



SCHOOL OF SCIENCES

Minutes of the Emergent School Board

An emergent School Board Meeting was conducted on 3rd April, 2021 at 03:00 pm (Online & Offline) from the office of the Dean, School of Sciences.

The following members attend the meeting.

1. Prof. Parveen Jahan
2. Prof. Syed Najamul Hasan
3. Dr. Salman Ahmad Khan
4. Dr. S. Maqbool Ahmed
5. Dr. H. Aleem Basha
6. Dr. Afroz
7. Prof. Naushad Hussain
8. Dr. Salahuddin Syed
9. Dr. Khaja Moinuddin
10. Prof. V. Srinivas
11. Prof. Hari Ramakrishna

Prof. Saeeduddin and Prof. Naseemuddin Farees unable to attend the meeting.

The Chairperson Prof. Parveen Jahan, Dean, School of Sciences welcomed all the members of the School Board who joined the meeting online/offline and explained the purpose of the meeting and the agenda "Proposal for Establishment of Departments of Botany, Zoology, Chemistry and Physics and introduction of programmes and strengthening of existing UG Science programmes in basic sciences under the existing school of sciences at Maulana Azad National Urdu University, Hyderabad" (Annexure: 1).

Introduction:

At the outset the Dean, briefed that the University had created a School of Sciences as approved by the MHRD vide letter No. F. 27-4/2005-Desk.(U) dated 13.10.2006 and added under the Statute 39 of the Statutes of the University.

Department of Mathematics:

Further the Dean briefed that the Department of Mathematics is one of the listed Departments in the Statutes of the University. The Department started offering an independent PG programme i.e. M.Sc (Mathematics) from the year 2012-13 onwards under the School of Sciences, pending approval of the teaching positions to be sanctioned by the UGC.

In Feb, 2014, the UGC had sanctioned five posts for the Department of Mathematics (Professor - 1; Associate Professor-1 and Assistant Professor-2) and one post of Assistant Professor subsequently in June 2018. In total the Department of Mathematics has five posts viz. Prof.-1; Asso. Prof.-1 and Asstt. Prof.-3.

As per the UGC norms, the faculty requirement for the Department of Mathematics which offers courses of UG and PG is 2 (UG) + 7 (PG). There is a short fall of four faculty positions which are meted out by engaging Guest Faculty and utilizing the services of faculty posted with DDE. The UGC is requested to sanction these four posts for the Departments of Mathematics.

Creation of Botany, Zoology, Chemistry and Physics Departments:

The Executive Council in its 43rd Meeting held on 20.2.2013 and 45th Meeting held on 6th July, 2013 had approved the creation of the following four new Science Departments for offering five year integrated M. Sc (Zoology, Botany, Chemistry, Physics and Mathematics) in basic Sciences in addition to the existing Department of Mathematics:-

- (a) Department of Physics
- (b) Department of Chemistry
- (c) Department of Zoology
- (d) Department Botany

However, these integrated B.Sc-M.Sc. programmes in basic sciences could not be continued for various reasons.

But, from the academic year 2016-17 the school of Sciences had started offering the following programmes with an intake of 40 each:

- (a) B.Sc (Physical Sciences) with Mathematics, Physics & Chemistry (MPC)
- (b) B.Sc (Physical Sciences) with Mathematics, Physics & C.S (MPCS).
- (c) B.Sc (Life Sciences) with Zoology, Botany & Chemistry (ZBC)

(Total: 120 intake in UG)

P.G programme (two year duration) with 20 seats

- (a) M.Sc. in Mathematics

Research Programme:

- (a) Ph.D in Mathematics
- (b) Ph.D in Zoology - New programme introduced.

Academic Year 2017-18:

The programmes of 2016-17 were continued in the next academic year i.e. 2017-18 without any changes.

