ICAR Sponsored Winter School

On

"Advances in methods and techniques for analysis of foods and agricultural products"

(December 09-29, 2026)



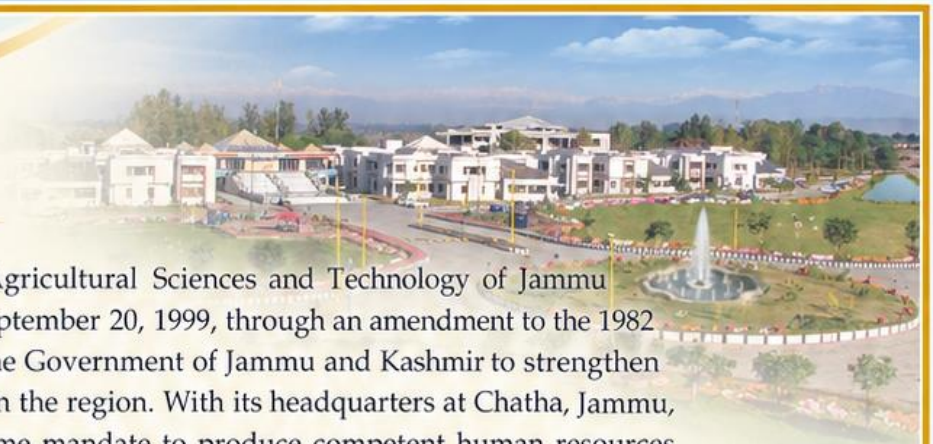
Organized By:

Division of Biochemistry, Faculty of Basic Sciences

Sher-e-Kashmir University of Agricultural Sciences and Technology of Jammu

(SKUAST-Jammu)

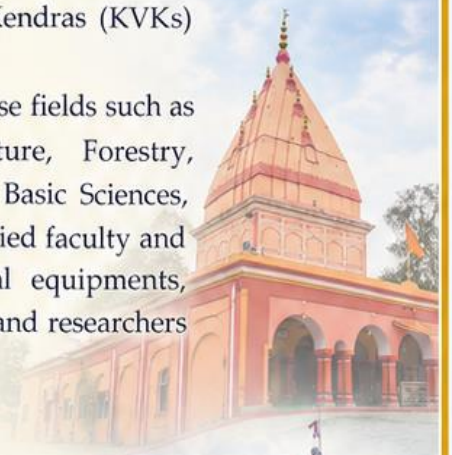
Main Campus, Chatha, Jammu, UT of Jammu & Kashmir, 180009



About SKUAST-Jammu

The Sher-e-Kashmir University of Agricultural Sciences and Technology of Jammu (SKUAST-Jammu), established on September 20, 1999, through an amendment to the 1982 SKUAST Act, reflects the vision of the Government of Jammu and Kashmir to strengthen agricultural education and research in the region. With its headquarters at Chatha, Jammu, the multi-campus university has prime mandate to produce competent human resources capable of sustaining and advancing the remarkable growth of agriculture and allied sectors while prioritizing biodiversity conservation and addressing environmental concerns. The main campus at Chatha houses key faculties including Agriculture, Basic Sciences, Agricultural Engineering, Horticulture & Forestry, and the Institute of Biotechnology. The R.S. Pura campus, is home to the Faculty of Veterinary Sciences & Animal Husbandry and Faculty of Dairy Technology. Across its jurisdiction, the university holds 1139.12 acres, including nine Research Stations/Sub-Stations and nine Krishi Vigyan Kendras (KVKs) catering to various agro-climatic zones of Jammu region.

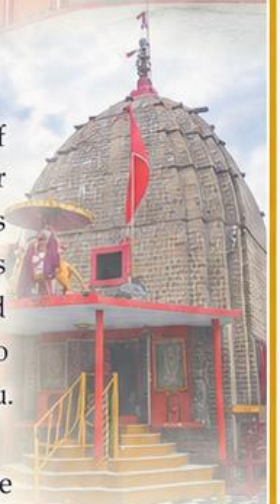
SKUAST-Jammu offers excellent facilities for teaching and research in diverse fields such as Agricultural Sciences, Veterinary Sciences, Biotechnology, Horticulture, Forestry, Sericulture, Agricultural Engineering, MBA (Agri-business Management), Basic Sciences, Dairy Technology, and Fisheries. SKUAST-Jammu has distinguished, qualified faculty and state-of-the-art laboratories with well-equipped, sophisticated analytical equipments, providing an excellent opportunity for teaching and learning for students and researchers across agriculture and allied disciplines.



About Jammu

The city of Jammu, also known as "City of Temples" is a historical city, lies at the foothills of the Shivalik range at an altitude of 327 meters above the mean sea level in Jammu & Kashmir UT. The view of the dawn and dusk of this sacred city is simply enchanting, with all bazaars in the city having their own peculiarities and specializations. The city hosts the famous Mubarak Mandi, Raghunath Temple, Bagh-e-Bahu, Bahu Fort, Amar Mahal, underground Fish Aquarium, Balidan Stumbh, etc., within the municipal limits. The famous Mata Vaishno Devi shrine is about 55 km, and the Cave shrine of "Shivkhori" is about 110 km from Jammu. The city is well connected to the rest of India by air, rail and roadways.

Jammu experiences cold winters during December. During the winter school period, daytime temperatures are expected to be around 15–20°C, with considerably colder nights. Warm woollen clothing, jackets, and other winter essentials will be required.



