INSTITUTE OF BIOCHEMISTRY

Magadh University, Bodh Gaya
• Name of the Department: Institute of Biochemistry
• Year of establishment: 2008
• Is the Institute part of a School/Faculty of the university? Yes
• Names of programmes offered (UG, PG, M. Phil., Ph.D., Integrated Masters: Integrated Ph.D., D.Sc., D.Litt., etc.) : PG., Ph.D.
• Interdisciplinary programmes and departments involved: Botany, Zoology, Chemistry, Biotechnology.
• Courses in collaboration with other universities, industries, foreign institutions etc: Nil
• Details of programmes discontinued, if any, with reasons: Nil
• Examination System: annual/Semester Trimester/Choice Based Credit System: Semester Based.
• Participation of the department in the course offered by other departments: Botany, Zoology, Chemistry, Biotechnology.
• Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others)…….. Nil.
<table>
<thead>
<tr>
<th></th>
<th>Sanctioned</th>
<th>Filled</th>
<th>Actual (including CAS &amp; MPS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>Assoc. Prof.</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>Asst. Prof.</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>Others</td>
<td>Nil</td>
<td>07</td>
<td></td>
</tr>
</tbody>
</table>

- Faculty profile with name qualification, designation, area of specialization, experience and research under guidance.

<table>
<thead>
<tr>
<th>Name</th>
<th>Qualif.</th>
<th>Desig.</th>
<th>Speciali.</th>
<th>Exp.</th>
<th>No. of Ph.D./M.Phil. Stud. Guided for the last 05 year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. S. Sharma</td>
<td>M.Sc., Ph.D</td>
<td>Prof.</td>
<td>Inorg. Chem.</td>
<td>40</td>
<td>09</td>
</tr>
<tr>
<td>Dr. Deepak Kr.</td>
<td>M.Sc., Ph.D.</td>
<td>Asso. Prof.</td>
<td>Pl. Biochem.</td>
<td>20</td>
<td>01</td>
</tr>
<tr>
<td>Dr. U.N. Verma</td>
<td>M.Sc., Ph.D.</td>
<td>Prof.</td>
<td>Anal. Chem.</td>
<td>31</td>
<td>03</td>
</tr>
<tr>
<td>Dr. L.K. Mishra</td>
<td>M.Sc., Ph.D.</td>
<td>Asso. Prof.</td>
<td>Nuclear Physics</td>
<td>35</td>
<td>04</td>
</tr>
<tr>
<td>Dr. B.P. Gupta</td>
<td>M.Sc., Ph.D.</td>
<td>Prof.</td>
<td>B.H.Physirlogy</td>
<td>38</td>
<td>00</td>
</tr>
<tr>
<td>Dr. K.K.P. Singh</td>
<td>M.B.B.S.,M.D.</td>
<td>Asso. Prof.</td>
<td>Human Physirl.</td>
<td>25</td>
<td>00</td>
</tr>
<tr>
<td>Dr. A. Kumar</td>
<td>M.Sc., Ph.D.</td>
<td>Lecturer</td>
<td>Organic Chem.</td>
<td>10</td>
<td>00</td>
</tr>
</tbody>
</table>
• List of senior Visiting Fellows, adjunct faculty, emeritus professors: Nil
• Percentage of classes taken by temporary faculty – programme-wise information: 100%
• Programme-wise Student Teacher Ratio : 6:1
• Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual

