

DEPARTMENT OF FOOD AND NUTRITION

INTRODUCTION

Established in 1993 and renamed in 2023 to better reflect our expanded focus, the Department of Food Science and Nutrition has evolved significantly. We aim to prepare knowledgeable professionals who can contribute effectively to health and nutrition globally.

VISION

To achieve excellence in the field of Food Nutrition and Dietetics.

MISSION

To be a premier institution for students, researchers, faculty, and industry experts seeking excellence in Food Nutrition and Dietetics education and collaboration.

OBJECTIVES

- Cultivating a critical thinking environment in Food Nutrition and Dietetics.
- Integrating theory with practical skills for industry readiness.
- Empowering students to become skilled nutritionists who promote public health.
- Enhancing the field through innovative research and global partnerships.

GROWTH IN DEGREE PROGRAMMES OVER THE YEARS

- Introduced **M.Sc.** Programme in **Food Science and Nutrition** in 2012.
- Launched **Ph.D.** Programme in **Food Science and Nutrition** in 2020.
- Started the **B.Sc. (Hons.) Food, Nutrition & Dietetics** 4-year program in the academic year 2023-24.
- Department offers choice based elective courses for **B.Sc. (Hons.) Community Science** students.

VALUE-ADDED COURSES

- Department offers value added courses on **Basic Nutrition** and **Basic Cookery** for students of other disciplines to enhance skills across departments in ANDUAT.

COLLABORATIONS AND TRAINING PARTNERS

- **In-Plant Training Partners:**
 - Parag Dairy, Faizabad

- Fruit Preservation Center, Faizabad
- Institute of Entrepreneurship Development, Lucknow
- Omkar Seva Sansthan

Department provides practical In-Plant Training for final year undergraduate students in prestigious institutions like King George Medical University, Lucknow; Jagrani Hospital, Lucknow; Parag Dairy, Faizabad; Fruit Preservation Center, Faizabad and Institute of Entrepreneurship Development, Lucknow etc.

- **Internships partners:**

- King George Medical University, Lucknow
- Jagrani Hospital, Lucknow

RESEARCH PROJECTS

Ongoing Research Projects

- Development of Model Farm for Agri-Tourism - Funded by RKVY
- Collection and Evaluation of Millet Germplasm for Improvement and Value Addition: Focus Central- East Uttar Pradesh - Funded by UPCAR
- Development of Millet-Based Commercial Products - Funded by UPCAR

Completed Research Projects

- Nutritional evaluation of uncommon plant foods of eastern U.P" funded by the state government.
- Nutri-farming (Pilot Project) - Funded by RKVY
- Utilization of Indigenous Foods for Development of Functional Foods to Combat Micronutrient Deficiencies - Funded by UPCAR

Key Research Areas in Student Projects

- Nutritional and Health Issues of Geriatric Populations
- Prevalence of Anaemia in Antenatal Women
- Development and Quality Evaluation of Millet Based Bakery Products
- Standardization and Quality Evaluation of Low-fat Fibre-Enriched Paneer
- Nutritional Evaluation and Value Addition of Drumsticks
- Quality Assessment of Vegetables Grown Under Hydroponics

ACHIEVEMENTS AND RECOGNITION

- Active participation and numerous awards in National/International Conferences.
- Over 190 research papers published in peer-reviewed journals.
- Significant community engagement through various public awareness initiatives.

CAREER OPPORTUNITIES

Alumni are well-placed in roles such as Assistant Professors, Research Fellows, and Dietitians in renowned government and private institutions.

TEACHING PRIORITIES

The department is offering following courses:

- B.Sc. (Hons) Community Science Elective Food and Nutrition
- B.Sc. (Hons) Food, Nutrition and Dietetics
- M.Sc. Food and Nutrition
- Ph.D. Food and Nutrition

INFRASTRUCTURAL FACILITIES

- **P.G. Research Laboratory:** This laboratory is equipped with modern analytical equipments for the use of research purpose.
- **Food processing Laboratory:** The laboratory is meant to conduct practical classes on cooking and preservation for undergraduate and postgraduate students.
- **Dietary Counseling Laboratory:** This laboratory is used to provide diet counselling skills to students.
- **U.G. Research Laboratory cum Lecture Hall:** This laboratory consists of Soxhlet Apparatus, Kjeldhal Apparatus Fiber estimation unit, Centrifuge, Water bath, Tray Drier. Hot air Oven etc. This laboratory is also used as class room for U.G. classes.
- **Institutional Management Laboratory:** This laboratory is having four sets of canteena chairs with attached tables. The students prepare and sale specialized dishes during class practical and learn management skills.
- **Common Room:** The department has got a small room used as a common room by students of the department. **Entrepreneurship Laboratory:** This laboratory is used as an office by the students for entrepreneurship course.
- **Poshan Vatika:** For training of students on nutrition and horticultural practices.

