and CGPA shall be rounded off to 2 decimal points.

16. Illustration of the Computation of SGPA and CGPA

16.1. Illustration of Computation

Course	Credit	Grade Letter	Grade Point	Credit Point
Course I	3	A	8	3 x 8 = 24
Course II	4	B+	7	4 x 7 = 28
Course III	3	B	6	3 x 6 = 18
Course IV	3	O	10	3 x 10 =30
	Total credits for the semester=13			Total Credit points earned= 100

Thus, SGPA= 100/13= 7.69

16.2. Illustrations for computing CGPA

Semester I	Semester II	Semester III	Semester IV	Semester V	Semester VI
Credit: 20	Credit: 22	Credit: 25	Credit: 26	Credit: 26	Credit: 25
SGPA: 6.9	SGPA: 7.8	SGPA: 5.6	SGPA: 6.0	SGPA: 6.3	SGPA= 8.0

Thus,

$$\text{CGPA} = \frac{((20 \times 6.9) + (22 \times 7.8) + (25 \times 5.6) + (26 \times 6.0) + (26 \times 6.3) + (25 \times 8.0))}{(20 + 22 + 25 + 26 + 26 + 25)}$$

= (969.4/144) =6.73

Note: Formula to calculate percentage from CGPA/SGPA= CGPA or SGPA x 10; and formula to calculate percentage to CGPA or SGPA = Percentage/10

e.g. In case of example mentioned in above table, the percentage of CGPA = 6.73x10 =67.30.

16.3. Transcript (Format): Based on the above, letter grades, grade points, SGPA, and the CGPA, the Transcripts/Detailed Marks Certificates (DMCs)/ Grades shall be issued to the candidates for each semester and a consolidated transcript indicating the performance in all the semesters. The percentage of marks shall be reflected in the DMC of the final semester on the basis of the CGPA.

17. Removal of the Name of a Student from the Programme:

17.1. The name of a student falling under any one of the following categories shall automatically stand removed from the rolls of the University:

(a) A student who has failed to fulfil the minimum grade point requirements prescribed for the programme during the maximum duration of the programme.

(b) A student who has already exhausted the maximum duration allowed for completion of the Programme and has not fulfilled the requirements for the award of the Degree /Diploma.

(c) A student who is found to be involved in misconduct, forgery, indiscipline or any other objectionable conduct, upon recommendation of the Discipline Committee/ Proctorial Board, and

(d) A student who has failed to attend the classes for ten teaching days continuously.

17.2. Promotion Rules

(a) A student will be promoted from an odd semester to the next even semester without any restrictions on the minimum number of credits earned. However for promotion from an even semester to the next odd semester, a student should have earned at least 50% of the credits of the current and all previous semesters taken together. A student failing to earn at least 50% of the credits from the prescribed courses of all present and all previous semesters taken together will be treated as an 'Ex-student' and will be allowed to repeat in the end semester examination of the previous semesters as applicable (for example for a student going from semester 4 to 5 who becomes an Ex. Student, he/ she shall be required to repeat all the papers of semester 3 and semester 4 in the next odd/even semester). However such student will not be allowed to repeat the internal assessment for the said paper/s of the respective semester/s as the case may be. After passing the said semesters, the student shall be promoted to the next odd semester and shall be treated as a 'Regular' student.

(b) A student shall be declared to have passed the programme of study and award of the degree if he/she has secured the required credits with at least 'P' grade.

18. Pursuance of Two Academic Programmes Simultaneously: A student may pursue two academic programmes simultaneously in accordance with the UGC "Guidelines for Pursuing Two Academic Programmes Simultaneously", as amended from time to time.

19. Miscellaneous

a. The University shall provide the facility of Academic Bank of Credits in consonance with UGC (Establishment and Operationalisation of Academic Bank of Credits (ABC) Scheme in Higher Education) Regulations, 2021, as amended from time to time.

b. For any programme approved by the Academic Council, if a regulation is issued by the Academic Council, which is at variance with the provisions of this Ordinance, then the Ordinance shall prevail.

c. In addition to the provisions contained in this Ordinance, the Academic programmes governed by a Regulatory Authority shall also comply with essential requirements as prescribed by the respective Regulatory Authority.

d. Relevant provisions regarding multiple entry-multiple exit options, academic bank of credits, dual degree programmes etc. shall be applicable in accordance with the University Ordinance(s)/relevant UGC Regulations, as amended from time to time.

Notwithstanding anything stated in this Ordinance, for any unforeseen issue arising, and not covered by this Ordinance, or in the event of difference in interpretation, the Vice-Chancellor may take an appropriate decision.

School of Engineering and Technology
Central University of Haryana, Mahendergarh

Proceedings/Minutes of the School Board Meeting
of School of Engineering & Technology, Held on 29.09.2022

School Board Meeting of School of Engineering and Technology consisting of four departments 1) Department of Computer Science, 2) Department of Electrical Engineering, 3) Department of Civil Engineering and 4) Department of Printing and Packaging Technology was held on 29th September 2022 at Room No 107, SOET Block, Central University of Haryana, Mahendergarh. The following members were present in the meeting through online and offline mode:

Link for online meeting: **https://meet.google.com/rhd-rnot-wsi**

- Prof. Phool Singh, Dean SoET & HOD PPT - Chairperson
- Prof. Ashutosh Kumar Singh, Professor, NIT Kurukshetra, Subject Expert-Member
- Dr. Dhirendra Singhal, Professor, DCRUST Murthal, Subject Expert-Member
- Dr. Sarbjeet Singh, Professor, Panjab University, Subject Expert-Member
- Prof Sathans, Professor, NIT Kurukshetra
- Dr. Rajesh Kumar Dubey, HoD-EE – Member
- Prof. Vikas Garg, HoD, Civil Engineering-Member
- Dr. Rakesh Kumar, HoD, CSE-Member
- Prof. Kalpana Chauhan, Professor, Chemistry, Member
- Dr. Sumit, Assistant Professor, EE, CUH-Member
- Dr. Neeraj Kumar, Assistant Professor, Civil Engineering, CUH-Member
- Sh. Shammi Mehra, Assistant Professor, PPT, CUH-Member
- Dr Manoj Kumar Singh, Associate Professor, Physics- Special Invitee

The Dean of SoET welcomed all the members and after deliberations, it was resolved/recommended by the School Board members as follows:

- The Scheme and syllabi for B.Tech. (Electrical Engineering) for 8th Semester (Annexure-1) recommended by Board of studies, Electrical Engineering in the minutes of meeting held on 12.09.2022 are approved for B. Tech. (Electrical Engineering) for session 2022-23 onwards.
- In B. Tech. (Electrical Engineering) programme, course code of Industry Internship is changed from BTEE801A to BTEE810A and the course code of Project Stage II from BT EE801A to EE800A as approved by Board of studies, Electrical Engineering in the minutes of meeting held on 12.09.2022.
- In B. Tech. (Electrical Engineering) programme, 8th semester course code BT EE810A (Industry Internship) will be evaluated for 20 credits and 500 Marks, while BT EE800A (Project Stage II) will be evaluated for 13 credit and 300 Marks.
- In M. Tech. (Energy System Management) Programme, course code MTESM-212 (Specialization specific Current Topic Presentation -2) and MTESM-306 (Specialization specific Current Topic Presentation -3) will be evaluated at department level similar to MTEMS-112 (Specialization specific Current Topic Presentation -1) for 100 marks and for 2 credits each, which was already approved in BOS. (Revised scheme attached as Annexure -II).
- In Ph. D. (Electrical Engineering) programme, the evaluation of Seminar (SOET 020103C0022) of 2 credits will be evaluated for 100 marks at departmental level. (Revised scheme attached as Annexure -III).

- The Scheme and syllabi for B. Tech. (Civil Engineering) for Semesters 7th and 8th (Annexure-1V) recommended by Board of studies, Civil Engineering in the minutes of online meeting held on 07.09.2022 are approved for B. Tech. (Civil Engineering) for session 2022-23 onwards.
- The Scheme and syllabi for B. Tech. (PPT) for 8th Semester (Annexure-V) recommended by Board of studies, PPT in the minutes of meeting held on 12.09.2022 are approved for B. Tech. (PPT) for session 2022-23 onwards.
- The committee recommended to introduce Seminar paper in BTech Scheme. Accordingly, BTech Electrical Engineering, Civil Engineering and PPT has introduce Seminar in 7th semester of their BTech scheme and committee approve to the same. B. Tech. Computer Science and Engineering had Seminar paper in their 6th Semester. Revised 7th semester scheme of BTech Electrical Engineering, Civil Engineering and PPT will be implemented from 2023-24 session onwards. (Annexure I, IV and VI)
- The Committee approved the new general elective courses (GEC) of Green Technologies (BTAS200), Environmental Pollution and Human Health (BTAS201) and Accounting and Financial Management (BTAS202) and their syllabi in SoET (Annexure VII).
- Committee deliberated the draft MTech ordinance and recommend to consider the same in the next School Board meeting after due incorporation of the suggestions of the committee.
- Admission to BTech Programmes of SOET is recommended through Joint Seat Allocation System (JOSSA) based on Joint Entrance Examination (JEE- Main) from 2023-24 session onwards.

Meeting ended with vote of thanks to the chair.

29/9/2022

Prof. Phool Singh,
Dean SoET

Prof. Ashutosh Kumar Singh
NIT Kurukshetra

Prof. Dhirendra Singhal
DCRUST Murthal

Prof. Sarbjeet Singh
Panjab University

Prof Sathans,
NIT Kurukshetra

Dr. Rajesh Kumar Dubey,
HoD-EE

29/9/2022

Prof. Vikas Garg,
HoD, Civil Engineering

Dr. Rakesh Kumar, HoD,
CSE

Prof. Kalpana Chauhan,
Chemistry

29/9/2022

Dr. Sumit, EE

Dr. Neeraj Kumar,
Civil Engineering

Sh. Shammi Mehra, PPT

Dr Manoj Kumar
Singh, Physics

Scheme & Syllabus for B.Tech. in Electrical Engineering according to Choice Based Credit System (CBCS)

(Semester-VII to Semester-VIII)

Department of Electrical Engineering
From Academic Session 2022-23 onwards
(Batch 2019-23 onwards)

School of Engineering & Technology

CENTRAL UNIVERSITY OF HARYANA
MAHENDERGARH-123031
HARYANA

Central University of Haryana, Mahendergarh
B.Tech. 4th YEAR (SEMESTER – VII)
Choice Based Credit System Scheme Of Studies & Examinations w.e.f. 2021-22
(Batch 2018-19 onwards)

S. No.	Course Code	Course Title	Teaching Schedule			Credits	Marks
			L	T	P		
1	BT EE701A	Electric Drives	3	0	0	3	100
2	BT EE702A	Project Stage –I	0	0	6	3	100
3	BT EE703A	Summer Internship Presentation	0	2	0	2	50
4		**Program Elective – 6**	3	0	0	3	100
5		**Program Elective – 7**	3	0	0	3	100
6		**General Elective or Open Elective-4**	3	1	0	4	100
7	BT EE710A	**Seminar**	0	2	0	2	50
Total			**12**	**04**	**06**	**20**	**600**

L = Lecture, T = Tutorial, P = Practical, & C = Credits

NOTE: - Examinees will be allowed to use only non-programmable scientific calculators in the examination. Other electronic gadgets and sharing of materials will not be permitted during the examinations.

PROGRAM ELECTIVE-6 (PE6)

EE704A	Digital Control Systems
EE705A	Control System Design
EE706A	Non-linear and optimal control theory

PROGRAM ELECTIVE-7 (PE7)

EE707A	Smart Grid
EE708A	Electrical and Hybrid Vehicles
EE709A	Power Quality and Facts

- The Evaluation of Seminar (BT EE710A) of 2 credits will be evaluated for 50 marks at departmental level.

Central University of Haryana, Mahendergarh
B.Tech. 4th YEAR (SEMESTER – VIII)
Choice Based Credit System Scheme of Studies & Examinations w.e.f. Academic session 2022-23
(Batch 2019-23 and onwards)
Group A

S. No.	Course Code	Course Title	Teaching Schedule			Credits	Marks
			L	T	P		
1	BT EE800A	Project Stage II	0	0	26	13	300
3		Program Elective – 8	3	0	0	3	100
4		General Elective or Open Elective-3	3	1	0	4	100
Total			6	1	26	20	500

L = Lecture, T = Tutorial, P = Practical, & C = Credits

Group B

S. No.	Course Code	Course Title	Teaching Schedule			Credits	Marks
			L	T	P		
1	BT EE810A	Industry Internship	0	0	40	20	500
Total			0	00	40	20	500

L = Lecture, T = Tutorial, P = Practical, & C = Credits

NOTE: - Examinees will be allowed to use only non-programmable scientific calculators in the examination. Other electronic gadgets and sharing of materials will not be permitted during the examinations.

PROGRAM ELECTIVE-8 (PE8)

Any course should be chosen from the given list OR equivalent course from MOOCS

EE803A	Special Electrical Machines
EE804A	Power Electronics and Control for Renewable Energy Systems
EE805A	Robust Control

Program Name: B. Tech.-Electrical Engineering

Course Code: BT EE701 A	**Course Name:** Electric Drives	**L**	**T**	**P**	**C**
		3	**-**	**-**	**3**
Year and Semester	**4rd year** **7th Semester**	**Contact hours per week:** (3 Hrs) **Exam:** (3hrs.)			
Pre-requisite of course	Electrical Machine, Power Electronics	**Evaluation**			
		CIE: 30	**TEE: 70**		

Course Outcomes: On completion of the course, student would be able to:	
CO701.1	Understand the principle of electrical drives & be able to understand the dynamics of electrical drive systems.
CO701.2	Select a drive for a particular application based on power rating & to select a drive based on mechanical characteristics for a particular drive application
CO701.3	Operate state space model of DC motor and apply different power electronics converters for control of DC drives.
CO701.4	Learn speed control of induction motor drives in an energy efficient manner using power electronics
CO701.5	Familiarize with efficient use of electric drive.
CO701.6	Identify suitable form of electrical drives system

Module No	**COURSE SYLLABUS CONTENTS OF MODULE**	**Hrs**	**Cos**
1	**Electrical Drives:** Introduction, advantages, choice of electrical drives, status of ac and dc drives. **Dynamics of Electrical Drives:** Fundamental torque equations, multi-quadrant operation, equivalent values of drive parameters, load torque components, types of loads, steady state stability, load equalization. **Control of Electrical Drives:** Modes of operation, closed loop control of drives, sensing of current and speed**.**	**12**	**CO701.1,**
2	**Selection of Motor & its power rating:** Types of motors & their enclosures, thermal model of motor for heating & cooling, classes of motor duty, rate of motor**.** **Energy Conversion in Electric Drive**: losses in electrical drive system, energy conversion, use of efficient semiconductor converters, energy efficient operation of drives.	**10**	**CO701.2 CO701.5**
3	**DC Motor Drives:** Speed-torque characteristics of different types of dc motors, starting, types of braking, transient analysis, speed control methods, static control of dc motors. Converter fed dc drive & chopper fed dc drive.	**10**	**CO701.3**

4	**Induction motor Drives:** Characteristics, analysis and performance, starting methods, braking methods, transient analysis, methods of speed control, vector control. Static control techniques- stator frequency control, stator voltage control, rotor resistance control. Static Scherbius system & static Kramer system. **Special Drives:** Switched Reluctance motor, Brushless dc motor. Selection of motor for particular applications.	**13**	**CO701.4** **CO701.6**

Text Books:

1. G.K. Dubey, "Fundamentals of Electric Drives", Narosa publishing House.
2. S.K.Pillai, "A First Course on Electric Drives", New Age International.
3. V Subrahmanyam, "Electric Drives", Mcgrawhill Education

Reference Books:

1. M.Chilkin, "Electric Drives",Mir Publishers, Moscow.
2. Mohammed A. El-Sharkawi, "Fundamentals of Electric Drives", Thomson Asia, Pvt. Ltd. Singapore.
3. N.K. De and Prashant K.Sen, "Electric Drives", Prentice Hall of India Ltd.
4. V.Subrahmanyam, "Electric Drives: Concepts and Applications", Tata McGraw Hill.

Program Name: B. Tech.-Electrical Engineering

Course Code: BT EE704 A	**Course Name:** Digital Control systems		**L**	**T**	**P**	**C**
			3	**-**	**-**	**3**
Year and Semester	**4rd year 7th Semester**	**Contact hours per week:** (3 Hrs) **Exam:** (3hrs.)				
Pre-requisite of course	Control System, Signals and Systems	**Evaluation**				
		CIE: 30	**TEE: 70**			

Course Outcomes: On completion of the course, student would be able to:	
CO704.1	Obtain discrete representation of LTI systems.
CO704.2	Analyse stability of open loop and closed loop discrete-time systems.
CO704.3	Design and analyse digital controllers.
CO704.4	Design digital compensator and discrete observer for LTI systems.

Module No	**COURSE SYLLABUS CONTENTS OF MODULE**	**Hrs**	**Cos**
1	**Introduction** Terminology: continuous time, discrete-time & digital signals; Basic structure of digital control scheme and brief description of its blocks. Advantages & problems of digital control, General principles of signal conversion: operation by A/ D & D/A converters, A/D and D/A converter circuits; Sample and hold circuit: Mathematical analysis of sampling process, Ideal sampler, Choice of sampling frequency, Aliasing; Sampling theorem, The Hold operation, ZOH. Unit sample sequence, Unit step sequence & Unit sinusoidal sequence. Difference Equation models & Impulse response models for discrete time systems. State space models of discrete systems, state space analysis, Controllability, reachability, reconstructibility and observability analysis.	**10**	**CO704.1, CO704.2**
2	**Transform Domain Processing** Definition of Z-transform; The Z-transforms of typical functions such as Unit sample sequence, Unit step sequence, sampled ramp function, sampled exponential function, sampled sinusoids; Operations with Z transform such as shifting (forward & backward); Z transform Inversion; Final value & Initial value theorems; Transfer function models; Unit delayer Transfer function; Dynamic response; Stability in z-plane; Jury Stability test; Z-plane poles v/ s stability (& the nature of response functions); Mapping s-plane to z-plane, Bilinear transformation.	**10**	**CO704.2**
3	**MODELS OF DIGITAL CONTROL DEVICES & SYSTEMS**	**10**	**CO704.3**

	z-domain description of sampled continuous-time plants, model of ADC & DAC, Interconnection of discrete-time & continuous time systems & their equivalent transfer functions; Implementation of digital controllers, Recursive realizations: direct, cascade & parallel realizations, Non-recursive realization; Digital PID controller: Positional & velocity forms; Tuning rules for digital PID. Design of digital control system with dead beat response. Practical issues with dead beat response design.		
4	**DESIGN OF DIGITAL CONTROL ALGORITHMS (10)** Basic structure of digital control system; Routes to the design of digital Controller, z-plane specifications of control system design: steady state accuracy, Steady state errors & error constants for type -0,-1,-2 systems, Transient accuracy, dominant poles, Effect of extra zero & pole on discrete time 2nd order system; Digital compensator design using frequency response plot; Digital compensator design using root locus plot. Design of discrete observer for LTI System. Design of set point tracker.	**10**	**CO704.4**

Text/References:

1.M. Gopal, "Digital Control Engg.", New Age International Publishers, New Delhi.

2.M. Gopal, "Digital Control & State Variable Methods (Conventional and Intelligent Control System)", Tata McGraw Hill Education Pvt. Ltd., New Delhi.

3.G. F. Franklin, J. D. Powell and M. L. Workman, "Digital Control of Dynamic Systems", Addison-Wesley, 1998.

4.B.C. Kuo, "Digital Control Systems", OXFORD UNIVERSITY PRESS.

5.K. Ogata, "Discrete-time Control Systems", Pearson Education, New Jersey.

6.Phillips, C. L. & H. T. Nagle, Jr., "Digital Control System Analysis", Pearson Education, New Jersey.

7.Hopis, C.H. and G.B. Lemont, "Digital Control System: Theory, Hardware & Software", McGraw-Hill Publications, New York.

Program Name: B. Tech-Electrical Engineering

Course Code:705A	Course Name: CONTROL SYSTEM DESIGN	L	T	P	C
		3	0	-	3
Year and Semester	4thYear 7thSem	Contact hours per week: (3 Hrs.) Exam: (3hrs.)			
Pre-requisite of course	CONTROL SYSTEM	Evaluation			
		CIE: 30	TEE: 70		

Course Outcomes: On completion of the course, student would be able to:	
CO705.1	Understand the different design specifications of Control System.
CO705.2	Design of Control System in time and frequency domain.
CO705.3	Design of PID controllers in time and frequency domain.
CO705.4	Understand the state space representation of Control system.
CO705.5	Understand the concept of controllability & observability.
CO705.6	Design of Control system in state space representation.

Module No	COURSE SYLLABUS CONTENTS OF MODULE	Hrs.	Cos
1	**Design Specifications:** Introduction to time-domain and frequency-domain design specification and its physical relevance. Effect of gain on transient and steady state response. Effect of addition of pole on system performance. Effect of addition of zero on system response	10	CO705.1,
2	**Design of Control System in time-domain:** Introduction to compensator design in time-domain. Design of Lag, lead and lag-lead compensator in time domain. Feedback and Feed forward compensator design. Feedback compensation. Realization of compensators. **Design of Control System in frequency-domain:** Compensator design in frequency domain to improve steady state and transient response. Feedback and Feed forward compensator design using bode-plot.	15	CO705.2
3	**Design of PID controllers:** Design of P, PI, PD and PID controllers in time-domain and frequency-domain for first, second and third order systems. Control loop with auxiliary feedback and Feed forward control.	9	CO705.3

4	**Control System Design in state space:** Review of state space representation. Concept of controllability & observability, effect of pole-zero cancellation on the controllability & observability of the system, pole placement design through state feedback. Ackerman's Formula for feedback gain design. Design of Observer. Reduced order observer. Separation Principle.	**11**	**CO705.4, CO705.5 CO705.6**

Text Books:

1. N. Nise, "Control system engineering", John Wiley, 2000.
2. I. J. Nagrath and M. Gopal, "Control system engineering", New age international, 2018.
3. B. C. Kuo, "Automatic Control system", Prentice Hall, 1995.

Reference Books:

1. J. J. D'Azzo and C. H. Houpis, "Linear control system analysis and design (conventional and modern)", McGraw Hill, 1995.
2. K. Ogata, "Modern Control Engineering", Prentice Hall, 2010.
3. R. T. Stefani and G. H. Hostetter, "Design of feedback Control Systems", Saunders College Pub, 1994.

Program Name: B. Tech-Electrical Engineering

Course Code:706A	Course Name: A Non-Linear and Optimal Control System	L	T	P	C
		3	0	-	3
Year and Semester	**4thYear** **7thSem**	**Contact hours per week:** (3 Hrs.) **Exam:** (3hrs.)			
Pre-requisite of course	**CONTROL SYSTEM**	**Evaluation**			
		CIE: 30	**TEE: 70**		

Course Outcomes: On completion of the course, student would be able to:	
CO706.1	Demonstrate non-linear system behavior by phase plane and describing function methods.
CO706.2	Perform the stability analysis nonlinear systems by Lyapunov method develop design skills in optimal control problems
CO706.3	Design and apply state-of-the-art classical and modern computational methods to define and solve optimisation problems.
CO706.4	Understanding of feedback optimal control system

Module No	COURSE SYLLABUS CONTENTS OF MODULE	Hrs.	Cos
1	Linear versus nonlinear systems - Describing function analysis: Fundamentals, common nonlinearities (saturation, dead - zone, on - off non - linearity, backlash, hysteresis) and their describing functions. Describing function analysis of nonlinear systems. Reliability of describing method analysis. Compensation and design of nonlinear system using describing function method. Phase plane analysis: Phase portraits, Singular points characterization. Analysis of non - linear systems using phase plane technique. Existence of limit cycles. Linearization: Exact linearization, input - state linearization, input - output linearization.	**10**	**CO706.1,**
2	Concept of stability, Zero - input and BIBO stability, stability in the sense of Lyapunov and absolute stability, Stability in the small and stability in the large, Lyapunov stability definitions, First method of Lyapunov,. Second (or direct) method of Lyapunov stability theory for continuous and discrete time systems, Aids to generate Lyapunov function – Krasovskii's theorem, Variable gradient method.	**15**	**CO706.2**
3	Aizerman's and Kalman's conjecture. Construction of Lyapunov function - Methods of Aizerman, Zubov, Variable gradient method. Lure problem. Popov's stability criterion, Formulation of the optimal	**9**	**CO706.3**

	control Problem, Calculus of variations, Minimum principle, Dynamic Programming, Numerical Solution of Two-point Boundary value problem.		
4	Optimal Feedback Control: Discrete-Time linear State regulator, Continuous-Time Linear state Regulator results of solve other linear problems, Suboptimal Linear regulators, Minimum-time Control of Linear Time-Invariant System. Stochastic Optimal Linear Estimation and Control Stochastic processes and linear systems, Optimal Estimation for Linear Discrete time Systems Stochastic Optimal Linear Regulator.	**11**	**CO706.4,**

Text Books:

1. M. Gopal, "Modern Control System Theory", New Age International, 2005.
2. K. Ogatta, "Modern Control Engineering", PHI, 2002..
3. B.C. Kuo, "Digital Control Systems", Oxford University Press, 1980.

