

NAAC – ACADEMIC AUDIT (SCLS)
Jamia Hamdard

We, the members of the Academic Audit team met on 18th and 19th April 2022 to assess the academic activities of the various departments under the School of Chemical & Life Sciences, Jamia Hamdard. The following are our general and specific comments on the each department with recommendations for the consideration by the departments and the administration for the improvements

GENERAL COMMENTS AND RECOMMENDATIONS

In the presentations by HoDs/Faculty, some information was not covered, therefore all the relevant information related to course work, research activity, funding, extra-mural funding, department joint programmes like UGC-DRS, DST-FIST programmes, awards and honors received by faculty, patents granted/applied, fellowships of the prestigious Indian academies such as INSA, NASI, NAAS, ICMR and similar international recognitions like TWAS academy of sciences should be given. The following comments/recommendations may also be considered:

- Publications by the faculty during the last five years and total number of citations and h-index, international and national conferences attended by faculty as invited speakers, chairing sessions or as a participants.
- Industrial and international collaborations, beside course curriculum, revision of syllabus, teaching innovations, conduct of research in the frontier areas of biology, toxicology, medical field and other areas of research pertinent to various departments.

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Updating the teaching tools and instrumentation of the university, financial support is required, and it was mentioned in the presentations by the HoD's that a good number of faculty was superannuated and thus there is an urgent need to fill these vacant positions to enhance teaching and research publications.

- Tutorial & Remedial classes ✓
Acad ✓
Research ✓
- Students should be provided tutorial and counselling to clear CSIR-UGC NET exams, DBT-JRF, GATE, ICMR and similar exams, which provide JRF for PhD programme by significant number of students. MSc students after completion of their degree, they should be encouraged for higher education, PhD degree in the premium institutions/universities in India and abroad.

PhD students should also be encouraged to go for post-doctoral research in well-known institutions/universities in India and abroad.

- MSc/PhD students by any means if they cannot go for higher education, they can be guided to take up appropriate positions in industries and pharmaceutical sector.

• All the departments should maintain proper record of all the activities of education and research in separate files in a systematic manner with complete details.

• Faculty should take active part in getting good number of grants to promote research and infrastructure. They should periodically attend the relevant conferences at the national or international level to be abreast with the latest development in the various research fields, and they should also organize national and international conferences/seminars/symposia and also refresher courses and workshops in the advanced areas of research interest of the departments.

• Maintaining the information about alumni and their current positions, and their feedback and update such information periodically is important.

• Department should maintain information about tutorials and log books for equipment usage, which was missing in some of the departments.

• Faculty should publish their research in the internationally reputed scientific journals with reasonably good impact factor.

• Periodical meetings of the faculty and students of BSc/MSc dual degree, MSc and PhD students and, Post-Doctoral fellows should be convened to know their needs and suggestions for the improvement of infrastructure, teaching tools, which are important to enhance departmental teaching and research activities.

• University may have a separate University-Industry cell to promote placements, and also to modify course curriculum to suit the industry needs as it facilitates the absorption of more number of students and research scholars.

• The HoDs of the department and various faculty should frequently invite well-known scientists from India and abroad to deliver lectures in the frontier areas of science.

• In case of any need, the departments can go for guest faculty or adjunct professors and also provide a lab space for anyone who would like to join the departments with their own fellowships like DBT-Ramalingaswami Fellowship, JC Bose Fellowship, INSA Senior Scientist, NASI Platinum Jubilee Fellowship, among others for the development of the departments.

SPECIFIC COMMENTS/RECOMMENDATIONS

Department of Biotechnology

Prof. M.Z. Abdin, HoD Biotechnology has made a detailed presentation about the various activities of the department, including teaching and research as well as all other relevant information. Overall, the department is doing extremely well in the above mentioned activities. As per the document verification is concerned, they have prepared the detailed information about the checklist prepared by the University in a systematic fashion. They even provided the PhD and MSc theses/dissertations copies and reprints of publications.

It was quite impressive that the department could attract major funding from DST-FIST, UGC-DRS as well as from various Govt. of India funding agencies including, DBT, CSIR, ICAR, ICMR, etc, and their former MSc and PhD students and Post-docs have been placed very well either in the industry or institutions/universities.

Faculty has been actively involved in research in some of the advanced fields like regulation of gene expression, molecular biology, cancer biology, bio-engineering, tissue culture and secondary metabolites and stress biology.

The result of all the courses were quite impressive as more than 95% of the students could pass their courses.

Department of Medical Elementology and Toxicology

Prof. S. Raisuddin, Head of the Department was made a presentation about their various departmental activities, however some pertinent information was not covered in the presentation. Regarding verification of the documents, they could not prepare the detailed information mentioned in the checklist as per university guidelines. As far as research is concerned, they have been doing very well and are being supported from various funding agencies, including UGC-DRS, DST-FIST, AYUSH, etc. They also have DST-STUTI programme and is a very unique one. The faculty should be proactive in developing the innovative research programmes and also the infrastructure.