Academic Year 2018-19:

The existing three UG, one PG in Mathematics and two research programmes in Mathematics and Zoology were continued with the addition of three new Research programmes as under:-

- (a) Ph.D in Chemistry } New Programmes
 (b) Ph.D in Botany }
 (c) Ph.D in Physics }

Status of Teaching staff allotted to the School of Sciences:

In order to operationalize the four newly created science departments (except Mathematics) for which no posts were sanctioned by the UGC, on the strength of the general provisions contained in the UGC sanction Orders vide its letter No. F.1-1/2013 dated 05.02.2014, the University with the approval of the Executive Council, has reallocated vacant posts earlier sanctioned to other departments/directorates to the newly created four Science Departments:-

| S.No. | New Science Departments | Details of position reallocated by EC | Original position sanctioned by UGC | Approval of the Executive Council |
|---|---|--|---|-----------------------------------|
| 01. | Department of Physics (total - 3 posts) | Associate professor-1 Assistant professor-1 | Department of CS & IT Arabic discipline from ASCW, Srinagar | 48th EC dated 2.7.2014 |
| | | Professor-1 | Urdu discipline from Lucknow Campus | 49th EC Dated 8.11.2014 |
| 02. | Department of Chemistry (total- 2 posts) | Associate professor-1 | Department of CS & IT | 48th EC dated 2.7.2014 |
| | | Professor-1 | Arabic discipline from Lucknow Campus | 49th EC Dated 8.11.2014 |
| 03. | Department of Botany (total 3 posts) | Associate professor-1 Assistant Professor-1 | Department of CS & IT Kashmiri discipline from ASCW, Srinagar | 48th EC dated 2.7.2014 |
| | | Professor-1 | Persian discipline from Lucknow Campus | 49th EC Dated 8.11.2014 |
| 04. | Department of Zoology (total 3 posts) | Professor-1 | DDE | 44th EC Dated 4.5.2013 |
| | | Associate professor-1 Assistant professor-1 | Centre for Deccan Studies Persian discipline from ASCW Srinagar | 48th EC Dated 2.7.2014 |
| In total 11 posts were reallocated to science departments from other departments/campuses from other disciplines. | | | | |

It was also brought to the notice of the Academic Council that in addition to the above positions reallocated to Science departments, three Assistant Professors from DDE and one Assistant Professor, Polytechnic were deputed to teach these science courses. The

computer science subjects/electives which are part of the B.Sc (Physical Sciences) programme are being taught by the teachers deputed from the Department of CS & IT.

Decision of the Executive Council and Academic Council about starting of PG programme in basic sciences:

The Executive Council in its 74th Meeting held on 17.05.2019 while reviewing of the matter arising out of the Academic Council, observed that there is a need of having basic science departments such as Department of Botany, Chemistry, Physics and Zoology under the School of Sciences in addition to the Department of Maths to promote research. Therefore it should have M.Sc programmes in basic sciences besides M.Sc (Mathematics). The EC had resolved to authorize the Vice-Chancellor to take all appropriate steps for sending fresh proposals to the University Grants Commission for introducing UG and PG programmes in disciplines of Chemistry, Physics, Botany and Zoology so that these Departments could be functional.

Proposal to establish the Departments of Botany, Zoology, Physics and Chemistry to start new PG Programmes and strengthening of existing UG Science programmes in MANUU- Need and Justification

As stated in the Constitution, one of the fundamental duties of the citizens of India is "To develop scientific temper, humanism and the spirit of inquiry and reform". It therefore becomes important for us to create spaces to make this effort a reality. It is essential that all major universities in India strive towards it.

One of the mandated objectives of MANUU is "to impart vocational and technical education in Urdu medium" and Science education is an integral part of the technical education. It is in this context that MANUU being a national University should also offer all streams of Science programs for facilitating Urdu medium science students for vertical mobility in higher education and can be part of national development.

