

CAREER DEVELOPMENT CENTRE



Date: 5th Aug 2019

Subject: Value Added Trainings School of Pharmaceutical and Population Health Informatics

Attention: B.Pharm- VIIth Semester (Session-ODD-2019-20)

Above mentioned students are hereby informed that as per the approved value added training for the academic year 2019-20, Career Development Centre offers the below mentioned technical training in the odd semester (2019-20). Details as follows:

| Training | Semester | Program | Date of Commencing |
|--|----------|-----------|--------------------------------|
| Clinical Pharmaco-informatics (VAT-71) | VIIth | B. Pharma | 8 th September 2019 |

NOTE: The Department concerned shall notify the details about timings and venue of the training sessions keeping Career Development center in loop.

Gaurav Singh

Head- CDC

Career Development Unit
DIT University, Dehradun

To:

- All Deans / Directors
- HoDs
- Head CDC

With the request to bring the above
to the notice of the students

Copy to:

- Chairman
- Chancellor
- Vice Chancellor
- Pro Vice Chancellor

For information please

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DIT University, Dehradun

VAT 71- Clinical Pharmaco-informatics

Venue: Charak Building | **Duration:** 36 Hrs (8th September to 25th November 2019)

The Clinical Pharmacognosy training was conducted for students of Bachelor of Pharmacy program (7th Semester), the targeted students for the training were those who had to be skilled for areas like pharma industries, vaccine development, clinical research projects, academic research. It was conducted by the **School of Pharmaceutical and Population Health Informatics**, the coordinator for the training was **Dr. Dhirodatta Senapati**.

OBJECTIVE:

The training aims to give an added value to the students of Bachelor of Pharmacy both at academic level and industry level in the areas like pharma industries, vaccine development, clinical research projects, academic research, etc. Main objectives:

1. To learn the world of Bioinformatics and its evolution.
2. Assess the, different types of biological data and bioinformatics resources.
3. Assess and explain the tools and techniques of analysing DNA and protein sequences.
4. Discuss the basic principles and applications of pharmacogenomics.
5. Utilize the different analysis packages available for different computational jobs.

TRAINING OUTLINE:

1. Introduction to bioinformatics
2. Chemo-informatics & Drug Design
3. Predictive Pharmacology
4. Project Work



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Divided into 5 Units:

UNIT I: Overview of Bioinformatics and Information Technology History, Scope and application, Internet and World Wide Web; Generation of computers; Concept of Networking; Introduction to Data Mining; Application of data mining in Bioinformatics.

UNIT II: Bioinformatics Resources Biological databases, Basic classification – Sequence & Structure; Generalized & Specialized.

UNIT III Bioinformatics techniques Sequence comparison and alignment; Local and Global Alignment , Concept of Gap, Gap Penalty & Scoring Matrices , Dot Plot Analysis.

UNIT IV: Bioinformatics tools Information retrieval system (Entrez, SRS); Sequence alignment tools (BLAST, FASTA, CLUSTAL-W/X, MUSCLE, TCOFFEE), Variants of BLAST.

Training also involved the concepts of Information and Knowledge Delivery. The next core competency needed, information and knowledge delivery which involves how the databases are utilized. Pharmacy informaticists ensure that there is interoperability between the pharmacy information system and all other medication-related systems. With constant changes to clinical practice and complexities within health care, integrated systems are needed to support the delivery of accurate medication-related information to the end-user at the point of clinical decision-making. Pharmacy informaticists support best practices and apply knowledge of informatics principles, human factors, and systems design to the user interface, to ensure that there is no confusion or incorrect information at the point of care. This information delivery can be provided before decisions are made or passively as reference information. Pharmacy informaticists not only support and oversee the creation, application, delivery, and management of clinical information and knowledge, but they also inform how systems should be developed and why interoperability is essential to safe medication management.



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FUTURE DIRECTIONS

There are many more interesting areas within health and pharmacy informatics to learn about and further develop. We have described only some examples of a pharmacy informaticist's operational responsibilities and current initiatives, but we foresee that the future holds many exciting changes. The health informatics curriculum is well established in medical and nursing training; however, in pharmacy, it has been slower to evolve. Although it is not new, the practice of pharmacy informatics is in a state of rapid growth. This diverse and evolving field leads the use of technology at multiple levels of pharmacy practice, from departmental projects to national collaborative. Equipped with a strong understanding of medication management workflows and knowledge of clinical system functionalities, pharmacy informaticists are in a great position to collaborate with other health care providers to optimize information management, improve workflow, and reduce medication errors. By supporting and developing the pharmacy informatics role, the profession of hospital pharmacy can optimize innovations to medication-related processes so that pharmacists can continue to improve patient care and outcomes.

Training Outcomes:

1. Knowledge of bioinformatics tools application in drug discovery and development process.
2. Scientific professionals with added values of pharmcoinformatics in biological /pharmaceutical sciences research, at both academic level and industry level.
3. Acquisition of additional skills in Pharmaco-informatics for manpower required in pharma industries, vaccine development, clinical research projects, research, etc.
4. Added skills to students pursuing post-graduate studies in life sciences/pharmaceutical sciences/clinical sciences, etc.



