



— INTERNSHIP PROGRAM IN —

BOTANY & MICROBIOLOGY

TOOLS & TECHNIQUES

Faculty of Science Department of Botany

Date: 23rd May to 6th July 2023

INDEX

- About Kalinga University
- About Internship Program
- Advantages
- Who Should Attend
- Program Details
- Steps for Registration
- Program Schedule
- Contact Us

Mission

Kalinga University aims to be an outstanding institution for Talent Development and Knowledge Creation for a vibrant and inclusive society.

Our University

Kalinga University, Raipur is a NAAC accredited University with Grade B+ and the Only Private University in Chhattisgarh ranked in Top 101-150 Universities in NIRF Ranking 2022 and has emerged as a centre of excellence of higher education in Central India. Strategically located in the Smart City of New Raipur, this University has started carving a niche for itself in the education domain and is rising as a shining star on the horizon of quality education.

Infrastructure – Kalinga offers of World Class Infrastructure and student facilities with student centric approach. Highest attention is paid to hands on learning approach and students are encouraged to come up with innovative ideas for projects and practical's. The University has more than 90 laboratories and workshops, all well equipped with the latest, state of the art apparatus and tools. Special emphasis is given to the development of communication skills through the language lab. More than 1000 computers are available for the use of the students.



Establishment – Established in 2013, this University has been able to win the confidence of over 8000 students. Meritorious students from all over the country and various foreign countries like Afghanistan, Angola, Bangladesh, Cameroon, Gambia, Ivory Coast, Kenya, Lesotho, Liberia, Malawi, Namibia, Nepal, Nigeria, Papua New Guinea, South Sudan, Swaziland, Tanzania, Uganda, Zambia, Zimbabwe, etc have chosen this University for their education and career.

Schools of Excellence – Currently the University is serving the student community through various UG and PG programs namely Engineering, Law, Pharmacy, Arts & Humanities, Science, Commerce & Management, Biotechnology, Information Technology, Library Science, Fashion Design & Interior Design.



About Internship Program

- The main objective of this program is to encourage the bright and well-motivated students of self and different institutions to pursue innovative research and development of project work.
- This enables the trainees to gain first-hand knowledge, especially working skills with design tools & techniques frequently used in Clinical, Pharma & Microbiology based industry.

Advantages

- Help the students develop skills and employability competencies.
- It provides an opportunity for students to apply theoretical knowledge acquired in the classroom with practical application of knowledge required to perform a task.
- It gives them a feel of how their work environment will be when they get employed. Industrial training also gives exposure to students on the tools used in the Industry.
- Developments of in-hand biological science process skills enable students to better understand science and perform better during interviews. As practical skilled knowledge is the most important aspect of technology-driven science like Botany and Microbiology.
- Internships provide students numerous perks: They gain experience, develop skills, make connections, strengthen their resumes, learn about a field, assess their interests & abilities and land up in desired jobs.

Who Should Attend

BENEFICIAL FOR - Students of UG/PG Programs & Research Scholars of Biotechnology, Botany, Zoology, Pharmacy, Microbiology, Biochemistry, Bioinformatics & other Life Sciences.



“ Resource Persons ”

Dr. Sushma Dubey
Officiating Dean,
Life Sciences

Dr. Deepa Biswas
HoD - Botany
Kalinga University

Program Details

Duration : 45 Days

Date: 23rd May to 6th July 2023

Monday to Saturday

Time: 10:00 am to 4:00 pm

Venue: Kalinga University

RS 10,000/-



NOTE -

1. Accommodation facility is available on a chargeable basis : Rs 6,500/- for 45 Days inclusive of Food (Air Cooled Room- 4 Students/Room, 3 Meals per day & other amenities).
2. Transport Facility available from common pickup point (Free).

Steps For Registration

STEP 1: Participants have to make payment on the given bank details

Account Name: Kalinga University

Bank Name: ICICI bank

A/c No.: 390701000010

IFSC Code No.: ICIC0003907

SWIFT CODE: ICICINBBCTS

STEP 2: Take screenshot of the payment & send it to

deepa.biswas@kalingauniversity.ac.in

STEP 3: Fill out the registration form with all the necessary information.

SCAN TO PAY



REGISTER HERE



CONTACT DETAILS

+91-9303116388 | deepa.biswas@kalingauniversity.ac.in

Program Schedule

Module 1 - Seed Technology

S.No.	Topics	Duration
1.	Seed structure and identification	7 Days
2.	Seed dormancy	
3.	Seed Germination Test	
4.	Biochemical Test for Viability	
5.	Determination of Seed Moisture Content	
6.	Seed Vigour Test	
7.	Seed Treatment	

Module 2 - Plant Tissue Culture

S.No.	Topics	Duration
1.	Preparation of media and stock solution	12 Days
2.	Preparation of Explants	
3.	In vitro Seed germination	
4.	Callus initiation and Maintenance	
5.	Shoot bud culture	
6.	Root initiation	
7.	Artificial seed preparation	
8.	Micropropagation	

Module 3 - Nutritional Herbs Analysis

S.No.	Topics	Duration
1.	Extraction Procedures: Soxhlet Extraction	7 Days
2.	Qualitative assay	
3.	Herbal Formulations are tested for their antimicrobial property by suitable assay (MIC)	
4.	Herbal Formulations are tested for their antimicrobial property by suitable assay (MIC)	

Module 4 - Microbial Culture

S.No.	Topics	Duration
1.	Preparation of media	12 Days
2.	Isolation of microorganism from soil / water / air	
3.	Streaking and spreading of collected samples	
4.	Analysis of colonial characteristics	
5.	Gram staining to understand the morphology and the nature of microorganisms/ Lactophenol cotton blue staining	
6.	Microscopic analysis of the microorganisms	
7.	Checking the bacterial motility of those newly isolated microorganisms	
8.	Architecture of bacterial colonies on different agar density	
9.	Technique of sample preparation for analysis	

Module 5 - Microbial Characterization

S.No.	Topics	Duration
1.	Antibiotic sensitivity test [Multi Drug Resistance (MDR)]	7 Days
2.	Minimum Inhibitory Concentration (MIC) determination of isolated strains	
3.	Virulent factor determination	
4.	Screening of biofilm forming ability	
5.	If possible, relate with biofilm and virulence factors	



Kotni, Near Mantralaya, Naya Raipur,
Chhattisgarh - 492101, India



www.kalingauniversity.ac.in