MANUU also plays a unique role of being able to interpret and contextualize texts written in other languages into Urdu. This effort will also make scientific knowledge accessible to the population in regional languages at grass root level. This accessibility will ultimately allow people to think and understand scientific knowledge at a more fundamental level which will lead to imbibing scientific temper at a basic level. It is in this regard that MANUU envisages to lay down an institutional foundation for basic Science programs through establishment of Departments Animal Sciences, Plant Sciences, Chemistry and Physics along with the strengthening of existing Department of Mathematics in the First Phase. And consequently, the School plans to initiate contemporary Science streams through the Departments of Bio-Technology, Systems Biology, Bio-Chemistry, Nano-Technology and Space Sciences etc.

The main objective of the School of Sciences is to offer Programs that are basis for understanding the concepts of life happenings and also to provide basic human motivation and to find the solutions for unanswerable questions through observations and experimentation to form hypothesis and theories with rational interpretation. The

programs in basic sciences may enhance the branding of University and empower the young minds forever advancing careers.

The formation of these departments will also allow an in-depth understanding in the respective fields, which may be a boon for students coming from Urdu medium background. It will also allow for interdisciplinary approaches which won't be possible without establishment of the above departments. Further, it is important to note that the administrative requirements of each of the departments are unique owing to the difference in teaching methodology, lab requirements and research and innovation.

These Departments will further to enable us to build expertise in the basic sciences which would be essential for a holistic development of scientific understanding from the undergraduate to the doctoral level. This will give a platform to Urdu speaking scientifically interested students to integrate them into mainstream education and employment.

The scientific community, in the form of peer review publications is one of the most active in the world. By creating a space and an environment of research, MANUU can contribute to these publications and participate in national and international research and innovation, this will ultimately percolates to the students and at large to Urdu medium community. From Institutional performance point of view, this would go a long way in making MANUU competitive with other universities in the form of research output as well as building bridges between industry and academia. This would further help MANUU to achieve recognition, visibility in its contributions in various objective evaluations of NAAC, NIRF ranking, National and International University rankings, etc.

The students from Urdu medium background often find difficult to pursue Science programs in conventional higher Education institutions due to medium barrier. They need to be supported with transitional switchover from Urdu medium to English medium, which MANUU can facilitate and address their needs. Thousands of students are pursuing 10+2 through Urdu medium in various states and they look for opportunity to continue their higher studies in Urdu medium.

New Education Policy (NEP), 2020:

Para 11.4. of the NEP 2020 envisaged that:

A holistic and multidisciplinary education, as described so beautifully in India's past, is indeed what is needed for the education of India to lead the country into the 21st Century and the fourth industrial revolution. Even engineering institutions, such as IITs, will more holistic and multidisciplinary education with more arts and humanities. Students of arts and humanities will aim to learn more science and all will make an effort to incorporate more vocational subject and soft skills.

Starting of New postgraduate programmes in Basic Sciences:

In the above context, the School of Sciences proposes to start the following new programmes from the next academic year subject to the approval by the UGC:-

| S.No. | Name of the Programme | Duration | Proposed Intake |
|-------|-----------------------|----------|-----------------|
| 01. | M.Sc. in Botany | 2 years | 30 |
| 02. | M.Sc. in Chemistry | 2 years | 30 |
| 03. | M.Sc. in Physics | 2 years | 30 |
| 04. | M.Sc. in Zoology | 2 years | 30 |
| | Total | | 120 |

Starting of these new programmes along with the existing research programme (Ph.D) would not only help the students enrolled in UG Science programme under regular and distance modes but also help to bridge and integrate MANUU with other Centers of Excellence at National and International level.

Preparatory work for Syllabus and Space availability for new M.Sc programmes:

The syllabus for proposed programme has already been developed by the School of Sciences and the same has been approved by the Academic Council.

The additional space for starting these new programmes is already available at new Polytechnic Block. As such these programmes can be operationalized at the available space presently. However, the University will approach the Ministry of Education/UGC for funds through HEFA for the development of required infrastructure in future.

Expected Outcomes:

The proposed new programmes at PG level shall facilitate cutting edge research at Doctoral and Post-Doctoral level and expected to contribute significantly for socially relevant scientific knowledge generation in the University.