References Books:

1. Anderson, Brian DO, and John B. Moore, "Optimal control: linear quadratic methods", Courier Corporation, 2007.
2. J. Speyer and D. Jacobson, "Primer on Optimal Control Theory", SIAM, 2010
3. R. Stengel, "Optimal Control and Estimation, Dover", 1994
4. K. Astrom, "Introduction to Stochastic Control Theory", Dover, 2006
5. B. Anderson and J. Moore, "Optimal Control", Dover, 2007
6. A. Bryson and Y. Ho, "Applied Optimal Control", Taylor & Francis, 1975
7. A. Bryson, "Applied Linear Optimal Control", Cambridge University Press, 2002
8. M. Athans and P. Falb, "Optimal Control", Dover, 2006
9. D. Naidu, "Optimal Control Systems", CRC Press, 2002
10. F. Lewis and V. Syrmos, "Optimal Control", Wiley-Interscience, 1995
11. P. Dorato, C. Abdallah, and V. Cerone, "Linear Quadratic Control", Krieger Publishing, 2000

Program Name: B. Tech.-Electrical Engineering

Course Code: BT EE-707 A	**Course Name:** SMART GRID	**L**	**T**	**P**	**C**
		3	**0**	**-**	**3**

Year and Semester	**4st year 7th Semester**	**Contact hours per week:** (4 Hrs) Exam**:** (3hrs.)	
Pre-requisite of course	Smart Grid	**Evaluation**	
		CIE: 30	**TEE: 70**

Course Outcomes: On completion of the course, student would be able to:

CO707.1	To Understand basic concept of smart grid and its need, opportunities and barrier and communication in smart grid.
CO707.2	Explain the advanced metering infrastructure, communication infrastructure and protocol and demand side integration for smart metering.
CO707.3	Understand the concept of micro grid its need, operation, application, protection and control, islanding mode and small scale different type of distributed energy resources.
CO707.4	Analyze power quality issues and control operation of micro grid and ICT for smart grid

Module No	**COURSE SYLLABUS CONTENTS OF MODULE**	**Hrs**	**Cos**
1	**Introduction to Smart Grid:** Evolution of Electric Grid, Concept of Smart Grid, Definitions, Need of Smart Grid, Functions of Smart Grid, Opportunities & Barriers of Smart Grid, Difference between conventional & smart grid, Concept of Resilient & Self-Healing Grid, Present development & International policies in Smart Grid. Case study of Smart Grid ,CDM opportunities in Smart Grid, What is a Smart Grid?, The Smart Grid Enables the ElectriNet SM, Local Energy Networks, Electric Transportation, Low-Carbon Central Generation, What Should Be the Attributes of the Smart Grid?, Why Do We Need a Smart Grid?, Is the Smart Grid a "Green Grid"?,	**10**	**CO707.1,**
2	**Sensing, Measurement, Control and Automation Technologies:** Smart metering and demand-side integration, Introduction, Smart metering, Evolution of electricity metering, Key components of smart metering, Smart meters: An overview of the hardware used Signal acquisition, Signal conditioning, Analogue to digital conversion, Computation, Input/output, Communication, Communications infrastructure and protocols for smart metering, Home-area network, Neighbourhood area network, Data concentrator, Meter data management system, Protocols for communications, Demand-side integration, Services provided by DSI, Implementations of DSI,	**10**	**CO707.2,**

	Hardware support to DSI implementations, Flexibility delivered by prosumers from the demand side, System support from DSI.		
3	**Micro Grids And Distributed Energy Resources:** Concept of micro grid, need & applications of micro grid, formation of micro grid, issues of interconnection, protection & control of micro grid. Islanding, need and benefits, different methods of islanding detection. Distributed Energy Resources: Small scale distributed generation, Distributed Generation Technology, Internal Combustion Engines, Gas Turbines, Combined Cycle Gas Turbines, Micro turbines, Fuel Cells, Solar Photovoltaic, Solar thermal, Wind power, Geothermal, - all sources as a DG. Advantages and disadvantages of DG.	**10**	**CO707.3,**
4	**Power Quality Management In Smart Grid:** Power Quality & EMC in Smart Grid, Power Quality issues of Grid connected Renewable Energy Sources, Power Quality Conditioners for Smart Grid, Web based Power Quality monitoring, Power Quality Audit. Information And Communication Technology For Smart Grid: Advanced Metering Infrastructure (AMI), Home Area Network (HAN), Neighborhood Area Network (NAN), Wide Area Network (WAN). Bluetooth, Zig-Bee, GPS, Wi-Fi, Wi-Max based communication, Wireless Mesh Network, Broadband over Power line (BPL)	**10**	**CO707.4,**

Text Books:

1. Ali Keyhani, "Design of Smart power grid renewable energy systems" ,Wiley IEEE,2011.
2. Clark W. Gellings, "The Smart Grid: Enabling Energy Efficiency and Demand Response",CRCPress, 2009.
3. Stuart Borlase, "Smart Grid: Infrastructure,Technology and solutions " CRC Press.
4. Janaka Ekanayake, Nick Jenkins, KithsiriLiyanage, Jianzhong Wu, Akihiko Yokoyama, "Smart Grid: Technology and Applications", Wiley.
5. Andres Carvallo, John Cooper, "The Advanced Smart Grid: Edge Power Driving Sustainability: 1", Artech House Publishers July 2011
6. MladenKezunovic, Mark G. Adamiak, Alexander P. Apostolov, Jeffrey George Gilbert "Substation Automation (Power Electronics and Power Systems)", Springer

Reference Books:

1. Andres Carvallo, John Cooper, "The Advanced Smart Grid: Edge Power Driving Sustainability", Artech House Publishers July 2011.
2. James Northcote, Green, Robert G. Wilson "Control and Automation of Electric Power Distribution Systems (Power Engineering)", CRC Press.
3. MladenKezunovic, Mark G. Adamiak, Alexander P. Apostolov, Jeffrey George Gilbert "Substation Automation (Power Electronice and Power Systems)", Springer

4. R.C. Dugan, Mark F. McGranghan, Surya Santoso, H. Wayne Beaty, “Electrical Power System Quality”, 2nd Edition, McGraw Hill Publication.
5. Phadke, A.G., Thorp, J.S., “Synchronized Phasor Measurements and Their Applications”, Springer.
6. James Momoh, “Smart Grid: Fundamentals of Design and Analysis”, Wiley.

Program Name: B.Tech.-Electrical Engineering

Course Code: BT EE-708A	Course Name: ELECTRICAL AND HYBRID VEHICLES	L	T	P	C
		3	-	-	3
Year and Semester	**4st year 7th Semester**	**Contact hours per week:** (4 Hrs) Exam**:** (3hrs.)			
Pre-requisite of course	**Electrical And Hybrid Vehicles**	**Evaluation**			
		CIE: 30	**TEE: 70**		

Course Outcomes: On completion of the course, student would be able to:

CO708.1	Understand objective and scope of Electric vehicle and its recent trends
CO708.2	Explain the basics of conventional vehicle, their scope, performance, characteristic and its mathematical model.
CO708.3	Analyze social and environment impact of EHV and various topologies of electric drives suitable for hybrid electric vehicles.
CO708.4	Explain the basics and different topologies of Electric drive train and its configuration and analyze and control of advanced propulsion technique in EHV.
CO708.5	Understand the use of different energy storage technologies used for hybrid electric vehicles and their sizing and control.
CO708.6	Interpret working of different classification of energy management system used in Electric hybrid vehicle and its implementation and case study.

Module No	COURSE SYLLABUS CONTENTS OF MODULE	Hrs	Cos
1	**Introduction:** Objective, scope and outcome of the course.	**1**	**CO708.1**
2	**Conventional Vehicles:** Basics of vehicle performance, vehicle power source characterization, Transmission characteristics, and mathematical model to describe vehicle performance.	**5**	**CO708.2**
3	**Hybrid Electric Vehicles** History of hybrid and electric vehicles, social and environmental importance of hybrid and electric vehicles, impact of modern drive-trains on energy supplies. Hybrid Electric Drive-trains: Basic concept of hybrid traction, introduction to various hybrid drive-train topologies, power flow control in hybrid drive-train topologies, fuel efficiency analysis.	**7**	**CO708.3**
4	**Electric Trains** Electric Drive-trains: Basic concept of electric traction, introduction to various electric drive train topologies, power flow control in electric drive-train topologies, fuel efficiency analysis. Electric Propulsion unit: Introduction to electric components used in hybrid and electric vehicles, Configuration and control of DC Motor drives, Configuration and control of Induction Motor drives, configuration	**10**	**CO708.4**

	and control of Permanent Magnet Motor drives, Configuration and control of Switch Reluctance Motor drives, drive system efficiency.		
5	**Energy Storage** Energy Storage: Introduction to Energy Storage Requirements in Hybrid and Electric Vehicles, Battery based energy storage and its analysis, Fuel Cell based energy storage and its analysis, Super Capacitor based energy storage and its analysis, Flywheel based energy storage and its analysis, Hybridization of different energy storage devices. Sizing the drive system: Matching the electric machine and the internal combustion engine (ICE), Sizing the propulsion motor, sizing the power electronics, selecting the energy storage technology, Communications, supporting subsystems.	**10**	**CO708.5**
6	**Energy Management Strategies** Energy Management Strategies: Introduction to energy management strategies used in hybrid and electric vehicles, classification of different energy management strategies, comparison of different energy management strategies, implementation issues of energy management strategies. Case Studies: Design of a Hybrid Electric Vehicle (HEV), Design of a Battery Electric Vehicle (BEV).	**8**	**CO708.6**

Text books:

1. Iqbal Hussein, "Electric and Hybrid Vehicles: Design Fundamentals", CRC Press, 2003
2. Mehrdad Ehsani, Yimi Gao, Sebastian E. Gay, Ali Emadi, "Modern Electric, Hybrid Electric and Fuel Cell Vehicles: Fundamentals, Theory and Design", CRC Press , 2004
3. Sandeep Dhameja, "Electric Vehicle Battery Systems", Newnes, 2000 http://nptel.ac.in/courses/108103009/

Reference books:

1. James Larminie, John Lowry, "Electric Vehicle Technology Explained", Wiley, 2003
2. Mehrdad Ehsani, YimiGao, Sebastian E. Gay, Ali Emadi, "Modern Electric, Hybrid Electric and Fuel Cell Vehicles: Fundamentals", Theory and Design, CRC Press, 2004.
3. Chris Mi, M. Abul Masrur, David Wenzhong Gao, "Hybrid Electric Vehicles: Principle and Applications with Practical Perspectives", John Wiley & Sons Ltd., 2011.

Program Name: B.Tech.-Electrical Engineering

Course Code: BT EE-709A	Course Name: POWER QUALITY AND FACTS	L	T	P	C
		3	-	-	3
Year and Semester	**4st year 7th Semester**	**Contact hours per week:** (4 Hrs) Exam: (3hrs.)			
Pre-requisite of course	**POWER QUALITY AND FACTS**	**Evaluation**			
		CIE: 30	**TEE: 70**		

Course Outcomes: On completion of the course, student would be able to:	
CO709.1	Understand objective and scope of power quality and Facts.
CO709.2	Explain the basics of reactive and active power in transmission.
CO709.3	Explain the basics and different topologies of SVC ,TCSC.
CO709.4	Understand the use of different voltage source converter based (FACTS) controllers
CO709.5	Understand the use of different application of FACTS devices.
CO709.6	Explain the power quality problems in distribution systems

Module No	COURSE SYLLABUS CONTENTS OF MODULE	Hrs	Cos
1	**Introduction:** Objective, scope and outcome of the course.	**1**	**CO709.1**
2	**Transmission Lines and Series/Shunt Reactive Power Compensation** Basics of AC Transmission. Analysis of uncompensated AC transmis- sion lines. Passive Reactive Power Compensation. Shunt and series compensation at the mid-point of an AC line. Comparison of Series and Shunt Compensation	**5**	**CO709.2**
3	**Thyristor-based Flexible AC Transmission Controllers (FACTS)** Description and Characteristics of Thyristor-based FACTS devices: Static VAR Compensator (SVC), Thyristor Controlled Series Capacitor (TCSC), Thyristor Controlled Braking Resistor and Single Pole Single Throw (SPST) Switch. Configurations/Modes of Operation, Harmonics and control of SVC and TCSC. Fault Current Limiter.	**7**	**CO709.3**
4	**Voltage Source Converter based (FACTS) controllers** Voltage Source Converters (VSC): Six Pulse VSC, Multi-pulse and Mul- ti-level Converters, Pulse-Width Modulation for VSCs. Selective Har- monic Elimination, Sinusoidal PWM and Space Vector Modulation. STATCOM: Principle of Operation, Reactive Power Control: Type I and Type II	**10**	**CO709.4**

	controllers, Static Synchronous Series Compensator (SSSC) and Unified Power Flow Controller (UPFC): Principle of Operation and Control. Working principle of Interphase Power Flow Controller. Other Devices: GTO Controlled Series Compensator. Fault Current Limiter.		
5	**Application of FACTS** Application of FACTS devices for power-flow control and stability im- provement. Simulation example of power swing damping in a single- machine infinite bus system using a TCSC. Simulation example of voltage regulation of transmission mid-point voltage using a STATCOM.	**10**	**CO709.5**
6	**Power Quality Problems in Distribution Systems** Power Quality problems in distribution systems: Transient and Steady state variations in voltage and frequency. Unbalance, Sags, Swells, Interruptions, Waveform Distortions: harmonics, noise, notching, dc-offsets, fluctuations. Flicker and its measurement. Tolerance of Equipment: CBEMA curve..	**8**	**CO709.6**

TEXT BOOKS:

1. N. G. Hingorani and L. Gyugyi, "Understanding FACTS: Concepts and Technol- ogy of FACTS Systems", Wiley-IEEE Press, 1999.
2. K. R. Padiyar, "FACTS Controllers in Power Transmission and Distribution", New Age International (P) Ltd. 2007.
3. T. J. E. Miller, "Reactive Power Control in Electric Systems", John Wiley and Sons, New York, 1983.
4. R. C. Dugan, "Electrical Power Systems Quality", McGraw Hill Education, 2012.

Program Name: B.Tech.-Electrical Engineering

Course Code: BT EE-803A	Course Name: SPECIAL ELECTRICAL MACHINES	L	T	P	C
		3	-	-	3
Year and Semester	**4st year 8th Semester**	**Contact hours per week:** (4 Hrs) Exam**:** (3hrs.)			
Pre-requisite of course	**POWER QUALITY AND FACTS**	**Evaluation**			
		CIE: 30	**TEE: 70**		

Course Outcomes: On completion of the course, student would be able to:	
CO803.1	Use different types of motor efficiently for various applications
CO803.2	Maintain different types induction machines for different applications
CO803.3	Maintain different types synchronous machines for different applications
CO803.4	Maintain different types of Permanent magnet motors
CO803.5	Maintain various types of Small specialised electric machines

Module No	COURSE SYLLABUS CONTENTS OF MODULE	Hrs	COs
1	**Stepping motors:** Constructional features, principle of operation, types, modes of excitation, torque production in variable reluctance (vr) stepping motor, static and dynamic characteristics, introduction to drive circuits for stepper motor, suppressor circuits, closed loop control of stepper motor- applications	**1**	**CO803.1 CO803.2**
2	**Switched reluctance motors:** principle of operation, constructional features, torque equation, power semi conductor switching circuits, frequency of variation of inductance of each phase winding - control circuits of srm-torque - speed characteristics, microprocessor based control of srm drive, applications.	**5**	**CO803.1 CO803.2**
3	**Synchronous reluctance motors constructional features:** axial and radial air gap motors. Operating principle, reluctance torque - phasor diagram, speed torque characteristics, applications.	**7**	**CO803.2 CO803.3**
4	**Permanent magnet brushless dc motors**: commutation in dc motors, electronic commutation - difference between mechanical and electronic commutators- hall sensors, optical sensors, construction and principle of pmbl dc motor, torque and e.m.f equation, torque-speed characteristics, power controllers-drive circuits, applications	**10**	**CO803.1 CO803.4**
5	**Permanent magnet synchronous motors:** Construction and types, principle of operation, emf and torque equation, phasor diagramtorque speed characteristics, power controllers- self control,	**10**	**CO803.4 CO803.5**

	vector control, microprocessor based control, applications		

Text books:

1. Miller, T. J. E., “Brushless Permanent Magnet and Reluctance Motor Drives”, Oxford Science Publications, 1989.
2. Kenjo, T., and Sugawara, A., “Stepping Motors and their Microprocessor Controls”, Oxford Science Publications, 1984.
3. Venkataratnam K., “Special Electrical Machines”, CRC Press, 2009.

Reference Books:

1. Krishnan, R., “Permanent Magnet and BLDC Motor Drives”, CRC Press, 2009.
2. Chang-liang, X., "Permanent Magnet Brushless DC Motor Drives and Controls", Jun 2012

Program Name: B.Tech.-Electrical Engineering

Course Code: BT EE804 A	Course Name: POWER ELECTRONICS AND CONTROL FOR RENEWABLE ENERGY SYSTEMS	L	T	P	C
		3	-	-	3

Year and Semester	**4rd year** **8th Semester**	**Contact hours per week:** (3 Hrs) **Exam:** (3hrs.)	
Pre-requisite of course	Power Electronics and Control for Renewable Energy Systems	**Evaluation**	
		CIE: 30	**TEE: 70**

Course Outcomes: On completion of the course, student would be able to:	
CO804.1	Analyze power electronics converters controls
CO804.2	Apply power electronics converters in renewable energy systems
CO804.3	Design advance power electronics converters control schemes

Module No	COURSE SYLLABUS CONTENTS OF MODULE	Hrs	COs
1	**Fundamentals of Power Converters:** DC/DC converters, AC/DC converters, DC/AC converters, Classical Multilevel Inverters, SPWM, SVPWM.	**10**	**CO804.1, CO804.2**
2	**Modelling of Power Converters:** Introduction to Power Electronic Converters Modelling, Switched Model, Classical Averaged Model, Generalized Averaged Model, Small Signal Analysis	**10**	**CO804.2**
3	**Control of Power Converters**: General Control Principles of Power Electronic Converters, Linear Control Approaches for DC-DC Power Converters, Linear Control Approaches for DC-AC and AC-DC Power Converters, Energy-Based Control of Power Electronic Converters, Variable-Structure Control of Power Electronic Converters.	**10**	**CO804.2, CO804.3**
4	**Control of Renewable Energy Systems**: Control of voltage source converters with LCL filters, Control of three-phase converters including Phase Locked Loop, Control of PV systems, Control of Wind Energy Systems.	**10**	**CO804.3**

Text/References:

1. AntonetaIuliana Bratcu, Iulian Munteanu, and Seddik Bacha "Power Electronic Converters Modeling and Control" Springer Press, 2013.
2. FredeBlaabjerg, "Control of Power Electronic Converters and Systems" Academic Press, 2018.
3. Felix A. Farret, M. Godoy Simões"Modeling Power Electronics and Interfacing Energy Conversion Systems"John Wiley & Sons, 2017.

Program Name: B. Tech.-Electrical Engineering

Course Code: BT EE805 A	Course Name: ROBUST CONTROL	L	T	P	C
		3	-	-	3
Year and Semester	**4rd year 8th Semester**	**Contact hours per week:** (3 Hrs) **Exam:** (3hrs.)			
Pre-requisite of course	**ROBUST CONTROL**	**Evaluation**			
		CIE: 30	**TEE: 70**		

Course Outcomes: On completion of the course, student would be able to:	
CO805.1	Understand LTI systems and its applications
CO805.2	Apply Lyapunov theorem for any stability problem
CO805.3	Design passive systems in frequency and time domain

Module No	COURSE SYLLABUS CONTENTS OF MODULE	Hrs	COs
1	Modeling of uncertain systems, Signals and Norms, Lyapunov theory for LTI systems	**10**	**CO805.1, CO805.2**
2	Passive systems – frequency domain Passive systems – time domain	**7**	**CO805.2**
3	Robust Stability and performance, Stabilizing controllers – Coprime factorization	**8**	**CO805.2, CO805.3**
4	LQR, LQG problems, Ricatti equations and solutions, Ricatti equation solution through LMI, H-infinity control and mu-synthesis, Linear matrix inequalities for robust control	**10**	**CO805.3**

Text/References:

1. L. Fortuna, M. Frasca (Eds.), "Optimal and Robust Control", CRC Press, 2012
2. K. Zhou, J. C. Doyle and K. Glover, "Robust and Optimal Control", Prentice Hall, 1996
3. J. C. Doyle, B. A. Francis and A. R. Tannenbaum, "Feedback Control Theory", Macmillan, 1992

17. **इनफ्लिबनेट के साथ डिपॉजिटरी**– पीएच.डी. उपाधि(यों) को अवार्ड करने हेतु मूल्यांकन प्रक्रिया के सफल समापन के पश्चात् तथा पीएच.डी. उपाधि को प्रदान किये जाने की घोषणा से पूर्व, संबंधित उच्चतर शिक्षण संस्थान पीएच.डी. शोध प्रबंधन की इलेक्ट्रॉनिक प्रति इनफ्लिबनेट के पास प्रदर्शित (होस्ट) करने के लिए जमा करेगा ताकि सभी उच्चतर और अनुसंधान संस्थानों को यह सुलभ हो।

रजनीश जैन, सचिव

[विज्ञापन-III/4/असा./367/2022-23]

UNIVERSITY GRANTS COMMISSION

NOTIFICATION

New Delhi, the 7th November, 2022

University Grants Commission (Minimum Standards and Procedures forAward of Ph.D. Degree)

Regulations, 2022

No. F. No. 1-3/2021(QIP).—In exercise of the powers conferred by clauses (f) and (g) of sub-section (1) of section 26 of the University Grants Commission Act, 1956 (3 of 1956), and in supersession ofthe UGC (Minimum Standards and Procedure for Awards of M.Phil. /Ph.D. Degree) Regulations, 2016 and its amendments, the University Grants Commission hereby makes the following Regulations, namely: -

1. Short title, Application, and Commencement. –

(1) These Regulations may be called University Grants Commission (Minimum Standards and Procedure for Award of Ph.D. Degree) Regulations, 2022.

(2) They shall apply to every university established or incorporated by or under a Central Act,a Provincial Act, or a State Act, every college, and every institution deemed to be a University under section 3 of the University Grants Commission Act, 1956.

(3) They shall come into force from the date of their publication in the Gazette of India.

2. Definitions.- (1) In these Regulations, unless the context otherwise requires,-

a) "Act" means the University Grants Commission Act,1956 (3 of 1956);

b) "Adjunct Faculty" means a part-time or contingent instructor, but not full-time faculty member hired to teach by a Higher Educational Institution;

c) "Cumulative Grade Point Average (CGPA)" means a measure of the 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 allcourses in all semesters. It is expressed up to two decimal places;

d) "Credit" means the number of hours of instruction required per week over the duration of a semester. A three-credit course in a semester means three one-hour lectures per week, with each one-hour lecture counted as one credit;

e) "College" means an institution engaged in higher education and/or research, either established by a University as its constituent unit or is affiliated with it;

f) "Commission" means the University Grants Commission established under Section 4 of the UGC Act1956;

g) "Course" means one of the specified units which go to comprise a programme of study;

h) "Course Work" means courses of study prescribed by the School/Department/ Centre to be undertaken by a student registered for the Ph.D. Degree;

i) "Degree" means a degree awarded by a Higher Educational Institution in accordance with the provisions of section 22 (3) of the Act;

j) "External examiner" means an academician/researcher with published research work who is not part of the Higher Educational Institutionwhere the Ph.D. scholar has registered for the Ph.D. programme;

k) "Foreign Educational Institution" means–(i) an institution duly established or incorporated in its home

country and offering educational programmes at the undergraduate, postgraduate and higher levels in its home country and (ii) which offers programme(s) of study leading to the award of a degree through conventional face-to-face mode, but excluding distance, online, ODL mode;

l) "Grade Point" means a numerical weight allotted to each letter grade on a 10-point scale;

m) "Guide/Research Supervisor" means an academician/researcher recognized by Higher Educational Institution to supervise the Ph.D. scholar for his/her research;

n) "Higher Educational Institution" means a university or institution specified under clause 2 of Regulation 1 of these Regulations;

o) "Interdisciplinary Research" means research conducted by a Ph.D. scholar in two or more academic disciplines;

p) "Open and Distance Learning Mode" shall have the same meaning as defined under the UGC (Open and Distance Learning Programmes and Online Programmes) Regulations 2020;

q) "Online Mode" shall have the same meaning as defined under the UGC (Open and Distance Learning Programmes and Online Programmes) Regulations 2020;

r) "Plagiarism" means the practice of taking someone else's work or idea and passing them as one's own;

s) "Programme" means a higher education programme pursued for a degree specified by the Commission under sub-section (3) of section 22 of the Act;

t) "Prospectus" means any document, whether in print or otherwise, issued for providing fair and transparent information relating to a Higher Educational Institution and programmes, to the general public (including to those seeking admission in such Higher Educational Institutions) by the Higher Educational Institutions;

u) "Research Proposal" means a brief write-up giving an outline of the proposed research work which the Ph.D. scholar shall submit along with the application for registration for Ph.D. programme;

v) "University" means a Higher Educational Institution established or incorporated by or under a Central Act, a Provincial Act, or a State Act, and shall include any institution for higher education deemed to be a University under Section 3 of the Act.

(2) Words and expressions used and not defined in these Regulations but defined in Act and not consistent with these Regulations shall have the meanings assigned to them in that Act.

3. Eligibility criteria for admission to the Ph.D. Programme.-The following are eligible to seek admission to the Ph.D. programme:

(1) Candidates who have completed:

i. A 1-year/2-semester master's degree programme after a 4-year/8-semester bachelor's degree programme or a 2-year/4-semester master's degree programme after a 3-year bachelor's degree programme or qualifications declared equivalent to the master's degree by the corresponding statutory regulatory body, with at least 55% marks in aggregate or its equivalent grade in a point scale wherever grading system is followed

or equivalent qualification from a foreign educational institution accredited by an assessment and accreditation agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country to assess, accredit or assure quality and standards of the educational institution.

A relaxation of 5% marks or its equivalent grade may be allowed for those belonging to SC/ST/OBC (non-creamy layer)/Differently-Abled, Economically Weaker Section (EWS) and other categories of candidates as per the decision of the Commission from time to time.

Provided that a candidate seeking admission after a 4-year/8-semester bachelor's degree programme should have a minimum of 75% marks in aggregate or its equivalent grade on a point scale wherever the grading system is followed. A relaxation of 5% marks or its equivalent grade may be allowed for those belonging to SC/ST/OBC (non-creamy layer)/Differently-Abled, Economically Weaker Section (EWS) and other categories of candidates as per the decision of the Commission from time to time.

(2) Candidates who have completed the M.Phil. programme with at least 55% marks in aggregate or its

equivalent grade in a point scale wherever grading system is followed or equivalent qualification from a foreign educational institution accredited by an assessment and accreditation agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country to assess, accredit or assure quality and standards of educational institutions, shall be eligible for admission to the Ph.D. programme. A relaxation of 5% marks or its equivalent grade may be allowed for those belonging to SC/ST/OBC (non-creamy layer)/Differently-Abled, Economically Weaker Section (EWS) and other categories of candidates as per the decision of the Commission from time to time.

4. Duration of the Programme.- (1) Ph.D. Programme shall be for a minimum duration of three

(3) years, including course work, and a maximum duration of six (6) years from the date of admission to the Ph.D. programme.

(2) A maximum of an additional two (2) years can be given through a process of re-registration as per the Statute/Ordinance of the Higher Educational Institution concerned; provided, however, that the total period for completion of a Ph.D. programme should not exceed eight (8) years from the date of admission in the Ph.D. programme.

Provided further that, female Ph.D. scholars and Persons with Disabilities (having more than 40% disability) may be allowed an additional relaxation of two (2) years; however, the total period for completion of a Ph.D. programme in such cases should not exceed ten (10) yearsfrom the date of admission in the Ph.D. programme.

(3) Female Ph.D. Scholars may be provided Maternity Leave/Child Care Leave for up to 240days in the entire duration of the Ph.D. programme.

5. Procedure for admission. -

(1) The admission shall be based on the criteria notified by the institution, keeping in view the guidelines/norms in this regard issued by the UGC and other statutory/regulatory bodies concerned, and taking into account the reservation policy of the Central/State Government from time to time.

(2) Admission to the Ph.D. programme shall be made using the following methods:

i. HEIs may admit students who qualify for fellowship/scholarship in UGC-NET/UGC- CSIR NET/GATE/CEED and similar National level tests based on an interview.

And/or

ii. HEIs may admit students through an Entrance Test conducted at the level of the individual HEI. The Entrance Test syllabus shall consist of 50% of research methodology, and 50% shall be subject-specific.

iii. Students who have secured 50 % marks in the entrance test are eligible to be called for the interview.

iv. A relaxation of 5 % marks will be allowed in the entrance examination for the candidates belonging to SC/ST/OBC/differently-abled category, Economically Weaker Section (EWS), and other categories of candidates as per the decision of the Commission from time to time.

v. HEIs may decide the number of eligible students to be called for an interview based on the number of Ph.D. seats available.

vi. Provided that for the selection of candidates based on the entrance test conducted by the HEI, a weightage of 70 % for the entrance test and 30 % for the performance in the interview/viva- voce shall be given.

