



Bhavan's Vivekananda College of Science, Humanities & Commerce

Autonomous College - Affiliated to Osmania University
Accredited with 'A' grade by NAAC
Sainikpuri, Secunderabad - 500094




NAAC RE-ACCREDITATION - 2ND CYCLE

**Criterion VI: -
Governance,
Leadership and
Management**

**6.5.3
Collaborative Quality
Initiatives
2016-17**

Submitted to

National Assessment and Accreditation Council


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Report

Faculty Development Program, 2nd June, 2016

Bhavan's Vivekananda College organized a **Faculty Development Program** on June 2, 2016 at the MBA seminar hall. The inaugural function was graced by Col. M Vijay Rao (Hon director, BVC). Prof Y. Ashok, Principal and Mrs. B. Niraimathi, VicePrincipal, addressed the faculty members and conveyed their best wishes for the forthcoming academic year 2016-17.

For the morning session, the first speaker was **Fr Dr Casimir S.J, Principal, Loyala Academy**. The main theme of his talk was "**Personal growth and Professional growth**". He spoke elaborately on how one should balance one's personal and professional growth, keep one's priorities straight and work for attainment of higher values in life.


The second speaker of the forenoon session was Prof. Ramabrahmam (Hyderabad Central University), who spoke about **the challenges of teaching profession**. He gave tips on how to make good use of online resources and how to make the syllabus more relevant for the students.

In the afternoon session the first speaker was **Dr Manjulatha, Principal, City College** and her topic was **Challenges and Opportunities under CBCS**. She threw light on her experience of implementing CBCS in her college.

The last speaker of the day was **Prof. B Rajasekhar, Director of IQAC and Dean, Dept of Management Studies, University of Hyderabad**. He gave an excellent talk on the prevalent quality practices in the field of higher education and also elaborated on the parameters of grading at IQAC.

The FDP program was very enlightening and informative to the faculty members.




(Dr. Y. ASHOK)
PRINCIPAL
Bhavan's Vivekananda College of Science
Humanities & Commerce
Sainikpuri, R.R. (Dist.)

Activities in 2016-17:

Certificate Course for PG Students

The department of Biochemistry had conducted a certificate course in "Clinical laboratory diagnostics" in collaboration with Bhavan's Sarada Devi Hospital, Sainikpuri from 16-01-2017 to 1-03-2017 for students of M.Sc IV semester. The course was carried out for 30 hrs where the students were given a basic understanding of working in a clinical laboratory. They were trained on various biochemical tests for blood and urine samples. They were explained about functioning of an autoanalyzer for evaluating the biochemical parameters and hematology parameters along with ECG and measurement of blood pressure. Histopathology sectioning and staining of various human tissue samples were also shown. A lecture on histopathology of organs covering liver, muscle, nerve and uterus was delivered by Lt. Col (Retd) Dr.C.Ramji, Consultant Pathologist, Bhavan's Sarada Devi Hospital, Sainikpuri, Secunderabad.



Report on visit to Vijaya Diagnostics at Himayat Nagar 22.03.2017

Students of M.Sc Biochemistry semester IV were taken to Vijaya Diagnostics at Himayat Nagar, Hyderabad on 22.03.2017. Students were made aware of high level of automation involved in the diagnostic centers. Starting from the collection of the

samples, storage, processing and reporting the data involves a high degree of automation. Students were shown biochemistry, microbiology, hematology, histopathology, molecular Biology and cytogenetics labs. They were explained about the working mechanism of various instruments like autoanalyzers, electrolyte analyzers, blood grouping instruments, HPLC, PCR, FISH and pathology related instruments. Overall the visit had provided a very good insight into the clinical laboratory diagnostic labs.