These programmes shall also act as nodal agencies in promoting scientific temper among students from Urdu medium Schools, Inter-Colleges at regional to national level. They will also contribute to the original writings in Science literature in Urdu.

Proposal for the sanction of Teaching and Technical Posts for the establishment of Departments of Botany, Zoology, Physics and Chemistry and strengthening of the existing UG Science Programmes:

The present proposal is in line with the decisions taken in the AC/EC for the establishment of the Departments of Botany, Zoology, Physics and Chemistry.

Existing teaching staff under the School of Sciences and additional requirement of teaching staff:-

| S.No. | Name of the Department/ discipline | In position (After Re-allocation by EC) | Faculty requirement (1:20 ratio) | Additional requirement |
|-------|---------------------------------------|--|--|---------------------------|
| 01. | Botany | 03 (Asso. Prof-1, Asstt. Prof-2) | 9 | 6 |
| 02. | Chemistry | 02 (Prof-1; Asso. Prof-1) | 9 | 7 |
| 03. | Physics | 03 (Asso. Prof-1, Asstt. Prof-2) | 9 | 6 |
| 04. | Zoology | 03 (Asso. Prof-1, Asstt. Prof-2) | 9 | 6 |
| 05. | Mathematics | 05 (Prof-1; Asso.Prof-1; Asst.Prof-3) | 9 | 4 |
| | Total | 16 | 45 | 29 |

The sanction of additional teaching posts shall be as per the student to teacher ratio norms prescribed by the UGC in this regard as detailed below:-

| S.No. | Name of the Programme | Duration | Intake | Student strength (1st year (2020-21)) | Student Strength (2nd year (2021-22)) | Intake (3rd year) (2022-23) | Total |
|--|--------------------------------|----------|--------|---------------------------------------|---------------------------------------|-----------------------------|-------|
| 01. | M.Sc. (Botany) | 2 years | 30 | 30 | 60 | - | 60 |
| 02. | M.Sc.(Chemistry) | 2 years | 30 | 30 | 60 | - | 60 |
| 03. | M.Sc. (Physics) | 2 years | 30 | 30 | 60 | - | 60 |
| 04. | M.Sc. (Zoology) | 2 years | 30 | 30 | 60 | - | 60 |
| 05 | M.Sc (Mathematics) | 2 years | 30 | 30 | 60 | - | 60 |
| 06. | B.Sc. in three streams | 3 years | 120 | 120 | 120 | 120 | 360 |
| | Total | | 270 | 270 | 270 | 120 | 660 |
| Faculty and technical staff requirement | | | | | | | |
| | Faculty requirements | | | | | | 45 |
| | Faculty in position as on date | | | | | | 16 |

| | | | |
|--|---|--|-----|
| | Shortfall of faculty | | 29 |
| | Technical staff requirement to look after the existing labs | Lab assistant -1 and Lab attender-1 for each department (Botany, zoology, Physics, Chemistry and Mathematics) | 5+5 |

The additional faculty requirement to establish the Departments of Botany, Zoology, Physics and Chemistry and to start four new M.Sc programme in Botany, Zoology, Physics and Chemistry would be 29 faculty at least one Professor and one associate professor in Botany, Zoology, Chemistry and Physics and rest Assistant professors including existing Mathematics department as depicted in the table and technical staff of 5 lab assistants and 5 lab attenders

Background note for the Proposal for establishment of new Departments under School of Sciences, Maulana Azad National Urdu University

About the University

Maulana Azad National Urdu University (MANUU) is a Central University, established by an Act of Parliament with all India jurisdiction in 1998. The headquarters and main campus of the University is located in Gachibowli, Hyderabad. It has a sprawling campus of 200 acres amid institutional and economic zone of Hyderabad. MANUU is recognized as a major higher education service provider across the remote areas of the country for marginalized and first-generation learners through Urdu medium in its regular and distance mode programmes. MANUU commenced its academic activities with distance education programmes in 1998, and consolidated its academic and research base in Urdu medium through regular programmes since 2004. Presently, MANUU is in the process of consolidation of the existing institutions, while expanding its reach to the unreached through various intervention measures.