(3) Universities and Colleges which are eligible to conduct Ph.D. programmes, shall:

i. Notify a prospectus well in advance on the institution's website specifying the numberof seats for admission, subject/discipline-wise distribution of available seats, criteria for admission, the procedure for admission, and all other relevant information for the candidates;

ii. Adhere to the National/State-level reservation policy, as applicable.

(4) The Higher Educational Institution shall maintain a list of Ph.D. supervisors (specifying the name of the supervisor, his or her designation, and the department/school/centre), along with the details of Ph.D. scholars (specifying the name of the registered Ph.D. scholar, thetopic of his/her research and the date of

admission) admitted under them on the website ofthe institution and update this list every academic year.

6. Allocation of Research Supervisor.- Eligibility criteria to be a Research Supervisor, Co-Supervisor, Number of Ph.D. scholars permissible per supervisor, etc.

(1) Permanent faculty members working as Professor/Associate Professor of the Higher Educational Institution with a Ph.D., and at least five research publications in peer-reviewed or refereed journals and permanent faculty members working as Assistant Professors in Higher Educational Institutions with a Ph.D., and at least three research publications in peer-reviewed or refereed journals may be recognized as a Research Supervisor in the university where the faculty member is employed or in its affiliated Post-graduate Colleges/institutes. Such recognized research supervisors cannot supervise research scholars in other institutions, where they can only act as co-supervisors. Ph.D. awarded by a university under the supervision of a faculty member who is not an employee of the university or its affiliated Post- graduate Colleges/institutes would be in violation of these Regulations.

For Ph.D. scholars working in Central government/ State government research institutions whose degrees are given by Higher Educational Institutions, the scientists in such research institutions who are equivalent to Professor/Associate Professor/Assistant Professor can be recognized as supervisors if they fulfill the above requirements.

Provided that in areas/disciplines where there is no, or only a limited number of peer-reviewed or refereed journals, the Higher Educational Institution may relax the above condition for recognition of a person as Research Supervisor with reasons recorded in writing.

Co-Supervisors from within the same department or other departments of the same institution or other institutions may be permitted with the approval of the competent authority.

Adjunct Faculty members shall not act as Research Supervisors and can only act as co-supervisors.

(2) In case of interdisciplinary/multidisciplinary research work, if required, a Co-Supervisor from outside the Department/School/Centre/College/University may be appointed.

(3) An eligible Professor/Associate Professor/Assistant Professor can guide up to eight (8) / six (6) / four (4) Ph.D. scholars, respectively, at any given time.

(4) In case of relocation of a female Ph.D. scholar due to marriage or otherwise, the research data shall be allowed to be transferred to the Higher Educational Institution to which the scholar intends to relocate, provided all the other conditions in these Regulations are followed, and the research work does not pertain to a project sanctioned to the parent Institution/Supervisor by any funding agency. Such scholar shall, however, give due credit to the parent institution and the supervisor for the part of research already undertaken.

(5) Faculty members with less than three years of service before superannuation shall not be allowed to take new research scholars under their supervision. However, such faculty members can continue to supervise Ph.D. scholars who are already registered until superannuation and as a co-supervisor after superannuation, but not after attaining the age of 70 years.

7. Admission of International students in Ph.D. programme.-

(1) Each supervisor can guide up to two international research scholars on a supernumerary basis over and above the permitted number of Ph.D. scholars as specified in clause 6.3 above.

(2) The HEIs may decide their own selection procedure for Ph.D. admission of international students keeping in view the guidelines/norms in this regard issued by statutory/regulatory bodies concerned from time to time.

8. At any point, the total number of Ph.D. scholars under a faculty member, either as a supervisor or a co-supervisor, shall not exceed the number prescribed in clause 6.3 and clause 7.1.

9. Course Work.- Credit requirements, number, duration, syllabus, minimum standards for completion, etc.

(1) The Credit requirement for the Ph.D. coursework is a minimum of 12 credits, including a "Research and Publication Ethics" course as notified by UGC vide D.O. No. F.1- 1/2018(Journal/CARE) in 2019 and a research methodology course. The Research Advisory Committee can also recommend UGC recognized online courses as part of the credit requirements for the Ph.D. programme.

(2) All Ph.D. scholars, irrespective of discipline, shall be required to train in teaching /education /pedagogy/writing related to their chosen Ph.D. subject during their doctoral period. Ph.D. scholars may also be assigned 4-6 hours per week of teaching/research assistantship for conducting tutorial or laboratory work and evaluations.

(3) A Ph.D. scholar must obtain a minimum of 55% marks or its equivalent grade in the UGC 10-point scale in the course work to be eligible to continue in the programme and submit his or her thesis.

10. Research Advisory Committee and its Functions.- (1)There shall be a Research Advisory Committee or an equivalent body as defined in the Statutes/Ordinances of the Higher Educational Institution concerned for each Ph.D. scholar. The Research Supervisor of the Ph.D. scholar concerned shall be the Convener of this committee, and this committee shall have the following responsibilities:

i. To review the research proposal and finalize the topic of research.

ii. To guide the Ph.D. scholar in developing the study design and methodology of research and identify the course(s) that he/she may have to do.

iii. To periodically review and assist in the progress of the research work of the Ph.D.scholar.

(2) Each semester, a Ph.D. scholar shall appear before the Research Advisory Committee to make a presentation and submit a brief report on the progress of his/her work for evaluationand further guidance. The Research Advisory Committee shall submit its recommendations along with a copy of Ph.D. scholar's progress report to the Higher Educational Institution concerned. A copy of such recommendations shall also be provided to the Ph.D. scholar.

(3) In case the progress of the Ph.D. scholar is unsatisfactory, the Research Advisory Committee shall record the reasons for the same and suggest corrective measures. If the Ph.D. scholar fails to implement these corrective measures, the Research Advisory Committee may recommend, with specific reasons, the cancellation of the registration of the Ph.D. scholar from the Ph.D. programme.

11. Evaluation and Assessment Methods, minimum standards/credits for award of the degree,etc.-

(1) Upon satisfactory completion of course work and obtaining the marks/grade prescribed inclause (3) of Regulation 9 above, the Ph.D. scholar shall be required to undertake research work and produce a draft dissertation/thesis.

(2) Before submitting the dissertation/thesis, the Ph.D. scholar shall make a presentation before the Research Advisory Committee of the Higher Educational Institution concerned, which shall also be open to all faculty members and other research scholars/students.

(3) The Higher Educational Institution concerned shall have a mechanism using well-developed software applications to detect Plagiarism in research work and the research integrity shall be an integral part of all the research activities leading to the award of a Ph.D. degree.

(4) A Ph.D. scholar shall submit the thesis for evaluation, along with (a) an undertaking from the Ph.D. scholar that there is no plagiarism and (b) a certificate from the Research Supervisor attesting to the originality of the thesis and that the thesis has not been submitted for the award of any other degree/diploma to any other Higher Educational Institution.

(5) The Ph.D. thesis submitted by a Ph.D. scholar shall be evaluated by his/her Research Supervisor and at least two external examiners who are experts in the field and not in employment of the Higher Educational Institution concerned. Such examiner(s) should be academics with a good record of scholarly publications in the field. Wherever possible, one of the external examiners should be chosen from outside India. The viva-voce board shall consist of the Research Supervisor and at least one of the two external examiners and may be conducted online. The viva-voce shall be open to the members of the Research Advisory Committee/faculty members/research scholars, and students. Higher Educational Institutions may formulate appropriate rules/ordinances to effect the provisions of this Regulations.

(6) The viva-voce of the Ph.D. scholar to defend the thesis shall be conducted if both the external examiners recommend acceptance of the thesis after incorporating any corrections suggested by them. If one of the external examiners recommends rejection, the Higher Educational Institution concerned shall send the thesis to an alternate external examiner from the approved panel of examiners, and the viva-voce examination shall be held only if the alternate examiner recommends acceptance of the thesis. If the alternate examiner does not recommend acceptance of the thesis, the thesis shall be rejected, and the Ph.D. scholar shall be declared ineligible for the award of a Ph.D.

(7) The Higher Educational Institution concerned shall complete the entire process of evaluating a Ph. D. thesis, including the declaration of the viva-voce result, within a period of six (6) months from the date of submission of the thesis.

12. Academic, research, administrative, and infrastructure requirements to be fulfilled by Colleges for getting recognition for offering Ph.D. programmes.-

(1) Post-graduate Colleges offering 4-year Undergraduate Programmes and/or Post-graduate Programmes, may offer Ph.D. programmes, provided they satisfy the availability of eligible Research Supervisors, required infrastructure, and supporting administrative and research facilities as per these Regulations.

(2) Colleges and research institutions established by the central government or a State government whose degrees are awarded by Higher Educational Institutions shall offer Ph.D. programmes provided they have:

i. At least two faculty members in a college or two Ph.D.-qualified scientists in the research institution.

ii. Adequate infrastructure, administrative support, research facilities and library resources as specified by the HEI.

13. Ph.D. through Part-time Mode-

(1) Ph.D. programmes through part-time mode will be permitted, provided all the conditions stipulated in these Regulations are fulfilled.

(2) The Higher Educational Institution concerned shall obtain a "No Objection Certificate" through the candidate for a part-time Ph.D. programme from the appropriate authority in the organization where the candidate is employed, clearly stating that:

i. The candidate is permitted to pursue studies on a part-time basis.

ii. His/her official duties permit him/her to devote sufficient time for research.

iii. If required, he/she will be relieved from the duty to complete the course work.

(3) Notwithstanding anything contained in these Regulations or any other law, for the time being in force, no Higher Educational Institution or research institution of the Central government or a State Government shall conduct Ph.D. programmes through distance and/oronline mode.

14. Grant of M.Phil. Degree.- Higher Educational Institutions shall not offer the M.Phil.(Masterof Philosophy) programme.

15. Issuing a Provisional certificate.-Prior to the actual award of the Ph.D. degree, the degree- awarding Higher Educational Institution shall issue a provisional certificate to the effect that the Ph.D. is being awarded in accordance with the provisions of these Regulations.

16. Award of Ph.D. degrees prior to Notification of these Regulations.- Award of degrees to candidates registered for the Ph.D. programme on or after July 11, 2009, till the date of Notificationof these Regulations shall be governed by the provisions of the UGC (Minimum Standards and Procedure for Award of M.Phil./Ph.D. Degree) Regulations, 2009 or the UGC (Minimum Standards and Procedure for Award of M.Phil./Ph.D. Degrees) Regulations, 2016 as the case may be. Further, the award of degrees to candidates already registered and pursuing Ph.D. shall be governed by these Regulations or UGC (Minimum Standards and Procedure for Award of M.Phil./Ph.D. Degree) Regulations, 2016. Nothing in these Regulations shall impact the M.Phil. degree programmes commencing prior to the enactment of these Regulations.

17. Depository with INFLIBNET.- Following the successful completion of the evaluation processand before the announcement of the award of the Ph.D. degree(s), the Higher Educational Institution concerned shall submit an electronic copy of the Ph.D. thesis to INFLIBNET, for hostingthe same so as to make it accessible to all the Higher Educational Institutions and research institutions.

RAJNISH JAIN, Secy.

[ADVT.-III/4/Exty./367/2022-23]

Uploaded by Dte. of Printing at Government of India Press, Ring Road, Mayapuri, New Delhi-110064
and Published by the Controller of Publications, Delhi-110054.

ALOK KUMAR Digitally signed by ALOK KUMAR Date: 2022.11.07 21:44:07 +05'30'

UNIVERSITY GRANTS COMMISSION

NOTIFICATION

New Delhi, the 4th September, 2020

No. F. 1-1/2020(DEB-I).—In exercise of the powers conferred by sub-sections (1) and (2) of section 26 read with clause (j) of section 12 of the University Grants Commission Act, 1956 (3 of 1956) and in supersession of the University Grants Commission (Open and Distance Learning) Regulations, 2017 and University Grants Commission (Online Courses or Programmes) Regulations, 2018 except as respect of things done or omitted to be done before such supersession, the University Grants Commission with the previous approval of the Central Government hereby makes the following regulations, namely:-

PART I

PRELIMINARY

1. **Short title, application and commencement.—** (1) These regulations may be called the University Grants Commission (Open and Distance Learning Programmes and Online Programmes) Regulations, 2020.

(2) These regulations lay down the minimum standards of instruction for the grant of degrees at the undergraduate and post graduate levels and grant of post graduate diploma, through Open and Distance Learning mode and Online mode and shall be in addition to and not in derogation of any other regulations, Notifications, Guidelines or Instructions issued by the Commission.

(3) These regulations shall apply to a University referred to under clause (f) of section 2 of the University Grants Commission Act, 1956 (3 of 1956), an Institution Deemed to be University under section 3 of the said Act:

Provided that the University Grants Commission may, by order, exempt a Higher Educational Institution or Higher Educational Institutions from the application of these regulations.

(4) They shall come into force on the date of their publication in the Official Gazette.

2. **Definitions.—** In these regulations, unless the context otherwise requires,-

(a) "Academic Council or Senate" means the body empowered to take decisions regarding all academic matters in a Higher Educational Institution including the decision permitting to offer Open and Distance Learning Programmes and/or Online Programmes in compliance to these regulations;

(b) "Academic session" means duration of twelve months beginning either in January to February or in the month of July to August, as the case may be, of every calendar year;

(c) "Act" means the University Grants Commission Act, 1956 (3 of 1956);

(d) "Centre for Internal Quality Assurance" (CIQA) means a Centre established by a Higher Educational Institution for ensuring the quality of programmes being offered in Open and Distance Learning mode and Online mode, as specified in **Annexure-I**;

(e) "Commission" means the University Grants Commission established under the University Grants Commission Act, 1956 (3 of 1956);

(f) "Conventional mode" means a mode of providing learning opportunities through face to face interaction between the teacher and learner in regular class room environment but does not exclude supplementary instructions if any for the learner through use of online;

(g) "Credit" means the Unit award gained by a learner with study efforts of minimum number of hours required to acquire the prescribed level of learning in respect of that Unit;

Explanation.- For the purpose of this clause, A study effort for one credit shall mean time required by a learner to understand the contents equivalent to 15 hours of classroom teaching or 30 hours including self-learning time required to acquire the prescribed level of learning in respect of that Unit;

(h) "degree" means a degree specified under sub-section (3) of section 22 of the Act;

(i) "Dual Mode University" means a Higher Educational Institution offering programmes under conventional mode and also under Open and Distance Learning mode and/or Online mode;

(j) "e-Learning Material" means and includes contents in the form of structured course material, as a part of one or more courses in the Online Programme, in digital format delivered through Learning Management System, which is *inter alia* self-explanatory, self-contained, self-directed at the learner, and amenable to self-evaluation, and enables the learner to acquire the prescribed level of learning in a course of study, but does not include text-books or guide-books; as defined in these regulations;

(k) "Examination Centre" means a place where examinations are conducted, *inter alia,* for assessment of the learners pursuing programmes under Open and Distance Learning mode and Online mode and is having the requisite infrastructure relevant to respective mode of education including adequate manpower for smooth conduct of examinations and adhering to such minimum standards as specified in these regulations;

(l) "Franchising" for the purpose of these regulations, means and includes the practice of allowing, formally or informally, any person or institution or organisation, other than the Higher Educational Institution recognised under these regulations for offering programmes under Open and Distance Learning mode and Online mode, to offer such programmes of study or any related activity on behalf of or in the name of the recognised Higher Educational Institution, and the terms 'franchise' and 'franchisee' shall be construed accordingly;

(m) "Higher Education" means such education imparted by conventional mode or through open and distance learning mode or through online mode conducting regular classes or through Open and Distance Learning mode or through Online mode, beyond twelve years of schooling leading to the award of a Degree at undergraduate or postgraduate level or Certificate or Diploma or Postgraduate Diploma;

(n) "Higher Educational Institution" means a university under clause (f) of section 2 and an Institution Deemed to be a University under section 3, of the University Grants Commission Act, 1956, which is offering programmes through conventional mode and/or through Open and Distance Learning mode and/or through Online mode, in the field of higher education or research therein;

(o) "Information and Communication Technology" means the diverse set of tools and resources used to communicate, create, disseminate, store, manage information and be deployed for realising the goals of interactive teaching-learning, enhancing access, ensuring knowledge cum information sharing, building capacities and management of the educational system and resources;

(p) "Integrated Programme" shall have the same meaning as defined in UGC Notification on Specification of Degree, 2014;

(q) "Learning Management System" means a system to keep track of delivery of e-Learning Programmes, learner's engagement, assessment, results, reporting and other related details in one centralised location;

(r) "Learner Support Centre" means a centre established or recognised by the Higher Educational Institution for advising, counselling, providing interface between the teachers and the learners, rendering any academic and any other related service and assistance required*, inter alia,* by the learners of Open and Distance Learning mode;

(s) "Learner Support Services" means and includes such services as are provided by a Higher Educational Institution in order to facilitate the acquisition of teaching-learning experiences by the learner to the level prescribed by or on behalf of the Commission in respect of a programme of study under Open and Distance Learning mode and/or Online mode;

(t) "MOOCs" shall have the same meaning as assigned to it under sub-regulation 3.6 of regulation 3 of UGC (Credit Framework for Online learning courses through SWAYAM) Regulations, 2016;

(u) "Online Mode" means a mode of providing flexible learning opportunities by overcoming separation of teacher and learner using internet, e-Learning Materials and full-fledged programme delivery through the internet using technology assisted mechanism and resources;

(v) "Open and Distance Learning Mode" means a mode of providing flexible learning opportunities by overcoming separation of teacher and learner using a variety of media, including print, electronic, online and occasional interactive face-to-face meetings with the learners or Learner Support Services to deliver teaching-learning experiences, including practical or work experiences;

(w) "Open University" means a Higher Educational Institution which imparts education only through Open and Distance learning mode and/or Online mode using variety of media including print, electronic, online, information and communication technology educational aids including Open Educational Resources (OERs) or Massive Open Online Courses (MOOCs) etc. and is not having any provision for offering higher education in conventional mode in its Act or Memorandum of Association or other statutory documents governing the Higher Educational Institution;

(x) "Post Graduate Diploma" means a programme with minimum duration of two years, minimum entry level qualification as graduation, minimum 80 credits and nomenclature as recognised by the Commission and regulatory authority or statutory council, as applicable;

(y) "Proctored Examination" means the examination conducted under the supervision of approved person or technology enabled proctoring which ensures the identity of the test taker and the integrity of the test taking environment, either in pen-paper mode or in computer based testing mode or in full-fledged Online mode; as permissible in Open and Distance Learning mode and Online mode under these regulations;

(z) "Prohibited programmes" means such programmes which shall not be permitted to be offered in Open and Distance Learning Mode and Online Mode in Higher Education, as detailed under:

(a) The programmes in the disciplines (including their allied domains) of Engineering, Medical, Physiotherapy, Occupational Therapy and other Para-Medical disciplines, Pharmacy, Nursing, Dental, Architecture, Law, Agriculture, Horticulture, Hotel Management, Catering Technology, Culinary Sciences, Aircraft Maintenance, Visual Arts and Sports;

(b) The research based programmes such as M.Phil and Ph.D;

(c) Such other Programmes not permitted to be offered through Open and Distance Learning mode and/or Online mode by any concerned statutory or regulatory body or council:

Provided that, if the concerned statutory or regulatory body or council permits any of the prohibited programmes, as mentioned above, under its domain, in Open and Distance Learning mode and/or Online mode, the same may be considered by the Commission, and the decision so taken shall be notified by an Order.

(za) "Prospectus" includes any publication, whether in print or e-form, issued for providing fair and transparent information, relating to a Higher Educational Institution and its programmes, to the general public (including to those seeking admission in such Higher Educational Institution) by the management of such Higher Educational Institution or any authority or person authorised by such Higher Educational Institution to do so;

(zb) "Regional Centre" means a Centre established or maintained by the Higher Educational Institution for the purpose of coordinating and supervising the work of the Learner Support Centres in the region as per its territorial jurisdiction and for performing such other functions as may be conferred on such Centre by the statutory authorities of the Higher Educational Institution;

(zc) "Self-Learning e-Module" for Online mode means a modular unit of course material in e-learning form which is *inter alia* self-explanatory, self- contained, self-directed at the learner, and amenable to self-evaluation, and enables the learner to acquire the prescribed level of learning in a course of study and includes contents in the form of a combination of the following e-Learning content, namely:-

(a) e-Text Materials;

(b) Video Lectures;

(c) Audio-Visual interactive material;

(d) Virtual Classroom sessions;

(e) Audio Pod casts;

(f) Virtual Simulation; and

(g) Self-Assessment Quizzes or Tests;

(zd) "Self-Learning Material" for Open and Distance Learning mode means and includes contents in the form of course material, whether print or in e- form, which is inter-alia self-explanatory, self-contained, self-directed at the learner, and amenable to self-evaluation, and enables the learner to acquire the prescribed level of learning in a course of study, but does not include text-books or guide-books;

(ze) "SWAYAM" (Study Webs of Active Learning for Young Aspiring Minds) means the learning management system as specified in the UGC (Credit Framework for online learning courses through SWAYAM) Regulations, 2016.

PART II

RECOGNITION PROCESS FOR OFFERING PROGRAMMES UNDER OPEN AND DISTANCE LEARNING (ODL) MODE AND ONLINE MODE

3. Institutional Level Eligibility Criteria.—

(A) Open and Distance Learning Mode: Any Higher Educational Institution, may apply for offering programmes through the Open and Distance Learning mode, which fulfils the following conditions, namely:-

(i) shall be accredited by the National Assessment and Accreditation Council with minimum score of 3.01 on a 4-point scale;

or

having rank in top-100 in University category of National Institutional Ranking Framework, at least once in two preceding cycles (at the time of application):

Provided that the NAAC and NIRF Ranking requirements shall be valid for academic session 2020-2021 (session beginning July, 2020 and January, 2021) only and shall be reviewed subsequently by the Commission for the academic session 2021-2022 (session beginning July 2021) and onwards:

Provided further that in view of unprecedented circumstances due to COVID-19 pandemic, the Higher Educational Institutions recognised by the University Grants Commission to offer programmes in Open and Distance Learning mode till the academic session 2019-2020 to enable them to reach the prescribed quality National Assessment and Accreditation Council benchmark and had submitted an undertaking to the effect that they will attain a National Assessment and Accreditation Council score of 3.26 on a 4-point scale before the end of academic session July 2019 - June 2020, and have also submitted an application to the National Assessment and Accreditation Council till 29 February 2020, shall continue to offer programmes, already recognised for the academic session 2019-2020, in Open and Distance Learning mode for a period of one year, academic session 2020-2021, starting from July 2020. Thereafter these Higher Educational Institutions shall be required to attain the eligibility mentioned at sub-clause (i) above:

Provided also that the NAAC condition mentioned above shall not be applicable to the Open Universities already recognised by the Commission for offering Open and Distance Learning Programmes for the academic year 2019-2020. These Open Universities shall be required to submit an affidavit that they shall obtain NAAC accreditation prior to the completion of the current recognition period, as specified in the Commission order already issued, failing which the Commission shall not accord further recognition to the programmes of such Open Universities under Open and Distance Learning mode:

Provided also that Open Universities not recognised by the Commission under UGC (Open and Distance Learning) Regulations, 2017 shall be required to obtain National Assessment and Accreditation Council (NAAC) accreditation within one year of their becoming eligible for accreditation by the National Assessment and Accreditation Council (NAAC), failing which the Commission shall not accord further recognition to the programmes of such Open Universities under Open and Distance Learning mode:

Provided also that an Institution Deemed to be a University under section 3 of the University Grants Commission Act, 1956 shall offer programmes in Open and Distance Learning mode in accordance with the extant Deemed to be University Regulations and also in compliance to the provisions of these regulations;

(B) Online Mode

(a) Higher Educational Institutions having NAAC score 3.26 and above or having rank in Top-100 in University category of National Institutional Ranking Framework, at least twice in three preceding cycles (at the time of application), shall be permitted to start full-fledged Online programmes without prior approval of the UGC, provided it satisfies all the conditions mentioned in these regulations:

Provided that the Higher Educational Institutions can start maximum of three (03) Under Graduate (UG) programmes and ten (10) Post Graduate (PG) programmes with the approval of its statutory authorities and in strict compliance with the provisions of these regulations:

Provided further that the NAAC and NIRF Ranking requirements shall be valid for academic session 2020-2021 (session beginning July, 2020 and January, 2021) only and shall be reviewed subsequently by the Commission for the academic session 2021-2022 (session beginning July 2021) and onwards:

Provided also that Higher Educational Institutions shall be required to submit application and desired information, and comply to all the provisions of the regulations and shall be required to submit an affidavit to the UGC:

Provided also, that in case, the Higher Educational Institutions want to start more than the defined number of programmes, then they shall seek prior permission from the Commission.

(b) Any Higher Educational Institution, may apply for offering programmes through the Online mode, which fulfils the following conditions, namely:-

(i) shall be in existence for at least three years; and

(ii) shall be accredited by the National Assessment and Accreditation Council with minimum score of 3.01 on a 4-point scale;

or

shall be in the top-100 in University category in the National Institutional Ranking Framework for at least once in last two preceding cycles (at the time of application):

Provided that the NAAC and NIRF Ranking requirements shall be valid for academic session 2020-2021 (session beginning July, 2020 and January, 2021) only and shall be reviewed subsequently by the Commission for the academic session 2021-2022 (session beginning July 2021) and onwards:

Provided further that the condition mentioned at item (ii) of sub-clause (b) shall not be applicable to the Open Universities already recognised by the Commission for offering Open and Distance Learning programmes or Online programmes for the academic year 2019-2020. These Open Universities shall be required to submit an affidavit that they shall obtain National Assessment and Accreditation Council (NAAC) accreditation prior to the completion of the current recognition period, as specified in the Commission order already issued, failing which the Commission shall not accord further recognition to the programmes of such Open Universities under Online mode:

Provided also that a Higher Educational Institution having National Assessment and Accreditation Council (NAAC) valid score equal or more than 3.26 or having rank in Top-100 in University category of National Institutional Ranking Framework at least twice in three preceding cycles shall be permitted to enroll International Learners also:

Provided also that an Institution Deemed to be a University under section 3 of the University Grants Commission Act, 1956 shall offer programmes in Online mode in accordance with the extant Deemed to be University Regulations and also in compliance to the provisions of these regulations.

4. Requirements for Submission of Proposals.—

(A) Common Provisions for Open and Distance Learning Mode and Online Mode: Every Higher Educational Institution eligible as per regulation 3 and intending to offer a programme in Open and Distance Learning mode and/or Online mode from the academic session shall make an application to the Commission in the format mentioned in sub-regulation (1) of regulation 5 with documentary evidence for grant of recognition on fulfillment of the following conditions, namely:

(i) the Higher Educational Institution has complied with the Institutional eligibility criteria as per regulation 3 of these regulations;

(ii) the Higher Educational Institution has the approval of the statutory bodies under its Act for offering the programme in Open and Distance Learning mode or Online mode, as the case may be;

(iii) the list of proposed programmes to be offered in Open and Distance Learning mode or Online mode, as applicable, the expected enrolment of learners, the learning outcome of each programmes and other requirements as notified by the Commission from time to time;

(iv) for the programmes falling under the ambit of a statutory or regulatory authority or regulatory council, the Higher Educational Institution has the approval or recommendations of the respective statutory or regulatory authority or regulatory council for offering the programmes in Open and Distance Learning mode or Online mode, as applicable;

Explanation: Programmes as mentioned at clause (iv) shall be considered only when these are recommended by the respective statutory or regulatory authority or regulatory council to offer in Open and Distance Learning mode or Online mode, as applicable. Also, statutory or regulatory authority or regulatory council shall either maintain the minimum standards for the programmes in Open and Distance Learning mode or Online mode as stipulated in these regulations or set higher standards while making recommendations to the Commission.