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Annexure - II

Value added course Details (Academic Year: 2019-20)

VAT Course Name: Clinical Pharmaco-informatics

VAT Code: VAT 71

Duration in Hours: 36

Number of Students Enrolled: 51

Number of Students Completed: 50

Pradeep
Head - CDC
Career Development Cell
DIT University, Dehradun

Grades: G= GOOD ; S = Satisfactory ; P = Poor ; W = Withdraw

| Student ID | Student Name | Program/Course | Year | Passing Grade |
|------------|------------------------------|----------------|----------|---------------|
| 15091003 | YASH PRATAP SINGH SOLANKI | BPharm | 4th Year | S |
| 15091023 | ARUN KUMAR | BPharm | 4th Year | G |
| 160921017 | SAPTAK CHATTERJEE | BPharm | 4th Year | S |
| 160921056 | HARSHITA SINGH | BPharm | 4th Year | S |
| 160921030 | VAISHNAVI VERMA | BPharm | 4th Year | G |
| 160921045 | RAVI SHARMA | BPharm | 4th Year | S |
| 160921014 | AYUSHI AGGARWAL | BPharm | 4th Year | S |
| 160921032 | ATURVA . | BPharm | 4th Year | S |
| 160921028 | PRINCE KUMAR | BPharm | 4th Year | P |
| 160921035 | YASH SHARMA | BPharm | 4th Year | S |
| 160921011 | FAISAL REHMAN | BPharm | 4th Year | S |
| 160921037 | ROHIT LUTHRA | BPharm | 4th Year | S |
| 160921053 | KUNDAN KUMAR | BPharm | 4th Year | S |
| 160921059 | MANISH KUMAR SAXENA | BPharm | 4th Year | G |
| 160921002 | SAURABH RASTOGI | BPharm | 4th Year | S |
| 160921047 | AKANSHA KARANWAL | BPharm | 4th Year | S |
| 160921036 | ABHISHEK OLI | BPharm | 4th Year | S |
| 160921046 | KAMAL SINGH FARTYAL | BPharm | 4th Year | G |
| 160921027 | RAJDEEP BARMAN | BPharm | 4th Year | S |
| 160921008 | RISHU RAJ | BPharm | 4th Year | S |
| 160921044 | ANJALI THAPA | BPharm | 4th Year | G |
| 160921038 | FATIMA . | BPharm | 4th Year | S |
| 160921021 | MOHIT CHAUDHARY | BPharm | 4th Year | G |
| 160921016 | KRISHNA MOHAN SINGH BHANDARI | BPharm | 4th Year | G |
| 160921026 | KANCHAN SALUJA | BPharm | 4th Year | S |
| 160921019 | SHUBHAM MISHRA | BPharm | 4th Year | S |
| 160921010 | DAKSHITA AGGARWAL | BPharm | 4th Year | G |
| 160921012 | NISHI SHARMA | BPharm | 4th Year | S |
| 160921048 | SHIVAM RANA | BPharm | 4th Year | G |
| 160921009 | HARISH KOTHARI | BPharm | 4th Year | S |
| 160921005 | HARSHIT RASTOGI | BPharm | 4th Year | S |
| 160921007 | HITARTH SAH | BPharm | 4th Year | S |
| 160921033 | RAKSHAK CHOUDHARY | BPharm | 4th Year | G |
| 160921050 | ARUN KUMAR | BPharm | 4th Year | S |
| 160921024 | VIKAS . | BPharm | 4th Year | S |
| 160921018 | NISHI . | BPharm | 4th Year | G |
| 160921015 | RAJEEV PANWAR | BPharm | 4th Year | S |
| 160921029 | DIVYANSH PRATAP SINGH | BPharm | 4th Year | S |
| 160921004 | BASANT KUMAR | BPharm | 4th Year | S |
| 160921055 | SANDEEP KUMAR | BPharm | 4th Year | G |

[Signature]
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|-----------|----------------------|--------|----------|---|
| 160921051 | MOHD ARSH . | BPharm | 4th Year | S |
| 160921022 | SONALI SHRAWAN KUMAR | BPharm | 4th Year | S |
| 160921041 | AKASH KUMAR GUPTA | BPharm | 4th Year | S |
| 160921006 | ARUNDEEP . | BPharm | 4th Year | S |
| 160921060 | ANJALI BISHT | BPharm | 4th Year | G |
| 160921057 | MOHD AAMIR SUHAIL | BPharm | 4th Year | S |
| 160921061 | ASLAM MALIK | BPharm | 4th Year | S |
| 160921058 | SWEETY . | BPharm | 4th Year | S |
| 160921062 | MAYANK PRATAP SINGH | BPharm | 4th Year | G |
| 170921901 | SHRUTI SHARMA | BPharm | 4th Year | S |
| 170921900 | KULDEEP ASWAL | BPharm | 4th Year | S |



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