<table>
<thead>
<tr>
<th>Post</th>
<th>Sanctioned</th>
<th>Filled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assistant</td>
<td>---</td>
<td>1</td>
</tr>
<tr>
<td>Librarian</td>
<td>---</td>
<td>Nil</td>
</tr>
<tr>
<td>Asst. Librarian</td>
<td>---</td>
<td>Nil</td>
</tr>
<tr>
<td>Peon</td>
<td>---</td>
<td>1</td>
</tr>
</tbody>
</table>
• Research thrust areas as recognized by major funding agencies: Nil
• Number of faculty with ongoing projects from a) National b) International funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise: Nil
• Inter-institutional collaborative projects and associated grants received a) National collaboration b) International collaboration: Nil
• Departmental projects funded by DST-FIST: UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE etc; total grants received: Nil
• Research facility/centre with
  – State recognition : Yes
  – National recognition : Yes
  – International recognition : Yes
• Special research laboratories sponsored by / created by industry or corporate bodies: Nil
• **Publications:**
  – Number of papers published in peer reviewed journal (National/International): 35
  – Monographs: Nil
  – Chapters in Books: 03
  – Edited Books: 02
  – Books with ISBN with details of publishers:
    – Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database – International Social Sciences Directory, EBSCO host, etc.): Nil
    – Citation Index – range/average: Nil
    – SNIP: Nil
    – SJR: Nil
    – Impact Factor – range average: Nil
    – h-index: Nil
• Details of patents and income generated: Nil
• Areas of consultancy and income generated: Nil
• Faculty selected nationally/internationally to visit other laboratories/institutions/industries in India and abroad
  • Prof. Nandji Kumar visited Florence (Italy) in 2009 to present his paper at the 10th International Conference of Environmental mutagens on "Plant extract".
  • Visited Pattaya (Thailand) to present his paper at the 2nd Asian Conference on Environmental Mutagens on "Assessment of gene toxicity in Allium Cepa L".
• Faculty serving in
  – National committees
• * Dr. Nandi Kumar, Vice President, EMSI, India
  – International committees
  – Editorial Boards
• * Dr. Nandji Kumar, Journal of Board, Allahabad.
• * Columbus Journal of Life Science, Hazaribagh.
  – Any other (please specify)
• Faculty recharging strategies (UGC, ASC, Refresher/orientation programs, workshops, training programs and similar programs): Nil

• Student projects:
  • Percentage of students who have done in-house projects including interdepartmental projects: Nil
  • Percentage of students doing projects in collaboration with other universities/industry/institute: 100% students doing project of 100 marks in collaboration with other institutes.

• Awards/recognition received at the national and international level by
  • Faculty
  • i. Dr. Nandji Kumar recipient of Rashtriya Gaurav Award-2011
  • Doctoral/post doctoral fellows: Nil
  • Students: Nil

• Seminars/Conferences/Workshops organized and the source of funding (National/International) with details of outstanding participants, if any
34th Annual Conf. of EMSI and International symposium on Genomics and Molecular basis of human diseases (March, 17-19, 2009)

15th AICCG and Fogarty International Workshop on "Arsenic contamination in ground water: Health effects, molecular epidemiology, susceptibility and Mitigation" (Nov. 21-23, 2011)

Code of ethics for research followed by the departments

Yes followed as per UGC guidelines.

Student profile programme-wise:

<table>
<thead>
<tr>
<th>Name of the Programme (refer to question no.-4)</th>
<th>Applications received</th>
<th>Selected Male</th>
<th>Selected Female</th>
<th>Pass Percentage Male</th>
<th>Pass Percentage Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>M.Sc. ISt Sem. (2014-16)</td>
<td>No admission due to technical reasons</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M.Sc. IIIrd Sem. (2012-14)</td>
<td>15</td>
<td>05</td>
<td>07</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>
Diversity of students

<table>
<thead>
<tr>
<th>Name of the programme (refer to question no.-4)</th>
<th>No. of students from the same university</th>
<th>No. of students from other universities within the state</th>
<th>No. of students from universities outside the state</th>
<th>No. of students from other countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>M.Sc. IIIrd Sem. (2012-14)</td>
<td>67%</td>
<td>33%</td>
<td>Nil</td>
<td>Nil</td>
</tr>
</tbody>
</table>

How many students have cleared Civil Services and Defense Services examination, NET, SET, GATE and other competitive examinations? Give details category-wise.- Nil

Student Progression:

- **Student progression**
  - UG to PG: N/A
  - PG to M. Phil: N/A
  - PG to Ph.D.: In process
  - Ph.D. To Post-Doctoral: Nil

Employed:

- Campus selection: 05%
- Other than campus recruitment: 45%

Entrepreneurs: 20%

Diversity of Staff

- Percentage of faculty who are graduates of the same university: 100%
- from other universities within the state: 
- from universities from other state: 
- from universities outside the country: 
Number of faculty who were awarded M.Phil., Ph.D., D.Sc. And D. Litt. During the assessment period: - N.A.

Present details of departmental infrastructural facilities with regard to

- Library: 500 Biochemistry books available.
- Internet facilities for staff and students: Yes
- Total number of class rooms: 01 (one)
- Class rooms with ICT facility: Under development
- Students laboratories: One
- Research laboratories: One

List of doctoral, post-doctoral students and Research Associates

- from the host institution/university: 01
- from other institutions/universities: 02

Number of post graduate students getting financial assistance from the university: Nil
• Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology:

Yes, rigorous exercise like discussion and interactions are carried out before the launching of any new academic course or programme(s). The services of experts of the subject are also taken for the purpose if required.

