

Department of Food Science & Technology

Department of Food Science & Technology is an industrial research-promoting department. Department is poised to serve the society by going in line with the policy of Government of India in the field of food processing, nutrition and health to contribute towards economic development and to promote health and nutrition. IKG Punjab Technical University main campus offers a serene yet stimulating environment to its students aspiring to do variety of specialised courses in the Department of Food Science and Technology.

Interactive experiential form of teaching is given great importance to enable the students to apply their knowledge learnt in the classroom into their practical life and jobs. Department regularly organizes guest lectures to have them a better exposure of research and industry. Department aims at attracting and training students in all aspects of research and development in several areas of Life Sciences. The courses of the Department emphasize on various aspects of health, nutrition, food processing, food preservation, food packaging, food quality and safety, relation between food and health and adding Nutraceuticals, functional food products and Nutrigenomics.

Programme Offered

Programme	Intake	Duration
M.Sc. Clinical Research	10	2 Years
M.Sc. Food Technology	25	2 Years
M. Tech. Food Technology	18	2 Years
PhD	As per UGC Norms	

Eligibility of the courses

Programme	Eligibility
M.Sc. Clinical Research	Graduation with 50% marks in Sciences / Medical Sciences/ Life Sciences / Pharmacy
M.Sc. Food Technology	Bachelor of Science / Applied Science in any subject/ B.Tech Food Technology / Biotechnology/ Sugar Technology/ Sugar and Alcohol Technology/ Fermentation Technology/ Dairy Technology or any other examination recognised equivalent thereto with atleast 50% marks in aggregate
M. Tech. Food Technology	B.Tech/ B.E. (Food Engineering / Food Technology/Food Engineering and Technology/ Dairy Technology/ Dairy Engineering/ Food Process Technology/ Food Process Engineering/ Food Biotechnology/ Agriprocess Engineering/

	Agricultural Engineering/ Biotechnology) or any other equivalent degree with atleast 55% marks <p style="text-align: center;">Or</p> M.Sc. (Food Science / Food Technology/ Food Processing and Technology/ Biotechnology) or any other equivalent degree with 55% marks
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Research Areas

- Characterization of macro and micro molecules of Food
- Food Product Development
- Increase in Shelf-Life of Food Products
- Functional Food and Nutraceuticals
- Nutrigenomics
- Post-Harvest Technology

Infrastructure/Labs

The laboratories of the Department of Food Science & Technology are well equipped with instruments such as UV-spectrophotometer, rotary evaporator, ELISA Reader, ELISA washer, PCR, BOD incubator, CO₂ incubator, high precision electronic balances, vacuum oven, muffle furnace etc. for undertaking research projects. The laboratories of the Department are being upgraded with instruments like HPLC, GC, Texture Profile Analyser, Digital shaker incubator, deep freezers, Gel Doc and Sonicator etc. Department encourages students to participate in subject conference and other scientific gatherings

Faculty

Name	Designation	Research Specialisation	Experience as on 31/12/2017
Dr. Rajneesh Kant Sachdev	Associate Professor	Processing & Food Engineering	30 Years
Er. Gazal Sharma	Assistant Professor	Biotechnology, Nutrigenomics	9 Years
Dr. Shabir Sidhu	Assistant Professor	Pharmacology	7 Years & 6 Months
Dr. Barinderjit Singh	Assistant Professor	Food Technology	12 Years & 4 Month

*Guest Faculty from leading education and research institutes like IHBT, Palampur and NABI, Mohali are invited for the expert talk.

Events Organised

Faculty Development Program on **Research Methods for Data Analysis for Engineers and Researchers** (April 22 - 28, 2017).

Faculty Participation/Paper Presentation in Conferences

Singh, Barinderjit (2016), "**Optimization of Ultrasound- Assisted Extraction of Polyphenols from Black Gram and Their Distribution in Different Milling Fractions**" presented at *2016 GNDU, Amritsar, Conference on Food Processing for Sustainable Agriculture & Industry (ICFOST XXV)*, Amritsar, India (Co-author- Narpinder Singh).