The University envisions to provide access to quality education through Urdu as medium of instruction, while adhering to the inclusive policy. The mission of the University is to empower socially, economically, educationally and culturally marginalized sections of society so that they are brought into the mainstream, and thereby contribute to the socio-economic development of the nation through formal and non-formal mode of educational delivery.

The Mandate of the University is - to promote and develop the Urdu language; to impart education and training in vocational and technical subjects through the medium of Urdu; to provide wider access to people desirous of pursuing programmes of higher education and training in Urdu medium through teaching on the campus as well as through distance mode and to focus on women education.

Schools of Studies: The University in its two decades of existence has established seven schools of studies to offer various higher education programs in regular mode viz., School of Languages, Linguistics & Indology; School of Arts & Social Sciences; School of Commerce & Business Management; School of Education & Training; School of Mass Communication & Journalism; School of Sciences and School of Technology.

Departments and Programmes: The seven Schools offer academic programmes through 19 Departments viz., Arabic; English; Hindi; Persian; Urdu; Translation Studies;

Islamic Studies; Economics; History; Political Science; Public Administration; Sociology; Social Work; Women Education; Mathematics; Commerce & Management Studies; Journalism & Mass Communication; Education & Training; Computer Science & Information Technology. These Departments are currently offering 78 programmes and courses, (24 PhD; 21 PG; 08 UG, 05 PG Diploma, and 05 Diploma programmes and 2 Certificate courses. The University also offers technical Diploma programmes through five Polytechnics (Diplomas in Engineering in 8 streams) and vocational programmes through Industrial Training Institutes (08 Certificate Trades). Further University is evolving to deliver Innovative and Relevant Quality Education with flexible academic framework through Choice Based Credit System and upgrade the curriculum based-on market needs periodically.

Satellite and Off-Campuses: There are about 20 satellite and off-campus of MANUU in 11 States all across the country. About 6,000 students are enrolled in various regular mode programmes. The Directorate of Distance Education offers various academic programmes in distance mode through a network of 9 Regional and 5 Sub-Regional Centres and 138 Learner Support Centres and Programme Centres catering to more than one lakh students at their door step.

The University has four Industrial Training Institutes (ITIs) at Hyderabad (Telangana), Bengaluru (Karnataka), Darbhanga (Bihar) and Cuttack (Odisha); Five Polytechnics at Hyderabad (Telangana), Bengaluru (Karnataka), Darbhanga (Bihar), Kadapa (Andhra Pradesh) and Cuttack (Odisha). These institutions are to fulfill the objectives of the University of imparting vocational and technical subjects in Urdu medium. The University has eight Colleges of Teacher Education at Srinagar (Jammu & Kashmir), Darbhanga (Bihar), Bhopal (Madhya Pradesh), Nuh (Haryana), Asansol (West Bengal), Sambhal (Uttar Pradesh), Aurangabad (Maharashtra), and Bidar (Karnataka) to train prospective teachers. The University also has satellite campus at Lucknow (Uttar Pradesh) offering UG, PG and Research programmes. To address mission of empowering Women, the University established an exclusive - College of Arts and Science at Budgam (J & K) offering post-graduate and research programmes. True to its mission of spreading the wings of Urdu and instilling a passion for Urdu among the new generation learners, the University has also established three Model Schools at Hyderabad, Darbhanga and Nuh to provide quality school education in Urdu medium.

Research, Training and Support Centers: The University has several academic support centres such as Human Resource Development Centre (HRDC), Instructional Media Centre (IMC), Centre for Information Technology (CIT), Center for Urdu Culture Studies (CUCS); Centre for Promotion of Knowledge in Urdu (CPKU); HK Sherwani Centre for Deccan Studies (HKSCDS); Directorate of Translation and Publications (DTP), Directorate of Admissions, and Internal Quality Assurance Cell (IQAC), which provide value addition to the University.