(v) the entry level qualifications, curriculum, teaching-learning scheme, pattern of question papers for end semester examination or term end examination, pass or fail criteria in Dual Mode University are the same for conventional programme and the proposed Open and Distance Learning programme or Online programme, as applicable, and in case of Open University, these parameters are same for Open and Distance Learning programme and proposed Online programme;

(vi) weightages to continuous assessment and end semester examinations or term end examinations for the proposed Open and Distance Learning programmes or Online programmes, as applicable, is in conformity with regulation15;

(vii) submission of the fee as notified by Commission;

(viii) a copy of such application is displayed on the website of the Higher Educational Institution by way of self-disclosure;

(ix) submission of affidavit in the format notified by Commission;

(x) preparedness status, as decided by the Commission from time to time for various stages of recognition process for the following, namely:-

(a) establishing Centre for Internal Quality Assurance as specified in **Annexure-I**;

(b) for establishing Learner Support Centres (Open and Distance Learning programmes) as specified in **Annexure-VIII**;

(c) providing systems for Learner Support Services as specified in **Part IV**;

(d) availability of Director, academic and other staff, qualified Counsellors/ Co-ordinators/ Mentors, (for ODL and Online modes, as applicable) meeting such standards of competence as specified in **Annexure-IV**;

(e) administrative arrangements, infrastructure and technology support for effective delivery of programmes in Open and Distance Learning and Online mode as specified in **Annexure- IV**.

Explanation: A Private University established under a State Act shall be eligible to offer programmes under Open and Distance Learning mode through its Head Quarters only and duly recognised off-campus centres. A Private University shall not offer programmes under Open and Distance Learning mode through any Learner Support Centre.

(B) Provisions for Open and Distance Learning Mode:

(i) The Higher Educational Institution shall adhere to the policy of territorial jurisdiction as specified in **Annexure-III**;

(ii) A Higher Educational Institution shall be eligible to offer only those degree programmes at undergraduate and postgraduate levels and post graduate diploma programmes, which it has already been offering in conventional mode of classroom teaching and from which at least one batch has passed out:

Provided that this sub-clause shall not be applicable to Open Universities:

Provided further that Science based programmes, which require hands-on experience, experimental setup, shall be offered only by the Higher Educational Institutions having NAAC score of 3.26 and above or by the Open universities or by the Higher Educational Institutions having rank in top-100 in University

category of National Institutional Ranking Framework (NIRF), at least twice in three preceding cycles:

Provided also that the Science based programmes shall be offered from the Head Quarters and/or only from such Learner Support Centres which are offering same programme under conventional mode atleast for seven years.

(iii) The application is accompanied with evidence of having prepared the self-learning materials required as decided by the Commission, for the proposed programmes of study, duly approved by the statutory bodies of the Higher Educational Institutions empowered to decide on academic matters.

(iv) The application is accompanied with evidence of availability/ preparedness, as decided by the Commission from time to time, of Open and Distance Learning resources, adequate for effective delivery of all the proposed programme(s) of study considering the expected enrolment of learners.

(C) Provisions for Online Mode:

(i) Territorial Jurisdiction shall not be applicable to the Higher Educational Institutions for offering recognised Online programmes under these regulations.

(ii) A Higher Educational Institution, shall be eligible to offer only those degree programmes at undergraduate and postgraduate levels and post graduate diploma programmes, which it has already been offering in conventional mode of classroom teaching or in Open and Distance Learning mode and from which at least one batch has passed out:

Provided that any programme requiring practical or laboratory course as a curricular requirement, shall be prohibited through Online mode, except in cases where practical component is limited to programming and coding including software tools.

(iii) The application is accompanied with demonstrated capability of Higher Educational Institution for development and production of Online Programmes for the proposed programmes of study, duly approved by the statutory bodies of the Higher Educational Institution empowered to decide on academic matters.

(iv) The application is accompanied with evidence of Higher Educational Institution having access to SWAYAM or other learning platform for the proposed programmes of study, duly approved by the statutory bodies of the Higher Educational Institution empowered to decide on academic matters, for-

(a) learner authentication - integrated with Aadhaar or other government recognised identity for Indian learners and Passport for foreign learners;

(b) learner registration - through a web application with supporting documents;

(c) payment gateway – using Digital Payment system;

(d) learning management System - which tracks the delivery of Programme, learner's engagement, assessment, results, and reporting supported by analytical tools that can help the teachers to extract and use the relevant reports.

(v) The application is accompanied with the evidence of ability to conduct proctored examinations with all the security arrangements ensuring transparency and credibility of the examinations.

(vi) The application is accompanied with evidence to ensure that the Higher Educational Institutions offering Online Programmes is not having any franchise arrangement with a private service provider and the ownership of offering Online programmes including all the required components of Online education and compliance to all the provisions of the regulations shall be that of Higher Educational Institutions only.

(vii) The application is accompanied with evidence of availability/ preparedness, the administrative arrangements for supportive services for effective delivery of all the proposed programme(s) of study considering the expected enrolment of learners.

5. Programmes Recognition Process.— (1) A Higher Educational Institution intending to offer a programme through Open and Distance Learning mode and/or Online mode for academic session and for subsequent years, shall make an online application, as invited by the Commission in the format notified by Commission and upload the same on the specified portal along with scanned copy of all the documents specified therein, at least three months prior to commencement of the academic session of the programme intended to be offered by such Higher Educational Institution:

Provided that the programmes of the Higher Educational Institutions recognised by the Commission under UGC (Open and Distance Learning) Regulations, 2017 and UGC (Online Courses or Programmes) Regulations, 2018 shall remain valid programmes for the period as mentioned in the Commission Orders. These Higher Educational Institutions shall submit an affidavit to the Commission that they shall comply to provisions of these regulations prior to the beginning of next academic session from the notification of these regulations. However, after the expiry of the recognition period as specified in the already notified Commission Orders, the Higher Educational Institution for the said programmes shall be required to apply afresh as per the sub-regulation (1) of regulation 4.

(2) The Commission shall process the application received under sub-regulation (1) of regulations 5 in the following manner, namely:-

(i) any deficiency or defect in the application shall be communicated by the Commission to the Higher Educational Institution and the Higher Educational Institution shall be required to remove or rectify such deficiencies or defects with the necessary documents or information, if any, within fifteen days;

(ii) where the Higher Educational Institution has made an application for offering programme(s) in Open and Distance Learning mode and/ or Online mode, the Commission may cause an inspection, in respect of such programme(s), of the Higher Educational Institution at its discretion through an Expert Committee;

(iii) the Commission shall examine the application with the help of an Expert Committee constituted by Chairman of the Commission and the recommendations of the Committee shall be placed before the Commission for its consideration.

(3) After processing the application in the manner laid down under sub-regulation (2) of regulation 5 for offering programme(s) through Open and Distance Learning mode and/or Online mode, the Commission shall-

(i) if it is satisfied that such Higher Educational Institution fulfils the conditions laid down and the quality parameters specified under these regulations, pass an order granting recognition to such Higher Educational Institution for a period of five years in respect of such programmes either in Open and Distance Learning mode or in Online mode or in both modes, as it may specify in the order, and subject to such conditions as it may specify:

Provided that while passing an order, where the Commission does not grant recognition in respect of one or more programmes, the Commission shall specify the grounds of such refusal in the order.

(ii) If the Commission is of the opinion that such Higher Educational Institutions does not fulfill the requirements laid down in clause (i) in respect of any of the programme intended to be offered by the Higher Educational Institution either in Open and Distance Learning mode or in Online mode or in both modes, it shall pass an order refusing recognition to such Higher Educational Institution for reasons to be recorded in writing.

(4) Every order granting or refusing recognition to a Higher Educational Institution for programme(s) in Open and Distance Learning mode and/or Online mode under sub-regulation (3) of regulation 5 shall be communicated in writing for appropriate action to such Higher Educational Institution and to the concerned State Government and the Central Government.

(5) Every Higher Educational Institution, in respect of which recognition for programme(s) has not been granted by the Commission, shall discontinue the programme(s) in Open and Distance Learning mode and/or Online mode with immediate effect:

Provided that the learners already enrolled in the currently recognised programmes shall be allowed to complete the Programmes in the laid down manner.

(6) Every Higher Educational Institution which is accorded recognition by the Commission under these regulations shall offer programme(s) in Open and Distance Learning mode and/or Online mode from the academic session as mentioned in the Commission Order.

(7) No Higher Educational Institution shall offer any Open and Distance Learning Programme and/or Online Programme and admit learners thereto unless it has been granted recognition by the Commission and admission shall not be made in anticipation of the recognition.

6. Appeal.— (1) Any Higher Educational Institution aggrieved by an order made under sub-regulation (3) of regulation 5 and withdrawal of recognition under sub-regulation (1) of regulation 7 may prefer an appeal to the Commission within a period of thirty days from the date of issue of communication;

(2) No appeal shall be accepted after the expiry of the prescribed period under sub-regulation (1).

(3) Every appeal made under these regulations shall be accompanied by a copy of the order appealed against along with a fee of Rs. 10,000/- per programme.

(4) The procedure for disposing off an appeal shall be as under:

(i) The Commission shall examine the appeal with the help of a Standing Appellate Committee constituted by Chairman of the Commission.

(ii) The Committee will examine the appeals of the Higher Educational Institutions received against the Commission decision for rejection of programme and make recommendation whether to confirm or reverse the Commission decision on rejection of programmes.

(5) The Commission may confirm or reverse the order appealed against.

(6) The decision of the Commission shall be final and binding on the Higher Educational Institutions.

7. Withdrawal of recognition.— (1) Where the Commission is, on its own or on any representation received from any person, or any information received from any authority or a statutory body, or on the basis of any enquiry or inspection conducted by it, satisfied that a Higher Educational Institution has contravened any of the provisions of these regulations or guidelines and orders made or issued there under, or has submitted or produced any information and documentary evidence which is found to be false at any stage or any condition subject to which recognition under clause (i) of sub-regulation (3) of regulation 5 has been granted, it may withdraw recognition of such Higher Educational Institution in respect of such programme(s) as it may specify, for reasons to be recorded in writing:

Provided that no such order against the Higher Educational Institution shall be passed unless a reasonable opportunity of making representation against the proposed order has been given to such Higher Educational Institution:

Provided further that the order withdrawing or refusing recognition passed by the Commission shall come into force with immediate effect.

(2) If a Higher Educational Institution offers any programme in Open and Distance Learning mode or Online mode after the coming into force of the order withdrawing recognition under sub-regulation (1) or fails to obtain recognition under these regulations for offering programmes in Open and Distance Learning mode or Online mode for academic session and subsequent academic sessions, the degree obtained pursuant to such programme or after undertaking a programme in Open and Distance Learning mode and/or Online mode in such Higher Educational Institutions, shall not be treated as a valid qualification:

Provided that the programmes of the Higher Educational Institutions recognised by the Commission under UGC (Open and Distance Learning) Regulations, 2017 and UGC (Online Courses or Programmes) Regulations, 2018 shall remain valid programmes for the period as mentioned in the Commission Orders.

(3) In the event of any Higher Educational Institution found offering programmes in Open and Distance Learning mode and/or Online mode without recognition of the Commission or in violation to any of the provisions of these regulations and guidelines or orders made there under, the Commission may-

(i) issue Show-Cause Notice;

(ii) withdraw the recognition of a programme or some programmes or all the programmes for an academic session or withdraw the recognition, maximum up to next five academic sessions not only for such Open and Distance Learning programmes and/or Online programmes but also for other programmes offered by the institutions in regular and conventional mode;

(iii) if, in spite of above, the Higher Educational Institution is found continuing the violations, a First Information Report may be lodged against the officials or management of the errant Higher Educational Institution to take action as per law;

(iv) withhold or debar from receiving University Grants Commission grants;

(v) refer the matter to the Central or State Government, as applicable for withdrawal of Higher Educational Institution status;

(vi) take action as per the provisions of the Act or Rules or Regulations as applicable to the Higher Educational Institution;

(vii) put in the public domain a list of such defaulters Higher Educational Institutions;

(viii) in case of a non-recognized Higher Educational Institution offering programmes in Open and Distance Learning mode and/or Online mode, punitive action mentioned at clauses (i), (iii), (v) and (vii) shall be exercised by the Commission keeping in view future of the learners.

PART III

MAINTENANCE OF INFRASTRUCTURAL, ACADEMIC AND OTHER QUALITY STANDARDS BY HIGHER EDUCATIONAL INSTITUTIONS

8. Systems Management, Structure and Processes.— (1) An Open University shall have designated Schools of Studies for design and development of programmes in Open and Distance Learning mode and, which shall be headed by a regular functionary on full time dedicated basis not below the rank of an Associate Professor and shall have appropriate and adequate academic, technical, administrative staff and infrastructural resources as specified in **Annexure-IV**. The Open University shall also have appropriate departments such as operational department for admissions, learner support and examinations.

(2) An Open University shall have a designated Centre for Online Education (COE) for operationalising the programmes designed and developed by the Schools of Studies for Online Learning mode and, which shall be headed by Director, a regular functionary on full time dedicated basis not below the rank of an Associate Professor and shall have appropriate and adequate academic, technical, administrative staff and infrastructural resources as specified in **Annexure-IV**.

(3) A Higher Educational Institution other than an Open University shall have a designated Centre for Distance and Online Education (CDOE) for operationalising the programmes in Open and Distance Learning mode and/or Online mode, which shall be headed by Director, a regular functionary on fulltime dedicated basis not below the rank of an Associate Professor and shall have appropriate and adequate academic, technical, administrative staff and infrastructural resources as specified in **Annexure-IV**.

(4) A Higher Educational Institution shall plan, implement, coordinate and monitor operationalisation and quality assurance of the programmes in Open and Distance Learning mode and/or Online mode and shall ensure adherence to the regulations and guidelines of the Commission and other regulatory authorities.

9. Self-regulation through disclosures, declarations and reports.— A Higher Educational Institution offering programmes in Open and Distance Learning mode and/or Online mode shall display on its website a joint declaration by authorised signatories, Registrar and Director of Centre for Internal Quality Assurance, authenticating that the following documents have been uploaded on the Higher Educational Institution's website, namely:-

(a) the establishing Act and Statutes there under or the Memorandum of Association, as the case may be or both of the Higher Educational Institution, empowering it to offer programmes in Open and Distance Learning mode and/or Online mode;

(b) copies of the letters of recognition from Commission and other relevant statutory or regulatory authorities;

(c) programme details including brochures or programme guides inter alia information such as name of the programme, duration, eligibility for enrolment, programme fee, programme structure;

(d) programme-wise information on syllabus, suggested readings, contact points for counselling/mentoring, programme structure with credit points, programme-wise faculty details, list of supporting staff, list of Learner Support Centres with addresses and contact details (for Open and Distance Leaning mode), their working hours and counselling (for Open and Distance Learning mode)/mentoring (for Online mode) Schedule;

(e) important schedules or date-sheets for admissions, registration, re-registration, counselling/mentoring, assignments and feedback thereon, examinations, result declarations etc.;

(f) detailed strategy plan related to Online programme delivery, if any including learning materials offered through Online and learner assessment system and quality assurance practices of Online learning programmes;

(g) the feedback mechanism on design, development, delivery and continuous evaluation of learner-performance which shall form an integral part of the transactional design of the Open and Distance Learning mode programmes and/or Online programmes and shall be an input for maintaining the quality of the programmes and bridging the gaps, if any;

(h) information regarding all the programmes recognised by the Commission;

(i) data of year-wise and programme-wise learner enrolment details in respect of degrees and/or post graduate diplomas awarded;

(j) complete information about 'Self Learning Material' including name of the faculty who prepared it, when was it prepared and last updated for Open and Distance Learning Programmes; Similarly information about 'E-Learning Materials' in 4 quadrants in case of Online programmes;

(k) a compilation of questions and answers under the head 'Frequently Asked Questions" with the facility of online interaction with learners providing hyperlink support for Open and Distance Learning Programmes and Online Programmes;

(l) list of the 'Learner Support Centres' along with the number of learners who shall appear at any examination centre and details of the Information and Communication Technology facilities available for conduct of examination in a fair and transparent manner, for Open and Distance Learning programmes;

(m) list of the 'Examination Centres' alongwith the number of learners in each centre, for Open and Distance Learning programmes;

(n) details of proctored examination incase of Online programmes for all the exams;

(o) details of proctored examination in case of end semester examination or term end examination of Open and Distance Learning programmes;

(p) academic Calendar mentioning period of the admission process along with the academic session, dates of continuous and end semester examinations or term end examinations, etc;

(q) reports of the third party academic audit to be undertaken every five years and internal academic audit every year by Centre for Internal Quality Assurance.

10. Quality Assurance.— (1) A Higher Educational Institution recognised for offering programme(s) in Open and Distance learning mode and/or Online mode shall, take the following steps, namely:-

(i) establish a Centre for Internal Quality Assurance, common for programmes in the Open and Distance Learning mode and/or Online mode as per **Annexure I**;

(ii) follow the Quality Assurance Guidelines on learning materials in multiple media, curriculum and pedagogy, as specified by the Commission in **Annexure VI** and shall post its quality assurance mechanism on the website;

(iii) take adequate measures for training and capacity building of its teaching and administrative staff and counsellors/co-ordinators/mentors at regular intervals;

(iv) ensure that the quality of programmes of study offered through Open and Distance Learning mode and/or Online mode are maintained at par with standards as defined for the conventional mode of teaching, in conformity with the provisions as stipulated under section 22 of UGC Act, 1956 and UGC notification on specification of degrees, 2014 as notified by the Commission;

(v) exhibit the copies of the approval letters duly obtained or received from the concerned statutory or regulatory authority or council to offer programmes under its domain on the Higher Educational Institution's website as well as against the name of the each programmes in the brochure or bulletin of the respective Higher Educational Institution and inform the same to the University Grants Commission from time to time in the matter:

Provided that in case of violation of these regulations, the provisions specified under sub-regulation (3) of regulation 7 shall apply;

(vi) ensure that the academic and instructional facilities at its Learner Support Centres for Open and Distance Learning mode, and information resources for online delivery of programmes meet the guidelines laid by the Commission from time to time, and are commensurate with the number of programmes and enrolments thereto.

(2) Every Higher Educational Institution recognised to offer programme in Open and Distance Learning Mode and/or Online mode shall adhere to all the provisions regarding mandatory disclosure of information as stipulated under regulation 9.

11. Teachers and Academic Staff working in Higher Educational Institutions.— (1) Teacher and equivalent academic staff in the Schools of Studies or Centre of Distance and Online Education or Centre for Online Learning and Learner Support Centres (for Open and Distance Learning only) shall be appointed as per the minimum qualifications laid down in the University Grants Commission (Minimum Qualifications for Appointment of Teachers and other Academic Staff in the Universities and Colleges and other Measures for the Maintenance of Standards in Higher Education) Regulations, 2018 and there shall be positions for Assistant Professor, Associate Professor and Professor in the Schools of Studies or Centre for Online Education for an Open University or in the Centre of Distance and Online Education for a dual mode University on permanent and/or full time dedicated basis, for performing academic functions.

(2) Every teacher, beside his or her academic responsibilities shall participate in teaching,

curriculum and course material development, undertake examination or test or evaluation or invigilation work, general assistance to learners in removing their academic difficulties, and participate in extracurricular and institutional support activities as required.

(3) The workload of a teacher shall take into account teaching, research and extension activities, preparation of lessons, evaluation of assignments, term papers etc. shall be in accordance with the guidelines issued by the Commission:

Provided that the time spent on extension work where it forms an integral part of the course specified shall count towards the teaching load.

(4) The number of full-time dedicated teachers exclusively for Open and Distance Learning Mode and/or Online mode and other administrative and technical staff shall be appointed as stipulated under Annexure-IV of these regulations.

(5) The details of the faculty in the Schools of Studies or Centre for Online Education or Centre of Distance and Online Education of the Higher Educational Institution and in the Learner Support Centres (for Open and Distance Learning Mode only) shall be declared on the website of the Higher Educational Institution and be linked to Aadhaar details or other Government identifiers.

12. Use of e-resources for Open and Distance Learning mode.— (1) A Higher Educational Institution offering programme(s) in Open and Distance Learning mode shall take such measures as are necessary to blend Information Communication Technologies (ICT) including those developed by National Mission on Education through Information and Communication Technology, for enhancing effectiveness of teaching – learning process, and administrative functioning and for maintenance of updated information at all times in respect of status of admissions, registration, for managing teaching-learning activities through online support for interactive learning with learner feedback, to facilitate the use of Open Educational Resources (OER), Massive Open Online Courses and for continuous as well as comprehensive evaluation, certification, and other aspects of learner support.

(2) A Higher Educational Institution may allow up to forty per cent. of the total courses being offered in a particular programme in a semester through the Online Learning courses/ Massive Open Online Courses.

13. Programme Launching Process for Higher Educational Institution.—

(A) Common Provisions for Open and Distance Learning Mode and Online Mode:

(1) The proposed programmes shall be designed for conventional learners, as well as for working professionals and other individuals aspiring to acquire knowledge and associated academic credentials through Open and Distance Learning Mode and/or Online mode.

(2) Minimum and Maximum Duration of Programme:

(i) The minimum duration for completion and award of degrees at the undergraduate and postgraduate levels in Open and Distance Learning mode and Online mode shall be in accordance with the UGC notification of specification of degrees, 2014;

(ii) The minimum duration for completion and award of post graduate diploma shall be two years;

(iii) The maximum duration for completion and award of degree at the undergraduate and postgraduate levels or post graduate diploma in Open and Distance Learning mode and Online mode shall be double the minimum duration of the respective programmes as per items (i) and (ii).

(3) Before offering any programme, the Higher Educational Institution shall prepare a Programme Project Report as per **Annexure-V** for each programme which shall include the following, namely:-

(i) information on relevance of programme to the Institution's mission and goals, objectives of the programme, nature of prospective target group of learners, and

appropriateness of Open and Distance Learning mode and/or Online mode for acquiring specific competencies or skills;

(ii) instructional design which shall include duration of programme(s), faculty and support staff requirements, instructional delivery mechanisms, identification of media – print, audio or video, online, computer aided, and learner support service systems;

(iii) procedure for admissions, curriculum transaction and evaluation;

(iv) details of laboratory support required for the programme(s), if any;

(v) library Resources;

(vi) cost estimate of the programme and the provisions there for, indicating the amount assigned for programme development, delivery and maintenance;

(vii) quality assurance mechanism and expected programme outcomes;

(viii) curriculum and detailed syllabi of the programme(s); and

(ix) guidelines on launching programme(s) design, development and any such matters as specified by the Commission and other regulatory bodies which shall be followed by the Higher Educational Institutions.

(4) A Higher Educational Institution other than an Open Universities shall offer programmes in Open and Distance Learning mode and/or Online mode with total credits and minimum duration for the programmes kept same as that of corresponding programmes in conventional mode.

(5) An Open University shall offer programmes in Open and Distance mode with total credits and minimum duration for programmes kept same as that of corresponding programmes in conventional mode by the Central and/or State Universities and for offering programmes in Online mode, total credits and minimum duration for programme shall be the same as that of corresponding programme in Open and Distance Learning mode.

(6) The Programme Project Report shall be approved by the appropriate authorities of the Higher Educational Institution, which shall put in place a monitoring mechanism to ensure its proper implementation.

(B) Provisions for Open and Distance Learning mode: A Higher Educational Institution offering programme in Open and Distance Learning mode shall, in order to facilitate the pace of learning and multiple choice for learners, prepare Self Learning Material as per **Annexure-VI** and **Annexure-VII** taking into consideration the following, namely:-

(i) Self Learning Material has clearly stated objectives, intended learning outcomes, study guidance and advice for the learners as to how to optimally use the material and suggestive related reference material to enhance the learning experience, and linkage within the text with other media (for digital SLM) is maintained for easy referencing and progress;

(ii) At least 60 per cent. of Self Learning Materials shall be developed by the in-house faculty of the Higher Educational Institution and the remaining per cent. of the materials can be sourced from available resources such as other Higher Educational Institutions, Open Educational Resources (OER), and SWAYAM, duly approved by the statutory authorities of the Higher Educational Institution;

(iii) Self Learning Materials developed and offered by it is self-explanatory, self-contained, illustrative, easily comprehensible, and in manageable modules such as units and blocks;

(iv) Self Learning Materials provides adequate mechanism for the learners to provide feedback on their understanding of the subject;

(v) Self Learning material is revised periodically from the perspective of improving quality and learner support:

Provided that a Higher Educational Institution shall prepare the Self Learning Material only after approval of the Programme Project Report:

Provided further that no programme in Open and Distance Learning mode shall be launched by a Higher Educational Institution unless it has prepared the Self Learning Material taking into consideration the above factors.

(C) Provisions for Online mode.— (1) A Higher Educational Institution offering programme in Online mode shall prepare the E-Learning Materials as per **Annexure-VI** and **Annexure-VII**, taking into the consideration the following, namely:-

(i) The Online Learning shall have the four quadrant approach; as per UGC (Credit Framework for online learning courses through SWAYAM) Regulations, 2016;

(ii) At least 60 per cent. of e-Learning Material shall be developed by the in-house faculty of the Higher Educational Institution and remaining per cent. of the material can be sourced from available e-resources such as Open Educational Resources (OER), SWAYAM or other source, duly approved by the statutory authorities of the Higher Educational Institution;

(iii) A Higher Educational Institution shall have demonstrated capability, for developing and production of Online programmes with the technology for production including in-house or duly out-sourced production facilities for converting the courses of a Programme into Online Programmes, defined as under–

(a) learning videos with recording or dubbing or editing facilities for graphics or animation creation;

(b) e-content for reading and improving comprehension of learners;

(c) tests and assignments that test the understanding;

(d) discussion forum that clarifies the doubts of the learners.

(iv) The Online programmes' delivery shall be through the SWAYAM portal or any other learning platform duly approved by the Commission on the recommendation of the Technical Expert Committee broadly complying to the features mentioning at **Annexure-IX**.

(v) The Programme offered under Online mode shall conform to the condition that apart from the Programme delivery, other components such as Counselling Process, Online Application Processing and fee payment shall also be provided through Online mode.

(2) The Higher Educational Institution may evolve the curricular aspects, assessment criteria etc. for the award of Degree at the undergraduate and postgraduate levels and/or Post Graduate Diploma adopting the following requirements, namely:-

(i) the course content for each course shall be clearly defined, each having modular e-content, delivery online in a structured format, with clearly spelt out learning outcomes which learners are expected to attain at the end of the module;

(ii) programmes (including courses in a programme) architecture shall permit the online teacher or instructor to add multi-media enriched and interactive content, activities and assessments to extend learning opportunities and shall be easy to navigate;

(iii) availability of assessment mechanism - each course in the Online Programme shall have a precise assessment mechanism for the identified learning outcomes at each level for both continuous formative and summative assessments;

(iv) identified technological interface and interoperability - the Online Programme shall be able to utilise a variety of technology tools, shall have a user friendly interface

and meet accessibility standards for interoperability and access for learners with special needs.