Faculty Publications

Rathee, Deepti, Kamboj, Anjoo, Sachdev, Rajneesh Kant and Sidhu, Shabir (2018), "**Hepatoprotective Effect of *Aegle marmelos* Augmented With Piperine Co-Administration in Paracetamol Model**", *Brazilian Journal of Pharmacognosy (Revista Brasileira de Farmacognosia) (Elsevier)*, Volume 28, Issue 1, 65-72.

Singh, Harsimran, Sidhu, Shabir, Chopra, Kanwaljit, and Khan, M.U. (2017), "**The Novel Role of β -Aescin in Attenuating CCl₄-Induced Hepatotoxicity in Rats**", *Pharmaceutical Biology (Taylor & Francis)*, Volume 55, Issue 1, 749-757.

Kaur, Jagdeep, Sidhu, Shabir, Chopra, Kanwaljit, and Khan, M.U. (2016), "***Calendula officinalis* Ameliorates L-Arginine Induced Acute Necrotizing Pancreatitis in Rats**", *Pharmaceutical Biology (Taylor & Francis)*, Volume 54, Issue 12, 2951-2959.

Kaur, Jagdeep, Sidhu, Shabir, Chopra, Kanwaljit and Khan, M.U. (2016), "**Protective Effect of *Mimosa pudica* L. in L-Arginine Model of Acute Necrotising Pancreatitis in Rats**", *Journal of Natural Medicines (Springer)*, Volume 70, Issue 3, 423-434.

Singh, Harsimran, Sidhu, Shabir, Chopra, Kanwaljit and Khan, M.U. (2016), "**Hepatoprotective Effect of Trans-Chalcone in Experimentally Induced Hepatic Injury in Rats: Inhibition of Hepatic Inflammation and Fibrosis**", *Canadian Journal of Physiology and Pharmacology (NRC Research Press)*, Volume 94, Issue 8, 879–887.

Singh, Barinderjit, Singh, Narpinder, Thakur, Sheetal and Kaur, Amritpal (2017), "**Ultrasound Assisted Extraction of Polyphenols and their Distribution in Whole Mung Bean, Hull and Cotyledon**", *Journal of Food Science and Technology (Springer)*, Volume 54, Issue 4, 921-932.

Sharma, Gazal (2017), "**Colloidal Systems: An Excellent Carrier for Nutrient Delivery**", *Nutrient Delivery Nanotechnology in Agri-Food Industry (Academic Press)*, ISBN No. 9780128043042, 681-712.

Workshops/FDP/Summer Scholl/Winter School/Refresher Course attended

Dr. Shabir Sidhu Participated in a "**Faculty Development Program on Research Methods for Data Analysis for Engineers and Researchers**" organized by *IK Gujral Punjab Technical University Main Campus, Kapurthala* (April 22 - 28, 2017).

Dr Barinderjit Singh Participated in the GIAN course "**Bio-Imaging for Food Quality Monitoring and Process Automation**" organized by *Guru Nanak Dev University, Amritsar in Collaboration with Ministry of Human Resource Development Govt. of India* (January 5-9, 2018).

Academic Achievements and Awards Won by Faculty

Dr. Barinderjit Singh won **Best Paper Award** for “Optimization of ultrasound- assisted Extraction of Polyphenols from black gram and their Distribution in Different Milling Fractions” at Food Processing for Sustainable Agriculture & Industry (ICFOST XXV) conference (2016), GNDU, Amritsar (co-author with Singh, Narpinder).

Student Achievements

Name: Aayush Wadhwa

- Achievement: 3rd Prize in Poster Presentation
- Event: National Conference on Emerging and Sustainable Technologies in Food Processing, SLIET, Longowal , Punjab
- Year: 15-16 March 2018

Name: Mehak Aftab

- Achievement: 2nd Prize in Poster Presentation
- Event: National Conference on Contemporary Food Processing and Preservation Technologies, Shoolini, University, Himachal Pradesh
- Year: 12-13 April 2018

For any queries contact @

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