KALINGA UNIVERSITY
RAIPUR|INDIA

NAAC GRADE B+ Accredited University | nirf RANKING 2022 Ranked in Top 101-150 Universities | Azadi Ka Amrit Mahotsav

INTERNSHIP PROGRAM IN

CHEMISTRY

TOOLS & TECHNIQUES

Faculty of Science Department of Chemistry

Date: 23rd May to 6th July 2023

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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 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 Kalinga University and other institutions to pursue innovative research and development of project work. This enables the trainees to gain first-hand knowledge, especially working skills with sophisticated instruments frequently used in research setup and in Life Sciences

Advantages

- Help the students develop their 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 hands-on practical training skills. Enable students to better understand chemistry. As practical skilled knowledge is the most important aspect of Chemical Science.
- 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 Chemistry.

Resource Persons

Dr. Shilpi Shrivastava
Officiating Dean,
Applied Sciences

- **Dr. Sanyogita Shahi**
  Professor, Department of Chemistry
- **Dr. Preeti Pandey**
  Assistant Professor, Department of Chemistry
- **Ms. Sarvaree Bano**
  Assistant Professor, Department of Chemistry
- **Ms. Priyanka Gupta**
  Assistant Professor, Department of Chemistry

Program Details

Duration : 45 Days
Date: 23rd May to 6th July 2023
Monday to Saturday
Time: 10:00 am to 4:00 pm
VENUE: Instrumentation Facility, Kalinga University

PROGRAM FEE

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

shilpi.srivastava@kalingauniversity.ac.in

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

SCAN TO PAY

REGISTER HERE

CONTACT DETAILS

+91-8878101537 | shilpi.srivastava@kalingauniversity.ac.in

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Program **Schedule**

S.No.	Module I - Natural Products	Duration
1.	Isolation of Cinnamaldehyde from cinnamom	7 Days
2.	Isolation of Caffeine from coffee	
3.	Isolation of Menthol from piperment	
4.	Isolation of Lycopene from cherry	
5.	Isolation of starch from Rice	

S.No.	Module II - Organo-transition and Bioinorganic	Duration
1.	Study of kinetics of exchange between ethyl iodide & the iodide ion.	12 Days
2.	Determination of the solubility product of lead iodide.	
3.	Determination of the dissociation constant of Barium Nitrate.	
4.	Determination of the partition coefficient for iodine between carbon tetrachloride	
5.	To study the effect of temperature, concentration of the reactant and catalyst on the rate of reaction	

S.No.	Module III - Polymer Chemistry	Duration
1.	Synthesis of caprolactum and Nylon-6	7 Days
2.	Preparation of Nylon-6,6 / -6,10 salt using HMDA- adipic acid/Sebasic acid.	
3.	Synthesis of styrene: Maleic anhydride copolymer	
4.	Synthesis of Adipic acid, Preparation of Bisphenol-A.	
5.	Synthesis of Hexamethylene dimine by oxidative hydrolysis of Nylon-6,6.	

S.No.	Module IV - Analytical Chemistry	Duration
1.	Preparation of Potassium Trioxalatoferrate (III) and estimation of Iron	12 Days
2.	Estimation of Ferrous Iron using 1,10 Phenolthroline by colorimetric method.	
3.	Gravimetric estimation of Nickel using dioxime reagent	
4.	Determination of stability constant of Fe(III)-salicyclic acid complex	
5.	Estimation of sulphate in a given sample as Barium Sulphate	

S.No.	Module V - Medicinal Chemistry	Duration
1.	Preparation of drugs and intermediates	7 Days
2.	Sulphanilamide, Chloro-butanol, Hexamine, Atropine	
3.	Assay of drugs- Chloroquine, Ibuprofen, Chloroquine	
4.	Developing a Phenytoin	
5.	Barbiturate, Tolbutamide	

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RAIPUR | INDIA

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