Extension Activities: The University participates in and implements various of Mission Mode Directives of MHRD such as Swacch Bharat Abhiyan; Swacch Bharat - Swasth Bharat; Swatchhata Pakhwada; Unnat Bharat Abhiyan; Ek Bharat -Shreshtha Bharat; Beti Bachao - Beti Pado; Vittiya Shaksharat Abhiyan and PM Kaushal Vikas Yojana. In addition, the University also a participant in Digital India Project NKN - NME-ICT, Campus Connect, UGC-INFLIBNET, NDL Cluster, SWAYAM, SWAYAM PRABHA, NAD, Bharatvani etc.,

Academic reforms: The University also implemented the Choice Based Credit System (CBCS) and incorporated MOOCs Courses to enhance the value addition to the

academic programmes offered by the MANUU. It incorporated various intervention measures in admissions through reservations in intake and relaxations in merit to various unrepresented and under-represented categories to enhance the GER.

University Accreditation: The University has received 'A Grade' accreditation by NAAC in 2009 and 2016. The academic mandate of MANUU lies in its unique service of providing education from elementary to doctoral levels in the Urdu language. It attracts the academically marginalized section of the society and brings them to the mainstream of higher education.

Quality enhancement initiatives : MANUU envisages to enhance, enlarge and expand its activities that are relevant to the emerging economic environment of the country and also to fulfill the shortfall of workforce needs due to intensifying activities as per plan mandate of the UGC and also in tune with the directions of MHRD with reference to quality education, research promotion, internal resource generation, infrastructure development, student centric measures, e-governance initiatives, outreach activities etc. Further, it adheres to National Agenda of Access, Equity and Quality and also to ensure that all the graduating students need to acquire an adequate knowledge of the English and Information Technology. This enables the Urdu medium students to compete with the rest of the students in the country for both the vertical and horizontal mobility.

The University provides facilities to groom students for employment needs of the country through Equal Opportunity Centre (EOC) and Civil Services Examinations - Residential Coaching Academy(CSE-RCA) with State-of-art Infrastructure, Personality Development and Soft Skill training through Placement & Training Cell, Skill Development through Language and Computer Labs, Training Workshops, Confidence Building through Counseling & Mentoring System, Talent Nurturing through Sports, Games, Cultural Activities, NSS, NCC etc.

Resolutions: The board members discussed and resolved the following:

1. The Board appreciated and approved the steps taken under the guidance Vice-Chancellor by the School of Sciences with regard to initiation of the Establishment of the four Departments i.e., Botany, Zoology, Chemistry and Physics under the School of Sciences to start PG programmes and strengthen the existing UG Science programmes.
2. The members felt that MANUU being the only Central University with the mandate of medium of instruction in Urdu, initiating the PG programme is much needed to encourage the students with Urdu background for higher studies. Further, the enhancement to the existing facilities available and the allotment of additional staff, as presented in the above tables shall be addressed to the UGC.
3. The board approved the number of seats i.e., 30 in each PG programme and Prof. Hari Ramakrishna, External Member from Osmania University has suggested that in addition to the regular number of allotted seats an additional 10-20% of self-financing seats may be allotted for each Department to establish good practical laboratory facilities for the PG students as PG laboratories require lot of resources.
4. Prof. V. Srinivas, External Member from Ambedkar Open University suggested that at PG level syllabus should have more of applied Science and skill component to facilitate employability of the students.

5. The board members suggested that MANUU being a Central University should encourage the foreign students in the Ph.D. programme by easing entry process.
6. Prof. Naushad Hussain, Principal, MANUU-CTE Bhopal, congratulated the School of Sciences for the proposal to establish the four Departments.

Any other agenda item:

1. Chairperson informed the board about the constitution of Research Advisory Committee (RAC) with the changed composition in place of Departmental Research Committee (DRC) for Botany, Zoology, Physics and Chemistry as approved by the Competent Authority and sub-committees of each subject in place of BoS (Annexure-1).

The Chairperson thanked all the members for attending the meeting and concluded the meeting.

Naushad Hussain
12.4.2021

Dean, School of Sciences