

MINUTES OF MEETING BOARD OF STUDIES, DEPARTMENT OF CHEMISTRY, CENTRAL UNIVERSITY OF JHARKAHND 9th February 2024

A meeting of the Board of Studies was held on 9th February 2024 at Department of Chemistry, Central University of Jharkhand at 10:00 a.m. Following members were present:

Dr. Ratan Kumar Dey – Prof. & Head, Dept of Chemistry, member, Convener and Chairperson (ex-officio), CUJ

Dr. Satyaban Jena – Professor (Retd.), Dept of Chemistry, Utkal University, Odisha, External Expert Member

Dr. Minati Baral, Professor, Dept of Chemistry, NIT, Kurukshetra, External Expert Member

Dr. Balram Patra, CEO, GRK laboratory, Hyderabad, External expert member

Dr. Paritosh Mohanty, Professor, Dept of Chemistry, Indian Institute of Technology, Roorkee, External Expert member

Dr. Biplab K. Kuila, Professor, Dept of Chemistry, Banaras Hindu University, External Expert member

Dr. A.K.Padhy, Professor, Dean (R&D), Dept of Chemistry, CUJ, Ranchi, Member Dr. Manoj Kumar, Professor, Dean (AA), Dept of Environmental Studies, CUJ, member

Dr. Bairagi Ch. Mallick, Associate Professor, Dept. of Chemistry, CUJ, Ranchi

Dr. Patha Ghosh, Asst.Prof, Dept. of Chemistry, CUJ, member

Dr. Sabyasachi Bhunia, Asst.Prof., Dept of Chemistry, CUJ, member

Dr. K.B.Panda, Professor, Head, Dept of Statistics, CUJ, Member

Dr. Ashish Sachan, Professor, Dept of Life Sci., CUJ, Member

Dr. Dharmendra Singh, Asso. Prof., Dept of Physics, CUJ, Member

Dr.H. Mahato, Asso.Prof., Dept of Mathematics, CUJ, Member

Dr.G.P.Singh, Professor, Head, Dept of Metallurgy and Materials, CUJ, Member

Invitee(s)

Dr. B.B.Mishra, CoE, CUJ,

Dr.Soumen Dey, Asst.Prof., Dept of Chemistry, CUJ

Dr.R.B.Singh, Asst.Prof., Dept of Chemistry, CUJ

Dr. Arvind Lal, Asst.Prof., Dept of Chemistry, CUJ

Mr.S.W.Sangma, Asst.Prof., Dept of Chemistry, CUJ

Dr. Ramesh Oraon, Asst.Prof., Dept of Chemistry, CUJ

Following deliberations have been made and appropriate decisions have been taken wherever required as described below:

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Professor R. K. Dey, Convener and Chairperson (ex-officio) Board of Studies graciously welcomed all members to the Meeting of the Board of Studies. He conveyed the message of Hon'ble Vice Chancellor, Prof. K.B.Das for presence of all board members and wishes the meeting all successful for academic discussions that can be helpful for academic progress of the Department as well as the University.

2. The convenor made introduction of all esteemed board members (external as well as internal expert members), while acknowledging kind cooperation and their active presence in the meeting.

3. Appraisal of the Ordinance (OA-7) of the University was made by Professor R. K. Dey to the Board members.

4. The minutes of the previous board of studies conducted on Dt. 7th Sept, 2021, which as earlier circulated, was presented before the board members for confirmation:

Resolution: The Minute of BoS Dt. 7th Sept, 2021 is confirmed.

5. The Head appraise the Vision and Mission Statement of the Dept of Chemistry, which align with the Vision of the Central University of Jharkhand. The vision and the aim of the Department to be the source of knowledge and centre of training that imparts a sound foundation in chemicals sciences with strong inter and transdisciplinary academics and research imparting originality and innovation in contemporary and futuristic chemicals themes in the line of implementation of National Education Policy – 2020.

The Mission Statement (MS) of the Department:

MS1: Providing quality chemical sciences education at all levels including M.Sc., Integrated BSc-M.Sc., and doctoral levels.

MS2: Conducting fundamental and advanced research in chemical sciences.

MS3: Establishing research collaborations with other universities/institutes/laboratories

MS4: Carrying out sponsored research and development projects (international/national/Government and private partners).

Resolution: The board members discussed, and accepted both vision and mission statement of the Department.

6) The programme introduction for 5 year Integrated B.Sc. – M.Sc. (Chemistry) as per NEP-2020 was deliberated to the Board members. Admission to the programme was started in the year 2022 and hence currently two numbers of batches are continuing (batch of 2022 – 2027 and 2023 to 2028). The major highlight of the

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programme *i.e.*, exit option, academic bank of credit, ABC, (Gazette notification dt. 28th December, 2021), multidisciplinary subjects, skill development course, valued added courses and ability enhancement courses in addition to Core (Major) and Minor subjects were detailed as per the "Curriculum and Credit Framework for Undergraduate Programme", (UGC, New Delhi, UGC, 7th December, 2022) and as per National Higher Education Qualification Framework (NHEQF). Accordingly, the programme outcome, course outcome were also discussed and deliberated in detail. As per NEP, the prepared syllabus (from 1st semester to 6th semester) was presented to the Board.

