



MILAGRES COLLEGE

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Office of the Principal

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DEPARTMENT OF CHEMISTRY

Year: 2019-2020

✓ **Faculty**

Staff					
Sl.No.	Name of the Staff	Qualification	Status	Designation	Date of Joining the Service
01	Prof. Joseph Peter Fernnades	M. Sc.	Permanent	Associate Professor & HOD	01-07-1984
02	Rev. Dr (Fr) Prakash Anil Castelino	M Sc. Ph.D	Management	Asst. Professor	01-01-2019
Lab Asst	Mr. Dinakar Poojary	M.A.	Permanent	Lab Asst	

No. of Students

III B Sc	II B Sc	I B Sc
36	47	27

✓ **Action Plan 2019-2020**

The following activities have been planned for the academic Year 2019-20

1. Bridge course of 15 hrs. duration for I B.Sc. students.
2. Remedial Coaching for the slow learners.
3. Special coaching for the advanced learners for all the B Sc. students.
4. Seminars for the final B Sc. students.
5. Use of computers, Internet facilities in the department.
6. Arranging Guest lectures and extension lectures for the B.Sc. students.

7. Arranging University Level Seminar competition in association with Association of Chemistry Teachers of Mangalore University.
8. Arranging special programmes to popularize Chemistry such as science model competition, experiments with principle, science quiz, etc., for students of neighbouring P.U. College.
9. Arranging visits to chemical factories & Research Centres

✓ **Action Plan Implemented: Activities**

Action plan implemented or Activities Conducted During the Year 2019-2020

➤ **Curriculum:**

Classes, Laboratory experiments were conducted in accordance with the syllabus prescribed by the Mangalore University-UG course.

CBCS syllabus was implemented. At the end of the even semester the regular classes were suspended due to an outbreak of COVID-19. Online classes were conducted.

Programmes under the Mango Tree: The Students were eagerly waiting and actively participated in all programmes under the Mango tree. Programmes under the mango tree are conducted. The Mango tree at the centre of the campus is a point of shade and centre of talent nurturing activities. Every afternoon during the lunch break for an hour students gather under the mango tree and make speeches, conduct competitions, quiz, etc.

Value Education classes were conducted to inculcate social and moral values in science students. Every week one hour duration classes are conducted for all the degree students

Inspiration from an Alumnus Mr Ronald Rajesh Lewis

Along with the Department of Physical education, the Chemistry department organized inspirational programme to the students on 13-09-2019. An alumnus of the college, a prominent entrepreneur at Hongkong, Mr. Ronald Rajesh Lewis was the resource person.

Skill Deveopment programme

A skill development programme was organized on 18-09-2019 in which 111 science students participated and reaped benefits.

Career Guidance Programme

A Career guidance programme was conducted by the Chemistry Department along with Science Association on 13-01-2020. Mrs. Amline D'Souza, KAS, Commercial Tax Department, Mangalore Circle was the resurce person.

Fr G. D'Cruz Memorial Competitions

Late V. Rev. Fr G. D'Cruz memorial inter-collegiate Semianr competition was held on 22-02-2020 along with the Associations of Physics and Chemistry teachers of Mangalore University.

National Science Day Celebration

To mark the memory of Dr C. V Raman which falls on 28-02-2020, the National Science day, the same was celebrated in the college on 03-03-2020 under the leadership of students.

The year 2020 was full of uncertainties. COVID-19 had the impact. Mass gathewrings were not permitted. Hence ICT-Zoom Classes were in use. The Department prepared PPT of all 64 units to aid the students. Staff attended training programme on the effective use of ICT, as students were at home due to COVID-19 lockdown.

➤ Staff Achievements

Staff trainingProgramme on Communication Skills

Prof. Joseph Peter Fernandes and Dr (Fr) Prakash Anil Castelino attended staff training programme on communication skill on 17-06-2019 by Dr Ganesh Bhat, visiting Professor at MAHE Manipal University, Manipal.

Training Programme on Teaching Techniques

Staff of the Department attended one day training programme for young teachers of the college on 18-06-2019 by Prof. Jayakishan Bhat, the faculty of Poorna prajna Institute of Management Udupi.

Software Training Programme

Staff attended training programme on 02-08-2019 under the banner of IQAC under the guidance of Mr. Guru Angadi.

Prof. Joseph Peter Fernandes participated as a delegate in the National level Conference at Poornaprajna College, Udupi.

Prof. Joseph Peter Fernandes participated as a delegate in the National level Conference at MGM College, Udupi.

