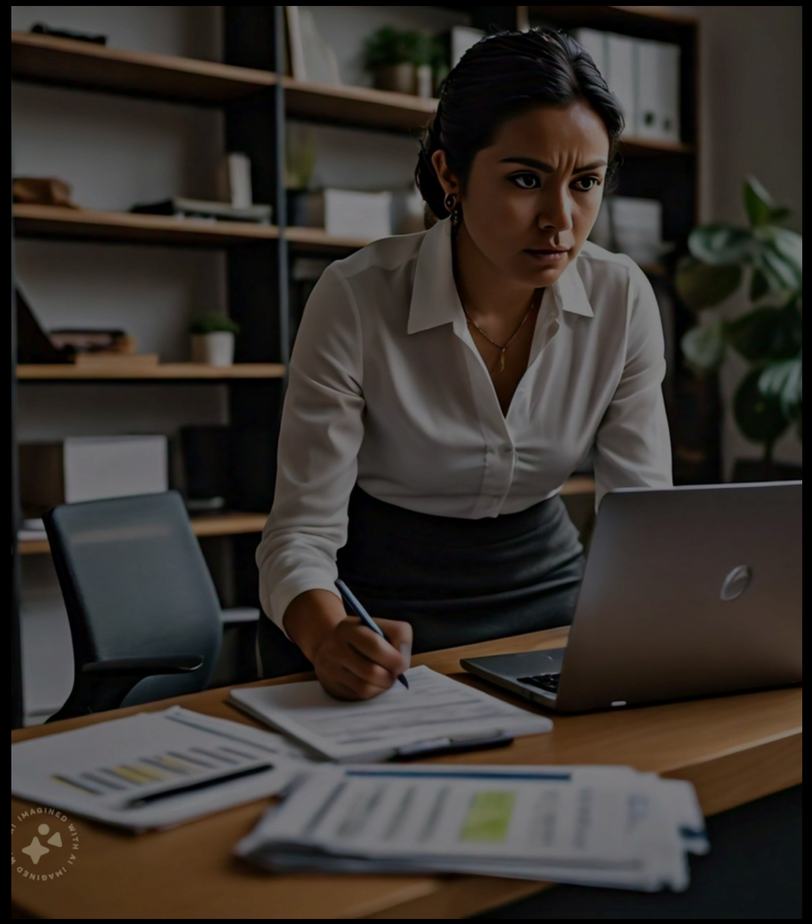
TS
TECH TEACH
EDUCATIONAL SOLUTIO

Food Technology

OUR MISSION :



"Our mission is to empower learners worldwide through innovative technology, personalized learning experiences, and accessible educational resources. We strive to cultivate a community where every individual can achieve their full potential, regardless of their background or circumstances."

OUR VALUES :

"To pioneer the future of education by leveraging cutting-edge technology to make learning more engaging, effective, and inclusive. We envision a world where education transcends boundaries, creating opportunities for lifelong learning and fostering a society enriched by knowledge and creativity."

COURSE CURRICULUM:

Week 1: Introduction and Basic Concepts

- **Day 1: Course Introduction and Overview**
  - **Introduction to Food Technology**
  - **Course objectives and expectations**
- **Day 2: Food Chemistry**
  - **Introduction to food chemistry**
  - **Major food components (carbohydrates, proteins, fats)**
- **Day 3: Food Microbiology**
  - **Microorganisms in food**
  - **Food spoilage and preservation**
- **Day 4: Food Safety and Quality**
  - **Food safety principles**
  - **Quality control in food processing**
- **Day 5: Practical Lab Session**
  - **Basic food chemistry experiments**
  - **Microbiological analysis of food samples**

COURSE CURRICULUM:

Week 2: Food Processing and Engineering

- **Day 6: Food Processing Techniques**
  - **Thermal processing**
  - **Non-thermal processing**
- **Day 7: Food Engineering Principles**
  - **Mass and energy balance**
  - **Unit operations in food processing**
- **Day 8: Novel Food Processing Technologies**
  - **High-pressure processing**
  - **Pulsed electric fields**
- **Day 9: Food Packaging Technologies**
  - **Packaging materials and methods**
  - **Role of packaging in food preservation**
- **Day 10: Practical Lab Session**
  - **Food processing experiments**
  - **Packaging material testing**

COURSE CURRICULUM:

Week 3: Food Biotechnology and Functional Foods

- **Day 11: Food Biotechnology**
  - **Applications of biotechnology in food**
  - **Genetically modified organisms (GMOs)**
- **Day 12: Enzyme Technology in Food Processing**
  - **Enzymes in food industry**
  - **Immobilized enzyme technology**
- **Day 13: Functional Foods and Nutraceuticals**
  - **Definition and examples**
  - **Health benefits and regulatory aspects**
- **Day 14: Probiotics and Prebiotics**
  - **Role in gut health**
  - **Food sources and supplementation**
- **Day 15: Practical Lab Session**
  - **Enzyme activity assays**
  - **Probiotic cultures preparation**

COURSE CURRICULUM:

- Week 4: Food Analysis and Sensory Evaluation
- Day 16: Food Analysis Techniques
- Chemical analysis of food
- Instrumental methods in food analysis
- Day 17: Sensory Evaluation of Food
- Principles of sensory evaluation
- Sensory evaluation methods
- Day 18: Nutritional Analysis
- Nutrient analysis in food
- Labeling and regulatory requirements
- Day 19: Statistical Methods in Food Research
- Data analysis techniques
- Experimental design
- Day 20: Practical Lab Session
- Sensory evaluation exercises
- Nutritional analysis of food samples

COURSE CURRICULUM:

Week 5: Food Product Development

- **Day 21: Principles of Food Product Development**
  - **Stages of product development**
  - **Market research and consumer preferences**
- **Day 22: Ingredient Functionality**
  - **Role of ingredients in food products**
  - **Formulation and reformulation**
- **Day 23: Product Design and Prototyping**
  - **Developing product prototypes**
  - **Pilot-scale production**
- **Day 24: Shelf Life Testing**
  - **Methods for determining shelf life**
  - **Factors affecting shelf life**
- **Day 25: Practical Lab Session**
  - **Product development exercises**
  - **Shelf life testing**

COURSE CURRICULUM:

Week 6: Advanced Topics in Food Technology

- **Day 26: Food Nanotechnology**
  - **Applications in food industry**
  - **Safety and regulatory issues**
- **Day 27: Food Waste Management**
  - **Strategies for reducing food waste**
  - **Utilization of food by-products**
- **Day 28: Sustainable Food Systems**
  - **Sustainable practices in food production**
  - **Impact of food systems on environment**
- **Day 29: Case Studies in Food Technology**
  - **Analysis of successful food products**
  - **Lessons learned from industry**
- **Day 30: Course Review and Final Assessment**
  - **Review of key concepts**
  - **Final exam and project presentations**

COURSE CURRICULUM:

Week 7: Industry Engagement and Internship

- **Day 31-35: Industry Visits and Guest Lectures**
  - **Visits to food processing facilities**
  - **Lectures from industry experts**

COURSE CURRICULUM:

Week 8: Project Work and Presentation

- **Day 36-40: Independent Project Work**
  - **Research project on a selected topic in food technology**
  - **Final project presentation and evaluation**

Our Partners Company's

FOR SUPPORT

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THANK YOU

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