(3) Learners' Requirements for Enrolment to Online Programmes - Learners to be enrolled for the Online Programmes shall be acquainted with the requisite information or literacy skills for which there shall be a helpline for technical assistance throughout the semester/course of study.

(4) Learner's Authentication Requirements –

(i) the Higher Educational Institutions shall exercise proper learner's authentication practice to ensure the academic integrity and all the Indian learners, at the time of enrolment, synchronous /asynchronous participations and all assessments for examinations, shall be required to provide the Aadhaar number or other government recognised identifier, as applicable and verify their information for authentication for which necessary infrastructure or support shall be provided to them by the Higher Educational Institutions;

(ii) all the International learners shall authenticate their credentials through Passports only. These learners shall pursue Online programmes from their country of residence.

(5) Active Engagement of the Learners - Active engagement in Online or virtual class shall be monitored via participation in asynchronous or synchronous discussions, assignment activity and Programme involvement and the analytics of Learning Management System shall be used for ensuring the learner's participation at least for two hours every fortnight.

(6) Technical Know-how or Skills Requirements - The Higher Educational Institutions shall have defined criteria or guidelines for the technical know- how and skill requirements of the Online Programme Coordinators, Course Coordinators, Course Mentors and other staff and ascertain that all the resources are competent to deliver online education effectively from the learner learning perspective and continuous upgradation of skills shall be essential for embracing newer methodologies and Information and communication technology tools for enhancing the development and delivery of the Online Programmes in the long run.

(7) Learners' Support Services and E-Learning Materials – Higher Educational Institutions shall provide adequate support for advising, counselling, mentoring and guidance so as to ensure the best possible learning experience for the learners and there shall be clear guidelines on academic integrity and netiquette (internet etiquette) expectations regarding lesson activities, group discussions, chats and plagiarism.

(8) A Higher Educational Institution shall provide the details of all International learners enrolled immediately after the beginning of the academic session to the Ministry of External Affairs, Ministry of Education and University Grants Commission.

PART IV

ADMISSIONS, EXAMINATIONS AND LEARNER SUPPORT

14. Admission and fees.— (1) On being granted recognition under clause (i) of sub-regulation (3) of regulation 5, a Higher Educational Institution shall admit learners to its recognised programmes only from the academic session specified in the Commission order:

Provided that the intake capacity under Open and Distance Learning mode for a programme under science discipline to be offered by a Dual Mode University shall be three times of the approved in take in conventional mode and incase of Open University, it shall be commensurate with the capacity of the Learner Support Centres (for Open and Distance Learning only) to provide lab facilities to the admitted learners:

Provided further that enrolment of learners to the Higher Educational Institution, for any reason whatsoever, in anticipation of grant of recognition for offering a programme in Open and Distance Learning mode and/or Online mode, shall render the enrolment invalid:

Provided also that if the Higher Educational Institution is found violating any of the provisions of these regulations, punitive action shall be taken by the Commission in accordance with the sub-regulation (3) of regulation 7.

(2) In order to provide opportunities for Higher Education to a larger segment of the population and to promote the educational wellbeing of the community in general, the fee structure shall be devised by the Higher Educational Institutions in such a manner that it is affordable to all the stake holders including students from the deprived sections of society and the Higher Educational Institutions shall comply with the following:-

(i) A Higher Educational Institution shall, for admission in respect of any programme in Open and Distance Learning mode and/or Online mode, accept payment towards admission fee and other fees and charges-

(a) as may be fixed by it and declared by it in the prospectus for admission, and on the website of the Higher Educational Institutions;

(b) with a proper receipt in writing issued for such payment to the concerned learner admitted in such Higher Educational Institutions;

(c) only by way of online transfer, bank draft or pay order directly in favour of the Higher Educational Institution.

(ii) It shall be mandatory for the Higher Educational Institution to upload the details of all kind of payment or fee paid by the learners on the website of the Higher Educational Institution.

(iii) The fee waiver and/or scholarship schemes for Scheduled Caste, Scheduled Tribe, Persons with Disabilities category of learners and students from deprived section of society shall be in accordance with the instructions or orders issued by Central Government or State Government:

Provided that a Higher Educational Institution shall not engage in commercialisation of education in any manner whatsoever, ands hall provide for equity and access to all deserving learners.

(iv) Admission of learners to a Higher Educational Institution for a programme in Open and Distance Learning mode and/or Online mode shall be offered in a transparent manner and made directly by the Head Quarters of the Higher Educational Institution which shall be solely responsible for final approval relating to admissions or registration of learners:

Provided that a Learner Support Centre shall not admit a learner to any programme in Open and Distance Learning for or on behalf of the Higher Educational Institution.

(v) Every Higher Educational Institution shall–

(a) record Aadhaar details or other Government identifier(s) of Indian learner and Passport for an International Learner;

(b) maintain the records of the entire process of selection of candidates, and preserve such records for a minimum period of five years;

(c) exhibit such records as permissible under law on its website; and

(d) be liable to produce such record, whenever called upon to do so by any statutory authority of the Government under any law for the time being in force.

(vi) Every Higher Educational Institution shall publish, prior to the date of commencement of admission to any of its programme in Open and Distance Learning mode and/or Online mode, a prospectus (print and in e-form) containing the following for the purposes of informing those persons intending to seek admission to such Higher Educational Institutions and the general public, namely:-

(a) each component of the fee, deposits and other charges payable by the learners admitted to such Higher Educational Institutions for pursuing a programme in Open and Distance Learning mode and/or Online mode, and the other terms and conditions of such payment;

(b) the percentage of tuition fee and other charges refundable to a learner admitted in such Higher Educational Institutions in case such learner withdraws from such Higher Educational Institutions before or after completion of programme of study and the time within, and the manner in, which such refund shall be made to the learner;

(c) the number of seats approved in respect of each programme of Open and Distance Learning mode and/or Online mode, which shall be in consonance with the resources;

(d) the conditions of eligibility including the minimum age of a learner in a particular programme of study, where so specified by the Higher Educational Institution;

(e) the minimum educational qualifications required for admission in programme(s) specified by the Commission or relevant statutory authority or councils, or by the Higher Educational Institution, where no such qualifying standards have been specified by any statutory authority;

(f) the process of admission and selection of eligible candidates applying for such admission, including all relevant information in regard to the details of test or examination for selecting such candidates for admission to each programme of study and the amount of fee to be paid for the admission test;

(g) details of the teaching faculty, including therein the educational qualifications and teaching experience of every member of its teaching faculty and also indicating therein whether such member is employed on regular or contractual basis or any other;

(h) pay and other emoluments payable for each category of teachers and other employees;

(i) information in regard to physical and academic infrastructure and other facilities, including that of each of the learner support centres (for ODL programmes) and in particular the facilities accessible by learners on being admitted to the Higher Educational Institution;

(j) broad outline of the syllabus specified by the appropriate statutory body or by higher educational institution, as the case may be, for every programme of study;

(k) activity planner including all the academic activities to be carried out by the higher educational institution during the academic sessions:

Provided that the Higher Educational Institution shall publish information referred to in sub-clauses (a) to (k) on its website, and the attention of the prospective learners and the general public shall be drawn to such publication on its website and Higher Educational Institution admission prospectus and the admission process shall necessarily be over within the time period mentioned in the Commission Order.

(vii) No Higher Educational Institution shall, directly or indirectly, demand or charge or accept, capitation fee or demand any donation, by way of consideration for admission to any seat or seats in a programme of study conducted by it;

(viii) No person shall, directly or indirectly, offer or pay capitation fee or give any donation, by way of consideration either in cash or kind or otherwise, for obtaining admission to any seat or seats in a programme in Open and Distance Learning mode and/or Online mode offered by a Higher Education Institution;

(ix) No Higher Educational Institution, who has in its possession or custody, any document in the form of certificates of degree, diploma or any other award or other document deposited with it by a person for the purpose of seeking admission in such Higher Educational Institution, shall refuse to return such degree, certificate award or other document with a view to induce or compel such person to pay any fee or fees in respect of any programme of study which such person does not intend to pursue or avail any facility in such Higher Educational Institution;

(x) In case a learner, after having admitted to a Higher Educational Institution, for pursuing any programme in Open and Distance Learning mode and/or Online mode subsequently withdraws from such Higher Educational Institution, no Higher Educational Institution in that case shall refuse to refund such percentage of fee deposited by such learner and within such time as notified by the Commission and mentioned in the prospectus of such Higher Educational Institution;

(xi) No Higher Educational Institution shall, issue or publish-

(a) any advertisement for inducing learners for taking admission in the Higher Educational Institution, claiming to be recognised by the appropriate statutory authority or by the Commission where it is not so recognised;

(b) any information, through advertisement or otherwise in respect of its infrastructure or its academic facilities or of its faculty or standard of instruction or academic or research performance, which the Higher Educational Institution, or person authorised to issue such advertisement on behalf of the Higher Educational Institution knows to be false or not based on facts or to be misleading.

15. Evaluation.—

(A) Common Provisions for Open and Distance Learning Mode and Online Mode:

(1) The Higher Educational Institution shall adopt the guidelines issued by the Commission for the conduct of proctored examinations.

(2) A Higher Educational Institution offering Open and Distance Learning Programmes and/or Online programmes shall have a mechanism well in place for evaluation of learners enrolled through Open and Distance Learning mode and/or Online mode and their certification.

(3) The evaluation shall include two types of assessments; (i) continuous or formative assessment; and (ii) summative assessment in the form of end semester examination or term end examination:

Provided that no end semester examination or term end examination shall be held in a subject unless:

(i) the Higher Educational Institution is satisfied that at least 75 per cent. of the programme of study stipulated for the semester or year has been actually conducted;

(ii) For Open and Distance Learning mode: the learner has minimum attendance of 75 per cent. in the programme specific Personal Contact Programme (excluding counselling) and lab component of each of the programmes; and detailed attendance records have been maintained by Learner Support Centre/Regional Centre/ Higher Educational Institution;

(iii) For Online mode: the learner has minimum participation of 75 per cent. in all the activities of Online programme prior to end semester examination or term end examination:

Provided further that the curricular aspects, assessment criteria and credit framework for the award of Degree programmes at undergraduate and postgraduate level and/or Post Graduate Diploma programmes through Open and Distance Learning mode and through Online mode shall be evolved by adopting same standards as being followed in conventional mode by the dual mode Higher Educational Institutions and in Open Distance Learning mode by the Open Universities:

Provided also that the weightage for different components of assessments for both Open and Distance Learning mode and Online mode shall be as under:

(i) continuous or formative assessment (in semester): Maximum 30 per cent.

(ii) summative assessment (end semester examination or term end examination): Minimum 70 per cent.

The Higher Educational Institution shall notify all assessment tools to be used for formative and summative assessments.

(4) Marks or grades obtained in continuous assessment and end semester examinations or term end examinations shall be shown separately in the grade card.

(5) A Higher Educational Institution offering a Programme in Open and Distance Learning mode and/or Online mode shall adopt a rigorous process in development of question papers, question banks, assignments and their moderation, conduct of examination, evaluation of answer scripts by qualified teachers, and result declaration, and shall so frame the question papers as to ensure that no part of the syllabus is left out of study by a learner.

(6) The examination of the programmes in Open and Distance learning mode and/or Online mode shall be managed by the examination or evaluation Unit of the Higher Educational Institution and shall be conducted in the examination centre as given under these regulations.

(7) The 'Examination Centre' shall be established as per **Annexure-I** and **Annexure-II** with due approval of the statutory authority of the Higher Educational Institution, subject to the following:-

(i) The Examination Centre shall have proper monitoring mechanisms for Closed-Circuit Television (CCTV) recording of the entire examination procedure and biometric system and in case of non- availability of the Closed-Circuit Television facilities, the Higher Educational Institution shall ensure that proper videography be conducted and video recordings are submitted by particular in charge of examination centre to the concerned Higher Educational Institution.

(ii) The Higher Educational Institution shall retain all such Closed- Circuit Television recordings in archives for a minimum period of five years.

(iii) There shall be an observer for each of the Examination Centre appointed by the Higher Educational Institution and it shall be mandatory to have observer report submitted to the Higher Educational Institution.

(B) Provisions for Open and Distance Learning Mode: (1) All end semester examinations or term end examinations for programmes offered through Open and Distance Learning mode shall be conducted through proctored examination (pen-paper or online or computer based testing) within Territorial Jurisdiction, in the examination centre as mentioned in these regulations. The Exams shall be under the direct control and responsibility of the Open and Distance Learning mode Institution.

(2) All Government Institutions like Kendriya Vidyalaya(s), Navodaya Vidyalaya(s), Sainik School(s), State Government Schools, etc. can also be identified as examination centre(s) under direct overall supervision of a Higher Educational Institution offering education under the Open and Distance Learning mode including approved affiliated colleges under the University system in the Country and no Examination Centres shall be allotted to private organisations or unapproved Higher Educational Institutions.

(3) The Learner Support Centres, as defined in the regulations and within the territorial jurisdiction, can also be used as examination centres provided they fulfill the criteria of an examination centre as defined in these regulations.

(4) The attendance of examinees shall be authenticated through biometric system as per Aadhaar details or other Government identifiers of Indian learners.

(C) Provisions for Online Learning mode: (1) An Higher Educational Institution offering programme through Online mode shall conduct examinations either using technology enabled online test with all the security arrangements ensuring transparency and credibility of the examinations, or through the Proctored Examination and in conformity with any other norms for such examination as may be laid down by the Commission;

(2) As restriction of territorial jurisdiction is not applicable for Online learning, such Higher Educational Institutions which are recognised to enroll international learners shall endeavour to conduct proctored examinations for such learners;

(3) The attendance of examinees shall be authenticated through biometric system as per Aadhaar details or other Government identifiers of Indian learners and Passports for International learners.

16. Certification.— (1) Each award of Degree at undergraduate and postgraduate level and post graduate diploma for both Open and Distance Learning and Online mode shall be assigned a unique identification number and shall have photograph and Aadhaar number or other government recognised identifier or Passport number, as applicable, along with other relevant details of the learner along with the Programme name. Each award shall also be uploaded on the National Academic Depository.

(2) It shall be mandatory for Higher Educational Institution to mention the following on the backside of each of the degrees/certificates and mark sheets issued by the Higher Educational Institution to the learners (for each semester certificate and at the end of the programme):

(i) Mode of delivery;

(ii) Date of admission;

(iii) Date of completion;

(iv) Name and address of all Learner Support Centres (only for Open and Distance Learning);

(v) Name and address of all Examination Centres.

17. Learner Support Centre for Open and Distance Learning.— (1) A Higher Educational Institution offering programme in Open and Distance Learning mode shall, ensure that a Learner Support Centre is established as per **Annexure-VIII** only in a college or institution affiliated to a University or in a Government recognised Higher Educational Institution offering programmes in the same broad areas having the necessary infrastructure and human resources for offering the programme:

Provided that a Learner Support Centre defined under these regulations shall not be the Learner Support Centre for more than two Higher Educational Institutions at a time to offer programmes in Open and Distance Learning mode:

Provided further that a Learner Support Centre of a State University should be in the same state in which the State University has been established:

Provided also that a Higher Educational Institution may establish a special Learner Support Centre for imparting instruction to persons referred to in the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995, the National Trust for Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disability Act, 1999 and other persons in difficult circumstances, including jail inmates:

Provided also that a Learner Support Centre shall not be set up under a franchisee agreement in any case.

(2) A Learner Support Centre shall be the contact point or centre managed by the Higher Educational Institution for providing academic as well as administrative support to its learners and shall perform such other functions as specified in **Annexure-VIII.**

(3) The Learner Support Centre shall be headed by a Coordinator who shall be a regular teacher

not below the rank of a qualified Assistant Professor of the concerned College or Higher Educational Institution and assisted by the counsellors as decided by the Higher Educational Institution.

(4) The Higher Educational Institution shall have a Standard Operating Procedure for the smooth functioning of the Learner Support Centre which shall include functions of the Learner Support Centres and its different functionaries, monitoring mechanism of different services provided by the Centre, and it shall be mandatory for the Learner Support Centre to maintain the learner data related to conduct of counselling sessions, evaluation of assignments and grievance redressal.

18. Learner Support Services.— (1) A Higher Educational Institution offering programmes in Open and Distance Learning mode and/or Online mode shall have guidelines for learner support services which is made available to all the Co- ordinators/ Counsellors/ Mentors and is accessible to the learners.

(2) The learner support services to be provided by the Higher Educational Institution shall include broadly the following, namely:-

(i) pre-admission counselling for prospective learners to provide information to facilitate them in taking an informed decision on joining a specific programme;

(ii) support for admission related matters;

(iii) details of study material and information shall also be available on the website of the Higher Educational Institution;

(iv) arrangement to ensure the delivery of self learning material to learners for ODL programmes as defined in **Annexure-VI** and **Annexure-VII** within a fortnight from the date of admission and in addition, the Higher Educational Institution may provide additional learning resources through on-line mode, Compact Disks etc.;

(v) a full-time dedicated help desk well versed with the learner information data base providing single window services for all learner related queries.

(3) The University Grants Commission (Grievance Redressal) Regulations, 2012, shall be adopted and operationalised by the Higher Educational Institution, and the Higher Educational Institution shall institute a system of Grievance Redressal, in accordance with the guidelines specified in **Annexure-X**.

(4) The Higher Educational Institution shall provide facilities for online guidance and counselling facilities to the learners.

(5) The Higher Educational Institution shall create online discussion forum for learners.

Part V

ASSESSMENT, ACCREDITATION, AUDIT, INSPECTION AND MONITORING

19. Assessment, Accreditation and Audit.— (1) A Higher Educational Institution offering programmes in Open and Distance Learning mode and/or Online mode shall comply with University Grants Commission (Mandatory Assessment and Accreditation of Higher Educational Institutions) Regulations, 2012 and in any case shall apply for assessment and accreditation under those regulations for assessment and accreditation of the programmes offered by it in Open and Distance Learning mode and/or Online mode:

Provided that Open Universities shall obtain accreditation as stipulated under regulation 3.

(2) A Higher Educational Institution recognised under these regulations for imparting programmes in Open and Distance Learning mode and/or Online mode shall get all its programmes assessed through the Centre for Internal Quality Assurance once in a year in the format prescribed by the Commission and the report on quality assurance shall, before the end of the academic year, be prominently placed on its website and a copy furnished to the Commission.

(3) A Higher Educational Institution recognised under these regulations for imparting programmes in Open and Distance Learning mode and/or Online mode shall undergo third party academic audit every five years and internal academic audit by Centre for Internal Quality Assurance every year as specified in **Annexure-I**.

20. Powers to inspect and monitoring.— (1) The Commission shall periodically review the performance of the Higher Educational Institution and for the purpose may direct the Higher Educational Institution to provide such information as it may require from the viewpoint of ensuring adherence of the regulations by the Higher Educational Institution, and the Higher Educational Institution shall be under obligation to provide such information in such time period as may be specified.

(2) Where the Commission, either *suo motu* or on the basis of information received by it, considers it necessary, for reasons to be recorded in writing, may cause an inquiry through inspection or otherwise by such body of experts or as it may deem fit, to satisfy itself that all the mandatory requirements under these regulations are being complied with by the Higher Educational Institution imparting programmes in Open and Distance Learning mode and/or Online mode and take appropriate action to get compliance enforced against the erring Higher Educational Institution.

PART VI

MISCELLANEOUS

21. Authority.— (1) The Commission may authorise the officials of the Commission to perform various functions for implementing these regulations.

(2) For the purpose of these regulations, the Commission may delegate its power to the Chairman of the Commission, as it may specify in writing.

(3) For the purposes of regulation 7, the Commission may delegate its power to hear and decide appeal to such person or persons, including officials of the Commission, as it may specify in writing.

22. Equivalence of qualification acquired through Conventional or Open and Distance Learning and Online modes.— Degrees at undergraduate and postgraduate level in conformity with UGC notification on Specification of Degrees, 2014 and post graduate diplomas awarded through Open and Distance Learning mode and/or Online mode by Higher Educational Institutions, recognised by the Commission under these regulations, shall be treated as equivalent to the corresponding awards of the Degrees at undergraduate and postgraduate level and post graduate diplomas offered through conventional mode.

23. Learner centric provisions.— (1) **Learner's mobility:** A learner enrolled for a programme under Open and Distance Learning mode and/or Online mode in a Higher Educational Institution recognised by the Commission under these regulations shall be eligible for mobility from one mode of learning to another mode of learning within the Higher Educational Institution as per the provisions stipulated under its Act and with the approval of statutory authorities of the Higher Educational Institution;

Provided that in case a programme is under the domain of regulatory authority/statutory council, Higher Educational Institution shall take permission from the concerned regulatory authority/statutory council for mobility of learners under such programmes.

(2) **Admission taken during recognition period:** Admission taken in a recognized programme under Open and Distance Learning mode and/or Online mode during the recognition period stands recognised till the completion of programme, even if the Higher Educational Institution does not have recognition for further years, provided the programme is offered as per the UGC norms of territorial jurisdiction and in conformity with the extant guidelines and/or UGC regulations and regulations of respective regulatory bodies.

(3) **Learner's enrolment (for Open and Distance Learning mode):** A Learner residing in any part of the Country may enroll in any programme being offered by a Higher

Educational Institution recognised by the Commission for offering programme under Open and Distance Learning mode provided that the Higher Educational Institution shall conduct all activities such as admissions, contact programmes, examinations etc. for learner strictly within the territorial jurisdiction of the Higher Educational Institution as specified in these regulations.

(4) **Learner's enrolment (for Online mode):** A Learner residing within or outside India may enroll in any programme being offered by a Higher Educational Institution recognized by the Commission for offering programme under Online mode.

24. Offering of Certificate and Diploma level Programmes.— A Higher Educational Institution recognised for offering programmes at Under Graduate Degree or Post Graduate Degree or Post Graduate diploma levels in Open and Distance Learning mode and/or Online mode may offer Certificate or Diploma programmes in Open and Distance Learning mode and/or Online mode in the domains other than prohibited programmes as per clause (z) of regulation 2 subject to the condition that before the actual start of such programmes, all the Certificate or Diploma programmes are duly approved by the statutory authorities of the Higher Educational Institutions and the regulatory authority/council, as applicable, and the delivery mechanism conforms to the quality standards of the Open and Distance Learning education and/or Online education. The Higher Educational Institution shall be solely responsible for any legal issues arising out of non-compliance of such requirements:

Provided that, if the concerned regulatory authority/council permits any of the prohibited programmes, as mentioned above, under its domain, in Open and Distance Learning mode and/or Online mode, the same may be offered by the Higher Educational Institutions after the approval of its statutory authorities and Regulatory Authorities or Councils, as applicable and after conforming to the quality standards of Open and Distance Learning and Online mode of education.

25. Integrated programme through Open and Distance Learning mode and/or online mode.— Any proposal received from a Higher Educational Institutions for offering an integrated programme through Open and Distance Learning mode and/or online mode shall be considered by the Commission only if it is in compliance to the UGC notification on Specification of Degrees, 2014.

26. Non-consideration of programmes proposed by the Higher Educational Institutions through affiliated colleges only.— The Higher Educational Institutions shall be eligible to apply for only such programmes under Open and Distance Learning mode and/or Online mode which are being offered by its constituent Colleges or Departments or Centre for distance and online education. The Programmes which are being offered only through affiliated Colleges shall not be considered for recognition.

27. Interpretation.— If any question arises relating to interpretation of these regulations, the decision of the Commission shall be final and binding.

Annexure I

CENTRE FOR INTERNAL QUALITY ASSURANCE (CIQA)

I. Establishment of Centre for Internal Quality Assurance:

The Centre for Internal Quality Assurance shall be established in all Higher Educational Institutions offering programmes in Open and Distance Learning mode and/or Online mode. It shall be headed by a full-time Director, being a senior academician not below the rank of an Associate Professor, preferably from the field of Open and Distance Learning and/or online education, who shall be supported by adequate number of academic and other staff.

II. Objective:

The objective of Centre for Internal Quality Assurance is to develop and put in place a comprehensive and dynamic internal quality assurance system to ensure that programmes of higher

education in the Open and Distance Learning mode and Online mode being implemented by the Higher Educational Institution are of acceptable quality and further improved on continuous basis.

III. Functions:

The functions of Centre for Internal Quality Assurance would, *inter alia*, include the following, namely:-

(i) To maintain quality in the services provided to the learners.

(ii) To undertake self-evaluative and reflective exercises for continual quality improvement in all the systems and processes of the Higher Educational Institution.

(iii) To contribute in the identification of the key areas in which Higher Educational Institution should maintain quality.

(iv) To devise mechanism to ensure that the quality of Open and Distance Learning programmes and Online programmes matches with the quality of relevant programmes in conventional mode.

(v) To devise mechanisms for interaction with and obtaining feedback from all stakeholders namely, learners, teachers, staff, parents, society, employers, and Government for quality improvement.

(vi) To suggest measures to the authorities of Higher Educational Institution for qualitative improvement.

(vii) To facilitate the implementation of its recommendations through periodic reviews.

(viii) To organise workshops/ seminars/ symposium on quality related themes, ensure participation of all stakeholders, and disseminate the reports of such activities among all the stakeholders in Higher Educational Institution.

(ix) To develop and collate best practices in all areas leading to quality enhancement in services to the learners and disseminate the same all concerned in Higher Educational Institution.

(x) To collect, collate and disseminate accurate, complete and reliable statistics about the quality of the programme(s).

(xi) To ensure that Programme Project Report for each programme is according to the norms and guidelines prescribed by the Commission and wherever necessary by the appropriate regulatory authority having control over the programme;

(xii) To put in place a mechanism to ensure the proper implementation of Programme Project Reports.

(xiii) To maintain are cord of Annual Plans and Annual Reports of Higher Educational Institution, review them periodically and generate actionable reports.

(xiv) To provide inputs to the Higher Educational Institution for restructuring of programmes in order to make them relevant to the job market.

(xv) To facilitate system based research on ways of creating learner centric environment and to bring about qualitative change in the entire system.

(xvi) To act as a nodal coordinating unit for seeking assessment and accreditation from a designated body for accreditation such as NAAC etc.

(xvii) To adopt measures to ensure internalisation and institutionalisation of quality enhancement practices through periodic accreditation and audit.

(xviii) To coordinate between Higher Educational Institution and the Commission for various quality related initiatives or guidelines.

(xix) To obtain information from other Higher Educational Institutions on various quality benchmarks or parameters and best practices.

(xx) To record activities undertaken on quality assurance in the form of an annual report of Centre for Internal Quality Assurance.

(xxi) It will be mandatory for Centre for Internal Quality Assurance to submit Annual Reports to the Statutory Authorities or Bodies of the Higher Educational Institution about its activities at the end of each academic session. A copy of report in the format as specified by the Commission, duly approved by the statutory authorities of the Higher Educational Institution shall be submitted annually to the Commission.