• Does the department obtain feedback from

  – Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

• In Department Council we used to discuss the teaching learning problem and take the need based action to improve the scenario.

  – Students on staff curriculum and teaching learning-evaluation and how does the department utilize the feedback?

• There are formal questionnaires developed by the university for the purpose of obtaining feedback from the students on staff, curriculum as well as teaching learning evaluation. Data obtained from the feedback are analyzed and actions are taken to improve the conditions as per requirement.

  – Alumni and employers on the programmes offered and how does the department utilize the feedback?

• During the alumni meet and interaction with the employers their suggestions are solicited and accordingly resolutions are taken towards the positive improvements in the courses offered.
• List the distinguished alumni of the department (maximum 10)

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Name</th>
<th>Session</th>
<th>Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.</td>
<td>Shailendra Kumar</td>
<td>2009-11</td>
<td>Mahavir Cancer Institute, Patna</td>
</tr>
<tr>
<td>02.</td>
<td>Chandan Kr. Singh</td>
<td>2009-11</td>
<td>Mahavir Cancer Institute, Patna</td>
</tr>
<tr>
<td>03</td>
<td>Soni Kumari</td>
<td>2009-11</td>
<td>Gaya College, Gaya.</td>
</tr>
<tr>
<td>05.</td>
<td>Nishu Kumari</td>
<td>2010-12</td>
<td></td>
</tr>
<tr>
<td>06.</td>
<td>Ataur Rahman</td>
<td>2011-13</td>
<td>Hellis Company</td>
</tr>
</tbody>
</table>

• Give details of student enrichment programmes (special lectures/workshops/seminar) involving external experts:

• Periodically Seminar, Workshops and special lectures are organized in which external experts are invited or during the visit of distinguished and renowned personalities related to faculty in the campus are invited to interact with students and deliver lectures.
• List the teaching methods adopted by the faculty for different programmes.
  • Conventional.
  • Power Point Presentation.
  • O.H.P. Presentation
  • Audio-visual aids (films and videos on subject related topic).
  • Case study Method.

• How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

  • Through Internal assessment seminar.

• Highlight the participation of students and faculty in extension activities.

  • Students and faculty are volunteering their services towards various community development programmes independently and/or in association with NSS activities.

• Give details of "beyond syllabus scholarly activities" of the department.
  • Organization of extra-mural lectures
  • Seminars and conference.
  • Screening of research proposals and practical training of research students.

• State whether the programme/department is accredited/graded by other agencies? If yes, give details: No
Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

- Research of the department reported in Ph.D. Theses are send for its inclusion in the Shodhganga that is the main source of contribution to the treasure of knowledge.
- Basic knowledge of Clinical Biochemistry.
- Knowledge of ground water contamination.
- Knowledge of PS3 and Carcinogenesis.

Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

**Strengths:**
- Modern Biochemistry Lab.
- Temp. Controlled Seminar Hall with ceiling mount LCD Projector and audio system.
- Equipment’s such as gel electrophoresis, PCR, HPLC, Ultra Centrifuge, UV spectrophotometer.
- Good stock of Biochem books.
- Specialized faculty members.
Weaknesses:
• Posts of teaching faculty and supporting staff still not sanctioned, though proposed has been submitted earlier.
• Lack of Biochemistry Journals.
• Lack of Internet connectivity.
• Lack of separate lecture hall.
• Lack of technical staff.

Opportunities:
• The department of Biochemistry with having a modern laboratory and research equipment’s there is opportunities to students for acquiring knowledge of Biochemistry particularly medical Biochemistry.

Challenges:
• In view of the changing era of globalization and competitive job opportunities, there is need to cope with separate infrastructure, faculty status and a library.

Future plans of the department
• The department of Biochemistry purposes to develop its own separate infrastructure with latest designed laboratory and library.
• Further the department proposes to get the posts of teaching and supporting staff sanctioned by the stat Govt. to ensure the punctity of regular faculty on prescribed UGC scale.
• It is our priority efforts to get the status of a regular mode instead of self-finance and to get regular grants from the state govt.
Dr. Shivadhar Sharma

D.O.B.-

M.Sc.- 1974, Ph.D.-1984

Teaching Experience: -40

Designation: Director

Institute of Biochemistry,

Magadh University, Bodh Gaya
The End