

## SALIENT FEATURES OF THE PROGRAM

- Lectures and discussions followed by rigorous practical sessions
- Personal monitoring and mentoring
- Exposure to advanced techniques having relevance in higher studies/ jobs

## TARGET PARTICIPANTS

Students enrolled in UG/PG Programs in Biotechnology/ Life Sciences/ Microbiology/ Biochemistry/ Botany/ Zoology/ MBBS/ and Allied Subjects

## NUMBER OF SEATS

25 per batch

## SELECTION PROCEDURE

The candidates will be selected on first cum first serve basis. Referral letters from the concerned institute is necessary for enrolled students.

## CERTIFICATE

A certificate of participation would be issued on the successful completion of the course

## LAST DATE OF REGISTRATION

The registration form may be submitted to the office latest by **20<sup>th</sup> May 2017**.

## FEES

Rs. 18000/- till 25<sup>th</sup> May 2017. After 25<sup>th</sup> May 2017 the fees would be Rs. 21000/- till 29<sup>th</sup> May 2017.

The fees has to be paid by NEFT in favor of THAPAR UNIVERSITY (Beneficiary name), A/c No: **676010011622**; Type of A/c: Saving; IFSC Code: KKBK0000263; Swift Code: **KKBKINBB**; Bank Name and address: Kotak Mahindra Bank Ltd., Leela Bhawan, Patiala, Punjab, India. **Kindly provide a copy of NEFT transaction details with the registration form.**

*However, candidates interested in taking up selective modules can take up by paying a fees of Rs 3800/- per module for Modules 2, 3, and 4 while those who intend to take CATALYST will have to pay Rs. 6500 (incl.working tea/lunch) (Course fees includes only program fees and course material. Boarding/ lodging and travel charges are to be borne by the candidates; Campus hostel accommodation can be provided on request on chargeable basis subject to availability. Fees once deposited would not be refunded)*

**[For further information & registration please contact:](#)**

**Professor Dr. Sanjai Saxena**

**Coordinator (Summer Program)**

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# Summer Training Program in Advances in Modern Biotechnology

May 30, 2017 - July 03, 2017



**Biotechnology @ Thapar University**  
UNIQUE DESTINATION TO FULFILL ASPIRATIONS

For more information, write to us at [hbtd@thapar.edu](mailto:hbtd@thapar.edu)  [sanjai.saxena](#)

**Department of Biotechnology**  
**Thapar University, Patiala 147004**  
**(Monday to Friday, 8.30 am to 1.30 pm)**

## ABOUT THAPAR UNIVERSITY

Thapar University is located on a 250 acre campus in Patiala and is amongst the leading deemed universities of India offering postgraduate and undergraduate programs in Engineering, Sciences, Management and Social Sciences. Thapar Technology Campus is synonymous with diverse community that is committed to scholarship, entrepreneurship, research and development. The combination of program, facilities, and above all people have created a learning experience that is stimulating, supportive and challenging while providing a competitive edge.

## DEPARTMENT OF BIOTECHNOLOGY

Biotechnology at Thapar University Campus has modest beginnings with Ph.D. Program in 1993, thereafter M. Sc. Biotechnology program was initiated with the support of Department of Biotechnology, Ministry of Science and Technology, Govt. of India in 1999. The B.Tech program in Biotechnology was initiated in 2002 and M.Tech. Biotechnology from 2012.

Focus of the Department is primarily to excel both in academics and research in the frontier areas of modern biotechnology and related fields by providing personal mentoring, hands on training and industrial exposure to the undergraduate and postgraduate students within the institute as well as developing manpower trained in biotechnology in this region by providing intensive training as summer programs for the external students aspiring to be biotechnologists. The focus of these academic programs as well as training programs is to provide excellent academic environment and state-of-the-art infrastructure for hands on training. The potential of the biotechnology group at Thapar University was further recognized by the Department of Science & Technology (DST), Govt. of India under Mission ReACH, TIFAC-CORE (Centre for Relevance and Excellence) in Agro and Industrial Biotechnology was set up in the year 2000.

Experiments form an integral part of learning biological sciences by performing different techniques and technologies associated with it. It helps in problem solving, accurately using instruments as well as interpretation of the data generated. The Department of Biotechnology emphasizes on extensive hands-on-training.

The Department of Biotechnology has adequate laboratory set up and instrumentation required for running undergraduate and post-graduate programs in science and engineering disciplines of modern biology as well as for the research activities. There are four well equipped laboratories dedicated to the four programmes. Additionally there are four research laboratories, one state of the art facility for mammalian cell culture work and a central instrumentation facility for high end instruments.

In addition to Departmental laboratories, the laboratories and pilot scale facilities at TIFAC-CORE are also used in various academic curricula to impart hands on training and skill development.

## COURSE OBJECTIVE

This course is intended to provide rigorous hand-on-training to various techniques which are used in modern biotechnology and have emphasis in the industrial as well as medical biotechnology sectors. The course provides the basic principles and their in-depth understanding apart for operational conditions of production of biotechnological products. Identification of novel products produced by fermentation technology is crucial for their production and commercialization and therefore requires adequate expertise in analytical and modern molecular methods, which have relevance to the biotechnology and pharmaceutical industry.

The CATALYST MODULE with GE Healthcare would provide an insight to such state of the art techniques and technologies. Similarly modules on MOLECULAR MEDICINE and COMPUTATIONAL BIOLOGY & BIOINFORMATICS have played a tremendous role in medicine and healthcare sector for developing new methods of disease diagnosis as well as treatment. Further DRUG DISCOVERY is an ever-growing area of pharmaceutical R&D to overcome infectious as well as metabolic disorders and has a tremendous impact in the healthcare industry. All the modules would be conducted by the experts in their respective fields. The experimentation part would be carried out in small groups under the expert supervision.

## COURSE MODULE

**Module I: CATALYST with GE Healthcare and Lifesciences**

**Duration: 30<sup>th</sup> May 2017 - 03 June 2017**

**Module Coordinator: Dr. Moushumi Ghosh.**

**(Module fees: Rs. 6500/-)**

**Module II: In vitro methods of DRUG DISCOVERY**

**Duration: 05<sup>th</sup> June 2017- 13<sup>th</sup> June 2017**

**Module Coordinator: Dr. Sanjai Saxena**

**(Module fees: Rs. 3800/-)**

**Module III: Molecular Medicine**

**Duration: 14<sup>th</sup> June 2017- 22<sup>nd</sup> June 2017**

**Module Coordinator: Dr. Siddharth Sharma**

**(Module fees: Rs. 3800/-)**

**Module IV: Computational Biology and Bioinformatics**

**Duration: 23<sup>th</sup> June 2017- 03<sup>rd</sup> July 2017**

**Module Coordinator: Dr. Vikas Handa**

**(Module fees: Rs. 3800/-)**