Prof. Joseph Peter Fernandes participated as a delegate in the “National level Conference on “Recent Novel Approaches in Chemical Sciences” on 12-02-2020 at Field Marshal K M Cariappa College, Madikeri.

Fr(Dr) Prakash Anil Castelino participated as a delegate in the “National level Conference on “Recent Novel Approaches in Chemical Sciences” on 12-02-2020 at Field Marshal K M Cariappa College, Madikeri.

Fr(Dr) Prakash Anil Castelino participated as a delegate in the National level Conference at Poornaprajna College, Udupi .

Fr(Dr) Prakash Anil Castelino participated as a delegate in the National level Conference at MGM College, Udupi .

➤ **Students Achievements: Student's participation in seminars and competitions.**
Student's tiny steps

Kavya Pai-Bagged IV Rank in B Sc. examination conducted by Mangalore Univeristy in the year 2019.

Miss Sushmitha, Miss. Navya and Miss. Rakshitha of III B Sc. have been awarded Karnataka State Ranger Award by his Excellency, the Governor of Karnataka.

Amitha Shetty, Anusha, Surabhi Bhat, fathima, Mohammed Adnnan, Nagaraj and Srujan II B Sc. Participated in “MATERIALITE” an intercollegiate science competition held on 18-01-2020 at Department of Material Science, Mangalore University.

Mr. Rickson Rodrigues, Rakshith Kumar, Chethan kulal, Prathul and Ms. Brenda Lobo of III B Sc, Ms. Zoofisha and Ms. Surabhi Bhat of II B Sc. Participated in “Imprints 2020” a national level Science fest and Exhibition which was held on 30th and 31st January 2020 at St. Aloysius College, Mangalore.

Particiapation in National Level Conference

Ms. Brenda Lobo, Smitha Pinto, Navya, Rakshitha Takoor, Mr. Poornesh Hegde, Mr. Chethan kulal, of III B Sc participated in the National level Confernce at Poornaprajna College, Udupi and at MGM College, Udupi .

Beyond the academics, the students take up active role in Value Education classes were conducted to inculcate social and moral values in science students. Every week one hour duration classes are conducted for all the degree students.

World Wild life Day celebrations

Along with BCA studnts elbrate World Wild life day on 03-03-2020 through the brief history of World wild life. Stdents presented mime show.

Paddy Cultivation Programme

As a social responsibility, Students engaged themselves in Paddy Cultivation on 13-07-2020.

Students participated in Vanamahostava, Independence Day celebrations, republic Day. They are active in NCC, NSS, Vidayrthi Darbar and other social responsibility activities.

Students are encouraged to participate in various events organized by the different colleges to create leadership qualities in students so that they are bold to face the society after the completion of their studies. Quite a few students have participated in University and state level competitions. Regular articles and information related to Chemistry are published on the notice boards of Chemistry.

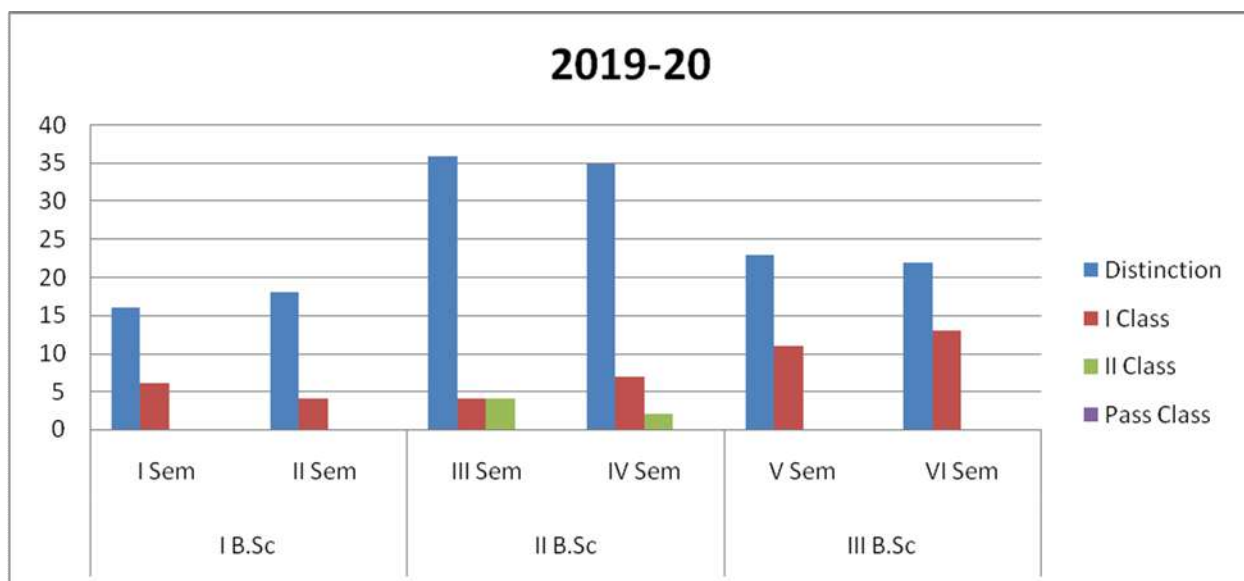
The Department of Chemistry actively involves in celebrations of National festivals, days of national importance and also in sports events.