2016-2017

Health Camp

6th and 7th of January, 2017

A Health camp was conducted by the Department of Biochemistry on 6th and 7th of January, 2017 for the staff and students of Bhavan's Vivekananda College. The camp was organized in association with **Vimta labs**. As a part of the camp various blood parameters like glucose, lipid profile, liver profile, kidney profile, complete blood count, thyroid profile, vitamin D and vitamin B12, were investigated. This year Complete health checkup panel, Master health checkup panel and Extended health checkup panel were also included in the list of tests done. About 58 staff members and 115 students got their different blood parameters evaluated. The health camp received a good response and was well appreciated by the staff and students.





2016-2017

Workshop

“Molecular Diagnostics: Analysis of Single Nucleotide Polymorphism in p53 gene”

5th-8th December, 2016

A workshop on “Molecular Diagnostics: Analysis of Single Nucleotide Polymorphism in p53 gene” was organized from 5th – 8th December, 2016 by the department of biochemistry in collaboration with department of Biochemistry, Osmania University. The workshop was conducted under the technical guidance of Dr. Manjula Bhanoori with the aim of imparting technical skills to the students in the field of molecular biology.

During the workshop, the students were given hands on training on various procedures like extraction of genomic DNA from human blood samples, amplification of p53 gene by PCR, analysis of SNP (single nucleotide polymorphism) in the gene of different samples by RFLP technique. All these techniques were helped and guided by research scholars from Osmania University, Mr. T. Venkat Reddy and S. Swapna.

The workshop was concluded with a valedictory function where principal, Prof. Y. Ashok gave away the certificates to all the participants and prizes for the winners of the evaluation test.





PUNE Educational trip

The Post graduate students of Microbiology and Biochemistry along with four staff members made three day educational tour to PUNE in last week of August i.e 30th August to 1st September. 23 Students of

Microbiology , 15 students of Biochemistry and four Faculty i.e Dr K.Anuradha , Dr.Sai Padama ,Dr P.Naga Padma and Dr.J.Sarada - a total of 42 members started their tour on 29th August by Bombay express train to PUNE.

On 30th Morning students were taken on to popular local site seeing places - Lonavala ,Bushidam and Tiger point.

On 31st visited Serum Institute of India Pvt. Ltd one of the renowned production centre for 25 types of vaccines. Students visited bacterial vaccine filling station which had sophisticated automatic machines for handling vaccine formulation. Polysaccharide conjugate Vaccine (PCV) unit produces conjugant vaccine preparation where fermentation process was explained in detail. Later students were taken to biochemical analytical laboratories where

QC and QA instrumentation were shown. Dr. Asha Mallya – Head, Department of R& D explained briefly on the opportunities to students working in their institutes and also encouraged students to do project work. This was followed by 30 minutes presentation by Vishram Vaidya, who had briefed about SERUM institute as 50 year old organization supplying vaccines to over 150 countries . It comes under SERUM BIO Pharma park SEZ and has WHO funding to achieve their target. On same day students were taken to popular Gaesh temple and Balaji temple. .

On 1st September , Students were taken to NCIL PUNE - CSIR organization which has strong research wing in Biochemistry and Microbiology. Research scholars at Biochemical division briefed their topics in research by power point presentation which was followed by v isit to Plant tissue culture unit. Later students were taken to Culture Collection centre –A Microbiological wing which had facility for culture identification and Molecular characterization

facilities. Students were explained with the techniques followed in their routine work. On the same day students were taken to mahabaleshwar temple and other picnic spots where students collected soil samples for microbial biodiversity studies.



Report on Outreach programme for 2016-17

The Department of Biochemistry has organized an outreach programme for school children of **ZP High School for Girls, Alwal** on 30th of June and 2nd of July, 2016. The programme included lectures and practical session of few science experiments which they will not be able to carry out in their schools. They were shown experiments like dialysis, osmosis, achromic point of salivary amylase and differential count. They were also shown tissue sections of uterus, muscle and liver. Upon request by the school staff, blood grouping was done for about 87 children.

The teaching staff, graduate and post graduate students of the department have taken part in this programme. This will encourage the school children to develop interest towards life sciences and ignite their young minds towards considering life sciences as their future career option.



