K.B.C. North Maharashtra University, Jalgaon,

## DEPARTMENTAL PROFILE

## DEPARTMENT OF MATHEMATICS

2018-2023


Dr. A. R. Patil (M. Sc. Ph. D)

Head of the Department of Mathematics

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## 1. Introduction :

The Mathematics department came into existence in 1989, with the inception of the faculty of Science. At that time, the department was represented by one teacher namely Mr. P.R. Kolhe. In the year 1990 a new appointment of Mr. A. R. Gotmare. Mathematics at special level was started in 1991. This initiated the progress of department on all fronts. At that time Prof. Mrs. P.S. Mahajan was appointed. Mr. A .R. Gotmare was appointed as H.O.D. in 1991. In the year 1993-94 Mr. I. M. Jadhav was appointed. In 2015, Post Graduate Department was established. Miss. K. C. Rajput, Mr. P. S. Sharma, Mr. V. P. Khatik are working as contractual basis.

## GOALS \& OBJECTIVES:

1. To make the students aware about higher study in mathematics.
2. To promote independent Mathematical thinking among the students.
3. To inculcate numerical skills among the students.
4. To enhance knowledge about Public Sector \& Mathematical Examination.
5. To acquaint students with various concepts of Mathematics.

## DEPARTMENT OF MATHEMATICS

1. Name of the department: Department of Mathematics
2. Year of Establishment: : 1989
3. Names of Programs / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) : B. Sc. Mathematics and M. Sc. Mathematics
4. Names of Interdisciplinary courses and the departments/units involved Quantitative Techniques Commerce Department

| Interdisciplinary Courses | Department Involved | Level Of Study |
| :--- | :--- | :--- |
| Quantitative Techniques <br> B.Com. | Department of Commerce | UG |
| Remedial Coaching .B.A. | Department of Arts | UG |
| Banking Mathematics. B.A. | Department of Arts | UG |

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

## B. Sc. Mathematics Semester System

M. Sc. Mathematics Semester System NEP 2020
6. Participation of the department in the courses offered by other departments

## B. Com. Quantitative Techniques <br> B.Com. Business Mathematics

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: 03

| Teaching Posts Undergraduate | Sanctioned | Filled |
| :---: | :---: | :---: |
| Professors | 01 | 01 |
| Associate Professors | 01 | 01 |
| Asst. Professors | 01 | 01 |


| Post Graduate | Sanctioned | Filled |
| :--- | :---: | :---: |
| Asstt. Prof. | 03 | 03 |

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,): Under Graduate

| Name | Qualification | Designation | Specialization | No. of <br> Years of <br> Experience | No. of <br> Ph.D. <br> Students |
| :--- | :---: | :--- | :--- | :---: | :---: |
| Dr. A.R. Patil | M.Sc. Ph.D. | Professor | Mathematics <br> Algebra | 33 | 02 |
| Sau.P.S.Mahajan | M. Sc. | Associate <br> Professor | Mathematics | 32 | ---- |
| Mr. I. M. Jadhav | M.Sc. | Asst. <br> Professor | Mathematics | 30 | ---- |

## POST GRADUATE:

| Dr.A.R.Patil | M.Sc. Ph.D. | Contributory |
| :--- | :--- | :--- |
| Mr. P. S. Sharma | M.Sc., SET | Contractual |
| Miss. B. S. Jaiswal | M.Sc. | Contractual |
| Miss. K. A. Hadap | M.Sc. | Contractual |

11.List of senior visiting faculty

| Prof. S. R. Chaudhari | KBC NMU Jalgaon |
| :--- | :--- |
| Dr. H L Tidake | KBC NMU Jalgaon |