Result Analysis: University Examinations 2019-20

CLASS		Total number of Students	No of students appeared	No of students Passed	Percentage	Distinction	I Class	II Class	Pass Class
I B.Sc	I Sem	28	28	22	78.57	16	06	0	0
	II Sem	28	28	22	78.57	18	04	0	0
II B.Sc	III Sem	47	47	44	93.61	36	04	04	0
	IV Sem	47	47	47	93.61	35	07	02	0
III B.Sc	V Sem	36	36	34	94.44	23	11	0	0
	VI Sem	36	36	35	97.22	22	13	0	0





✓ **Laboratory**

The department has a full pledged laboratory. To provide a better Facility, the Laboratory and the staff Room were renovated and Upgraded with the help of Alumnus Mr. Bhaskar Naik (1988 Batch). Prof. Joseph Peter Fernandes was the key person to renovate the Laboratory. The Renovated lab was inaugurated on 20-06-2020. It added additional facilities to students. Safety precautions, signboards were added. Apron and safety precautions like goggles were introduced. The laboratory contains safety measures such as fire extinguishers, First aid etc. and is well maintained.

✓ **Best Practices**

1. Opportunity and guidance to all the college/high school students to perform experiment of their choice and interest,
2. Special encouragements to the students in using Departmental Library to acquire additional knowledge in the subject.
3. Getting students to the Campus to participate in various Science Events.

✓ **Planning and Curriculum Delivery**

The assessment of the effective delivery of the curriculum and learning outcome is ensured through bridge course, the periodic interaction with the learners, assignments, class tests, internal assessment tests (mandatory by the University) and university semester examinations.

✓ Lesson plan

Teachers prepare monthly plan of the syllabus for each semester to complete the syllabus systematically.

✓ Department Meetings:

We conduct Dept. Meetings to discuss many issues relating to the curriculum. Staff and the Laboratory Asst meet regularly to discuss the curriculum. Regular meetings were conducted to discuss mode of operation of syllabus, Bridge course, remedial courses, activities of the department etc. Every programme was evaluated during the Departmental meetings. After the announcement of the results/class test the performance of each student was evaluated and the remedial measures were taken.

- ✓ Syllabus - Method of Teaching
- ✓ Conducting Bridge Course
- ✓ Identifying slow learners and remedial coaching
- ✓ Discussion on guest lectures
- ✓ Project for the year and visits to farms, industries, fisher folk, banks etc.
- ✓ Conducting Tests and Seminars
- ✓ Review of syllabus done and students' performance in examinations.
- ✓ Use of modern techniques of teaching
- ✓ Preparation for NAAC visit - Documents to be prepared

✓ Departmental Library

Latest editions are available in all the Disciplines of Chemistry are available in the Department Library to have additional Knowledge. Research journals of Chemistry and Environment and Chemistry Today are also available in the College Library. All the books are used by the students. Mr. Ronald Rajesh Lewis and Mr. Laxman, Alumni of the Department donated a number of books to the Departmental Library.

✓ Bridge Course

A bridge course of 10 hours for newly admitted students is conducted every year to I B Sc. Students. The main objective of the course is to bridge the gap between subjects studied at Pre-university level and subjects they would be studying in Graduation. The syllabus was framed. It included the introduction to Chemistry, Fundamentals of Chemistry, basic Information of Periodic table, Atomic Structure, IUPAC Nomenclature and volumetric analysis. At the end of Bridge course a test was conducted and the progress was evaluated. These classes help them to understand the syllabus of I degree better.

✓ **Internal Tests**

Every year we conduct class test/ internal assessment tests to evaluate the learning ability, skills of the students.

The performance of the learners in university examinations is documented in the register of examinations, class test/ internal assessment test scorings are documented in the office for computation of internal assessment marks.

