

Keshav Memorial Institute of Commerce and Sciences

Department of Biotechnology

Activities Report 2022-23

Sl. No.	Date	Type of Program	Title of Program
1	8th sept 2022	Lecture	Future prospects in Biotech Career' from KMICS Alumnus, Mr. Bhanu Teja, JRF, CCMB-CSIR, Hyd.
2	15th Sept 2022	Field trip	Visit to "India Lab Expo" held at Hitex Convention center, Gachibowli, Hyderabad
3	18 th Nov 2022	Field trip	AG Bioteck Private Ltd., Bachupally, Hyd.
4	28th Nov 2022 to 29th Nov 2022	Workshop	Bioinformatic tools for the development of molecular markers to diagnose genetic diseases
5	10 th Feb2023	Lecture	Awareness program on Medical Coding and Billing
6	03 March 2023 to 03 May 2023	Vocational Training Program for 3rd years students of BtMbC	Medical Coding and Billing

8th sept 2022 Lecture on Future prospects in Biotech Career' by KMICS Alumnus, Mr.Bhanu Teja, PhD scholar, CCMB, Hyd.



Mr. Bhanu Teja who is an alumnus of KMICS, secured M.Sc. position in IIT Kharagpur. After completing his M.Sc., he was successful in securing the ICMR-JRF position in National Institute of Virology, Pune. He is currently working as Research Fellow at Cellular & Molecular Biology at Hyderabad.

Mr. Bhanu Teja has come to the college to describe his life and professional journey. His dreams and aspirations and how he achieved it. He has described the paths he has taken, what were his struggles and how did he overcome.

Further he also discussed about the current opportunities, in life sciences that students should focus on, mentioning about the competitive exams, M.Sc. positions, preparations for positions after B.Sc. and M.Sc. He also conveyed about the interviews at Research institutions that he faced, and how a student should be prepared.

15th Sept 2022 | Field trip | Visit to "India Lab Expo" held at Hitex Convention center, Gachibowli, Hyderabad



Students have learned about the various scientific equipment used in the field of life sciences.

To mention, there were various types of PCR machines, centrifuges, laminar flows, incubators, microscopes, HPLC, Gas chromatography, distillation units, cold rooms, various types of equipment to process the tissues.

Further there were also all the different types of equipment used in the pharmaceutical industry, most of which are heavy advanced robotic machinery.

18th Nov 2022 | Field trip | AG Biotech Private Ltd., Bachupally, Hyd. | Resource Person: Mr. Veera Reddy, CEO, AG Biotech.



“AG Biotech” is a company focused on the application of biotechnology in agriculture. Here are some key aspects of its work are : Crop Improvement, Manufacture of biofertilizers, Manufacture of biopesticides, Plant Tissue Culture, Genomic Research, Sustainable Agriculture, Farmer Education, Product Development

Students have learned about the commercial ways of plant tissue culture. They have learned about the sterilization methods of equipment, and plant material, the media for tissue culture, the facilities they maintained for tissue culture, precautionary measures, the kind of nurseries to take the plantlets from tissue culture to the farm.

28th Nov 2022 to 29th Nov 2022 | Workshop| Bioinformatic tools for the development of molecular markers to diagnose genetic diseases



Students have learned how to design the methods and develop protocols for molecular diagnosis of Genetic Disorders. The elements of this workshop are as follows

1. Bioinformatics web portals, databases,
2. Identify genes for genetic diseases, how to access the gene sequence data, identify the mutant sequence,
3. Use of online bioinformatics tools to perform BLAST searches, identification of primer sequences for PCR, perform insilico PCR, perform insilico restriction digestion of DNA fragments, identification of endonucleases which digest a DNA fragment at a particular site, and
4. Design the methods and protocols to screen the mutations.

10th Feb2023 | Lecture | Awareness program on Medical Coding and Billing | Resource: Arise Foundation, Hyderabad.



Medical coding and billing are two essential functions that work together to ensure healthcare providers receive payment for the services they provide. The awareness program made the students to think about a new avenue in the health-care industry, that they can immediately take up after B.Sc. program, with a short training program.

03 March 2023 to 03 May 2023 | Vocational Training Program for 3rd years students of BtMBC | Course name: Medical Coding and Billing | Resource: Arise Foundation,



Hyderabad.

Students have learned the following in the above program

Medical Coding

- 1. Translation:** Converting medical diagnoses, procedures, and services into standardized codes using specific coding systems like ICD-10-CM, CPT, and HCPCS.
- 2. Accuracy:** Precise coding is crucial for accurate reimbursement and compliance with regulatory standards.
- 3. Documentation:** Requires a thorough understanding of medical records to extract relevant information for coding.

Medical Billing

- 1. Claims Submission:** Preparing and submitting insurance claims with correct codes, patient information, and diagnostic data.
- 2. Follow-up:** Monitoring claim status, resubmitting claims as needed, and handling denials.
- 3. Patient Billing:** Generating patient bills for co-pays, deductibles, and balances.
- 4. Revenue Cycle Management:** Overseeing the entire billing process to ensure timely and accurate payments.