Department of Mathematics

1. Name of the Department: Department of Mathematics


3. Names of Programmes/Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.): UG

4. Names of Interdisciplinary courses and the departments/units involved: Nil

5. Annual/semester/choice based credit system (programme wise): Annual based credit system.

6. Participation of the department in the courses offered by other departments:
   The department involved in the teaching, learning process in the courses offered by the other department, such as Business Mathematics and Statistics of commerce department.

7. Courses in collaboration with other universities, industries, foreign institutions, etc.: Nil

8. Details of courses/programmes discontinued (if any) with reasons: Nil

9. Number of Teaching posts

<table>
<thead>
<tr>
<th></th>
<th>Sanctioned</th>
<th>Filled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>Associate Professors</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>Asst. Professors</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>
10. **Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D. / M. Phil. etc.,)**

<table>
<thead>
<tr>
<th>Name</th>
<th>Qualification</th>
<th>Designation</th>
<th>Specialization</th>
<th>No. of Years of Experience</th>
<th>No. of Ph.D. Students guided for the last 4 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Prasanta Sinha</td>
<td>M.Phil./Ph.D.</td>
<td>Associate Professor/Reader</td>
<td>Topology</td>
<td>13</td>
<td>Nil</td>
</tr>
<tr>
<td>Prof. Bankim Nasipuri</td>
<td>M.Sc.</td>
<td>Asst. Professor</td>
<td>OR/Mathematical Biology</td>
<td>10</td>
<td>Nil</td>
</tr>
<tr>
<td>Dr. Nishir Ranjan Banerjee</td>
<td>Ph.D.</td>
<td>Guest Lecturer</td>
<td>Integral Transform</td>
<td>30</td>
<td>Nil</td>
</tr>
<tr>
<td>Prof. Dipak Kr. Jana</td>
<td>M.Sc.</td>
<td>Guest Lecturer</td>
<td>Functional Analysis</td>
<td>1</td>
<td>Nil</td>
</tr>
</tbody>
</table>

11. **List of senior visiting faculty:** Nil

12. **Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:** No practical classes are assigned to temporary faculty.

13. **Student -Teacher Ratio (programme wise)**
   i) For Honours course- 27:1
   ii) For General course- 36:1
   iii) For Commerce course- 62:1

14. **Number of academic support staff (technical) and administrative staff; sanctioned and filled:** Nil

15. **Qualifications of teaching faculty with D.Sc./D.Litt./Ph.D./M.Phil. /P.G.**
   i) Teaching faculty with M.Phil. and Ph.D-1
   ii) Teaching faculty with Ph.D. -1
   iii) Teaching faculty with M.Sc. -2

16. **Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:** Nil
17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: Nil

18. Research Centre /facility recognized by the University: Nil

19. Publications: See Annexure

* a) Publication per faculty
* Number of papers published in peer reviewed journals (national / international) by faculty and students
* Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)
* Monographs
* Chapter in Books
* Books Edited
* Books with ISBN/ISSN numbers with details of publishers
* Citation Index
* SNIP
* SJR
* Impact factor
* h-index

20. Areas of consultancy and income generated: Nil

21. Faculty as members in
   a) National committees b) International Committees c) Editorial Boards: Nil

22. Student projects
   a) Percentage of students who have done in-house projects including inter departmental/ programme: Nil
   b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: Nil

23. Awards/ Recognitions received by faculty and students: Nil

24. List of eminent academicians and scientists / visitors to the department:
   i) Dr Bijan Bagchi, Dept. of Applied Mathematics, University of Calcutta.

25. Seminars/ Conferences/Workshops organized & the source of funding
   a) National: Nil   b) International: Nil
26. **Student profile programme/course wise:**

<table>
<thead>
<tr>
<th>Name of the Course/programme (refer question no. 4)</th>
<th>Applications received</th>
<th>Selected #</th>
<th>Enrolled</th>
<th>Pass percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013-2014 (Hons.)</td>
<td>150</td>
<td>24</td>
<td>17</td>
<td>Not yet completed</td>
</tr>
<tr>
<td>2013-2014 (Gen.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012-2013 (Hons.)</td>
<td>116</td>
<td>27</td>
<td>10</td>
<td>72</td>
</tr>
<tr>
<td>2012-2013 (Gen.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*M = Male  */F = Female

#: Every applicant who qualifies University norms is included in the merit list through on-line admission. As per intake capacity approved by Calcutta University students are enrolled strictly on merit basis.