After the evaluation of the internal assessment & university examinations, advanced learners and slow learners are identified and special efforts are made to encourage them.

✓ **Tutorials**

The tutorial work taken by Prof. Joseph peter Fernandes and Prof. Subramnaya Joshi. Two hours of tutorials per week were held. About 20 students were given to each lecturer and the teacher guided the students in both academic as well as co-curricular activities. Timely advice was given to the student/s.

✓ **Advanced learners**

Advanced learners are asked to refer more books from the library and collect more information from online and are motivated to present papers and teach their peers. These students were given text books and asked to prepare notes and help the slow learners. They were made to present papers in class and Seminars with power point presentations and on the board by the traditional methods.

✓ **Slow Learners: Remedial coaching**

These students were given remedial coaching after class hours. Tests were given to these students. They were made to write assignments. Examination question papers were discussed with them. Students benefited from constant tips and revision along with constant instruction on different issues and concepts.

✓ **Teaching Methodology**

Students and staff use modern and Innovative techniques of teaching along with traditional method of chalk and talk.

✓ **Cross Cutting Issues of the Curriculum in the Department of Chemistry**

Human Values: Value Education Classes, Communal harmony

Gender : Study Constitution, Co-education college, Respect to others, National Festival Celebrations

Environment and Sustainability: Eco friendly practices in the Lab, Environment Chemistry, Students participate in NCC, NSS, Paddy cultivation, Chemistry in Daily Life.

Professional Ethics: Right usage of knowable to build progressive and development Society, Importance of Higher Education, Lab safety.

✓ PROGRAMME SPECIFIC OUTCOMES

The Department gives an awareness about the programme outcomes to have an overall idea about the knowledge, skills, abilities and attitudes that students can acquire during the pursuit of UG courses. In the B. Sc programme Chemistry Courses are part. The specific learning outcomes of various courses are built into the curriculum of each programme is available on the Mangalore **University website** (www.mangaloreuniversity.ac.in). Learning outcomes form an integral part of college vision, mission and objectives.

The Institution communicates the programme and course outcomes to the teachers and students in the following ways:

- Learning Outcomes of Programs and Courses are uploaded on the website of the college.
- Freshers get the required information from the college prospectus, college notice boards and student Handbooks.
- During admission, Students are informed of the courses and their outcomes.
- The outcomes of each programme and the course outcome of each subject are made known to the students by organizing Orientation Programmes.
- The hard copy of the syllabus of each subject with course outcomes is made available in the respective departments for ready reference for the teachers and students.
- Course outcomes are displayed on the departmental notice board.
- Teachers make the students understand the learning outcome of each unit, making the teaching-learning process more fruitful.
- The interactive sessions with successful alumni are organized to guide students to choose programmes to shape their careers.
- Teachers of every department interact with the students about what they are supposed to get at the end of each program.

- Teachers participate in the workshops organized for revising the syllabus of the various subjects under various programmes of the University.
- College puts up the digital flex boards in the prominent area of the college to make the stakeholders aware of the programmes of the college and also highlights students achievements and list the kind of jobs that students can get after completion of the different programs.
- **Programme Specific Outcome for Chemistry are,**
 - Helps Students to develop skills
 - Laboratory Experience
 - Scope for Research and Higher Education: M Sc. Ph. D, Bed etc.
 - Competitive exams preparation
 - Civil service-Entry
 - Development of Scientific temper

✓ **Attainment of Course Outcome (CO'S), and Programme Specific Outcomes (PSO's)**

Students are evaluated based on continuous evaluation based on

- Through the Vision, Mission of the College

“To transform youth into responsible citizens and competent professionals through quality education and research.”

- Vision Mission of the Department
- Through their Learning capacity: Slow, average and Advanced Learners
- Exposure to Industry, Field Visits
- Seminars, Projects etc.
- Entrepreneurship awareness.
- Certificate courses and training programmes.
- Experiential learning.
- Coaching for competitive exams (IAS, CET etc.)
- Talent Nurturing programmes in the campus: Soft skill Development
- Course outcomes are measured through the performance of the students in the class, practical, internal evaluations, and external evaluations.

Mentor-Mentee

Every teacher of the department conducts is assigned the responsibility of mentoring a group of students. The teacher interacts personally with the allotted students to know their family background, social and economic status, their emotional problems if any. These mentees meet mentors regularly to seek advice and share their feelings. Mentors

give guidance, and advice to the mentees to improve their performance in the studies ,encourage them to participate in extra-curricular activities, prepare them to face the challenges in life and become a successful in life.