Resolution: The prepared syllabus was accepted with some minor modifications. It is advised that more number of courses in the category of skill development should be explored. The Department may collaborate with nearby Universities; Industries to promote skill based training. It is also advised that under Skill Development course, **Certificate courses** (2 to 3 credits) in disciplines like "Industrial Water/Product Analysis", "Instrumentation Training", etc., may be explored for all students (including students from nearby colleges, universities, industries, etc.) that can be helpful for NAAC purpose.

In addition, following specific inputs were given by the Board members:

- (i) In view of exit option after the 1st year, it has been recommended that instead of offering Organic and Inorganic chemistry papers as a major in the first and second semester, two papers on Principles of Chemistry with concepts of Organic and Inorganic chemistry in the first semester and Physical and Analytical Chemistry in the second semester should preferably be offered as a major, with practical course compatible with the theory component, for fostering a basic understanding in chemistry. The student would be required to pass both the theory as well as practical paper in order to earn the credit (Theory + Practical = credits)
- (ii) The Ability Enhancement Courses (AEC) should preferably include Indian languages such as **Sanskrit and Santhali**
- (iii) Caution must be exercised while offering a **choice of minor** by stating a set of predefined requisites.
- (iv) Students may be permitted to continue with M.Sc. level courses **only after clearing** all papers from the B.Sc. level and earning the requisite credits and CGPA.
- (v) Dean (Academics) may be requested to frame a policy at the University level addressing the issue regarding whether or not a change of major or minor subject may be permitted after restructuring the courses to maintain uniformity across all disciplines.

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It is also resolute that the Head of the centre and faculty members (vi) committee may decide the internship/project work/research work as per and CUJ expertise and infrastructure facility of available institution/university/college opted for project work/research work. It must be noted that one of the supervisors/guides may be from the Department of Chemistry. Students need to consult the assigned guide/supervisor and needful approval may be obtained as per procedure as applicable/rule of the university for conducting research work at other university/institutions under collaborative research work. It is also suggested that MoU (memorandum of understanding) may also be made/encouraged in future with institution/universities of repute (nationally/internationally) so that faculty/students can get an opportunity for exchange programmes.

The courses of studies were approved by the members after minor suggestions.

The members also **appreciated** the proposed learning objection, course outcome and self-study for each course.

7) Approval for 3 year B.Sc. (Chemistry) course 2021 - 2024 batch:

The Head of the Department of Chemistry presented the 3 year BSc (Chemistry) course (2021 – 2024 batch). The Course structure has been made in accordance with LOCF model (Learning Outcome Based Curriculum Framework of UGC, New Delhi). It is also informed that only one batch of student is currently continuing with this course and there is not further admission happened to this course (after the year 2021) after introduction and adoption of NEP-2020 in 2021 by the University.

Resolution: The board member accepted/approved the courses of studies.

8) Approval for 2 year M.Sc. (Chemistry) course (2018 – 2020, 2019 – 2021, 2020 – 2022, 2021 – 2023, 2022 – 2024, 2023 – 2025 batch = total 6 batches):

The Head of the Department of Chemistry presented the 2 year M.Sc (Chemistry) course for 2018 – 2020, 2019 – 2021, 2020 – 2022, 2021 – 2023, 2022 – 2024, 2023 – 2025 batch of students. The Course structure has been made in accordance with LOCF model (Learning Outcome Based Curriculum Framework of UGC, New Delhi). It is also informed that currently two number of batches are continuing with this course and there shall not further admission happen to this course from the year 2024 onwards (faculty resolution MoM dated. 31.10.2023) after introduction and adoption of NEP-2020 in 2021 by the University.

Resolution: The board member accepted/approved the courses of studies.

9) Approval for 5 year Integrated M.Sc. (Chemistry) course (2015 - 2020, 2016 - 2021 batches):

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The Head of the Department of Chemistry presented the 5 year Integrated M.Sc. (Chemistry) course for 2015 – 2020, 2016 – 2021 batches of students. The Course structure has been made in accordance with CBCS (choice based credit framework) and LOCF model (Learning Outcome Based Curriculum Framework of UGC, New Delhi). Although this course has earlier been placed in BoS and approved by BoS previously; subsequently some minor modifications/incorporation of new courses during 8th, 9th, 10th semesters were done (for introduction of MOOCs, online courses (SWAYAM), etc.) from time to time in discussion with faculty committee and Head of the Dept. It is also informed that currently 5 year Integrated MSc was also discontinued after introduction and adoption of NEP-2020 in 2021 by the University and there are no more students currently pursuing this course.