IV. Centre for Internal Quality Assurance Committee:

(1) Centre for Internal Quality Assurance Committee shall have the following composition, namely:-

(a) Vice Chancellor of the University – Chairperson;

(b) Three senior teachers of Higher Educational Institution - Members;

(c) Head of three Departments or School of Studies offering recognized programmes in Open and Distance Learning and Online mode - Members;

(d) Two external experts of Open and Distance Learning and/or Online education - Members;

(e) Officials from the Administration and Finance departments of the Higher Educational Institution – Members;

(f) Director, Centre for Internal Quality Assurance – Member Secretary.

(2) The members at clauses (b) to (e) shall be nominated by the Vice- Chancellor of the Higher Educational Institution.

(3) The membership of such nominated members shall be for a period of two years. The Committee of Centre for Internal Quality Assurance shall meet at least once in a semester. The quorum for the meeting shall be two-third of the total number of members with mandatory presence of one external expert. The agenda, minutes and Action Taken Reports are to be documented with official signatures and maintained electronically in a retrievable format.

(4) Centre for Internal Quality Assurance Committee shall perform the following functions, namely:-

(i) To oversee the functioning of Centre for Internal Quality Assurance and approve the reports generated by Centre for Internal Quality Assurance on the effectiveness of quality assurance systems and processes.

(ii) To facilitate adoption of instructional design requirements as per the philosophy of the Open and Distance Learning and/or Online learning decided by the statutory bodies of the HEI for its different academic programmes.

(iii) To promote automation of learner support services of the Higher Educational Institution.

(iv) To coordinate with external subject experts or agencies or organisations, the activities pertaining to validation and annual review of its in-house processes.

(v) To coordinate with third party auditing bodies for quality audit of programme(s).

(vi) To oversee the preparation of Self-Appraisal Report to be submitted to the Assessment and Accreditation agencies on behalf of Higher Educational Institution.

(vii) To promote collaboration and association for quality enhancement of Open and Distance Learning and Online modes of education and research therein.

(viii) To facilitate industry-institution linkage for providing exposure to the learners and enhancing their employability.

V. Quality Monitoring Mechanism

(1) The guidelines on quality monitoring mechanism shall be adopted by the Centre for Internal Quality Assurance for conducting institutional quality audits, to promote quality assurance and enhance as well as spread best-in- class practices of quality assurance.

(2) Quality monitoring shall be addressed under the following broad areas, namely:-

(i) **Governance, Leadership and Management:** This relates to the policies and practices of Higher Educational Institution in the matter of planning, human resources, recruitment, training, performance appraisal, financial management and the overall role of leadership, with a focus on the following key aspects:

(a) **Organisation Structure and Governance:** The Higher Educational Institution shall fill all sanctioned/required positions as prescribed by the Commission and establish a credible governance system.

(b) **Management:** The leadership and management of the Institution shall strive to assess and review the organisational culture to achieve its vision, mission and goals.

(c) **Strategic Planning:** The Higher Educational Institution shall undertake strategic planning of its activities and implement the same by aligning those with academic and administrative aspects to improve the overall quality.

(d) **Operational Plan, Goals and Policies:** The Higher Educational Institution shall have well defined goals which are realistic and measurable, well defined policies that are in sync with its strategic plan and are realistic and achievable, clearly stated guidelines for the implementation of its policies and plans, and transparent and accountable system for its policies and planning that are well communicated to its stakeholders.

(ii) **Articulation of Higher Educational Institution Objectives:** The Higher Educational Institution shall articulate a clear vision, mission, ethos and broad strategy consistent with the goals for offering programmes in Open and Distance Learning and Online mode.

(iii) **Programme Development and Approval Processes:** This area of concern relates to programme development and approval mechanism for the programme(s) to be launched, covering the following key aspects, namely:-

(a) **Curriculum Planning, Design and Development:** The curriculum planning, design and development of academic programmes is a major academic activity of the Higher Educational Institution. Therefore, it shall have processes, systems and structures in place to carry out these responsibilities.

(b) **Curriculum Implementation:** The Higher Educational Institution shall have specific implementation plans for identifying the time to be spent on specific components of the implementation phase. It is the basis for the effectiveness of the programme(s) and their usefulness as a whole.

(c) **Academic Flexibility:** The Higher Educational Institution shall adopt proper strategies for imparting academic flexibility, which refers to freedom in the use of the time-frame of courses, vertical mobility, and inter-disciplinary options facilitated by curricular transactions for learners.

(d) **Learning Resource:** The Higher Educational Institution shall ensure quality learning resources in the form of Self Learning Materials (SLMs) for Open and Distance Learning mode and e-learning material for Online mode of education as defined in these regulations. While deciding on the instructional packages, the Higher Educational Institution shall take into consideration various factors – the media and technology utilised matches the course content in order to enhance and expand learning, and to match to the learners' needs; that these are accessible, practical and equitable, and cost effective to the learners.

(e) **Feedback System:** The process of revision and re-design of curricula shall be based on feedback from all stakeholders in terms of its relevance and appropriateness in catering to the needs of the society, economy and environment.

(iv) **Programme Monitoring and Review:** The Higher Educational Institution shall plan and execute programme monitoring and review system to conduct periodic internal reviews and maintain the quality of academic programmes. For such reviews, the Institution shall also consider the attainments of learning outcomes that are assessed through the various tools for direct and indirect assessment.

(v) **Infrastructure Resources:** The Higher Educational Institution shall have a system to elicit data on the adequacy and optimal use of the facilities - physical facilities, library (or e-library), Information and Communication Technology infrastructure, etc. - available in a Higher Educational Institution to maintain the quality of academic programmes and ensure qualitative support to each of the stakeholders.

(vi) **Learning Environment and Learner Support:** The learner support services including academic counselling and library services shall be a major pre-occupation of Higher Educational Institution for its Open and Distance Learning mode and Online mode learners. Additionally, Higher Educational Institution shall establish Information and Communication Technology facilities as component of the learning environment which is focused around the pedagogical use of modern educational practices to support blended learning. Learner Support Services shall be provided through the campus-wide portal and e-Learning platform. The Higher Educational Institution shall take a more sophisticated approach to the use of Information and Communication Technology and expertise in e-learning. The approach shall provide a seamless learner-centred environment.

(vii) **Assessment and Evaluation:** All the stated Learning Outcomes of a Programme must be part of its evaluation protocol. The Higher Educational Institution shall execute the evaluation through varied assessment tools including multiple choice questions, projects, reports, case-studies, presentations, and term-end examinations, to suit the different learning outcomes expected of the course elements. The Higher Educational Institution shall have proper assessment and moderation system for assessing the learning outcomes of learners.

(viii) **Teaching Quality and Staff Development:** The Higher Educational Institutions shall have a well established structure for promoting quality counselling, capacity building workshops, programmes, interactive teaching-learning and provide staff development programmes and activities to encourage academic staff to improve teaching and learning on continuous basis.

(3) **Process of Quality Audit**

(i) **Academic Planning:** The Higher Educational Institutions shall have robust and appropriate academic planning procedures to ensure that the programmes offered by it are relevant to national economy, reflects the Institution's strategic direction and offers a high quality 'value-added' learner experience. The Institution shall have adequate and appropriate teaching and other support staff along with infrastructure and technology support to ensure that the curriculum remains up to date and the institutional goals are achieved.

(ii) **Validation:** The Higher Educational Institution shall have a mechanism in place for validation to ensure that its programmes are academically viable, that academic standards have been appropriately defined and that these offer learners the best opportunity to learn.

(iii) **Monitoring, Evaluation and Enhancement Plans:** Quality deliverance of the Open and Distance Learning programmes and Online programmes and the outcomes attainment and continual quality improvements shall be ensured by the Higher Educational Institution, shall be broadly as follows, namely:-

(a) **Reports from Learner Support Centres (for Open and Distance Learning programmes):** Report of academic activities and other related activities containing details of all the activities related to academic planning, counselling, learner support, etc. shall be collected periodically from Learner Support Centres. The Higher Educational Institution shall adopt the technological solutions for easy receipt of these reports.

(b) **Reports from Examination Centres:** Report of conduct of examinations in both Open and Distance Learning Mode and Online mode, alongwith report of observers/proctors for all examinations shall be collected periodically from Examination Centres. The Higher Educational Institution shall adopt the technological solutions for easy receipt of these reports.

(c) **External Auditor or other External Agencies report:** The Higher Educational Institution shall consider the comments made by External auditors, experts and third party of quality audit and implement as appropriate.

(d) **Systematic Consideration of Performance Data at Programme, Faculty and Higher Educational Institution levels:** For effective evaluation and audit, the Higher Educational Institution shall ensure easy access to performance monitoring information such as course pass rates, learner entry profiles and progression and achievement reports, which should be available through web-based application and be used for report making by the Higher Educational institution.

(e) **Reporting and Analytics by the Higher Educational Institution:** The Higher Educational Institution shall generate the required reports out of such web-based applications and analyze learner and academic analytics for deciding the improvements to be executed for better performance.

(f) **Periodic Review:** The Higher Educational Institution needs to have an effective system for collecting feedback from the stakeholders regularly to improve its programmes. The Higher Educational Institution needs to conduct self-assessments regularly and use the results to improve its systems, processes etc. and finally quality of programmes.

Annexure II

CONDUCT OF EXAMINATION AND MINIMUM STANDARDS FOR EXAMINATION CENTRES

I. Conduct of End Semester or Term End Examination:

1. All processes of assessment of learners in different components of Examination shall be directly handled by the concerned Institution and no part of the assessment shall be outsourced.

2. For ensuring transparency and credibility, the full time faculty of the Open and Distance Learning and/or Online mode Higher Educational Institutions or qualified faculty from University Grants Commission recognised Higher Educational Institutions only should be associated to function as invigilators, examination superintendents, as observers etc.

A. For Open and Distance Learning programmes:

1. All Examinations for Open and Distance Learning mode programmes shall be conducted within the Institution where the Study Centres or Learner Support Centres is located under the direct control and responsibility of the Open and Distance Learning mode Institution. Also, all Government Institutions like Kendriya Vidyalaya(s), Navodaya Vidyalaya(s), Sainik School(s), State Government Schools, etc. can also be identified as examination centre(s) under direct overall supervision of a Higher Educational Institution offering education under the Open and Distance Learning mode including approved affiliated colleges under the University system in the country and no Examination Centres shall be

allotted to any private organisations or unapproved Higher Educational Institutions.

2. In case the types of Institutions mentioned at (i) above are not sufficient to meet the requirement in a city/town, the HEI may locate the Examination Centre(s) at Krishi Vigyan Kendras, State Training Institutes/Industrial Training Institutes, Government Organisations/ Departments, Accredited Laboratory with the prior approval of its statutory bodies.

B. For Online Programmes

1. A Higher Educational Institution offering programme through Online mode shall conduct examinations either using Computer based test or pen and paper test in a proctored environment in designated test centre with all the security arrangements ensuring transparency and credibility of the examinations. It can also conduct online examination through technology mediated proctoring.

2. The attendance of examinees shall be authenticated through biometric system as per Aadhaar details or other Government identifiers for Indian learners and Passports for International learners.

II. Minimum Standards to be Maintained at Examination Centres

A. For Open and Distance Learning Programmes

1. The examination centre must be centrally located in the city, with good connectivity from railway station or bus stand, for the convenience of the students.

2. The number of examination centres in a city or State must be proportionate to the student enrolment from the region.

3. Building and grounds of the examination centre must be clean and in good condition.

4. The examination centre must have an examination hall with adequate seating capacity and basic amenities.

5. Fire extinguishers must be in working order, locations well marked and easily accessible. Emergency exits must be clearly identified and clear of obstructions.

6. The Examination Centre shall have adequate and comfortable seating capacity and amenities including adequate lighting, ventilation and clean drinking water facilities.

7. Safety and security of the examination centre must been sured.

8. Restrooms must be located in the same building as the examination centre, and restrooms must be clean, supplied with necessary items, and in working order.

9. Provision of drinking water must be made for learners.

10. The Examination Centre shall have proper monitoring mechanisms for Closed-Circuit Television (CCTV) recording of the entire examination procedure and biometric system and in case of non-availability of the Closed-Circuit Television facilities, the Higher Educational Institution shall ensure that proper videography be conducted and video recordings are submitted by in- charge of examination centre to the concerned Higher Educational Institution.

11. Adequate parking must be available near the examination centre.

12. Facilities for Persons with Disabilities should be available.

B. For Online Programmes:

13. In addition to facilities mentioned in clause A of paragraph II, Online Examination shall have the following facilities, namely:-

(i) **Requirements at Test Centres:**

(a) Provide adequate test room(s)/space for given number of examinees;

(b) Examinees must be seated with separation distance that restricts view of others work;

(c) Examination Centres must have backup plans in case of power or application failure;

(d) The online examination application must be tested before commencement of the examination;

(e) The check-in area should be located near the entrance to the testing room, in an area separate from other activities;

(f) The building, testing rooms and rest rooms must be accessible to people with disabilities, including wheel chair access;

(g) Each test room shall have proctoring facility either through human proctors or through technology mediated proctoring.

(ii) **Requirement of proctors:**

Each test centre requires one or more proctors in each room, whose responsibilities include the following, namely:-

(a) Monitor the testing room to maintain security;

(b) Interact with the testing workstations to start or pause tests;

(c) Report any irregularities;

(d) Other activities to ensure credibility and transparency of the examination.

(iii) **Security arrangements in the testing centre:**

(a) Only authorised staff and if any external examiner(s) shall have access before exam time;

(b) Only authorised staff and examinee shall have access during exams;

(c) Authorised staff and external examiners to have only the level of access as required and mandated;

(d) OS, Browser and the Software must be kept up-to-date and patched in a timely fashion;

(e) The testing application shall be able to track and report all access attempts;

(f) Each examination room shall have CCTV facility;

(g) Centralised audio/video monitoring of all exam centers shall be ensured;

(h) A separate examination application server or machine in each exam centre must be ensured which will be connected to a central server through virtual private network connectivity for secure delivery of question papers in encrypted form at a designated time prior to the exam;

(i) Examination applications server must reside on a local area network in the same subnet to allow communication between test delivery applications without blocking any ports;

(j) Audit Logging: the online examination system must provide a detailed audit logging facility recording activities like Login, Logout, Exam Access, Question Navigation, Answer Responses, etc. Using techniques like geo-tagging which will make it possible to track the exact location of the user during online exam activity.

(k) IP based Authentication and Authorization: the access and operation of the examination program must be restricted or limited to a certain specified number of IP addresses specially in the case of admin login to ensure complete safety for the examination.

(l) Examination Centre has to be connected to the internet via a good internet connection with a minimum download speed of 4 Megabits per second (Mbps) and upload speed of 1 Megabits per second (Mbps) for online question paper delivery and uploading of scanned answer scripts.

(m) There should be a separate device for Local Area Network (switch) and internet connectivity (router) instead of using an integrated device.

(n) Staffs have to verify the student's original ID proof issued by Govt. of India with the ID proof for authentication.

(o) External devices (i.e. mobile, pen drive, tab, laptop, smart watch etc.) or reading materials should not be permitted in exam centres.

(p) The online exam Platform will be accessible *via* user id and password which is unique for each student for each session and exam.

(q) After examination data shall be transferred in encrypted format through an encrypted virtual private network connection from examination application server to central server.

(iv) **Remote Proctoring:**

Following security measures to be ensured for conducting online examination through remote proctoring:

(a) Secure browser: there must be custom application pre-installed on the machine for the examination preventing opening of any other windows or application. This application must prevent Screen Capturing, Recording and Remote Login or taking output to a remote screen through Video Graphic Array (VGA), Universal Serial Bus (USB) or High Definition Multimedia Interface (HDMI) ports features.

(b) Remote Proctoring: remote proctoring shall involve image capturing in intervals or video streaming of the candidate through webcam or screen capturing of the current access screen of the candidate.

(c) Data Encryption: Online examination system's data needs to be encrypted to prevent any kind of misuse. Question Bank and exam data must be stored in a highly secure and encrypted manner. The entire communication between server and client/student machine during the examination needs to be encrypted with a secure mode of communication.

Annexure III

TERRITORIAL JURISDICTION AND REGULATING PROVISIONS FOR DIFFERENT TYPES OF HIGHER EDUCATIONAL INSTITUTIONS

I. Central Government and State Government University:

1. A University established or incorporated by or under a Central Act shall offer programmes in Open and Distance Learning mode and operate all other related activities as per the territorial jurisdiction allotted to it under its Act.

2. A University established or incorporated by or under a State Act shall offer programmes in Open and Distance Learning mode and operate all other related activities only within the territorial jurisdiction allotted to it under its Act and in no case beyond the territory of the state of its location.

3. A Central Government or State Government University can offer recognised programmes under Open and Distance Learning mode and/or Online mode in accordance with the provisions of its respective Act and after the recognition of the University Grants Commission.

4. A Central Government or State Government University can offer recognised programmes under Open and Distance Learning mode through its own Schools/Departments/Centre and its constituent colleges.

5. No university can offer its programmes or other related activities through franchising arrangement for the purpose of conducting courses through Open and Distance Learning mode and Online mode.

6. Territorial Jurisdiction shall not be applicable to these category of Higher Educational Institutions recognised for offering programmes through Online mode under these regulations.

II. Private Universities:

1. Private Universities established or incorporated by or under a State Act shall offer programmes in Open and Distance Learning mode and operate all other related activities only within the territorial jurisdiction allotted to it under its Act and in no case beyond the territory of the state of its location.
2. Private Universities shall be governed by UGC (Establishment and Maintenance of Standards in Private Universities) Regulations, 2003.
3. Private Universities shall be eligible to offer programmes under Open and Distance Learning mode through its Head Quarters only and duly recognised off-campus centres.
4. Private Universities shall not offer programmes under Open and Distance Learning mode through any Learner Support Centre.
5. A Private University established under the State Act shall be a unitary University.
6. Private Universities cannot affiliate any college or institution for conducting programmes leading to award of its diplomas, degrees or other qualifications.
7. No university can offer its programmes or other related activities through franchising arrangement for the purpose of conducting courses through Open and Distance Learning mode and Online mode.
8. Territorial Jurisdiction shall not be applicable to this category of Higher Educational Institutions recognised for offering programmes through the Online mode under these regulations.

III. Institutions Deemed to be Universities:

1. Institutions Deemed to be University shall be governed by UGC (Institutions Deemed to be Universities) Regulations, 2019.
2. Institutions Deemed to be University shall operate only within its Head Quarters or from those off campuses which are approved by the Government of India through notification published in the Official Gazette.
3. Institutions Deemed to be Universities shall be a unitary in nature and cannot affiliate any college or institution for conducting programmes leading to award of its diplomas, degrees or other qualifications.
4. No university can offer its programmes or other related activities through franchising arrangement for the purpose of conducting courses through Open and Distance Learning mode and Online mode.
5. Territorial Jurisdiction shall not be applicable to this category of Higher Educational Institutions recognised for offering programmes through Online mode under these regulations.

Annexure IV

HUMAN RESOURCE AND INFRASTRUCTURAL REQUIREMENTS

I. Open Universities

A. Staffing Norms at Head Quarters:

1. The following positions are on full time and dedicated basis, excluding the designated positions in the Open Universities as per their respective Act(s):-
   (i) Head for each school at the Professor level.

(ii) Academic staff strength per programme under a school. Minimum three faculty members are required at Associate Professor/Assistant Professor level:

Provided that in case of Under Graduate and Post Graduate programmes in same discipline, instead of 6 faculty members, 5 faculty members shall be required.

(iii) Administrative staff strength at Head Quarters or Main Campus (up to 10,000 students):

(a) Deputy Registrar - 1;

(b) Assistant Registrar - 1;

(c) Section Officer - 1;

(d) Assistants - 3;

(e) Computer Operator - 2;

(f) Multi Tasking Staff – 2.

2. In case of the enrolment higher than 10,000 in Open and Distance Learning Programmes, Open University may increase the number of positions appropriately.

B. Centre for Online Education (COE):

1. The Open University intending to offer the recognised programmes under Online mode shall have a Centre for Online Education for effective coordination among its Departments or Schools of Studies for offering the Online Programme, comprising Admission or Registration Unit, Examination Unit and Technology Support Unit. The Centre for Online Learning shall maintain and administer the Centralised Data Base of all the recognised programmes.

(i) The Centre for Online Education shall have:

(a) Director: Permanent, full-time Professor (preferably having professional experience in Open and Distance Learning and/or Online Learning);

(b) Deputy Director (e-Learning and Technical): An employee having the Qualifications and Experience as specified for Associate Professor under the University Grants Commission (Minimum Qualifications for Appointment of Teachers and other Academic Staff in the Universities and Colleges and other Measures for the Maintenance of Standards in Higher Education) Regulations, 2018 shall be an e-learning expert with experience in technical coordination for modules development and Learning Management System (LMS). The Deputy Director can be appointed on full-time or contractual basis;

(c) Assistant Director: Having qualifications and experience as specified for Assistant Professor under University Grants Commission (Minimum Qualifications for Appointment of Teachers and other Academic Staff in the Universities and Colleges and other Measures for the Maintenance of Standards in Higher Education) Regulations, 2018, initially one, who shall coordinate with Departments or Schools of Studies offering Online Programmes. The Assistant Director can be appointed on full-time or contractual basis.

(ii) The Departments or Schools of Studies shall be the academic home of the recognised Online programmes on offer.

(iii) The involvement of permanent and/or full time dedicated faculty of Schools of Studies/Departments in the Online programme(s) shall be in the following capacities, excluding the designated positions in the Open Universities as per their respective Act(s):

(a) Programme Coordinator (One per Programme): A full-time Faculty at the level of Professor or Associate Professor or Assistant Professor in the subject area of the concerned Programme shall be the Programme Coordinator for an Online

Programme. The Programme Coordinator shall be responsible for overall coordination of the development, delivery and assessments of the learners in an Online Programme;

(b) Course Coordinator (One per Course): An Online Programme may have more than one Course. In such a case, one full-time dedicated Faculty at the level of Professor or Associate Professor or Assistant Professor in the subject area of the concerned Course shall be Course Coordinator for each of the Courses of an Online Programme. The Course Coordinator shall coordinate the development, delivery and assessments of the learners in the Course;

(c) Course Mentor (One per batch of 250 learners): Course Mentor shall assist the Programme/Course Coordinator in providing academic support to learners and also in managing virtual teacher-learner interaction groups. Course Mentor shall have the relevant qualifications and experience as specified for Assistant Professor under the University Grants Commission (Minimum Qualifications for Appointment of Teachers and other Academic Staff in the Universities and Colleges and other Measures for the Maintenance of Standards in Higher Education) Regulations, 2018;

(d) Examiners: The Higher Educational Institution shall appoint examiners for the assessment of the online learners in a Course from among the qualified faculty from within the Institution or from other Institutions and they shall be paid appropriate honorarium as per norms of the Higher Educational Institution.

(iv) Requirement of Technical Support for Online Programmes:

(a) Technical Team for Development of e-Content as Self-Learning e- Modules:

(A) Technical Manager (Production)–minimum one

(B) Technical Associate (Audio-Video recording and editing)– minimum one

(C) Technical Assistant (Audio-Video recording)– minimum one

(D) Technical Assistant (Audio-Video editing)–minimum one

(E) The technical support required for development of e-content may be outsourced to the centres across the nation having requisite facilities.

(F) These numbers are for the initial stage of e-content, for self learning e-modules development and delivery.

(b) For Delivery of Online Programmes:

(A) Technical Manager (LMS and Data Management)-minimum one (per Centre)

(B) Technical Assistant (LMS and Data Management) – minimum two

(c) For Admission and Examination for Online mode:

(A) Technical Manager (Admission, Examination and Result) -minimum one (per Centre)

(B) Technical Assistant (Admission, Examination and Result) - minimum two

(C) These activities may be carried out by the Admission/Registration and Examination Units of the Open Universities having requisite resources for their ODL Programmes under the overall supervision of Centre for Online Education for Online Programmes.

II. Dual Mode Higher Educational Institutions

1. The dual mode Higher Education Institution intending to offer Programmes in Open and Distance Learning mode and/or Online mode shall have a Centre for Distance and Online Education (CDOE) for effective coordination among its Departments or Schools of Studies.

2. The Centre shall maintain and administer, in collaboration with the technology support Unit

of Higher Educational Institution, the Centralised Data Base of all the Open and Distance Learning and/or Online Programmes.

3. The provisions as detailed in clause (1) of sub-paragraph (B) of paragraph I above shall be applicable to Dual mode HEIs for Online Programmes.

III. Staffing Norms at Head Quarters:

1. As mentioned in Clause (1) of sub-paragraph (B) of paragraph I above, in case of Online Programmes.

2. Academic staff strength - At least two faculty members (full-time dedicated) per Open and Distance Learning Programme at Professor/Associate Professor/Assistant Professor level:

   Provided that in case of Under Graduate and Post Graduate programmes in same discipline, instead of 4 faculty members, 3 faculty members shall be required.

3. Administrative staff strength at Head Quarters or Main Campus **(up to 5,000 students)**:

   (a) Deputy Registrar - 1;

   (b) Assistant Registrar - 1;

   (c) Section Officer - 1;

   (d) Assistants - 2;

   (e) Computer operators - 2;

   (f) Multi Tasking Staff – 2.

4. In case of the enrolment higher than 5,000 the number of positions in the Centre for Distance and Online Learning may be increased by the HEI appropriately.

IV. Physical Infrastructure:

1. Total Built-up area for Open and Distance Learning activity - Minimum 15000 sq. ft. (carpet area):

Table

S. No.	Built-up Area Type	Percentage (%)	Built-up Area (Carpet Area, in sq ft)
1.	Academic	50 per cent.	7500
2.	Administrative	10 per cent.	1500
3.	Academic support such as Library, Reading room, Computer Centre, Informational and Communication technology Labs, Video and Audio Labs etc.	30 per cent.	4500
4.	Amenities or other support facilities	10 per cent.	1500
		Total	15000

Note: Built up area for toilets shall be separate.

2. Minimum requirement of Physical Infrastructure will be as per University Grants Commission (Fitness of Open Universities for Grants) Rules, 1988 and as amended from time to time, except for the existing Open Universities for the purpose of these regulations.

V. Academic Counselor in a Learner Support Centre:

1. Should be a post graduate from a recognised University.
2. Familiarity with basic research on the characteristics of Distance learners, their needs and difference from conventional face-to-face education.
3. Application of basic principles of instructional design.
4. Thorough knowledge of subject matter and common misconceptions related to the course(s).
5. Deep understanding of the necessity of learner-centered environment in online and blended learning mode.
6. Ability to design constructivist learning environment.
7. Practical applications of learning theories, self-paced instruction, and computer-mediated communication and learning.
8. Ability to foster a sense of community among learners.
9. Adaptability and flexibility with the capabilities and limitations of the delivery media.
10. Familiarity with the delivery medium to provide basic troubleshooting.
11. Ability to multitask.
12. Time management (e.g. respond to learners in timely manner, extensive and advance preparation and planning).
13. Professional characteristics (e.g. motivated to teach, self-confident, articulate, good writer).