Activities 2016-17:

Report on practical training program at the Institute of Genetics- October 2016

The students of BSc Life Sciences III year participated in the practical training program on **Diagnosis & Management of Genetic Diseases** from **13-10-16 to 29-10-16** at the **Institute of Genetics & Hospital for Genetic Diseases, Hyderabad.**

On the first day, inauguration program was conducted where the students were introduced to the Vision and Mission of the Premier Institute. The participants were given a brief idea about the different departments, their tasks & challenges.

The participants were grouped into four different teams & sent to the following departments on rotation:

Department 1: Cell Biology:-In this dept, students learned about Karyotyping, FISH (Fluorescence In situ Hybridization) and SKY (Spectral Karyotyping) techniques. They performed Karyotyping and FISH with their own blood samples in which they did slide preparation & chromosomal analysis by screening .There were practice sessions of matching homologous chromosome pairs & numbering of chromosomes on Karyotype paper, screening for various Genetic disorders such as Turner's, Down's, Klinefelter's syndrome, etc.

Department 2: Environmental Toxicology: In this dept, students conducted cytogenetic studies to identify DNA damage due to environmental stresses, such as chromosomal aberrations, Micronucleus assay, sister chromatid exchanges & Comet assay. Students performed Comet assay with their own blood sample and analyzed DNA damage by number of DNA breaks & length of the DNA tail.

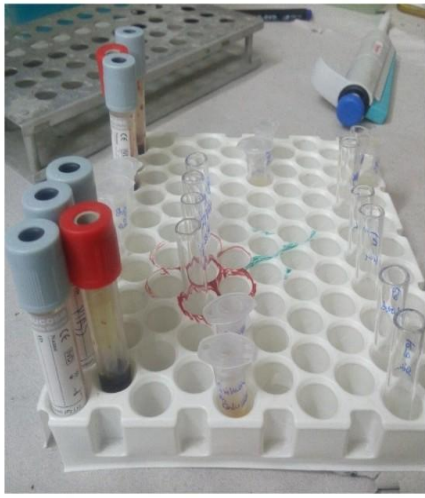
Department 3: Clinical Genetics: This dept involves diagnosis, counseling & treatment of individuals & families with Genetic disorders. The students had a slide show presentation on the diagnostic technique of Ultrasonography. The students were also involved in Genetic Counseling sessions to families affected with Genetic disorders.

Department 4: Biochemistry: In this dept, the participants learned some biochemical tests like estimation of Copper from urine Sample (for diagnosis of Wilson's disease), lipid profile from serum sample, blood Glucose levels and also Neonatal screening for genetic disorders.

Department 5: Molecular Biology: In this dept, students performed DNA isolation by Sucrose and Phenol method & they used Sucrose method to isolate DNA using their own blood samples. They did DNA separation using Agarose Gel Electrophoresis. The students also carried out PCR for amplification of desired sequences of DNA. They were briefed about the working & principle of HPLC which is used to estimate the amount of fetal hemoglobin.

The participants also had an opportunity to interact with students at the Special school for the differently abled children, which is attached to the IOG.

At the end of the training program, the students had a special session on **Career Counseling** by Prof. N.Pratibha, Director of IOG. The students were awarded participation certificates by Prof. N Pratibha. It was a very enlightening & motivating program for the students.







Value added course on Genetic Counselling -2017:

The value added course on Genetic Counselling was conducted by the Department of Genetics and Biotechnology during April- May 2017.. The theory for the course was conducted in the college consisting of 15 hours of instruction by the faculty from 11-4-'17 to 13-4-'17. The theory classes covered the basic aspects of Genetic disorders, diagnosis, treatment and prevention along with steps involved in Genetic Counseling. The practical internship for the course was done in the Institute of Genetics and Hospital for Genetic Diseases from 18-4-2017 to 12-5-'17. 37 students enrolled for the course. They were organised into 5 groups and assigned to different labs – Molecular Biology, Cell Biology, Clinical Genetics, Clinical Biochemistry and Environmental Toxicology. The teams worked in the five labs for 5-6 days on a rotation basis. The students learned the following aspects in the labs:

Molecular Biology

Students learned the technique of DNA isolation from WBCs, electrophoresis, genotyping, and PCR.