12. Percentage of lectures delivered and practical classes handled (programme wise) By temporary faculty : Nil
13. Student -Teacher Ratio (Programmed wise)

| Year | F. Y. B. Sc. | S. Y. B. Sc. | T. Y. B Sc. | Student Teachers ratio |
| :---: | :---: | :---: | :---: | :---: |
| $2017-18$ | 102 | 74 | 32 | $69: 1$ |
| $2018-19$ | 90 | 61 | 26 | $59: 1$ |
| $2019-20$ | 62 | 73 | 22 | $52: 1$ |
| $2020-21$ | 57 | 61 | 20 | $46: 1$ |
| $2021-22$ | 45 | 48 | 13 | $35: 1$ |
| $2022-23$ | 66 | 30 | 11 | $36: 1$ |


| Year | M.Sc.-I | MSc-II | Students - Teachers Ratio |
| :---: | :---: | :---: | :---: |
| $2017-18$ | 29 | 30 | $20: 1$ |
| $2018-19$ | 10 | 13 | $8: 1$ |
| $2019-20$ | 09 | 09 | $6: 1$ |
| $2020-21$ | 15 | 09 | $8: 1$ |
| $2021-22$ | 07 | 13 | $7: 1$ |
| $2022-23$ | 02 | 06 | $3: 1$ |
| $2023-24$ | 01 | 02 | $3: 1$ |

14.Number of academic support staff (technical) and administrative staff; sanctioned and filled: One lab attendant.
15. Qualifications of teaching faculty with Ph.D./PG.
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: Yes

## 19. Publications:

| Name of the Faculty Member | No. of pa in peer re journals | per published iewed | No. of publications listed in International data base |  |  |  |  |  | $\sum_{n}^{e}$ | $\underset{\sim}{n}$ |  | $\stackrel{\text { ® }}{\text { - }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | National | International |  |  |  |  |  |  |  |  |  |  |
| Dr. A. R. Patil | 10 | 05 | - | -- | 24 | -- | 15 | - | -- | -- |  |  |
| Mr. I. M.Jadhav | -- | 01 | -- | -- | 14 | -- | 14 | -- | -- | -- | -- | -- |
| Mrs. P.S. Mahajan | - | - | - | - | - | - | - | - | - | - | - | - |

20. Areas of consultancy and income generated: Nil
21. Faculty as members in
a) National committees : NIL
b) International Committees : NIL
c) Editorial Boards : Dr. A. R. Patil
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: Project Presented by Third Year Students In "AVISHKAR "conducted by N M U Jalgaon 20\%
23. Awards / Recognitions received by faculty and students: Nil
24. List of eminent academicians and scientists / visitors to the department Prof. K. F. Pawar, KBC NMU, Jalgaon

Prof. J. N. Chaudhari, M. J. College, Jalgaon
Dr. C. T. Aage, KBC NMU, Jalgaon
25. Seminars/ Conferences/Workshops organized \& the source of funding
a) National

| Conference/workshops | National | Funding Agency |
| :--- | :--- | :--- |
| F. Y. B. Sc. Mathematics Syllabus |  |  |
| Restructuring Workshop 22 |  |  |
| Sep | University | College Funded |
| September 2023 |  |  |




Syllabus Framing Workshop Of F.Y.BSc Mathematics As Per NEP - 2020 On $22^{\text {nd }}$ Septmber 2023
b) International : NIL
26. Student profile programme/course wise:

| Name of the | Applications |  | Enrolled |  | Pass |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Course/program <br> me (refer question | Selected <br> received | M | F | percentage |  |
| B.Sc. 2018-19 | 26 | 26 | 05 | 21 | $92 \%$ |
| B.Sc. 2019-20 | 22 | 22 | 04 | 18 | $100 \%$ |
| B.Sc. 2020-21 | 20 | 20 | 03 | 17 | $100 \%$ |
| B.Sc. 2021-22 | 13 | 13 | 01 | 12 | $92 \%$ |
| B.Sc. 2022-23 | 11 | 11 | 01 | 10 | $91 \%$ |

$$
* \mathrm{M}=\text { Male } \quad * \mathrm{~F}=\text { Female }
$$

27. Diversity of Students: All students enrolled in every year one from same state.
28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? NET - 01, SET-06
29. Student progression

| Student progression | Against \% enrolled |
| :--- | :---: |
| UG to PG | $75 \%$ |
| PG to M.Phil. | - |
| PG to Ph.D. | $20 \%$ - |
| Ph.D. to Post-Doctoral | - |
| Employed <br> - Campus selection <br> - Other than campus | - |
| Entrepreneurship/Self- <br> employment | - |