Annexure V

GUIDELINES ON PROGRAMME PROJECT REPORT (PPR)

I. Overview

1. A Programme Project Report (PPR) of a Higher Educational Institution is a document prepared to introduce a new programme, which includes details of - (a) programme objectives and outcomes; (b) nature of target group of learners; (c) appropriateness of the programme with quality assurance for acquiring specific skills; (d) programme content designing and developing; (e) cost estimates for development of the programme; and (f) admission, delivery and evaluation norms.
2. The Programme Project Report is a self-disclosure by the Institution about launching the programme in the Open and Distance Learning mode and/or Online mode. The Institution has to define specific aims and objectives for each of the academic programmes which will give the direction to launch a programme and will allow to focus on results. At the end, these aims and objectives will help to demonstrate what has been achieved. The programme shall be planned with clear deliverables and knowledge experiences to be gained.

II. Contents of Programme Project Report (PPR): Programme Project Report is required to be prepared before introducing any new programme duly approved by its highest academic authority. The Programme Project Report shall contain the following contents, namely:-

(i) **Programme's mission and objectives:** The Higher Educational Institution shall define the mission statement and objectives for the programme to be launched, which shall reflect the strategic direction and the academic goals of the Higher Educational Institution. Those shall be aligned with industrial or learners' demand, and shall be defined in such a manner that they are appropriate to be achieved.

(ii) **Relevance of the program with HEI's Mission and Goals:** The Higher Educational Institution shall plan for such a programme to be offered through the Open and

Distance Learning Mode and/or Online Mode that is relevant to the Higher Educational Institution's mission and goals. Therefore, it is very much important that the programme to be offered through Open and Distance Learning Mode and/or Online Mode should be aligned with Higher Educational Institution's mission and goal and will prove as major contributing factor in its achievement.

(iii) **Nature of prospective target group of learners**: The Higher Educational Institution shall identify the target group of learners. It is required to understand their learning needs and on its basis the curriculum should be aimed. The Higher Educational Institution should also consider diverse class of learners including a class having of low level of disposable income, rural dwellers, women, unskilled men, minorities etc.

(iv) **Appropriateness of programme to be conducted in Open and Distance Learning and/or Online mode to acquire specific skills and competence:** The Higher Educational Institution shall clearly identify the learning out comes for the programme which shall cover the specific skills and competence to be acquired by the learner. The programme should be aimed appropriately to those learning outcomes. The learning outcomes shall include the development of knowledge and understanding appropriate to the area of study and these should also reflect academic, professional and occupational standards of that field. The learning outcomes should incorporate generic transferable skills and competencies.

(v) **Instructional Design:** Instructional Design includes Curriculum design, detailed syllabi, duration of the programme, faculty and support staff requirement, instructional delivery mechanisms, identification of media– print, audio or video, online, computer aided, and student support service systems. The Higher Educational Institution shall define the instructional design for each of the academic programmes to be offered through the Open and Distance Learning Mode and/or Online Mode and shall map the credit hours for each course or module of the programme.

(vi) **Procedure for admissions, curriculum transaction and evaluation:** The Higher Educational Institution shall define the admission policy for the programme with minimum eligibility and fee structure. The information related to financial assistance, if any, should be included in the policy. The Higher Educational Institution shall notify the policy of programme delivery along with the details of methods and web-based tools to be adopted. The Higher Educational Institution shall notify the activity planner including all the academic activities to be carried out by the Higher Educational Institution during the academic session. Further, the Higher Educational Institution shall also notify policy for evaluation of learner progress along with methods and tools.

(vii) **Requirement of the laboratory support and Library Resources:** There may be programmes having practical component in syllabus. The Higher Educational Institution shall give clear guidelines about the laboratory support to the learners to perform the practical prescribed in the programme. There shall be provision of a practical book for the learners.

(viii) **Cost estimate of the programme and the provisions:** The cost estimate shall indicate the amount assigned for programme development, delivery and maintenance.

(ix) **Quality assurance mechanism and expected programme outcomes:** The Higher Educational Institution shall define the review mechanism for programme and continuously enhance the standards of curriculum, instructional design relevant to professional requirements of the area of study. There should be course benchmark statements. The Higher Educational Institution shall also devise the mechanism for monitoring effectiveness of the programme being offered in Open and Distance Learning mode and/or Online mode.

Annexure VI

QUALITY ASSURANCE GUIDELINES OF LEARNING MATERIAL IN MULTIPLE MEDIA AND CURRICULUM AND PEDAGOGY

A. For Open and Distance Learning mode

I. Learning Materials (Print Media): Quality Standard

1. Learning Materials through print-media is termed as Self Learning Materials (SLM), being developed with the approach of self-explanatory, self-contained, self-directed, self-motivating and self-evaluating.
2. The Self Learning Material shall be self-contained providing complete course description comprising overview of units alongwith objectives, activities, assignments and additional resources.
3. There shall be description of credit value of each module or unit in the course.
4. The course material shall provide an environment for practice, at the learner's own pace and in his/her own time.
5. There shall be clear guidelines on academic integrity and netiquette (internet etiquette) expectations regarding activities, discussions and plagiarism.
6. The course shall be designed to teach concepts and skills that the learner will retain throughout the study.
7. There shall be multiple learning paths for engaging the learner in active learning.
8. The content shall provide opportunities for learners to engage in higher- order thinking, critical-reasoning activities and thinking in increasingly complex ways.
9. The following is an indicative list of quality standards for printed learning materials:

(i) The Self Learning Material shall be structured on the Learning Outcome based Curriculum Framework (LOCF).

(ii) The Self Learning Material shall be designed with the approach of two-way communication between the learner and content. The content of Self Learning Material shall be presented in an interactive, conversational format with dialogue and personal system of writing method which will create the nature of interactivity in Self Learning Materials

(iii) The Self Learning Material shall involve the learner actively through various experience-based activities and assignments.

(iv) The learner should get clear information about the structure of the programme and course.

(v) There shall be detailed concept/learning map in Self Learning Material for the learner so that he or she will be self-directed for completion of his or her studies with clearly stated learning out comes.

(vi) The Self Learning Material shall encourage learner to apply new knowledge and skills.

(vii) The content of a course should be divided into a few Blocks on major related themes, each block containing a few Units on a major theme for effective learning.

(viii) Units in the Self Learning Material shall be developed in defined formats with the following features, namely:-

(a) Consistent layout and format;

(b) Inclusion of overview of content;

(c) A unit structure, Introduction, and expected learning outcomes and reference to prior learning at the beginning of the unit and Summary at it send;

(d) Presentation of content in appropriate sequence in sections and sub-sections synchronized with learning objectives and outcome, containing plenty of examples including national or international case studies, wherever relevant;

(e) Explanation of icons, symbols, formula etc. used in content;

(f) Explanation on technical, new, difficult terms or word in a glossary/ keyword section;

(g) Inclusion of adequate suggested reading (both print and online).

II. Audio–Video Material: Quality Standards

1. The following is an indicative list of quality standards for audio-video materials:

(i) The audio-video material shall supplement and complement the Self Learning Material and based on the curriculum structure.

(ii) There shall be adequate consideration of learners' prior knowledge, skills and attitudes.

(iii) Level and style of presentation and language shall be simple and appropriate to aid in self-learning.

(iv) There shall be clear information on types of support material and study activities to be used by the learner.

(v) It shall be clear and unambiguous, also preferably free from pedagogic jargon.

(vi) The aim, objective and target audience for the audio or video material shall be clearly defined.

(vii) It shall conform to the learning outcomes.

(viii) There shall be clear guidelines with regard to the use of the audio or video material vis-a-vis other content of the course.

(ix) Audio or video material shall be developed in forms and formats that will be easily accessible by the learners and compatible with web- based delivery.

(x) Audi or video material shall provide continuity and coherence within and between audio or video based study sessions.

(xi) The content need to be interactive with appropriate use of graphics, animations simulation etc. to keep the learners engaged.

III. Online and Computer based Material: Quality Standards

1. The following is an indicative list of quality standards for Online and Computer based materials:

(i) The digital content should not be merely scanned files of the Self Learning Material. If content is scanned it should be made available in accessible format such as Word Processing, Portable Document Format or E-Pub format.

(ii) The file size should not be very heavy so that the learners are easily able to access and download the content.

(iii) The course content in digital format shall be easy to navigate and searchable through metadata.

(iv) The digital content needs to be Unicode compliant so that font issues are not faced by the learners specially in the case of Indian languages.

(v) Digital content should be accessible to all with special attention to the needs of the learners with disabilities.

(vi) The digital content shall be available across platforms and devices.

(vii) Since the learners may not have access to unlimited Internet data plan, it is advisable that the audio-video material is made available through streaming server instead of file uploaded as such on the server.

(viii) The compression of the digital files needs to be optimised so that the quality is not compromised and content is easily accessible.

(ix) For digital content the appropriate required players need to be easily available or made available.

IV. Curriculum and Pedagogy: Quality Standards

1. The following is an indicative list of quality standards for curriculum and pedagogy:

(i) The curriculum objectives shall be consistent with the mission of the Higher Educational Institution.

(ii) There shall be involvement of all the stakeholders in the process of framing the curriculum objective.

(iii) While designing the curriculum, the Higher Education Institution shall take into consideration the University Grants Commission Model Curriculum and the Learning Outcome- based Curriculum Framework (LOCF) and incorporate local or regional needs.

(iv) There shall be rationale for the appropriateness of the curriculum to the stage of learning.

(v) There shall be linkages of the curriculum to previous and subsequent stages of learning.

(vi) There shall be such learning experiences which allow a diversity of methods (like learning from practice, opportunities for distributed and concentrated practice, learning with peers, learning in formal situations inside and outside the department, personal study, specific teacher inputs etc).

(vii) The structure of curriculum shall be defined.

(viii) There shall be a complete strategy on teaching and learning methods.

(ix) The instructional methods or pedagogy and the media mix should be clearly spelt out.

(x) A comprehensive methodology for assessment and evaluation should be clearly stated.

(xi) The content shall be reliable and justify the learning outcome(s).

(xii) There shall be clear definition of intended outcomes of learning, benchmarked to identifiable stages of learning.

(xiii) There shall be the use of reference points and expertise from outside the Higher Educational Institution, if required, in programme design and in the processes of programme development and approval.

(xiv) There shall be relevance of curriculum to national competency requirement.

(xv) There shall be description of credit value of each module or unit in the course.

B. For Online mode

E-Learning Materials Quality Standard:

1. The online courses should comply with the following Quality standards, namely:-

(i) The courses should follow the following four quadrant approach, as per the SWAYAM Guidelines:-

(a) Quadrant-I is e-Tutorial; which shall contain: Video and Audio Content in an organized form, Animation, Simulations, video demonstrations, Virtual Labs, etc, along with the transcription of the video.

(b) Quadrant-II is e-Content; which shall contain; self-instructional material (digital Self Learning Material), e-Books, illustrations, case studies, presentations etc, and also contain Web Resources such as further references, Related Links, Open source Content on Internet, Video, Case Studies, books including e-books, research papers and journals, Anecdotal information, Historical development of the subject, Articles, etc.

(c) Quadrant-III is the Discussion forum for raising of doubts and clarifying the same on real time basis by the Course Coordinator or his team.

(d) Quadrant-IV is Assessment, which shall contain; Problems and Solutions, which could be in the form of Multiple Choice Questions, Fill in the blanks, Matching Questions, Short Answer Questions, Long Answer Questions, Quizzes, Assignments and solutions, Discussion forum topics and setting up the FAQs, Clarifications on general misconceptions.

(ii) The courses shall be rich in innovative presentation techniques to ensure that learner attention is retained.

(iii) It shall be the responsibility of the Course Coordinator to ensure that none of the graphics, animations, images, sound clips, video clips used are plagiarized or cited without formal permissions from owners.

(iv) A four-credit course shall typically have 20 hours of video content and 20 hours of reading material.

(v) For Quadrant III for every 250 learners registered for a programme one Mentor can be appointed per course to facilitate the Course Coordinator. The Mentor shall be the subject matter expert adept in handling technology. The Course Coordinators and Mentors shall need to participate actively in the Discussion Forum. Apart from discussion forum other interactive platforms like web conferencing may also be considered.

Table 1: Norms for offering Degree programmes through Open and Distance Learning mode and/or Online mode, based on credit system

S. No.	Level of the Programme	Duration of the programme	Credits
1.	Bachelor's Degree, Bachelor's Degree (Honours)	As per UGC Notification on Specification of Degree, 2014	As per UGC guidelines
2.	Master's Degree	As per UGC Notification on Specification of Degree, 2014	As per UGC guidelines
3.	Post Graduate Diploma	2 years	80

Table 2: Norms for delivery of courses through open and distance mode

S. No.	Credit Value of the course	Size of SLMs Range (in terms of units, to be divided into blocks)	No. of Assignments	Practical Sessions	No. of Counselling Sessions Theory (10 percent of total study Hours)	Study hours of Learner
1.	2 Credits	6-10 units	1	60 hours	6 hours	60 hours
2.	4 credits	14-20 units	2	120 hours	12 hours	120 hours
3.	6 credits	20-28 units	3	180 hours	18 hours	180 hours
4.	8 credits	30-34 units	4	240 hours	24 hours	240 hours

Table 3: Norms for Delivery of Courses in Online Mode

S. No.	Credit value of the course	No. of Weeks	No. of Interactive Sessions		Hours of Study Material		Self-Study hours including Assessment etc.	Total Hours of Study (based on 30 hours per credit)
			Synchronous Online Counselling/ Webinars/ Interactive Live Lectures (1 hour per week)	Discussion Forum/ asynchronous Mentoring (2 hours per week)	e-Tutorial in hours	e-Content hours		
1.	2 credits	6 weeks	6 hours	12 hours	10	10	22	60
2.	4 credits	12 weeks	12 hours	24 hours	20	20	44	120
3.	6 credits	14 weeks	14 hours	28 hours	30	30	66	180
4.	8 Credits	16 weeks	16 hours	32 hours	40	40	88	240

Annexure VII

GUIDELINES ON SELF-LEARNING MATERIAL AND E-LEARNING MATERIAL

I. Preparation of Learning Material

A. For Open and Distance Learning mode

1. Self-Learning Materials (SLMs) should be self-explanatory, self-contained, self-directed, self-motivating and self-evaluating. It should be engaging and actively involve the learners. During the planning of the Self Learning Material, the following points should be considered very carefully:
   (i) backgrounds of learner and learning needs;
   (ii) learning experiences; and
   (iii) support and preparation in adapting to flexible learning.
2. The following major points should be considered by teachers while developing the printed learning materials or e-learning materials:
   (i) learning objectives
   (ii) assessment of prior knowledge
   (iii) learning activities
   (iv) feedback of learning activities
   (v) examples and illustrations
   (vi) self-assessment questions/In-text questions
   (vii) summary/key points
   (viii) study guide
3. The learning material should lay emphasis on real-world tasks, learner's choice of tasks or situations, case studies, collaborative learning tasks, opportunities for observing others, self-evaluation.
4. **Planning for development of learning material:** Due to the absence of interaction with the teachers in the Open and Distance Learning mode, the learner has to take the decision(s) at any point during the learning path. This may create disagreement between learner's perception and the objective of the learning materials. Therefore, it is required to consider the following key points during planning for the development of learning material:
   (i) **Learner Profile:** It is required to consider literacy level (including level of language proficiency), age group, information communication technology skills, aim of study, personal background and home situation, prior knowledge, prior skills, learning situations, etc.

(ii) **Background:** In Open and Distance Learning system, learner studies at her/his own pace unlike in the face-to-face mode. A substantial number of the learners are working professionals and they get time to study at their homes. If we add certain references which they cannot access at home, then it will create an obstacle in their learning. Therefore, it is necessary to consider the accessibility of course resources and references at the place of learning.

(iii) **Learning Objectives and Outcome:** It is required to define the learning objectives and outcomes prior to initiating the process developing the learning materials. The learning objectives can be of terminal, intermediate or enabling nature. These learning objectives can be set at course, unit, or module level.

5. **Group of Learning Material:** Considering the principles of Open and Distance Learning mode of education, the programmes shall be accompanied with learning material or resources which shall comprise of self-learning material or e-learning material, e-books, practical book, student's handbook, question bank, assignment book, Audio Video material, programme guide, project manual, etc.

B. For Online mode

1. The E-Learning Material shall have the four quadrant approach; as per UGC (Credit Framework for online learning courses through SWAYAM) Regulations, 2016 taking into consideration the following, namely:-

(i) Quadrant-I is e-Tutorial; which shall contain: Video and Audio Content in an organised form, Animation, Simulations, Video Demonstrations, Virtual Labs, etc, along with the transcription of the video.

(ii) Quadrant-II is e-Content; which shall contain; self instructional material, e-Books, illustrations, case studies, presentations etc, and also contain Web Resources such as further references, Related Links, Open source Content on Internet, Video, Case Studies, books including e-books, research papers and journals, Anecdotal information, Historical development of the subject, Articles, etc.

(iii) Quadrant-III is the Discussion forum for raising of doubts and clarifying them on a near real time basis by the Course Coordinator or his team.

(iv) Quadrant-IV is Assessment, which shall contain; Problems and Solutions, which could be in the form of Multiple Choice Questions, Fill in the blanks, Matching Questions, Short Answer Questions, Long Answer Questions, Quizzes, Assignments and solutions, Discussion forum topics and setting up the FAQs, Clarifications on general misconceptions.

II. Preparedness of Learning Material

A. For Open and Distance Learning mode: The preparedness level of Self Learning Material (SLM) at the time of submission of the proposal shall have the following, namely:-

(i) Under Graduate Programmes (3 years duration): Self Learning Material should be ready in all respect for first two years and its approval by the statutory authorities of the Higher Educational Institution.

(ii) Post Graduate Programmes (2 years duration): Self Learning Material should be ready in all respect for first year and its approval by the statutory authorities of the Higher Educational Institution.

(iii) For Post Graduate Diploma Programmes (2 years duration): Self Learning Material should be ready in all respect for first year and its approval by the statutory authorities of the Higher Educational Institution.

B. For Online mode: The availability of E-Learning Material at the time of submission of the proposal shall be as per the following:

(i) For Post Graduate Level Programmes- First year e-learning material in four quadrants

for each course in the first year of study and its approval by the statutory authorities of the Higher Educational Institution;

(ii) For Under Graduate Level Programmes- First three semesters e-learning material in four quadrants for each course and its approval by the statutory authorities of the Higher Educational Institution;

(iii) For Post Graduate Diploma Programmes- First year e-learning material in four quadrants for each course in the first year of study and its approval by the statutory authorities of the Higher Educational Institution:

Provided that for remaining year/semester, the learning material for programmes shall be ready prior to beginning of next year/semester and same shall be intimated to the Commission.

Annexure VIII

LEARNER SUPPORT CENTRES

I. General:

Open and Distance Learning (ODL) mode of Education consists of three levels of functioning which are located at the Head Quarters (HQ) of the Higher Educational Institutions, Regional Centres and Study Centres (SCs) or Learner Support Centres (LSCs) established within the territorial jurisdiction of the Higher Educational Institution as defined in the following Part. The management of the processes of Admissions, Evaluation, and Declaration of Results etc. are the main responsibilities of the Head-Quarters of the Higher Educational Institution and are discharged from the main campus. Under the direct management and control of the Higher Educational Institution, Regional Centres which are the second level of functioning, perform a dynamic operational link between the Head-Quarter and the Learner Support Centres (LSCs) which are the third level of Open and Distance Learning system and are important main contact points for access by the learners, responsive and facilitating information centres, arranging contact sessions and other operations like processing of assignments etc. The Learner Support Centres (LSCs) will also be established and managed directly by the Higher Educational Institution and not through any franchise or outsourced arrangement:

Provided that a Private University established under the State Act shall be eligible to offer programmes under Open and Distance Learning mode through its Head Quarters only and duly recognized off-campus centres. A Private University shall not offer programmes under Open and Distance Learning mode through any Learner Support Centre.

II. Definition and Establishment of Learner Support Centre or Study Centre

1. 'Learner Support Centre (LSC) means a Centre established and recognised by the Higher Education Institution for advising, counselling, providing interface between the teachers and the learners, rendering academic and any other related services and assistance, required *inter alia* by the learners of Open and Distance Learning Mode:

Provided that a Higher Educational Institution offering programmes in Open and Distance Learning mode shall ensure that all Study Centres or Learner Support Centres are established only in a College or Institute affiliated to a recognised university (other than a Private University) or a Government recognized Higher Educational Institution offering conventional mode programmes of equivalent level in the same broad areas under the relevant faculty such as faculty of sciences or social science or humanities or commerce or management etc. and having all the necessary infrastructure and availability of appropriate number of qualified faculty not below the rank of qualified Assistant Professors of recognised Colleges or Institutes offering a similar programme for engaging theory contact sessions and supervising practical sessions in laboratory or field:

Provided further that a Higher Educational Institution shall establish a Special Learner Support Centre for imparting instruction to persons referred to in the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995,

the National Trust for Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disability Act,1999 including the employees of Defence or Security Forces and jail inmates interested to study through the Open and Distance Learning mode:

Provided also that, in case of exigency or non-availability or non-willingness of an Institution/College as specified above for a specialized programme or a special component of a programme, the HEI shall activate Work Centre/Programme Centre at the Government aided/affiliated/recognized Research and Extension Institutions such as Krishi Vigyan Kendras, State Training Institutes/Industrial Training Institutes; Government Organizations/ Departments; Accredited Laboratory; Government Licensed Industry; and approved Vocational Institutes having infrastructure, facilities and human resource as specified by the Statutory bodies for a programme or a few courses of a programme.

2. Any Study Centre or Learner Support Centre shall be established by the Higher Educational Institution after processing through the appropriate statutory bodies of the Higher Educational Institution. While processing such approvals it is mandatory to provide evidence of the preparedness for establishing Study Centres/Learner Support Centres, providing learner support services, availability of the academic, other staff and qualified academic counsellors.

3. The Higher Educational Institution shall have a Standard Operating Procedure for the smooth functioning of the Study Centre or Learner Support Centre which shall include all aspects of functions of the Study Centre or Learner Support Centre, monitoring mechanism of different services provided by the Centre, and it shall be mandatory for the Study Centre or Learner Support Centre to maintain the learner data related to conduct of counselling sessions, evaluation of assignments and effective and online grievance redressal system, which should be monitored at the level of regional centre and Head Quarters.

4. The list of Study Centres or Learner Support Centres with details such as: Name with address of the institution where the centre is located, name of the coordinator with contact details, working hours and schedules for counselling sessions, infrastructure and other facilities available in the Study Centre or Learner Support Centre shall be displayed on the web portal of the Open and Distance Learning institution and the same information shall be made available in the printed prospectus for the information of the learners and other stakeholders.

5. A Higher Educational Institution shall submit an undertaking to the Commission to the effect that the academic and instructional facilities at its Study Centres or Learner Support Centres meet all the conditions of these regulations and guidelines issued from time to time, and are commensurate with the number of academic programmes and learners' strength thereto- Provided that the Higher Educational Institution shall not carry out any of its activities related to the Open and Distance Learning mode at places other than Study Centres or Learner Support Centres under a different name such as Information Centre, Facilitation Centre, Nodal Centre, Knowledge Partner, Partner Institution, Multimedia Centres and similar such names:

Provided that, no Study Centre or Learner Support Centre shall be established beyond the territorial jurisdiction of the Higher Educational Institution or under any franchisee or outsourcing agreement, as described in these regulations:

Provided further that a Study Centre or Learner Support Centre shall not admit a learner to any programme in Open and Distance Learning mode for or on behalf of any other Higher Educational Institution.

III. Norms for Empanelment of Academic Counsellors and Counselling Sessions

1. **Eligibility conditions for appointment of academic counsellors**: The academic staff in the Study Centre or Learner Support Centre shall fulfil the minimum qualifications as laid down in the University Grants Commission (Minimum Qualifications for Appointment of Teachers and other Academic Staff in the Universities and Colleges and other Measures for the Maintenance of Standards in Higher Education) Regulations, 2018. In addition,

such academic staff should have familiarity with the Characteristics of Open and Distance Learning mode learners and their needs, difference between Open and Distance Learning and conventional face–to-face education, awareness about instructional design, familiarity with the learner centered approach in blended mode of learning, ability to use different delivery media including online and computer mediated communication and Information and Communication Technology enabled learning.

2. **Norms for Personal Contact Programmes**: Credit Based System has been followed by Open and Distance Learning single mode Higher Educational Institutions during the last more than two decades and it has got standardized for programme delivery especially by the Open Universities. Such credits depend on the total number of hours that a learner is required to cover for all activities like participation in Personal Contact Programmes, Working on Assignments, Library Consultation etc., in completing a course. In this direction, the guidelines of University Grants Commission on Choice Based Credit System (CBCS) is mandatory for all Higher Educational Institutions delivering education through conventional mode. Accordingly, for Post Graduate programmes in Open and Distance Learning mode, 16 credits per semester are assigned for a total of four semesters, on an indicative basis for explaining the concept, however shall be governed by the number of credits as defined by the Commission from time to time. In Open and Distance Learning mode Programme delivery, the component of contact with teachers is comparatively much lower than the conventional or face to face mode which is complemented by self-learning on the part of the learner.

The following table is provided for norms for counselling sessions in theory and practical courses for Open and Distance Learning mode programme delivery.

Table: ODL programmes - Contact Sessions for Theory and Practical Courses; on an indicative basis

Four Courses, each of 04 Credits, with a total of 16 Credits per semester			
Number of Assignments	10-12 credits for theory and 6-4 Credits for practical courses		Counselling for theory only Courses: Four courses of 4 credits each
	Contact sessions- practical	Contact sessions-theory	
Four per semester	60 hours of guided experiments with support of internal supervisor per 2 credits	30-36 hours	12 hours per course

Note (1): Contact session up to the extent of twenty per cent., or as defined by the Commission from time to time, could be arranged by providing Massive Open Online Courses and other online programme delivery systems.

Note (2): Practical sessions to the extent of twenty per cent., or as defined by the Commission from time to time, could be provided through virtual lab mode.

IV. Deployment of work force and other support at study or Learner Support Centres

1. The Study Centres or Learner Support Centres shall be headed by a Coordinator, not below the rank of an Assistant Professor and shall be augmented with academic and non-academic staff depending on the number of learner, assigned for adequate support to the learners. There shall not be any restrictions in the capacity of intake in Open and Distance Learning programme at the Learning Support Centre or Study Centre and Main campus. The capacity of intake per programme should be commensurate with the available qualified faculty in relevant area, well equipped laboratory, library, online connectivity and Information and Communication Technology facilities, and appropriate infrastructure, along with the following:

(i) Number of qualified counsellor to number of students shall be 1:100 per theory course;

(ii) Number of qualified supervisors per practical course of 2 credits: 1 or more;

(iii) Availability of laboratory: The laboratory should be in a recognised Higher Educational Institution offering a similar programme in conventional mode for a period of not less than 3years.

