



GOVERNMENT OF MAHARASHTRA
INSTITUTE OF SCIENCE

(Affiliated to Dr. Babasaheb Ambedkar Marathwada University, Aurangabad)

Nipat Niranjana Nagar, Caves Road,
Aurangabad- 431 004, Maharashtra

ANNUAL QUALITY ASSURANCE REPORT

2006-2007

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL
(An autonomous institution of University Grants Commission)

P. O. Box No. 1075, Opp. NLSIU, Nagarbhavi, Bangalore – 5600 072,
Karnataka



Annual Quality Assurance Report (AQAR) of the IQAC

Academic Year
2006-07

PART – A

The plan of action chalked out by the IQAC in the beginning of the year towards quality enhancement and the outcome achieved by the end of the year

1. Foster the goals and objectives of the Institute with implementable solutions.
2. Encourage the faculty members to contribute to syllabi designing and revisions.
3. Motivate to the teaching staff in faculty development programmes.
4. Organize and participate in seminars/workshops/conferences.
5. Focus on research activities to be carried out by staff and students.
6. Provide consultancy services to industries and institutions.
7. Motivate faculty members and students to participate in extension activities and community services.
8. Inviting experts from various fields and alumni for guest lectures, seminars, workshops, conferences, competitive exam guidance, arrangements for summer trainings, industry visits, etc.
9. Creating health awareness amongst the students.
10. Encourage students to participate in co- and extra-curricular activities.
11. Undertake efforts to submit research proposals to different funding agencies.
12. Organize Parents'-Teachers' meet in the Departments for increasing interactions between the parents, teachers and students.

PART-B

PART B – 1 Activities reflecting goals and objectives of the Institution

1. The faculty members contributed to syllabi designing and revision as a part of various University committees.
2. The faculty members participated in refresher courses.
3. Various seminars were conducted in the Departments throughout the year and during the National Science Day Celebrations.
4. The faculty members published research papers in peer-reviewed journals presented papers in conferences.
5. The consultancy services were provided by all the Departments.
6. Various popular lectures, slide shows, street plays and Radio talk were organized during the National Science Day celebrations in various schools and public places.

7. Summer trainings were organized for students in industries in consultation with alumni.
8. Blood donation camp was organized by NSS unit.
9. Students participated in science exhibitions, conferences, youth festivals and sports meet.
10. Four new research projects were sanctioned to the faculty members by UNIVERSITY GRANTS COMMISSION and BOARD OF COLLEGE AND UNIVERSITY DEVELOPMENT, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.. Four projects were completed during the year.
11. To organize Parents'-Teachers' meet in the Departments for increasing interactions between the parents, teachers and students.

PART B – 2. New Academic programmes initiated (UG and PG)

- Nil.

PART B – 3. Innovations in curricular design and transaction

Members of the Teaching Staff of the Institute hold responsible positions in University committees, where in based on important decisions taken contribute to value addition in the teaching-learning process. A list of staff members serving on University committees is given below:

- Dr. S. G. Gupta, Chairman, Ad-Hoc Board, Microbiology
- Dr. S. G. Gupta, Chairman, Ad-Hoc Board, Biotechnology
- Mr. S.G. Kulkarni, Chairman, Ad-Hoc Board, Biophysics
- Dr. S.M. Deshpande, Chairman, Ad-Hoc Board, Geology
- Dr. Mrs. S. M. Dharmadhikari, Member, Ad -Hoc Board, Microbiology
- Dr. S. A. Peshwe, Member, Ad-Hoc Board, Biotechnology

All the above mentioned staff members were members of committees constituted for the purpose of framing syllabi of the respective PG programs.

PART B – 4. Interdisciplinary programme started

- The subjects in which PG education and research is implemented are interdisciplinary in nature. The subject content of M.Sc. courses include the interdisciplinary and application-based approach. Students register for Ph.D. in Biotechnology under the interdisciplinary Ph.D. programme.

PART B –5. Examination reforms implemented

- Examination reforms are under the purview of the University. Therefore, the procedures adopted are as per the directives of Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.
- Revised syllabi of various subjects were implemented as per the guidelines of the University. Examinations were conducted according to the pattern prescribed by the University.

PART B – 6. Candidates qualified: NET/SET/GATE etc.

Name of examination	Number of qualified candidates
NET	03
SET	----
GATE	----

PART B – 7: Initiative towards faculty development programme

Participation of faculty members in various training courses/refresher courses.