30. Details of Infrastructural facilities
a) Library: The Central Library which is
quite rich in collection of old and new
300 books.
DEPARTMENTAL BOOKS- 70 Books- 05
Journals and Periodical : No
b) Internet facilities for Staff \& Students: Yes
c) Class rooms with ICT facility: Yes
d) Laboratories: No.
31. Number of students receiving financial assistance from college, university, Government or other agencies: Government scholarships and freeship available.
32. Details on student enrichment programmes (special lectures / workshops / Seminar) with external experts

| Year | Title / Type of programme | Name of Resource Person |
| :--- | :--- | :--- |
| $2017-18$ | For Net / Set preparation. | Dr. C. T. Aage |

## 33. Enrichment Courses

Class tests regularly conducted.
Extra Classes for revision of important chapters
Providing study materials and notes on selected topics.
Remedial Course: Special Attention for weak students.
Audio Visual Mode of mode of teaching (ZOOM Meet, Google Meet)


34.Teaching methods adopted to improve student learning ICT Based, Group Discussion, Question answer Method, Students Seminar.

## Interactive Sessions

Games and quizzes
Presentation and project based learning.

## Use of Mathematical Software like MATLAB, LATEX

Home Assignments.
Power Point Presentation

| Sr. no | Class | Name of Course | Topic |
| :---: | :---: | :---: | :---: |
| 1 | FYBSc | MTH 101 | Matrix Algebra |
| 2 |  | MTH202 | Theory of Equation |
| 3 | SYBSc | MTH302(A) | Group Theory |
| 4 |  | MTH404 | Vector Calculus |
| 5 | TYBSc | MTH 502 | Real Analysis I |
| 6 |  | MTH602 | Real Analysis II |
| 7 |  | MTH 503 | Algebra |
| 8 |  | MTH 603 | Linear Algebra |


35.Participation in Institutional Social Responsibility (ISR) and Extension activities *The students and faculty members regularly participate in the institutional Social responsibilities and Extension activities organized by the college. One faculty Mrs. P.S .Mahajan takes active role in IRS. She organized Rubella Vaccination camps, woman's empowerment workshops and she is also the chairperson of women's Harassment redressal cell of the college.
36. SWOT analysis of the department and Future plans

Strength: Dedicated and Qualified faculty
Good stock of Books in Departmental library.
Good reference books are available.
Opportunities: Career oriented courses such as Financial Mathematics, could be designed. Students passed out with good result in Mathematics from this department get opportunities for higher studies in various fields like pure and applied Mathematics in different universities.

## Challenges:

Improving research output.
Work hard for betterment of the students.
To make the students academically strong.

## Highlights

## Departmental Prides:

| Sr. No. | Name of the Student | Event | Date | Level | Rank |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | Patil Vaishnavi Dnyaneshwar | StudentSeminar | $\begin{gathered} 15^{\text {th }} \text { October } \\ 2022 \end{gathered}$ | University | Second |
| 2. | Patil Sakshi Ravindra |  |  |  | -- |
| 3. | Savankar Aachal Jitendra | Poster <br> Presentation | $\begin{aligned} & 3_{2022}^{\text {rd }} \text { Sept } \end{aligned}$ | College | First |
| 4. | Lodha Komal Surendra |  |  |  | Second |
| 5. | Patil Vaishanvi Dnyaneshwar |  |  |  | Third |
| 6. | Lodha Komal Surendra | Essay <br> Writing <br> Competition | $26^{\text {II }}$November2022 | College | Second |
| 7. | Savankar Aachal Jitendra |  |  |  | Third |
| 8. | Patil Sakshi Ravindra Lodha Komal Surendra Deshmukh Neha | Science Quiz Competition | 28 Feb .2023 | College | First |

## Photo Gallery:

University level student Seminar organized by Science Association
Miss Vaishnavi Patil Stood II ${ }^{\text {nd }}$ rank