Cell Biology

They learned Leucocyte culture, Karyotyping and FISH (Fluorescent In Situ Hybridisation) technique.

Clinical Genetics

Students were familiarized to the process of Genetic Counselling by exposure to cases that had come to the Institute. They were shown how the technique of Ultrasonography can be used to study fetal viability, growth and detect abnormalities in the fetus.

Clinical Biochemistry

The students performed serum and urine analysis for detection of Genetic disorders such as Metabolic disorders and Single Gene disorders (Ex: detection of Copper levels in urine for Wilson's Disease).

Environmental Toxicology

Students learned the technique of Comet Assay. They were also given an overview of Bioinformatics and its applications.

The students enthusiastically interacted with the researchers and doctors at the Institute and also learned about various career options in the field of Medical Genetics. They visited the school for the differently abled children attached to the Institute, which enlightened them about how such children are taught skills to be independent and become useful members of the society. The students attended a seminar on Thalassemia at IOG organized as a part of World Thalassemia Day on May 8th 2017. The internship program concluded with the students appearing for a written examination on the concepts and techniques learned at the Institute. The students found the course very interesting and comprehensive.



On 21st Oct, 2016, MBA final year, section B, went on a visit to Coco Cola factory, Ameenpur. We started at 9:15am with two faculties namely Dr. Madhuri Srinivas and Dr. Kavitha Lal with 56 students. We reached the factory at 10:30am. The supervisor at the factory welcomed us with minute maid juice and we all were instructed with safety measures to be followed at the factory. In the factory, Ms. Asha, Quality team leader, escorted the students and explained about the process of making of different beverages.

Ms. Asha explained us the whole process step by step. There are four steps in making beverages which are also called carbonated soft drinks or sparkling beverages. They are, water treatment, syrup preparation, bottle blowing and filling process. There are separate sections for the steps. There is a section where minute maid tetra packs are prepared. In a minute, 125 tetra packs are made. After that, there was a section where different recycled glass bottles were going through the process of washing and defective bottles were removed. Then, filling and crowning of bottles were done and these bottles were going out on a conveyer belt to the packing section. In the next section, we saw the total process of manufacturing of Coco Cola two litre bottles, where small test tube like bottles were blown on a blow max with 120 degrees centigrade and with 70-80 PSI pressure. These bottles were again moving on conveyer belt through air blowers for filling of coco cola and capping. These bottles were packed in covers and stored in packaging section or storage for four hours for quality checks before distribution. In a minute, about 600 bottles are produced. On an average, 20 lakh bottles are prepared in a day with maximum 0.5 defects per batch and the factory follow 3 sigma quality standards. The factory follows different techniques of kaizen. There are two supervisors at every section and defective bottles are emptied in the drain manually which again goes to water treatment section. The process is fully automated and machinery works 24/7. If there is a change of flavour, the machinery automatically gets washed and is ready for the next process. We left the factory around 1:00pm and reached college at 2:30pm.

On the whole, it was a great experience and a wonderful opportunity provided by our college. We students could relate with our subject and had a great time.



Coca Cola Factory , Miyapur For MBA students

Industrial visit report on Lalit Foods Pvt.Ltd.,

An industrial visit organized on **28 th February 2017** for the students of BBA III years where 50 students visited in order to enhance their practical stimulation and to let them having an overview on the activities related to operations management , scheduling which are carried by Lalith foods Pvt. Ltd. Lalit foods Established in 2017 , It has made a name for itself in the list of top suppliers of in India. The supplier company is located in Hyderabad, Telangana and is one of the leading sellers of listed products. Lalit Foods is listed in Trade India's list of verified sellers offering supreme quality of etc.