Sr. No.	Name of faculty	Faculty development programme	Department
1.	Ms. P. N. Puthan	Refresher course at Academic Staff College Kerala University, Trivandrum	Microbiology
2.	Mrs. S. K. Jangam	Refresher course at Academic Staff College Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.	Biotechnology
3.	Mrs. V. N. Wadekar	Refresher course at Academic Staff College, University of Pune	Biophysics

- Teachers pursuing Ph.D.

Sr. No.	Name of Faculty member	Department	Year of Registration
1	Ms. Shahnaz Farooqui	Microbiology	1993
2	Ms. P.N. Puthan	Microbiology	1993
3	Mrs. A.S. Vinchurkar	Biophysics	1987
4	Mrs. S.K. Jangam	Microbiology	2000
5	Dr. A. G. Jadhav	Microbiology	2006
6	Dr. A. N. Dongre	Geology	2005

PART B – 8: Total number of seminars/workshops conducted: 6

- Seminar on the theme “Molecular Phylogeny and Taxonomy” by Dr. Yogesh Souche, Scientist E, NCCS, Pune and organized by Biotechnology Department and conducted by.
- Seminar series and slide show on “Improvement of crop productivity through water literacy” by Dr. Datta Deshkar, Dr. Anagha Sanjeev, Dr. Kahalekar and Dr. R. R. Deshpande organized under National Science Day celebrations.

PART B – 9: Research Projects a) Newly Implemented b) Completed

Sr. No.	Name of PI	Funding Agency	Completed/Newly implemented
1	Dr. S. A. Peshwe	UNIVERSITY GRANTS COMMISSION, WRO, Pune	Completed
2	Dr. S. G. Gupta	UNIVERSITY GRANTS COMMISSION, WRO, Pune	Completed
3	Mrs. S. S. Farooqui	UNIVERSITY GRANTS COMMISSION, WRO, Pune	Completed
4	Mrs. P. N. Putan	UNIVERSITY GRANTS COMMISSION, WRO, Pune	Completed
5	Dr. S. M. Deshpande	UNIVERSITY GRANTS COMMISSION, WRO, Pune	Newly implemented
6	Dr. R. A. Satpute	UNIVERSITY GRANTS COMMISSION, WRO, Pune	Newly implemented
7	Dr. Sahera Nasreen	UNIVERSITY GRANTS COMMISSION, WRO, Pune	Newly implemented
8	Dr. Mrs. S. M. Dharmadhikari	Board of University and College Development, Dr. Babasaheb AMbedkar Marathwada University, Aurangabad	Newly implemented

PART B – 10. Patents Generated, if any

- No patents were filed this year

PART B – 11. New Collaborative Research Programme

- No new collaborative research programmes were initiated in this year.

PART B – 12. Research grants received from various agencies

Sr. No.	Name of Faculty member	Amount (Rs.)	Funding Agency
1	Dr. S. A. Peshwe	70,000	UNIVERSITY GRANTS COMMISSION, WRO, Pune
2	Dr. S. G. Gupta	55,000	UNIVERSITY GRANTS COMMISSION, WRO, Pune
3	Mrs. S. S. Farooqui	52,000	UNIVERSITY GRANTS COMMISSION, WRO, Pune

4	Mrs. P. N. Putan	48,000	UNIVERSITY GRANTS COMMISSION, WRO, Pune
5	Dr. S. M. Deshpande	1,00000	UNIVERSITY GRANTS COMMISSION, WRO, Pune
6	Dr. R. A. Satpute	45,500	UNIVERSITY GRANTS COMMISSION, WRO, Pune
7	Dr. Sahera Nasreen	55,000	UNIVERSITY GRANTS COMMISSION, WRO, Pune
8	Dr. S. M. Dharmadhikari	20,000	Board of University and College Development, Dr. Babasaheb AMbedkar Marathwada University, Aurangabad
Total		4,45,500	

PART B – 13. Details of Research Scholars

S. No.	Name of Research Scholar	Subject	Name of research Guide	Year of Registration	Year of Award
1	Mr. Ashfaque M. Khan	Botany	Dr.Sahera Nasreen	2005	----
2.	Mr. Ghogre D.S.	Botany	Dr.R.A. Satpute	2003	---
3	Mr. Dhulgand e G.S.	Botany	Dr. R.A. satpute	2003	---
4	Ms. R.S. Pandhare	Microbiology	Dr. S.G. Gupta	2004	----
5	Ms. S.A. Samrani	Microbiology	Dr. M.S. Andhale	2000	2006