V. Monitoring of functioning of the Learner Support Centres or Study Centres

The Higher Education Institution shall have dynamic Information and Communication Technology based interactive communication system between Head Quarters, Regional Centres and Study Centres.`

(i) Log in email ID shall be generated for every learner so that learners can have a two-way communication, interact with various functionaries of the Institution and provide constructive feedback for improvement in Open and Distance Learning programme delivery;

(ii) Head Quarters, Regional Centres and Study Centre or Learner Support Centres shall maintain a web portal giving all relevant and updated information about the Open and Distance Learning programmes being delivered. The content of these shall be updated at least on a weekly basis;

(iii) Regional Centres, as applicable shall collect a holistic report about all aspects of the functioning and quality of programme delivery of Study Centres or Learner Support Centres periodically especially during the Admissions, Examinations, and Counselling Sessions etc., and share a consolidated report with the Head Quarters on a weekly basis;

(iv) These reports alongwith responses by learners shall be periodically

(v) analysed for the quality audit of a programme and its delivery besides the quality of performance of the Study Centres or Learner Support Centres;

(vi) Any remedial action shall be jointly ensured by the Head Quarters, Regional Centres and Study Centres or Learner Support Centres promptly;

(vii) Regular visits, at least twice a year by the academic staff of the Higher Educational Institution for on the spot monitoring and interaction with functionaries of the Regional Centres and Study Centres or Learner Support Centres, the learners and the counsellors; and

(viii) Ensuring access of "SWAYAM" and other repositories of Massive Open Online Courses by the learners at Study Centres or Learner Support Centres.

VI. Closure of Non-performing Study Centre or Learner Support Centre:

In case a Study Centre or Learner Support Centre fails to adhere to the prescribed norms or guidelines, the Higher Educational Institution shall initiate action for closure of the centre by following due procedures, so that interests of learners are taken care by some alternative arrangement.

Annexure IX

ASSESSMENT CRITERIA FOR OFFERING ONLINE PROGRAMMES THROUGH NON-SWAYAM LEARNING PLATFORM

I. Provisions:

Learning Platform, other than SWAYAM, used for delivery of online programmes shall be assessed by a Technical Expert Committee duly constituted by the Commission and the learning platform shall broadly have the following provisions:

1. **User and Course management**

   (i) **User Management**: Role Based authentication, User Registration, User Profiling along with personlised dashboard. User's activities analytics. Learning Management System should have Application Programming Interface Integration facility to integrate with external Application/tools.

   (ii) **Course Content Management**: Learning Management System must support all types of files (PDFs, docs, MP3s, MP4s etc.) and e-Learning formats, and data collection capabilities.

   (iii) **Capability for Personalized Learning Experience**: The platform should allow to create personalised learning paths along with criteria that are necessary to be met before they move on to the next content.

2. **Collaboration and Communication:** The platform shall be able to foster communication and peer-to-peer interaction among learners with features such as online chats, discussion forums, user groups, built-in messenger etc.

3. **Assignment and Quiz management:** Self-assessment creation (assignment, quiz), announcement. It shall support all types of Questions (Multiple Choice Questions, True and False, Matching, subjective short and long questions etc.).

4. **Accessibility across Devices and Mobile Learning:** Learning Management System shall allow its learners to access courses on different devices, i.e. Personal Computers**,** Laptop, tab or smart phones.

5. **Security and Privacy:** As Learning Management System holds personal records of learners' it is important to ensure that the Learning Management System has privacy controls, protected logins, and utilizes secure server locations to keep users' data safe.

II. Parameters for Assessment of Online Platform:

The assessment of a non-SWAYAM platform by the technical Expert Committee shall be broadly based on the following parameters, alongwith any other criteria as notified by the Commission from time to time:

1. User friendliness

   Indicative terms of reference:

   (i) Ease of use/proper navigation/attractive presentations in User Interface.

   (ii) Availability of Interfaces/delivery mechanisms–web, mobile desktop, instant messaging, video conferencing, audio graphic systems etc.

   (iii) Availability of proper internet connection in case of web-based interfaces.

   (iv) Representation of content-text/graphical, exercises, tutorials, Examples, case studies etc.

2. Content Storage and Management provisions

   Indicative terms of reference:

   (i) Production of contents;

   (ii) Video-Audio Storage mechanism (name of cloud service provider; streaming services used);

   (iii) Ease of access to content;

   (iv) Reliability and availability of content at all times.

3. Synchronous Interaction provisions (video/audio conferencing, live chat etc.)

4. Asynchronous Interaction provisions (Discussion Forum, Blogs, Wikis etc).

5. Learner engagement provisions (interactive content, activity management, group projects).

6. Peer group interaction provisions (social media integration, group activity, breakout rooms etc.).

7. Learning Communities/Research forums.

   Indicative terms of reference:

   (i) Collaboration of internal/external communities;

   (ii) Collaboration methodology.

8. Adaptive learning provisions (skill gap analysis, personalised content).

9. Provision for grouping the learners with different mentors

   (i) One mentor to be assigned for 250 learners as per the regulations

10. Dashboard options for all the stakeholders.

11. Proctored examination methodology.

    Examination support- formative and summative Indicative terms of reference:

    (i) Online question bank management, paper setting, valuations

    (ii) Online student registrations and exam scheduling

    (iii) Online generation of grades based on continuous evaluation

    (iv) Learner authentication

12. Examination support- Multiple choice and Long/ Short answers

13. Provisions for Online assignment creation, submission and grading

14. Availability of tool to keep students informed about activities, performance etc.

15. Plagiarism check provisions.

16. Methodology for online payment gateway

17. Flexibility.

    Indicative terms of reference:

    (i) Browsers supported,

    (ii) Main site having responsive design.

18. Support for the standard four quadrant approach, which is followed by SWAYAM.

19. Provision of online award of certificates/degrees.

20. Proposed methodology to train the faculty to effectively Design Develop and Deliver Massive Open Online Courses (MOOCs).

21. Security features from transparency and credibility perspective.

    Indicative terms of reference: (i) at all levels including IP tracking of the learner.

22. Scalability

    Indicative terms of reference:

    (i) Maximum users;

    (ii) Number of users able to log in simultaneously.

23. Proposed methodology to ensure that the faculty engages with the student, motivates them and assesses them.

24. Provision for an appropriate organizational setup in the HEI for maintaining and running the platform.

25. Proposed methodology to ensure the quality of courses.

Annexure X

GRIEVANCE REDRESS MECHANISM

I. Scope of Grievance Redress System for Learner

The Higher Educational Institutions, offering programmes through the Open and Distance Learning mode and/or Online mode shall have a Grievance Redress System and Procedure which shall be published on the portal of Higher Educational Institution and it shall be the responsibility of the concerned Higher Educational Institution to update the same as and when required. Each of the Higher Educational Institutions shall provide an online facility for submitting grievances and track their status. The Higher Educational Institution shall also be responsible for monitoring, assessing and reviewing the effectiveness of its Grievance Redressal Procedures.

II. Guidelines and Standards for the Grievance Redress System

The Higher Educational Institution shall have a policy on Grievance Redress System based on following guidelines and standards, namely:

(i) the policy shall be unbiased and understandable;

(ii) there shall be time line for each stage of the process;

(iii) the policy shall be published on Higher Educational Institutions portal so that the learners may read and refer to;

(iv) the policy shall be made available to learners with disability in appropriate format and the provision shall be made accordingly in the policy document;

(v) the authority or authorities involved in the grievance redressal process shall treat and investigate the facts impartially;

(vi) the Higher Educational Institutions shall address the grievances in a timely manner so as to lessen interruption in learning process of the learner;

(vii) the Higher Educational Institution shall have a proper communication and escalation mechanism which shall be operated and maintained through the online software application;

(viii) the Higher Educational Institution shall maintain the confidentiality of the complainant as far as possible;

(ix) the Higher Educational Institution shall ensure that officer(s) deputed for the learner support at the Higher Educational Institution, the Regional Centres and Learner Support Centre(s) (for Open and Distance Learning programmes) are able to provide guidance on submitting grievances in the portal;

(x) there shall be a provision to withdraw a complaint without prejudice at any time during the procedure; and

(xi) the learner shall be kept informed of the status in relation to his or her queries or grievance on priority.

III. Rights and responsibilities of learner

The rights and responsibilities of a learner shall be as under:

(i) The learner has right to complain regarding any aspect related to his or her learning path including programme quality, learning resources, learner support and guidance, teaching, learning and assessment.

(ii) The learner is entitled to approach the respective Learner Support Centres (for ODL programmes) for submitting his or her complaint. The learners of online mode may submit their complaint directly to the Higher Educational Institution. The complaint can be submitted individually or collectively by a group of learners.

(iii) The learner shall submit a formal complaint in a manner prescribed by the Higher Educational Institution regarding expression of dissatisfaction with a service provided or the lack of a service or the quality of a service. Such expression shall be correlated with what the learners were entitled to receive.

IV. Responsibilities of the Higher Educational Institution

The responsibilities of the Higher Educational Institution shall be as under:

(i) A Higher Educational Institution shall work with the principles of openness and collaboration.

(ii) A Higher Educational Institution shall continuously improve the services it offers. As and when a grievance is received, the Higher Educational Institution shall investigate it thoroughly and make the necessary improvement(s) in its services.

(iii) A Higher Educational Institution shall encourage Learner Support Centres (for Open and Distance Learning programmes) to make initial attempts to address and resolve complaints as close as possible to the point of origin, and with the minimum of formality.

(iv) A Higher Educational Institution shall also monitor the Grievance Redressal process through its Learner Support Centres (for Open and Distance Learning programmes).

(v) A Higher Educational Institution is responsible for privacy and confidentiality unless disclosure is necessary to proceed in the matter.

(vi) The grievance shall be accompanied with the reasons for dissatisfaction and expected remedy. The learner shall also give the reference of Online Grievance Registration Number generated at the time of submitting the complaint at the Learner Support Centre.

(vii) The Head of concerned School/Department/Centre of the Higher Educational Institution shall investigate the complaint(s) or refer the matter(s) to a more appropriate person, body or committee or departments, as appropriate.

(viii) It shall be the responsibility of the Head of School/Department/Centre of the Higher Educational Institution to monitor the progress and to timely resolve the matter.

(ix) The Head of concerned School/Department/Centre of the Higher Educational Institution shall respond in writing (letters or email etc.) through offline or online mode giving reasons for a decision and action taken there to.

V. Complaint Handling Mechanism

The Online "Complaint Handling Mechanism" facilitates learners to submit online complaints through the interactive web portal and track their resolution status. The Higher Educational Institutions shall take action as under:

(i) The Higher Educational Institutions recognised to offer programmes through the Open and Distance Learning mode and/or Online mode shall follow guidelines related to the Complaint Handling Mechanism notified by the Commission.

(ii) The Higher Educational Institutions shall upload all information issued by the Commission regarding the Complaint Handling Mechanism on their website.

(iii) The Higher Educational Institutions shall inform learners enrolled in Open and Distance Learning programmes and/or Online programmes about the Compliant Handling Mechanism.

(iv) The Higher Educational Institutions shall provide a link with title 'Complaint Handling Mechanism' on homepage of Higher Educational Institution website for creating awareness amongst the stakeholders.

(v) The Higher Educational Institutions shall comply with all instructions as issued by the Commission regarding timely and judicious resolution of all complaints raised by the learners.

RAJNISH JAIN, Secy. (UGC)

[ADVT.-III/4/Exty./212/2020-21]

Uploaded by Dte. of Printing at Government of India Press, Ring Road, Mayapuri, New Delhi-110064
and Published by the Controller of Publications, Delhi-110054.

MANOJ KUMAR VERMA Digitally signed by MANOJ KUMAR VERMA Date: 2020.09.05 14:49:23 +05'30'

रजिस्ट्री सं. डी.एल.- 33004/99 REGD. No. D. L.-33004/99

भारत का राजपत्र
The Gazette of India

सी.जी.-डी.एल.-अ.-01072021-228065
CG-DL-E-01072021-228065

असाधारण
EXTRAORDINARY

भाग III—खण्ड 4
PART III—Section 4

प्राधिकार से प्रकाशित
PUBLISHED BY AUTHORITY

सं. 266] नई दिल्ली, बृहस्पतिवार, जुलाई 1, 2021/आषाढ़ 10, 1943
No. 266] NEW DELHI, THURSDAY, JULY 1, 2021/ASHADHA 10, 1943

विश्वविद्यालय अनुदान आयोग

अधिसूचना

नई दिल्ली, 1 जुलाई, 2021

मि. सं. 1-10/ 2020(डीईबी-I).—विश्वविद्यालय अनुदान आयोग अधिनियम, 1956 (1956 का 3) की धारा 12 के खंड (ञ) के साथ पठित धारा 26 की उप-धारा (1) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, केंद्र सरकार के पूर्व अनुमोदन से, विश्वविद्यालय अनुदान आयोग इसके द्वारा विश्वविद्यालय अनुदान आयोग (मुक्त एवं दूरस्थ ज्ञान अर्जन कार्यक्रम और ऑनलाइन कार्यक्रम) विनियम, 2020 में संशोधन करते हुए निम्नलिखित विनियम बनाता है, नामत:—

1. **लघु शीर्षक और प्रारंभ:-** (1) इन विनियमों को विश्वविद्यालय अनुदान आयोग (मुक्त एवं दूरस्थ ज्ञान अर्जन कार्यक्रम और ऑनलाइन कार्यक्रम) (संशोधन) विनियम, 2021 कहा जाएगा।

(2) ये शासकीय राजपत्र में उनके प्रकाशन की तिथि से प्रवृत्त होंगे।

2. विश्वविद्यालय अनुदान आयोग (मुक्त एवं दूरस्थ ज्ञान अर्जन कार्यक्रम और ऑनलाइन कार्यक्रम) विनियम, 2020 (यहां मूल विनियम के रूप में संदर्भित) में, विनियम 3 के खंड (क) उप-खंड (i) में, निम्नलिखित परंतुक को प्रतिस्थापित किया जाएगा, नामत:—

"परंतु राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद् (नैक) और राष्ट्रीय संस्थागत रैंकिंग फ्रेमवर्क (एनआईआरएफ) रैंकिंग की आवश्यकताएं अगले तीन शैक्षणिक वर्षों यानी 2021-2022, 2022-2023, 2023-2024 के लिए मान्य होंगी। तत्पश्चात आयोग द्वारा शैक्षणिक सत्र 2024-2025 (जुलाई 2024 से आरंभ होने वाला सत्र) और उसके आगे के लिए समीक्षा की जाएगी।"

3. उक्त मूल विनियमों में, विनियम 3 के खंड (ख) उप-खंड (क) में निम्नलिखित परंतुक को प्रतिस्थापित किया जाएगा, नामत:—

"परंतु राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद् (नैक) और राष्ट्रीय संस्थागत रैंकिंग फ्रेमवर्क (एनआईआरएफ) रैंकिंग की आवश्यकताएं अगले तीन शैक्षणिक वर्षों यानी 2021-2022, 2022-2023, 2023-2024 के लिए मान्य होंगी। तत्पश्चात आयोग द्वारा शैक्षणिक सत्र 2024-2025 (जुलाई 2024 से आरंभ होने वाला सत्र) और उसके आगे के लिए समीक्षा की जाएगी।"

4. उक्त मूल विनियमों में, विनियम 3 के खंड (ख) उप-खंड (ख) (ii) में, निम्नलिखित परंतुक को प्रतिस्थापित किया जाएगा, नामत:—

"परंतु राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद् (नैक) राष्ट्रीय संस्थागत रैंकिंग फ्रेमवर्क (एनआईआरएफ) रैंकिंग की आवश्यकताएं अगले तीन शैक्षणिक वर्षों यानी 2021-2022, 2022-2023, 2023-2024 के लिए मान्य होंगी। तत्पश्चात आयोग द्वारा शैक्षणिक सत्र 2024-2025 (जुलाई 2024 से आरंभ होने वाला सत्र) और उसके आगे के लिए समीक्षा की जाएगी।"

रजनीश जैन, सचिव

[विज्ञापन- III/4/असा./131/2021-22]

नोट : मूल विनियम भारत के राजपत्र, असाधारण भाग III, खंड 4 में मि. सं. 1-1/2020 (डीईबी-I) दिनांक 4 सितंबर, 2020 के अंतर्गत अधिसूचित किए गए थे।

UNIVERSITY GRANTS COMMISSION

NOTIFICATION

New Delhi, the 1st July, 2021

F. No. 1-10/2020 (DEB-I).—In exercise of the powers conferred by sub-section (1) of section 26 read with clause (j) of section 12 of the University Grants Commission Act, 1956 (3 of 1956) with the previous approval of Central Government, the University Grants Commission hereby makes the following Regulations to amend the University Grants Commission (Open and Distance Learning Programmes and Online Programmes) Regulations, 2020, namely:—

1. **Short title and commencement.—(**1) These regulations may be called the University Grants Commission (Open and Distance Learning Programmes and Online Programmes) (Amendment) Regulations, 2021.

(2) These shall come into force on the date of its publication in the Official Gazette.

2. In the University Grants Commission (Open and Distance Learning Programmes and Online Programmes) Regulations, 2020 (herein referred as Principal Regulations), in regulation 3 in clause (A) sub-clause (i), the following proviso shall be substituted, namely:—

"Provided that the NAAC and NIRF Ranking requirements shall be valid for next three academic years i.e 2021-2022, 2022-2023, 2023-2024. Thereafter shall be reviewed by the Commission for the academic session 2024-2025(session beginning July 2024) and onwards."

3. In the said Principal Regulations, in regulation 3 in clause (B) sub-clause (a), the following proviso shall be substituted, namely:—

"Provided further that the NAAC and NIRF Ranking requirements shall be valid for next three academic years i.e. 2021-2022, 2022-2023, 2023-2024. Thereafter shall be reviewed by the Commission for the academic session 2024-2025(session beginning July 2024) and onwards."

4. In the said Principal Regulations, in regulation 3 in clause (B) sub-clause (b)(ii), the following proviso shall be substituted, namely:-

"Provided that the NAAC and NIRF Ranking requirements shall be valid for next three academic years i.e. 2021-2022, 2022-2023, 2023-2024. Thereafter shall be reviewed by the Commission for the academic session 2024-2025 (session beginning July 2024) and onwards."

RAJNISH JAIN, Secy.

[ADVT.-III/4/Exty./131/2021-22]

Note : The principal regulations were published in the Gazette of India, Extraordinary Part III, Section 4 *vide* F. No. 1-1/2020(DEB-I) dated 4th September, 2020.

Uploaded by Dte. of Printing at Government of India Press, Ring Road, Mayapuri, New Delhi-110064
and Published by the Controller of Publications, Delhi-110054.

रजिस्ट्री सं. डी.एल.- 33004/99 REGD. No. D. L.-33004/99

भारत का राजपत्र
The Gazette of India

सी.जी.-डी.एल.-अ.-18072022-237335
CG-DL-E-18072022-237335

असाधारण
EXTRAORDINARY

भाग III—खण्ड 4
PART III—Section 4

प्राधिकार से प्रकाशित
PUBLISHED BY AUTHORITY

सं. 360] नई दिल्ली, सोमवार, जुलाई 18, 2022/आषाढ़ 27, 1944
No. 360] NEW DELHI, MONDAY, JULY 18, 2022/ASHADHA 27, 1944

विश्वविद्यालय अनुदान आयोग

अधिसूचना

नई दिल्ली, 18 जुलाई, 2022

फा. सं. 1-27/2021 (डीईबी-I).—विश्वविद्यालय अनुदान आयोग अधिनियम, 1956 (1956 का 3) की धारा 12 के खंड (ञ) के साथ पठित धारा 26 की उप-धारा (1) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, केंद्र सरकार के पूर्व अनुमोदन से, विश्वविद्यालय अनुदान आयोग इसके द्वारा विश्वविद्यालय अनुदान आयोग (मुक्त एवं दूरस्थ ज्ञान अर्जन कार्यक्रम और ऑनलाइन कार्यक्रम) विनियम, 2020 में संशोधन करते हुए निम्नलिखित विनियम बनाता है, नामत : -

1. **लघु शीर्षक और प्रारंभ:-** (1) इन विनियमों को विश्वविद्यालय अनुदान आयोग (मुक्त एवं दूरस्थ ज्ञान अर्जन कार्यक्रम और ऑनलाइन कार्यक्रम) द्वितीय संशोधन विनियम, 2022 कहा जाएगा ।

(2) ये शासकीय राजपत्र में उनके प्रकाशन की तिथि से प्रवृत्त होंगे।

2. विश्वविद्यालय अनुदान आयोग (मुक्त एवं दूरस्थ ज्ञान अर्जन कार्यक्रम और ऑनलाइन कार्यक्रम) विनियम, 2020 (यहां मूल विनियम के रूप में संदर्भित) में, विनियम 4 के खंड (ग) में, उप-खंड (iv) में, मद (क) के बाद, निम्नलिखित परंतुक को अंत:स्थापित किया जाएगा, नामत:-

"बशर्ते कि विश्वविद्यालय अनुदान आयोग द्वारा मान्यता प्राप्त या अधिकृत ऑनलाइन कार्यक्रमों में विदेश मंत्रालय, भारत सरकार के माध्यम से विदेशी या अंतर्राष्ट्रीय शिक्षार्थियों के प्रवेश के लिए, उनके निवास देश का कोई भी तस्वीर युक्त राष्ट्रीय पहचान पत्र, प्रमाणीकरण के लिए स्वीकार्य होगा।"

3. उक्त मूल विनियमों में, विनियम 13 में, खंड (ग) में, उप-खंड (4) में, मद (ii) के बाद, निम्नलिखित परंतुक को अंतःस्थापित किया जाएगा, नामत:-

"बशर्ते कि विश्वविद्यालय अनुदान आयोग द्वारा मान्यता प्राप्त या अधिकृत ऑनलाइन कार्यक्रमों में विदेश मंत्रालय, भारत सरकार के माध्यम से विदेशी या अंतर्राष्ट्रीय शिक्षार्थियों के प्रवेश के लिए, उनके निवास देश का कोई भी तस्वीर युक्त राष्ट्रीय पहचान पत्र, प्रमाणीकरण के लिए स्वीकार्य होगा।"

4. उक्त मूल विनियमों में, विनियम 14 में, खंड (2) में, उप-खंड (v) में, मद (क) के बाद, निम्नलिखित परंतुक को अंतःस्थापित किया जाएगा, नामत:-

"बशर्ते कि विश्वविद्यालय अनुदान आयोग द्वारा मान्यता प्राप्त या अधिकृत ऑनलाइन कार्यक्रमों में विदेश मंत्रालय, भारत सरकार के माध्यम से विदेशी या अंतर्राष्ट्रीय शिक्षार्थियों के प्रवेश के लिए, उनके निवास देश का कोई भी तस्वीर युक्त राष्ट्रीय पहचान पत्र, प्रमाणीकरण के लिए स्वीकार्य होगा।"

5. उक्त मूल विनियमों में, विनियम 15 में, खंड (ग) में, उप-खंड (3) के बाद, निम्नलिखित परंतुक को अंतःस्थापित किया जाएगा, नामत:-

"बशर्ते कि विश्वविद्यालय अनुदान आयोग द्वारा मान्यता प्राप्त या अधिकृत ऑनलाइन कार्यक्रमों में विदेश मंत्रालय, भारत सरकार के माध्यम से विदेशी या अंतर्राष्ट्रीय शिक्षार्थियों के प्रवेश के लिए, उनके निवास देश का कोई भी तस्वीर युक्त राष्ट्रीय पहचान पत्र, प्रमाणीकरण के लिए स्वीकार्य होगा।"

6. उक्त मूल विनियमों में, अनुलग्नक II, में अनुच्छेद I में, उप- अनुच्छेद (ख) में, खंड 2 के बाद, निम्नलिखित परंतुक को अंतःस्थापित किया जाएगा, नामत: -

"बशर्ते कि विश्वविद्यालय अनुदान आयोग द्वारा मान्यता प्राप्त या अधिकृत ऑनलाइन कार्यक्रमों में विदेश मंत्रालय, भारत सरकार के माध्यम से विदेशी या अंतर्राष्ट्रीय शिक्षार्थियों के प्रवेश के लिए, उनके निवास देश का कोई भी तस्वीर युक्त राष्ट्रीय पहचान पत्र, प्रमाणीकरण के लिए स्वीकार्य होगा।"

रजनीश जैन, सचिव (यूजीसी)

[विज्ञापन III/4/असा./183/2022-23]

नोट : मूल विनियम भारत के राजपत्र, असाधारण, भाग-III, खंड 4 में मि.सं.1-1/2020 (डीईबी-I) दिनांक 4 सितंबर, 2020 के अंतर्गत प्रकाशित किए गए थे तथा संशोधित अधिसूचना मि.सं.1-10/2020 (डीईबी-I) दिनांक 1 जुलाई, 2021 के अन्तर्गत भारत के राजपत्र, असाधारण, भाग-III, खंड 4 में अधिसूचित किए गये थे ।

UNIVERSITY GRANTS COMMISSION

NOTIFICATION

New Delhi, the 18th July, 2022

F. No. 1-27/2021 (DEB-I). —In exercise of the powers conferred by sub-section (1) of section 26 read with clause (j) of section 12 of the University Grants Commission Act, 1956 (3 of 1956) with the previous approval of Central Government, the University Grants Commission hereby makes the following regulations to amend the University Grants Commission (Open and Distance Learning Programmes and Online Programmes) Regulations, 2020, namely:-

1. **Short title and commencement**. - (1) These regulations may be called the University Grants Commission (Open and Distance Learning Programmes and Online Programmes) Second Amendment Regulations, 2022.

(2) It shall come into the force from the date of its publication in the Official Gazette.

2. In the University Grants Commission (Open and Distance Learning Programmes and Online Programmes) Regulations, 2020 (herein referred as the principal regulations), in regulation 4, in clause (C), in sub-clause (iv) after item (a), the following proviso shall be inserted, namely:—

"Provided that for admission of foreign or international learners through the Ministry of External Affairs, Government of India, in UGC recognised or entitled online programmes, any national identity with photograph of their country of residence shall also be acceptable for authentication";

3. In the principal regulations, in regulation 13, in clause (C), in sub-clause (4), after item (ii), the following proviso shall be inserted, namely:—

"Provided that for admission of foreign or international learners through the Ministry of External Affairs, Government of India, in UGC recognised or entitled online programmes, any national identity with photograph of their country of residence shall also be acceptable for authentication".

4. In the principal regulations, in regulation 14, in clause (2), in sub-clause (v), after item (a), the following proviso shall be inserted, namely:—

"Provided that for admission of foreign or international learners through the Ministry of External Affairs, Government of India, in UGC recognised or entitled online programmes, any national identity with photograph of their country of residence shall also be acceptable for authentication";

5. In the principal regulations, in regulation 15, in clause (C), after sub-clause (3), the following proviso shall be inserted, namely:—

"Provided that for admission of foreign or international learners through the Ministry of External Affairs, Government of India, in UGC recognised or entitled online programmes, any national identity with photograph of their country of residence shall also be acceptable for authentication".

6. In the principal regulations, in Annexure II, in paragraph I, in sub-paragraph B, after clause 2, the following proviso shall be inserted, namely:—

"Provided that for admission of foreign or international learners through the Ministry of External Affairs, Government of India, in UGC recognised or entitled online programmes, any national identity with photograph of their country of residence shall also be acceptable for authentication".

RAJNISH JAIN, Secy. (UGC)

[ADVT.-III/4/Exty./183/2022-23]

Note : The principal regulations were published in the Gazette of India, Extraordinary, Part-III, Section 4 vide F. No. 1-1/2020 (DEB-I) dated the 4th September, 2020 and amended vide notification No. F. No. 1-10/2020 (DEB-I) dated the 1st July, 2021 published in the Gazette of India, Extraordinary, Part-III, Section 4 dated the 1st July, 2021.

Uploaded by Dte. of Printing at Government of India Press, Ring Road, Mayapuri, New Delhi-110064
and Published by the Controller of Publications, Delhi-110054.