CAREER DEVELOPMENT CENTRE

DIT
UNIVERSITY
IMAGINE ASPIRE ACHIEVE

Date: 5th January 2021.

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

Attention: **M.Pharm- II Semester / B.Pharm- VIIIth Semester (Session-EVEN-2020-21)**

Above mentioned students are hereby informed that as per the approved value added trainings for the academic year 2020-21, Career Development Centre offers the below mentioned technical trainings in the Even Semester (2020-21). Details as follows:

Training	Semester	Program	Duration	Date of Commencing
Nano Technology and Nano Sensors (VAT-73)	II	M.Pharm	36	13th January 2021
Clinical Pharmacognosy (VAT-72)	VIII	B.Pharm	36	1st March 2021

NOTE:

1. The training will run in online mode (till further notice) on MS Team. Students will be assigned batch (as per the schedule) and will be added to their respective MS Teams.
2. It is suggested to all the above-mentioned students to attend the training (detailed schedule will be shared in your respective batch on MS Team).
3. The Department concerned shall notify the details about timings and MS Team batch of the training sessions. In case of any query please contact the Career Development Centre, DIT University.

Gaurav Singh
Head- CDC
Head -CDC
Career Development Cell
DIT University, Dehradun

To:

- All Deans / Directors ⎫ With the request to bring the above
- HoDs ⎬ to the notice of the students
- CDC ⎭

Copy for information to:
- Hon'ble Chairman
- Hon'ble Chancellor
- Hon'ble Vice Chancellor
- Hon'ble Pro Vice Chancellor
- ICT Manager – to upload on website

Registrar
DIT University, Dehradun

VAT 73- Nano Technology and Nano Sensors

Platform- Online- MS TEAM | Duration: 36 Hrs (13th January 2021 – 24th February 2021)

Nanotechnology and Nanosensors are broad, interdisciplinary areas that encompass (bio)chemistry, physics, biology, materials science, electrical engineering and more. The present training provided a survey on some of the fundamental principles behind nanotechnology and nanomaterials and their vital role in novel sensing properties and applications. It was conducted by the **School of Pharmaceutical and Population Health Informatics**, the coordinator for the training was **Dr. Bhavna** (Assistant Professor, SoPPHI- DIT University and **M.Pharm (IInd Semester) were offered this value added training.**

OBJECTIVE:

The course main objective is to enhance critical, creative, and innovative thinking. The course encourages multicultural group work, constructing international 'thinking tanks' for the creation of new ideas. Throughout the course, you will be asked to reflect upon your learning, think "out of the box", and suggest creative ideas.

The course is set to encourage the understanding of:

1. The importance of nanoscale materials for sensing applications.

2. Approaches used for characterizing sensors based nanomaterials.

3. Approaches used for tailoring nanomaterials for a specific sensing application.

4. Metallic and semiconductor nanoparticles.

5. Organic and inorganic nanotubes and nanowires.

6. Optical, mechanical and chemical sensors based on nanomaterials.

7. Hybrid nanomaterial-based sensors.

Registrar
DIT University, Dehra

Module 7: Carbon Nanotubes-based Sensors: Definition of carbon nanotube; features of carbon nanotubes; synthesis of carbon nanotubes; fabrication and working principles of sensors based on individual carbon nanotube; fabrication and working principles of sensors based on random array of carbon nanotubes.

Module 8: Sensors Based on Nanostructures of Metal Oxide: Synthesis of metal oxide structures by dry and wet methods; types of metal oxide gas sensors (0D, 1D, and 2D); defect chemistry of the metal oxide sensors; sensing mechanism of metal-oxide gas sensors; and porous metal-oxide structures for improved sensing applications.

Module 9: Mass-Sensitive Nanosensors: Working principle of sensors based on polymeric nanostructures; sensing mechanism and applications of nanomaterial-based of chemiresistors and field effect transistors of (semi-)conductive polymers, w/o inorganic materials.

Module 10: Arrays of Nanomaterial-based Sensors: A representative example for the imitation of human senses by means of nanotechnology and nanosensors: electronic skin based on nanotechnology.

Minimum Eligibility Criteria:

Nanotechnology and Nano sensors are broad, interdisciplinary areas that encompass (bio) chemistry, physics, biology, materials science, electrical engineering and more.

Training Outcomes:

By the end of the course, students will understand the fabrication, characterization, and manipulation of nanomaterials, Nano sensors, and how they can be exploited for new applications. Also, students will apply their knowledge of nanotechnology and Nano sensors to a topic of personal interest in this course.

***

Registrar
DIT University, Dehradun

Annexure - II

Value added course Details (Academic Year: 2020-21)

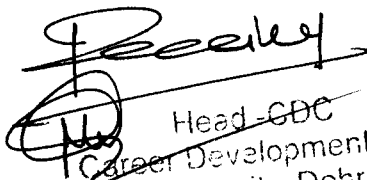| VAT Course Name: Nano Technology and Nano Sensors |
|---|
| VAT Code: VAT 73 |
| Duration in Hours: 36 |
| Number of Students Enrolled: 15 |
| Number of Students Completed: 15 |

Grades:	G= GOOD ; S = Satifactory ; P = Poor ; W = Withdraw			
Student ID	Student Name	Program/Course	Year	Passing Grade
205740001	ADITYA TANWAR	Master of Pharmacy	1st Year	G
205740002	VINAY GOYAL	Master of Pharmacy	1st Year	G
205740003	RHYTHM KHATRI	Master of Pharmacy	1st Year	S
205740004	SOUMYA RAJ	Master of Pharmacy	1st Year	S
205740005	KM ANJALI SINGH	Master of Pharmacy	1st Year	G
205740006	SHUBHAM PATHAK	Master of Pharmacy	1st Year	G
205740007	VIVEK RAWAT	Master of Pharmacy	1st Year	S
205740008	PRAGATI SINGH	Master of Pharmacy	1st Year	G
205740009	ARPITA SAHOO	Master of Pharmacy	1st Year	G
205740010	SATENDRA PATEL	Master of Pharmacy	1st Year	S
205740011	NISHA SINGH	Master of Pharmacy	1st Year	G
205740012	MAYURI GUPTA	Master of Pharmacy	1st Year	G
205740013	PRIYA BISHWAKARMA	Master of Pharmacy	1st Year	G
205740014	NAVRAJ UPRETI	Master of Pharmacy	1st Year	G
205740015	RAM PRABESH KUMAR	Master of Pharmacy	1st Year	G

Head-CDC
Career Development Cell
DIT University, Dehradun

Registrar
DIT University, Dehradun