6	Dr. Kranti Engade	Microbiology	Dr. S.G. Gupta	2001	---
7	Ms. Abhay Kshirsagar	Microbiology	Dr.M.S. Andhale	2001	---
8	Ms. Sphurti Choudhary	Microbiology	Dr. M.S.Andhale	2000	---
9.	Mr. Bhagwat Choure	Botany	Dr. S.K. Markandey	2003	---
10	Mr.G.L.Pachkore	Botany	Dr.S.K. Markandey	2002	----
11.	Mr. Datta Dhale	Botany	Dr.S.K. Markandey	2004	---
12.	Mr. Narendra n	Botany	Dr.K.G. Joshi	2003	----

PART B – 14. Citation Index of Faculty members and impact factor

Sr. No.	Name of the faculty	Department	Impact factor	Citations
1	Dr. S. K. Markandeya	Botany	0.06	-
2	Dr. Sahera Nasreen	Botany	2.36	-
3	Dr. Mrs. S. M. Dharmadhikari	Microbiology	0.08	-
4	Dr. Mrs. S. A. Peshwe	Microbiology	0.06	
5	Dr. S. M. Deshpande	Geology	0.06	

PART B – 15. Honors/Awards to the faculty

Dr.Mrs.Dharmadhikari S.M. : Awarded Best paper presentation award at the National Conference on Biotechnology held at Dayanand Science College, Solapur.

Dr.Mrs.Sahera Nasreen : Jewel of India award

- Dr.S.M.Deshpande : Appointed as NSS Area Co-ordinator for 2 years
(2006-2008)
- Dr. S. M. Deshpande : Received recognition as Ph.D. Guide in Geology.

PART B – 16. Internal Resources generated

Sr. No.	Name of Department	Resource generated (Rs.)
1.	Biophysics	2200
2.	Geology	2000

PART B – 17. Details of Departments getting SAP, COSIST / DST / FIST etc. assistance/recognition

- Institute has not received any financial assistance from national funding agencies under these schemes.

PART B – 18. Community services

- Popular lectures and slide shows were organized on the theme “KNOW YOUR NATURAL RESOURCES AND NURTURE THE NATURE” in different local schools as a part of National Science Day 2007 celebrations under the aegis of NCSTC Govt. of India and RGCSTC, Govt. of Maharashtra.
- Science and Technology Exhibition organized based on Eco Awareness for school and college students in the form of posters still models and working models as a part of National Science Day 2007 celebrations.
- Street play was conducted at local railway station, central bus stand and Begumpura on the topics, ‘POPULATION EXPLOSION AND ITS ILL EFFECT’ & ‘WATER SCARCITY AND MANGEMENT’ as a part of National Science Day 2007 celebrations
- Radio Talk on Nature’s enrichment via sustainable development was broadcast on Yuva Vani, Vidnyan Varta and Wasundhareche Ruun on All India Radio as a part of National Science Day 2007 celebrations
- Students and faculty of Biotechnology Department visited Navjivan – a centre for mentally retarded children and arranged a nature visit for them.

PART B – 19: Teachers and Officers newly recruited

- Dr. M. A. Sonar – Assistant Professor, Department of Geology, September 2006
- Mr. A. G. Jadhav – Assistant Professor, Department of Microbiology, March 2007
- Mr. A. N. Dongre – Assistant Professor, Department of Geology, March 2007

PART B – 20: Teaching, Non-Teaching ratio
Teaching:Non-Teaching Ratio
1.33:1

PART B – 21: Improvement in the Library Services

- New books and periodicals were purchased during the academic period.

PART B – 22: New books / Journals subscribed and their values

Purchase of journal/ books	Total number of journals / periodicals	Cost in Rs.
Indian journals	19	26, 454
Foreign journals	10	2,20068
Books	101	74,949
Total	130	3,21,471

PART B – 23: Courses in which student assessment of teachers is introduced and action taken on students feedbacks

Student feedback was obtained for all the courses conducted in the Institute. Based on the serious note of the feedback the specific issues are addressed with immediate effect.

The teachers are assessed regularly through the performance appraisal and confidential reports and on the basis of the teaching record, attendance record, annual report and result record.

PART B – 24: Unit cost of education

Year	Student Intake	Unit cost with salary component (Rs.)	Unit cost with non- salary component (Rs.)
2006- 07	184	51630.43	12635.87

PART B – 25: Computerization of administration and the process of admissions and examination results and issue of certificates

1. The administration section is partially computerized and therefore computerized mechanism is used for administration and process of admission.
2. Admission process is executed through computerization since 1992.
3. Examination process is under the purview of the affiliating University and it is computerized.
4. College has its own website, which is updated for the convenience of the users.
5. College has its own e-mail ID for timely and convenient communication with students, parents and other stakeholders.

PART B – 26: Increase in the infrastructural facilities

No new infrastructural facilities were developed during this academic year.