✓ There are only few students who could clear prestigious CSIR, UGC-NET and similar exams and therefore the faculty should take active part in guiding the students by way of tutorials by which students will be able to clear these exams.

Centre for Translational and Clinical Research

Dr. Nidhi Agarwal was asked to present the activities of the Centre and she presented very well covering all the activities of the centre. They have BSc-MSc dual

degree MSc in Clinical Research and PhD programme in Clinical Research, and their programmes are being run very well. They perform clinical trials at different levels in fields of disease biology and epidemiology, and the major neurological diseases using animal models and human subject. Such clinical trials are being supported by the major recruiters like NOVARTIS, Sun Pharma, Reddy's Lab, and also well-known hospitals including Rajiv Gandhi, Max and Fortis Hospitals

It is quite impressive that former students are well placed with good packages. However, space is a big constraint as they have only a small lab to perform research and only two small classrooms. At least one more classroom is needed along with the big classrooms for students. They also require a reasonably large space for research purpose as they are doing so well in clinical research. Further the faculty needs a proper office cabins as some faculty is sharing same office. Further, the significant improvement in the infrastructure. They also need more faculty since they have some contractual faculties and Adjunct Professor.

Department of Botany

Dr. Mohd. Ashraf Ashfaq has asked to present on behalf of the HoD, Prof. Shahid Umar and he presented all the relevant information pertaining to the teaching and research activities of the department. Overall, the department is doing very well as per research and teaching is concerned.

It was impressive that most of the students were clearing CSIR UGC-NET exam since last five academic years. Department is also being supported by UGC-SAP DRS-I and DIST-FIST programme and also received funding from some of the Govt. of India funding agencies. Faculty has been working in the important areas, including abiotic stress tolerance, medicinal plants and bio-activities, tissue culture and alkaloid production.

The HoD felt that they urgently require a faculty who can not only teach taxonomy but also help the identification of important plants including medicinal plants for others.

Department is maintaining a huge herbal garden with many medicinal plants, which are being well maintained and such plants are also being used for research purpose.

Department of Chemistry

Prof. M.S. Alam, HoD Chemistry made a presentation on most of the departmental activities in teaching and research, and it was suggested to include the missing information on some aspects like total citations of publications, h-index, patents granted/applied, awards and honors received by faculty, and conferences organized by faculty members.

They have well-versed and dedicated labs for performing practicals/experiments by the students along with research labs and equipment are well maintained. The performance of students for clearing the NET exam is very good. The syllabus revision was done periodically to update it. The faculty has been working in some of the advanced areas of research like nano-synthesis and delivery, molecular machines for drug delivery, medicinal chemistry, natural products and organic synthesis.

They have provided all the files related to checklist in proper manner.

The faculty should be proactive in getting good number of extra-mural grants from important funding agencies in India and abroad, and publish their research in internationally reputed journals with good impact factor.

Department of Biochemistry

Prof. Rana Zaidi, HoD Biochemistry has presented most of the departmental activities and she was asked to include missing information on some aspects like conferences organized and attended by faculty and number of students who cleared the NET exam otherwise they have shown detailed information on various parameters prepared in the checklist of the university in a proper manner using separate files.

It is impressive that they have a good funding from UGC-DRS-II, DST-FIST Level I and DBT BUILDERS, and also funding from DBT and other agencies.

Faculty should encourage MSc students to clear NET exam in good number, and the classroom and research labs as well as equipment are extremely well maintained with good hygiene.

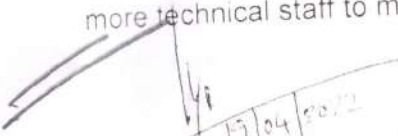
Course curriculum is being run very well and students performance is very good in the exams. The publication profile of the faculty is impressive. The faculty may put in more efforts to bring the good number of grants to make the department to excel in research activities.

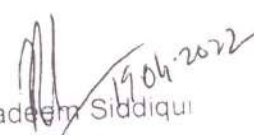
Central Instrumentation Facility (CIF)

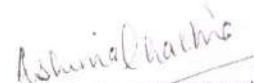
Dr. S.D. Sharma, Sr. Technical Assistant has shown the various major equipment on behalf of Dr. Mohd. Samim (Incharge, CIF) that are installed in CIF to the Academic Audit team. In essence, CIF has good number of commonly used major equipment, which are well maintained. However, the upgradation of some of the equipment which are pretty old and needs to be replaced under the byback. Also, CIF should


have some additional and latest equipment that are used in the frontier areas of research.

Since CIF is being maintained by single person Dr. S.D. Sharma, they need few more technical staff to maintain the various equipment in CIF.


19/04/2022
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Delhi University


19/04/2022
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