$ Results pertains to Part-III (Hons)

27. **Diversity of Students**

<table>
<thead>
<tr>
<th>Name of the Course</th>
<th>% of students from the same state</th>
<th>% of students from other States</th>
<th>% of students from abroad</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hons. &amp; Gen.</td>
<td>100</td>
<td>Nil</td>
<td>Nil</td>
</tr>
</tbody>
</table>

28. **How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the Students</th>
<th>Passing year</th>
<th>Qualified</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dipankar Manna</td>
<td>2004</td>
<td>SSC</td>
</tr>
<tr>
<td>2</td>
<td>Mita Routh Dhara</td>
<td>2004</td>
<td>SSC</td>
</tr>
<tr>
<td>3</td>
<td>Sanjib Kuila</td>
<td>2005</td>
<td>SSC</td>
</tr>
<tr>
<td>4</td>
<td>Partha Sarathi Dhara</td>
<td>2005</td>
<td>SSC</td>
</tr>
<tr>
<td>5</td>
<td>Sandipan Patra</td>
<td>2006</td>
<td>SSC</td>
</tr>
<tr>
<td>6</td>
<td>Arka Saha</td>
<td>2006</td>
<td>SSC</td>
</tr>
<tr>
<td>7</td>
<td>Sk Sarif Hassan</td>
<td>2006</td>
<td>Pursuing Post Doc. in TIFR</td>
</tr>
<tr>
<td>8</td>
<td>Manojit Das</td>
<td>2006</td>
<td>NET</td>
</tr>
<tr>
<td>9</td>
<td>Hiranmoy Biswas</td>
<td>2007</td>
<td>SSC</td>
</tr>
<tr>
<td>10</td>
<td>Dipak Kr Jana</td>
<td>2010</td>
<td>NET, SSC</td>
</tr>
</tbody>
</table>
29. **Student progression**

<table>
<thead>
<tr>
<th>Student progression</th>
<th>Against% enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>UG to PG</td>
<td>Nil</td>
</tr>
<tr>
<td>PG to M.Phil.</td>
<td>Nil</td>
</tr>
<tr>
<td>PG to Ph.D.</td>
<td>Nil</td>
</tr>
<tr>
<td>Ph.D. to Post-Doctoral</td>
<td>Nil</td>
</tr>
</tbody>
</table>

**Employed**
- Campus selection: Nil
- Other than campus recruitment: Nil

**Entrepreneurship/Self-employment**: Nil

30. **Details of Infrastructural facilities**

a) **Library**: The department has its own departmental library consisting of 300 books which is open for students as well as for faculty. Moreover the college has a central library for lending books which is well stocked with books, different magazine and journals. Besides this each students can lend one book from Book Bank.

b) **Internet facilities for Staff & Students**: Common internet access in the library. Internet facilities for Staff and students are also available in the departmental lab.

c) **Class rooms with ICT facility**: Nil

d) **Laboratories**: Department has a Numerical Laboratory consisting of 6 Computers with a printer along with computing apparatus.

31. **Number of students receiving financial assistance from college, university, government or other agencies**: A good numbers of students coming from economically weak family receive financial assistance from college’s aid fund under the head full/half-free ship

32. **Details on student enrichment programmes (special lectures / workshops / seminar) with external experts**: None

33. **Teaching methods adopted to improve student learning**:

   Our college offers only UG program. Besides usual class teaching such as chalk and talk with detail board work, we supply different problems to enhance their capability of solving problems. We sometimes give power point presentation to illustrate some topics graphically and lucidly. We emphasize on interactive learning through different questions and discussions within or outside the classroom.

34. **Participation in Institutional Social Responsibility (ISR) and Extension activities**: College has a NSS unit. Accordingly our students participate and involve in different social activities through NSS unit.
35. SWOC analysis of the department and Future plans:

**Strength**
- Separate Numerical lab with internet facility.
- Departmental Library with a good number of books.
- Faculty from both the fields Pure and Applied mathematics.
- Students are obedient and very keen to learn.

**Weakness**
- Lack of full time teachers.
- Majority of our students come from neighboring rural places with economically weak background this often leads to discontinuation of studies.
- Space problem in Numerical lab.

**Opportunity**
- Being a basic subject in science, there is much demand for this subject in the academic profession.
- Students from this department other than pursuing Post Graduation Courses in Mathematics, can join many professional courses e.g., IT sector, Diploma in statistical Data Analysis, B.Tech in Computer Sciences, Instrumentation and Electronics, Instrumentation and communication and Management in Business Administration which lead to a good job.

**Challenges**
- Our students are ordinary in merit and admitted to this course with an average marks.
- In most cases, students are first generation who are studying graduation course. They do not have an aptitude for science and hence this comes as a challenge to the faculty to motivate them.

**Future plans**
- Conduct seminar, workshop and Conferences.
- Increase number of computers in lab.
- Upgradation of existing infrastructure.
Annexure: Publications

a. Publication of Dr. Prasanta Sinha
• s-cluster set and s-closedness. Analele stiintifice ale universitatii “ Al.I Cuza” DIN IASI(S.N), MATHEMATICA, Tomul LIV, 2008, f.1 Romania
  ISSN: 1221-8421, I.F-NA
  ISSN: 1512-0007, I.F-NA
  ISSN: 0129-2021, I.F-NA

b. Publication of Bankim Nasipuri
  ISSN: 0973-7537, I.F-Still computing
  ISSN: 2195-2698 (Electronic version), 2195-268X (Print version), I.F-Still computing
  ISSN: 1807-0302 (Electronic version), 0101-8205 (Print version), I.F-.452 (2012)