



# **REFRESHER COURSE ON BIOTECHNOLOGY EDUCATION AND RESEARCH: CURRENT TRENDS IN 21<sup>ST</sup> CENTURY**

**(12<sup>th</sup> September to 1<sup>st</sup> October 2013)**

**Organized by UGC-Academic Staff College and Department of Biotechnology,  
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.) 495 009**

## **Aims & Objectives:**

The advances in the area of genetics, genomics and molecular biology have grown by leaps and bounds with the resultant need to rein in these advances with relevance to developing countries.

The recent advances in the field of areas like stem cell research and stored tissue including DNA banking, plant biotechnology, novel recombinant products from microorganisms, has led to growing interest in the Biotechnology. It is thus necessary to train the teachers of new developments in the field of Biotechnology. Research in the regenerative medicine for production of organs and implants, Production of nanomaterials and their application in the field of medicine, agriculture and environment management and novel metabolite creation with the help of metabolic engineering will lead to paradigm shift. The capacity building is necessary for motivating the faculty members and students to initiate research in these frontier areas. The Department of Biotechnology and Academic Staff College are organizing the Refresher course.

## **Modules of Course:**

The course will be organized under three modules-

**Module – 1** Microbial Biotechnology

**Module – 2** Plant Biotechnology

**Module – 3** Animal Biotechnology

## **About Academic Staff College (ASC):**

UGC-Academic Staff College (ASC) was established in the lush green campus of Guru Ghasidas Vishwavidyalaya (A Central University) on 27<sup>th</sup> March 2009. ASC is organizing various training programmes viz., Orientation programme, Refresher courses. Short term courses, Interaction programmes etc. for capacity building of teaching and non teaching staff of Universities/Colleges.

The ASC has a state of the art ICT Laboratory facilities with high speed internet and audio visual equipment. Excellent e-class room facilities further create an ambient environment for interactive learning and teaching. ASC has its own library besides the Central library provides facilities of INFLIB NET, Science Direct, e-resources, books and journals. Participants are given guest house, medical and transport facilities. Eminent academicians and researchers are invited as resource persons for delivering talks in the training programmes in addition to the senior faculty of the Vishwavidyalaya. The highly motivated faculty, state of the art facilities, excellent logistics and ambience are the strengths of ASC, and key to the successful organisation of many quality programmes.

## **About Department of Biotechnology:**

The Department of Biotechnology was established in the year 1996 as one of the Departments under Faculty of Science (now under Faculty of Life Sciences) to impart quality education in the field of Biotechnology and to create trained Biotechnologist. Department is conducting courses at UG & PG levels including two year M.Sc. and five year integrated UG & PG programs in Biotechnology in addition to Ph.D Program through Course work as per UGC regulations. Twelve batches of the postgraduate students have passed out from the Department since its inception. Students of the department have been successful in prestigious GRE, CSIR-UGC (NET), GATE, ICMR, DBT-BET examinations. Alumni of this Department are presently working in different prestigious organization of National and International repute including Institute of Immunology University of

Heidelberg Germany Serum Institute of Ltd, Enterovirus Research Centre, ICMR, Roche Diagnostics etc.

The Department of Biotechnology has well developed facility for Microbiology Biochemistry, Molecular Biology Plant and Animal Tissue culture and Bioinformatics. The instruments available include PCR Thermal Cycler, Gel Documentation system, walk-in cold room, CO2 Incubator, Gas Chromatograph, Laboratory Fermenter, ELISA Reader and washer, Ultrasonicators, Fluorescent Research Microscope etc. In addition to above facilities, equipment at the Central Instrumentation facility include HPLC, LC-MS/MS, RT-PCR, Chemidoc and Atomic Absorption Spectrophotometer.

The thrust area of research includes Bioremediation of hydrocarbon and petroleum contaminated soil, fungal biodiversity studies for bioactive compounds, Biorefinery and bioprocess based on agro and forest wastes, microbial and plant enzymes and secondary metabolites.

Department of Biotechnology has organized various workshops and seminars. The Entrepreneurship development and management are also part of curriculum of M.Sc. Biotechnology coursework. This provide a exposure to the avenues in the field of entrepreneurship

### **Eligibility and Application of Participants:**

The University/College (recognized by UGC) teachers of Biotechnology, Botany, Zoology, Molecular biology, Microbiology, Agriculture, Forestry, Rural Technology and Animal Sciences etc. are eligible to apply for the programme. The candidates must have attended one orientation programme. The candidates need to apply through proper channel in prescribed application format which can be downloaded from university web site: [www.ggu.ac.in](http://www.ggu.ac.in). A Demand draft (Any Nationalized bank) of Rs. 500/- drawn in favour of Director ASC, GGV, Bilaspur (CG) is to be attached along with the application form. Applications without DD will not be considered. **The participants are paid TA & DA as per the norms of UGC.**

Bilaspur city of Chhattisgarh is well connected by rail and roadways. Regarding any

further queries related to the course and other details, please contact the coordinators.

### **Contact:-**

### **Course Coordinator:**

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### **Course Director:**

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