FACULTY PROFILE

PROF. SADHNA SINGH **HEAD OF THE DEPARTMENT**

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Qualifications

- **UGC- NET (National Eligibility Test) Qualified**
- **B.Sc. (Home Science), 1991, HPKV, Palampur, Himachal Pradesh**
- **M.Sc. (Food Science & Nutrition), 1993, HPKV, Palampur, Himachal Pradesh**
- **Ph.D. (Food Science and Nutrition), 1997, HPKV, Palampur, Himachal Pradesh**

Professional Experience

- Total Experience: **23 Years**
- Guidance:
- Postgraduate Students: **3**
- Ph.D. Students: **1**

Research Interests

- Cereal Processing
- Value addition to food products
- Community Nutrition

Professional Memberships

- Life Member, **Society of Food Science & Technologists**
- Additional Memberships: **2**

Publications & Contributions

- Research Papers: **65**

- Book Chapters: **13**
- Books Authored: **5**
- Technical Bulletins: **5**
- Popular Articles: **75**

Projects and Achievements

State Level Projects Completed: **3**

Awards and Honors:

- State Millet Appreciation Award
- Best Teacher Award
- Award for Shri Anna Mahotsav from the Agriculture Minister
- Young Scientist Award at the National Conference
- Best Oral Presentation at the International Conference on Food Security

International Awards:

- Recognized with the prestigious Young Scientist Award at the International Conference on Advances in Agriculture and Applied Sciences, held in Kathmandu, Nepal, from May 13 to 15, 2017.
- Best Oral Presentation Award at the International Conference on Food Security and Sustainable Agriculture, organized by SAID Ranchi in Pattaya-Bangkok, Thailand, from December 21 to 24, 2018.

Other Achievements:

- Significantly contributed to the development and promotion of millet-based food products.
- Recognized for excellence in teaching and research within the field of community science and nutrition.

DR PRAGYA PANDEY

Designation: Assistant Professor

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Education:

- B.Sc., Home Science, COHSc, ANDUAT, Ayodhya (2011);
- M.Sc., Food and Nutrition, COHSc, UAS Dharwad, Karnataka (2013);
- Ph.D., Food and Nutrition, COHSc PAU, Ludhiana (2018).

Positions held:

- Assistant Professor, GD Goenka, Sohna, Haryana (2019-2020)
- Assistant Professor, LPU, Phagwara, Punjab (2020-2022)

Research Interests

- **Anthocyanins-Enriched Food Products:** Investigating the integration of anthocyanins to enhance nutritional profiles and health benefits of food products.
- **Phytochemicals & Functional Foods:** Focused on the extraction and utilization of phytochemicals to develop foods with added functional benefits.
- **Millet-Based Food Products:** Developing innovative food solutions using millets to leverage their nutritional and health-promoting properties.

Reviewer

- Electronic Journal of Biotechnology (IF: 2.26)
- Journal of Food Science and Technology (IF: 1.946)
- Nutrition and Food Science
- Heliyon (4.0)

Memberships

- Life Member of Nutrition Society of India [Regd. No. 125/ 1966]
- Society of Nutrition and Food Science

Awards/Honours/Distinctions:

- MASHAV scholarship from ministry of External affairs, Israel (2017)
- Khush foundation travel grant (2017)
- CSIR Foreign Travel Grant (2017)
- NSI PRIZE for the BEST POSTER PRESENTATION (2014)
- DST-INSPIRE fellowship (2014)
- Late Dr. (Mrs.) Leela Phadnis EX-DI (H.Sc.) cash award for being Department Topper (2013).

Selected Research Publications

Pandey, P., Grover, K., Dhillon, T. S., Chawla, N., & Kaur, A. (2024). Development and quality evaluation of polyphenols enriched black carrot (*Daucus carota* L.) powder incorporated bread. *Heliyon*, 10(3).