## Department of Mathematics

G. D. M. Arts, K. R. N. Commerce and M. D. Science College, Jamner, Dist. Jalgaon. List of Alumni

| Sr. No. | Name of Alumni | Degree | Present Position |
| :---: | :---: | :---: | :---: |
| 1. | Ritesh Pandit Jadhav | M. Sc., SET | Lecturer at SSVPS Science College, Dhule |
| 2. | Dr. Golhare Pradip Gunwant | M.Sc., NET, Ph. <br> D. | Lecturer in Sr. College, Soygaon. |
| 3. | Dr. Dnyaneshwar R. Nhavi | M. Sc., SET, Ph. D. | Lecturer in Sr. College at Jalgaon |
| 4. | Dr. Nikam Vidya Ramdas | $\begin{aligned} & \text { M.Sc., NET, Ph. } \\ & \text { D. } \end{aligned}$ | Lecturer At Nasik |
| 5. | Sharma Pramodkumar Sohanlal | M. Sc., SET | Lecturer in Sr. Collage. |
| 6. | Patil Hemant Bhagawat | M.P.S.C. | Tahsildar. Dhamangaon Railway Dist. Amrawati |
| 7. | Patil Vaishali Deoram | M.Sc. | Lecturer in Jr. College |
| 8. | Kapse Neha Gajanan | M. Sc. | Lecturer in Engineering College at Jalgaon |
| 9. | Khatik Vijay P. | M. Sc, B.Ed. | Assistant Teacher in Lord Ganesha English Medium School, Jamner |
| 10. | Gavhane Ajay Dnyaneshwar | M. Sc., B. Ed | Lecturer in Govt. Polytechnic college, Jalgaon. |
| 11. | Teli Gajanan Mohan | B. Sc., M. A. | Trackman at Indian Railway. |
| 12. | Mahajan Rameshwari D. | M.Sc, B.Ed. | Lecturer in Jr. <br> Collage..Dombiwali. |
| 13. | Bagul Pandhari | M. Sc., SET | Lecturer in Engineering College at Pune |
| 14. | Vanjari Gajanan Santosh | M. Sc., SET | Lecturer in Engineering College at Pune |
| 15. | Janjal Pranav Mukuknda | M. Sc. | Pursuing M. B. A. at Manipal |
| 16. | Sonni Shital Dnyaneshwar | M. Sc. | -- |
| 17. | Saiyyad Saniya Sharafa Ali | M. Sc. B.Ed. | Working at Coaching Classes |
| 18. | Saiyyad Faeeza Jahangir Ali | M. Sc | -- |
| 19. | Patil Gayatri Sarangdhar | M. Sc., B. Ed. | Working at Coaching Classes |
| 20. | Karad Bhagyashri Sunil | M. Sc. | -- |
| 21. | Tayade Smita Santosh | M. Sc., B. Ed. | -- |
| 22. | Patil Sumit Nivrutti | M. Sc., B. Ed. | Studying Germany Language |
| 23. | Pol Yogesh Ashok | M. Sc. B. Ed. | Working at Junior College in Jamner |
| 24. | Tadvi Amin Sherkha | M. Sc., B. Ed. | Working in School |


| 25. | Pawar Pradipkumar V. | M. Sc., B. Ed. | Working at Coaching Classes |
| :---: | :--- | :--- | :--- |
| 26. | Rane Puja Milind | M. Sc. | -- |
| 27. | Ahirrao Shital Manoj | M. Sc. | -- |
| 28. | Patil Nikita Sunil | M. Sc. | -- |
| 29. | Gadakh Nayana Madhukar | M. Sc. | -- |
| 30. | Savkare Vishakha Pandurang | M. Sc. | -- |
| 31. | Chaudhari Harshada Bapu | M. Sc. | -- |
| 32. | Chaudhari Kanchan Suresh | M.Sc. | -- |
| 33. | Rajput Shraddha Rajendra | M. Sc. | -- |
| 34. | Tahakale Hema S. | M. Sc. | -- |
| 35. | Umbarkar Mittal Rajendra | M. Sc. | -- |
| 36. | More Dipali Raju | B. Sc. | -- |

## Future plans :

- To organize National Level Conference.
- To start certificate courses
- To make department with well-equipped computer laboratory.
- To make teachers training programmers for Mathematics
- To bring more research projects for the Department.
- To organize classes for NET/SET Exam.
- To organize educational tours.