PART B – 27: Technology up-gradation

- The lectures and seminars in all the departments were engaged by faculty members using LCD Projectors and other ICT resources.
- Internet facilities were used by students and faculty members for downloading educational resources and literature for research work.

PART B – 28: Computer and internet access and training to teachers and students

- Computer training was made mandatory to the teaching and non-teaching staff.
- Common Internet facility was made available in library.
- Students were trained in basics of computer education.

PART B – 29: Financial aids to students

The State Government provides financial assistance for the students from weaker sections in the society such as the SC/ST/OBC and economically backward class. Approximately 50% of the students from M.Sc. course receive the scholarships and free ships. The institute facilitates disbursement of the financial aid from the government in the form of:

- Government of India Scholarship
- Government of India freeship
- Scholarship for economically backward (EBC) students
- Minority scholarship
- Scholarship for wards of Primary teachers (PTC)
- Scholarship for wards of secondary teachers (PTC)
- Merit scholarship

PART B – 30: Activities in support from alumni association

- Alumni employed at national and International institutions visit the Institute and mentor the students.
- The Alumni are invited to interact with students and faculty members, share their expertise, deliver lectures and suggest revisions in the syllabi.
- Alumni support students in recruitments and summer trainings.

PART B – 31: Activities in support from Parent – Teacher Association

- Parent-teacher association is yet to be established in the Institute. However, parents are invited for feedback on the curriculum.
- Parents' –Teachers' meet was held in all the five Departments.
- The faculty members interact closely with the parents to appraise them about the progress of the students and expectations of the institute.

- Parents are invited for discussion or counseling in order to find solutions for problems faced by individual students.

PART B – 32: Health Services

- The health facility is available at all the Government hospitals. In addition, the students can visit DKMM Homeopathic Hospital which is adjacent to the Institute.
- A blood donation camp was organized by the students.

PART B – 33: Performances in sport activities

- Students participated in annual sports event which is conducted by the institute every year.

PART B – 34: Incentives to outstanding sports person

- During annual social gathering various sports events like Cricket, Volley ball, Chess, Table tennis and Badminton were organized. Students were felicitated for their outstanding performances.

PART B – 35: Students achievements and Awards

- Students of all Departments secured top positions in University Merit Lists
- Students volunteered in NSS activities throughout the year and participated in NSS camps.
- Three students qualified UNIVERSITY GRANTS COMMISSION-CSIR NET.
- Students participated in the debate competition, science and technology exhibitions conducted during National Science Day Celebrations and won prizes in the competitions.

PART B – 36: Activities of the guidance and counseling unit

- Students are given information regarding admissions and counseling is done at the start of every academic year. Counseling is done throughout the year to explain the scope, applicability and opportunity in the concerned subjects.
- Students are guided for different competitive exams.
- Woman's redressal cell addresses girl students' problems and provides counseling.

PART B – 37: Placement services provided to student

- Students are being provided guidance for getting good placements in different industries as well as various government organizations.
- Guidance/recommendations are given to students for joining different organizations for summer trainings and placements.
- The hard copies and staff copies of employment advertisement have been displayed throughout the year for providing assistance in placements.

PART B – 38: Development programme to non-teaching staff

The non-teaching staff members were encouraged to undertake the computer courses.

PART B – 39: Healthy practices in the Institution

- The Institute motivated the students to organize programmes such as Annual Gathering, National Science Day and Guest Lectures and seminars.
- Microbiology and Botany departments provide microbial cultures free of cost to various colleges.
- Botany department offers services to the Government Forensic Laboratory.
- Summer trainings are organized for students in various industries.
- Blood donation camp was organized.
- Students are guided and motivated to prepare concise but in-depth descriptive cards of terms/concepts pertaining to the syllabus, now popular as the “R R Pattern”.

PART B – 40: Linkages developed with national / International, Academic / Research bodies

- Linkages were established with different organizations for summer project/training.