Timsina, Y. P., **Pandey, P.**, Mondal, I. H., & Dar, A. H. (2023). Non-pharmacological management of hypertension: A systematic review. *Food Chemistry Advances*, 3, 100406.

Saggu, A. K., Tomer, V., Kumar, A., & **Pandey, P.** (2022). Consideration of Phytonutrients, Probiotics and Prebiotics for enhanced immunity during disaster relief situation-A review. *Clinical Nutrition Open Science*.

Pandey, P., Grover, K., Dhillon, T. S., Kaur, A., & Javed, M. (2021). Evaluation of polyphenols enriched dairy products developed by incorporating black carrot (*Daucus carota* L.) concentrate. *Heliyon*, 7(5), e06880.(IF- 3.88)

Book Chapters

Kaninika Paul, **Pragya Pandey**, Utsav Rathore and NA Nanje Gowda (2022). Cold Plasma Technology and its Applications in Food Industry. *Advanced Research Methods in Food Processing Technologies*. Apple Academic Press, Inc. (“AAP”), Burlington – ON – Canada [Boca Raton – FL: CRC Press].

Pragya Pandey, Savvy Sharma and Utsav Rathore (2022). Nutraceuticals in Bursitis. *Nutraceuticals in Bone Health*. Apple Academic Press, Inc. (“AAP”), Burlington – ON – Canada [Boca Raton – FL: CRC Press].

DR. SHWETA CHAUDHARY

Designation: Assistant Professor (Food & Nutrition Science)

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Education:

- B.Sc. (Clinical Nutrition & Dietetics), University of Lucknow, Lucknow (2010);
- M.Sc. (Food & Nutrition), University of Lucknow, Lucknow (2012);
- Ph.D. (Food & Nutrition), Babasaheb Bhimrao Ambedkar University (A Central University), Lucknow,(2019);
- B.Ed (Science), Rmlau, Ayodhya;(2022)

Field of specialization/ Research Interests:

- Organic Waste Management
- Functional food & Phytochemicals
- Nutraceutical food

Selected Research Publications:

- Chaudhary, S., & Mishra, S. (2019). Effect on physico-chemical and microbial properties of kitchen waste compost (KWC)-using potential fungal inoculant. *Indian Journal of Agricultural Research*, 53(3), 297-302. (NAAS rating-5.20).
- Chaudhary, S., & Mishra, S. (2019). Phytotoxicity assessment of four different season's kitchen waste compost at different level of concentration on mung beans (*Vigna radiata* (L.)). *Plant Arch*, 19(1), 643-651. (NAAS rating-4.73).
- Chaudhary, S., & Mishra, S. (2019). Influence of using kitchen waste compost (KWC) on tomato (*Lycopersicon esculentum* Mill.) physical growth parameters. *The Pharma Innovation Journal*, 8, 306-308. (NAAS rating-5.23).

- Chaudhary, S., & Mishra, S. (2018). Assessment on variations in physico-chemical characteristics at different maturity phases of organic kitchen waste composting at Lucknow City UP (India). *Journal of Pharmacognosy and Phytochemistry*, 7(5), 2943-2947.
- Chaudhary, S., & Mishra, S. (2017). Food waste management: a global issue. *International Journal of Current Research*, 9(01).

Published Book Chapters

- “Phytochemicals and their role in prevent diseases” in Book “ADVANCE NUTRITION.” Edited by DR. PATIBHA ARYA. Akinik Publication, New Delhi.
- “An overview on potential health benefits of Tea (Camellia Sinensis)” in Book “ADVANCES IN ESSENTIAL OILS AND NATURAL PRODUCTS(VOLUME-1.)” Akinik Publication, New Delhi.
- “Genetically modified foods: A critical review on their role in human nutrition,Hidden hunger and foof security.” In Book Advancement in Biological Approaches for crop improvement. Volume 1 Walnutpublication

Awards/Honours/Distinctions:

- Qualified (NTA NET December 2018, CBSE UGC NET January and November 2017).
- A National Workshop on “Lifecycle Approaches for Better Nutrition”, Participated in Elocution got Ist prize in the competition 2016.BBAU, Lucknow.
- Best Research Scholar-2019 Award by Agricultural Technology Development Society On the occasion of 3rd International conference “ Global Initiatives in Agricultural and Applied Sciences for Eco- Friendly Environment.Tribhuvan University , Kathmandu, Nepal