Resolution: The board member accepted/approved the courses of studies.

10) **The syllabus for Ph. D. Coursework and its content** was presented to the Board members. The discussion and resolution are as follows:

i) It is discussed that the Ph. D. curriculum has be designed in such manner that it would reflect the area of expertise of each faculty member, so that the research scholars get benefit from the specialized course.

ii) Apart from compulsory two courses i.e., Research Methodology (4 credits) and Instrumental method for Characterization (2 credits), research scholars may be permitted to opt for two more courses (4 credits each) from existing courses of 7 to 10th semesters in consultation with Head, faculty members and/or RAC/DRC. A list of such courses may be examined as course work for PhD.

iii) Recent books in the subject may be referred for Research Methodology Course. Also certain websites can be included which can provide these resource materials.

iv) It is advised that the course content revision for PhD students may be done by faculty committee from time to time in order to incorporate recent advancement in the courses.

v) More electives are to be floated depending on the need of the students and availability of faculty members. SWAYAM may be used for appropriate selection of course for the PhD students.

vi) The committee approves the ongoing syllabi and its content of Ph.D course work.

Resolution: All discussions and suggestions are accepted for implementation. Head of the Centre/Department and faculty members may adopt appropriate flexibility and updated syllabi/course content from time to time to remain at par with scientific development worldwide.

11) The Doctoral Committee for various Ph. D. students was examined and unanimously recommended for approval by all members. It was however pointed out in general that the topic of research is to be generic while the title of the

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thesis should be stated at least 6 months before submission and the approval to be made through appropriate bodies/procedure.

10) The committee recommends and approves the list of Ph.D. students and their supervisors and topic of research for all students enrolled in the year 2020-21, 2021-22, 2022-2023 and 2023 – 24 batches of students. The RAC/DRC is also approved. It is also suggested that interdisciplinary research in collaboration may be promoted appropriately within and outside University.

11) The Board of Studies approved the List of Examiner(s) for following PhD students:

- i. Subham Behera
- ii. Md. Golam Mustafa
- iii.Priyanka Priyadarsini Samal

12) The Board of Studies approved the list of examiner(s) for question paper setting for 2 year MSc., 3 year B.Sc., and 5 year Integrated B.Sc.- M.Sc.

13) It is also suggested to enhance Ph.D. registration from industry by incorporating suitable provisions (such as Memorandum of Understanding, incorporating suitable provision in PhD regulation) so that industrial participation may be increased. However, care may be taken to adhere to quality research work in consonance with UGC regulation/advice from time to time.

It is also suggested to attract Postdoctoral fellows and MoU with Indian and foreign universities to enhance the quality of interdisciplinary research work.

14) The board members extensively discussed about semester examinations currently conducted by the university. It has been unanimously decided that faculty members from Institutes of National Importance such as IITs and NITs, Central and State Universities be considered and included as examiners for question paper setting, answer script evaluation, Ph.D. Examiner, etc.

15) The BoS noted the award of FIST to the Dept of Chemistry by DST, New Delhi and appreciated the effort.

16) The BoS discussed the requirement of additional faculties in view of NEP implementation and offer of range of multidisciplinary subjects, skill/vocational subjects, internship requirement, and courses taught to Allied disciplines, Engg. Students, etc in addition to major and minor papers. BoS unanimously

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recommended increasing the current faculty strength from 7 sanctioned position to 15 (with provision of two Professors, two Associate Professors and four Asst. Professors). Regarding enhancement of faculty strength The committee discussed the NEP-2list of various certificate/vocational courses proposed to be conducted by the Department. The committee noted that all such courses are in line with suggestion made by UGC, New Delhi, regarding implementation of vocational courses by universities as per NEP-2020.

16) The meeting ended with vote of thanks.

Signature of Members:

Dr. Satyaban Jena

Dr. Paritosh Mohanty

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Dr. Sabyasachi Bhunia

D.Mngh Dr. Dharmendra Singh

Dr. Manoj Kumar

Dr. Minati Baral

Dr. Biplab K. Kuila, 🔥

Dr. Bairagi Ch. Mallick

Dr. K.B.Panda, Habala Dr.H. Mahato

Dr. Balram Patra

Dr. A.K.Padhy

Dr. Patha Ghosh

alt Dr. Ash sh Sachan Dr.G.P.Singh,

Invitee(s)

Dr.Soumen Dey Mr.S.W.Sangma

Dr.R.B.Singh

Dr. Ramesh Oraon

Dr. R. K. Dey Head, Dept of Chemistry, Member, Convener and Chairperson (ex-officio), CUJ