Name of the student	Department	Name of the research institute	Duration
Ms. Swarna Sontakke	Biotechnology	Bioinformatics, Pune university.	2 Months
Ms. Manorama Patre	Biotechnology	Env.Protection & Research Institute,Hydrabad	2 Months
Ms. Pooja Patel	Biotechnology	M.S. University Baroda	2 Months
Ms. Sapana Deoare	Biotechnology	BARC, Mumbai	2 Months
Ms. Anamica Bhurgate	Geology	Regional Remote Sensing Center, Nagpur	3 Months
Mr. Umesh Fuse	Geology	Maharashtra Remote Sensing Application Center	3 Months
Mr. Sushil Maske	Geology	Maharashtra Remote Sensing Application Center	3 Months
Mr. Mohammad Shafeeq M. T.	Geology	Radiation Biology & Health Science, Dept. BARC	4 Month
Mr. P. L. Sasane	Microbiology	Department of Chemical Biology, IICB, Kolkata	1 Month
Ms. Hoimee Day	Microbiology	IICS, Kolkata	2 Months
Ms. Shubhangi Joshi	Microbiology	BARC Mumbai	2 Months
Ms. Varsha Shingne	Microbiology	BARC, Mumbai	2 Months
Mr. Amol Jogdand	Microbiology	Vikas Dairy, Jalgoan	2 Months
Mr. Dilip Patil	Microbiology	Ajanta Pharma, Jalgoan	2 Months
Mr. Vivek Tembhurkar	Microbiology	ACTREC, Mumbai	2 Months
Ms. Jyoti Darvante	Microbiology	ACTREC, Mumbai	2 Months

PART B – 41: Any other relevant information the institutions wishes to add

- National Science Day was celebrated during Feb.12-28, 2007, under the aegis of National Council for Science & Technology Communications, Govt. of India and Rajiv Gandhi Science & Technology Commission, Govt. of Maharashtra. The theme of the celebration was “**MORE CROP PER DROP**”. The events organized during the celebrations were as follows:
 1. Seminar on “Improvement of crop productivity through water literacy.”
 2. Science Quiz Competition for school students.
 3. Debate competition for School and College students.
Topic for School students: “Can Geosciences and/or Bioscience achieve-*MORE CROP PER DROP?*”
Topic for College students: “River linking–is it ideal answer for water management?”
 4. Popular Lecture on – Tools for better agriculture organized in different schools of Aurangabad.
 5. Essay writing competition for school, college and University students.
 Topic for School students: “Agri-tech practices for water economy.”
 Topic for College students: “Crop improvement through advanced irrigation practices.”
 6. Farmers’ meet, topic: grow better in less water
 7. Science and technology exhibition, theme- more crop per drop (poster presentation, still models and working models based on theme “More Crop Per Drop”.
 8. Folk/mass communication and street plays, theme: Water conservation and management.
 9. Radio programme, theme: sustainable agriculture.
 The aim of organizing above events was to create scientific awareness amongst the general public.
- Students of Microbiology Department participated in Youth Festival organized by Rotary Club of Aurangabad and the Ashwamedh Table Tennis Competition
- Students of Microbiology Department also attended National Conferences held at Osmanabad, Hyderabad and Karim Nagar.

PART –C Outcomes achieved by the end of the year

1. The faculty members contributed to syllabi designing and revision as a part of various University committees.
2. The faculty members participated in refresher courses.
3. Various seminars were conducted in the Departments throughout the year and during the National Science Day Celebrations.
4. The faculty members published research papers in peer-reviewed journals presented papers in conferences.
5. The consultancy services were provided by all the Departments.
6. Various popular lectures, slide shows, street plays and Radio talk were organized during the National Science Day celebrations in various schools and public places.

7. Summer trainings were organized for students in industries in consultation with alumni.
8. Blood donation camp was organized by NSS unit.
9. Students participated in science exhibitions, conferences, youth festivals and sports meet.
10. Four new research projects were sanctioned to the faculty members by UNIVERSITY GRANTS COMMISSION and BOARD OF COLLEGE AND UNIVERSITY DEVELOPMENT, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad. Four projects were completed during the year.
11. To organize Parents'-Teachers' meet in the Departments for increasing interactions between the parents, teachers and students.

PART – D :Detail plans of the institution for the next year

1. Approaching towards goals and objectives of the Institute with implementable solutions.
2. Encouraging the faculty members to contribute to syllabi designing and revisions.
3. Motivation to the teaching staff in faculty development programmes.
4. Organization of and participation at seminars/workshops/conferences at the state, national level and Institute level.
5. Focus on research activities to be carried out by staff and students.
6. Providing consultancy services to industries and institutions.
7. Motivating faculty members and students to participate in extension activities and community services.
8. Inviting experts from various fields and alumni for guest lectures, seminars, workshops, conferences, competitive exam guidance, arrangements for summer trainings, industry visits, etc.
9. Creating health awareness amongst the students.
10. To encourage students to participate in co- and extra-curricular activities. Various events viz., seminars, scientific exhibitions, Quiz and essay competition will be organized in the institute under the head of National Science Day to enhance the scientific awareness amongst students and common people.
11. To undertake efforts to submit research proposals to different funding agencies.
12. To organize Parents'-Teachers' meet in the Departments for increasing interactions between the parents, teachers and students.