About Winter School

Background

Basic and applied research in Food Sciences, Agriculture, and allied life sciences, including Biochemistry, Biotechnology, Microbiology, and Physiology, increasingly depends on access

to sophisticated scientific instrumentation and advanced analytical techniques. Laboratory-based analyses provide essential supplementary data to validate and substantiate field-based agricultural research findings, thereby enhancing their scientific reliability, credibility, and acceptance at the national and international levels. While useful, traditional analytical methods are continually being challenged by technological and instrumental developments. Technology is moving chemical analysis towards the use of more sophisticated instruments (either individually or in tandem) with more specificity and sensitivity. Gas chromatography (GC), high-performance liquid chromatography (HPLC), spectroscopy including near-infrared (NIR), and mass spectroscopy (MS) are now considered to be basic laboratory equipment used in biochemical analysis. The growing global emphasis on high-throughput data generation, precision analysis, and multidisciplinary research has further increased the demand for modern laboratory facilities. These capabilities are essential for addressing emerging challenges related to food and nutritional security, environmental management, public health, and the development of nutritionally improved and climate-resilient crop varieties.

Objectives

- Familiarise participants with advanced instruments, tools and techniques used in agricultural and allied life-science research.
- Build understanding of analytical methodologies and instrumentation for planning and conducting research.

Brief Course Outline

- The programme combines classroom lectures with hands-on sessions. Participants will be introduced to advanced instrumentation, analytical methodologies and their application in research planning and execution.
- Sessions will also cover scientific plagiarism, intellectual property rights, good laboratory practices and biosafety. Course material will be provided

Key analytical methods and practical areas

- *Protein extraction, profiling and characterization*
- *Crude Fat and essential oil extraction and analysis*
- *High-Performance Liquid Chromatography (HPLC) for secondary metabolites*
- *Pesticide residues and bioactive compounds analysis using GC-MS and LC-MS/MS*
- *UV–Visible spectrophotometry for biomolecules and antioxidants assays*
- *Fluorescence spectroscopy for analysis of vitamins*
- *Fourier-Transform Infrared Spectroscopy (FTIR) of food and agricultural samples*
- *Elemental analysis using Atomic Absorption Spectroscopy/ Mass spectroscopy/ FE-SEM*
- *Real-time PCR analysis and Nanopore sequencing*

Eligibility:

The training programme is open to participants not below the rank of Scientist/ Assistant Professor/ Subject Matter Specialists and equivalent positions. The participants should be working in ICAR institutes/SAUs/CAUs/Agricultural Colleges/Universities with Agriculture faculty.

How to Apply:

Submit a scanned copy of the completed application form, duly approved by the competent authority, to the Course Director by email at biochemskuastj@yahoo.com on or before 10 November 2026. Applicants should pay the registration fee of ₹50 to the bank account listed below and include the payment details in the application form.

Fee Payment Bank details:

Account Holder Name : Head, Division of Biochemistry
Account Number : 1235040500000084
Bank : J&K Bank, SKUAST-J
IFSC Code : JAKA0EAURSP

Date, Duration and Venue:

Dates of winter school	Duration	Venue
December 09-29, 2026	21 days	Division of Biochemistry, Faculty of Basic Science, SKUAST-Jammu

Important Dates

Particulars	Date
Last date for receiving applications	**10 November, 2026**
Intimation of selection	**16 November, 2026**
Confirmation by selected participants	**17 November, 2026**

Boarding and Lodging:

The boarding and shared accommodation will be provided to selected participants. The participants will be paid for the journey, to and fro by the shortest route restricted to AC-III tier train/bus by the shortest route for attending the winter school. The local candidates are not eligible for boarding and lodging, however, they will be provided working lunch and inter-session refreshments.

Contact for applications:

Dr. Moni Gupta, Course Director
Professor & Head, Division of Biochemistry, Faculty of Basic Sciences, SKUAST-Jammu
Phone: +91-9469160994
Email: biochemskuastj@yahoo.com

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Organized by Division of Biochemistry, FBSc, SKUAST-Jammu, J&K

Application

Recent Passport Size Photograph

1. Name (In Block letters):
2. Designation:
3. Present employer address:
4. Address to which reply should be sent (in block letters):
5. Mobile No.:
6. E-mail ID:
7. Permanent address:
8. Date of birth:
9. Gender:
10. Marital Status:
11. Teaching/research/professional experience (mention post held) during the last five years and number of publications:
12. Mention if you have participated in any conference/seminar/summer school/winter school/short course etc. during the last five years under ICAR/ other organization
13. Relevance of the training to the participant:
14. Payment details/Transaction ID for Registration fee:
15. Academic Record:

Degree	Discipline	Year	University
Ph.D.			
Master			
Bachelor			

Date:

Place:

Signature of Applicant

Recommendation of forwarding authority:

It is certified that the information furnished by the candidate has been verified and found correct

Signature of Authority with Seal

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Organizing Committee

Patron

Dr. B.N. Tripathi
Hon'ble Vice Chancellor
SKUAST-Jammu

Co-Patron

Dr. Sanjay Guleria
Dean, FBSc
SKUAST-Jammu

Course Director

Dr. Moni Gupta
Professor & Head
Division of Biochemistry, FBSc, SKUAST-Jammu

Course Co-Directors

Dr. Vinod Kumar
Associate Professor
Division of Biochemistry
FBSc, SKUAST-Jammu
Contact Number: 9548057828

Dr. Upma Dutta
Associate Professor
Division of Microbiology
FBSc, SKUAST-Jammu
Contact Number: 9419161822



Division of Biochemistry, Faculty of Basic Sciences
Sher-e-Kashmir University of Agricultural Sciences and Technology of Jammu,
Jammu & Kashmir-180009