



A) Course: Natural Juice Production - Light Industry & Entrepreneurship

- **Duration:** 6 months.
- **Level:** Advanced Certificate
- **Credits:** To be determined based on the content of each module.

B) Module Details

Module Code	Module Name	Study Hours	Credits
NJP-101	Introduction to Natural Juice Production	40	4
NJP-102	Fruit and Vegetable Selection and Preparation	50	5
NJP-103	Juice Extraction Techniques	60	6
NJP-104	Quality Control and Safety in Juice Production	45	4.5
NJP-105	Natural Juice Blending and Flavor Enhancement	55	5.5
NJP-106	Packaging and Labeling of Natural Juices	50	5
NJP-107	Entrepreneurship in Natural Juice Production	40	4
NJP-108	Marketing and Distribution Strategies	55	5.5
NJP-109	Regulatory Compliance in Juice Industry	30	3
NJP-110	Practicum and Internship	-	12

C) Main Aims and Objectives

1. To provide comprehensive knowledge of natural juice production.
2. To develop skills in selecting and preparing fruits and vegetables for juice production.
3. To teach various juice extraction techniques.
4. To ensure quality control and safety in natural juice production.
5. To enhance the ability to blend and flavor natural juices.
6. To impart knowledge on packaging and labeling standards.
7. To foster an entrepreneurial mindset within the juice production context.
8. To provide marketing and distribution strategies for natural juice entrepreneurs.
9. To ensure regulatory compliance in the juice industry.
10. To offer hands-on experience through practicum and internship.

D) Detailed Outline of The Syllabus Per Module

1. **NJP-101: Introduction to Natural Juice Production**
 - Overview of the Juice Industry
 - Historical Perspective
 - Market Trends and Opportunities
 - Health Benefits of Natural Juices
2. **NJP-102: Fruit and Vegetable Selection and Preparation**
 - Identifying Quality Produce
 - Cleaning and Preparation Techniques
 - Seasonal Variation Considerations
 - Sustainable Sourcing Practices
3. **NJP-103: Juice Extraction Techniques**
 - Cold-Press Extraction
 - Centrifugal Juicing
 - Hydraulic Press Techniques
 - Pneumatic Press Methods
4. **NJP-104: Quality Control and Safety in Juice Production**
 - Quality Parameters in Juices
 - Hazard Analysis and Critical Control Points (HACCP)
 - Sanitation and Hygiene Practices
 - Quality Assurance Testing
5. **NJP-105: Natural Juice Blending and Flavor Enhancement**
 - Flavor Profiles and Combinations
 - Nutritional Considerations
 - Natural Sweeteners and Additives
 - Customer Preferences and Trends
6. **NJP-106: Packaging and Labeling of Natural Juices**
 - Packaging Materials and Sustainability
 - Labeling Regulations and Requirements
 - Designing Attractive Packaging
 - Shelf Life Considerations
7. **NJP-107: Entrepreneurship in Natural Juice Production**
 - Introduction to Entrepreneurship
 - Business Planning for Juice Production
 - Legal and Regulatory Considerations
 - Financial Management for Juice Entrepreneurs
8. **NJP-108: Marketing and Distribution Strategies**
 - Target Market Analysis
 - Branding and Positioning
 - Digital Marketing for Juice Products
 - Distribution Channels and Logistics

9. **NJP-109: Regulatory Compliance in Juice Industry**

- Food Safety Regulations
- Labeling Compliance
- Licensing and Certification
- Import and Export Regulations

10. **NJP-110: Practicum and Internship**

- Hands-on Juice Production Experience
- Quality Control and Safety Practices
- Entrepreneurial Initiatives in the Juice Industry
- Industry Exposure through Internship

E) Practicals

Practical activities will be incorporated into modules where applicable, focusing on hands-on experiences such as:

- Selecting and preparing fruits and vegetables for juice production.
- Operating and maintaining juice extraction equipment.
- Quality control testing and safety procedures.
- Blending and flavoring natural juices.
- Packaging and labeling of juice products.

F) Duties During Internship

During the 8-week industrial internship, students will:

- Work in a natural juice production facility.
- Engage in quality control and safety practices.
- Contribute to entrepreneurial initiatives in the juice industry.
- Gain exposure to various aspects of the juice production business.

G) Country Benefits

1. Development of a thriving natural juice industry.
2. Increased utilization of local fruits and vegetables.
3. Creation of job opportunities in the juice production sector.
4. Improved health and wellness outcomes through natural juice consumption.
5. Contribution to agricultural sustainability and support for local farmers.
6. Strengthened small-scale and local enterprises.
7. Enhanced international competitiveness in the juice market.
8. Increased export potential for natural juice products.
9. Positive impact on tourism through unique and local juice offerings.
10. Overall economic growth and diversification.

H) Students' Entrepreneurship Benefits

1. Ability to start and manage a natural juice production business.
2. Skills in sourcing quality produce and optimizing production processes.
3. Entrepreneurial ventures in juice blending and flavor enhancement.
4. Knowledge of packaging and labeling standards for market competitiveness.
5. Understanding of marketing and distribution strategies for juice products.
6. Ability to navigate regulatory compliance in the juice industry.
7. Networking opportunities with professionals in the juice and beverage sector.
8. Potential for creating innovative and health-focused juice products.
9. Enhanced financial management skills for juice entrepreneurs.
10. Increased employability or self-employment opportunities.

I) Internationally Recommended Books and Materials

- "Fruit and Vegetable Juice Processing Technology" by D. P. Min
- "Juice Fasting and Detoxification: Use the Healing Power of Fresh Juice to Feel Young and Look Great" by Steve Meyerowitz
- "Food Safety Management: A Practical Guide for the Food Industry" by Yasmine Motarjemi and Huub Lelieveld
- "The Juice Bar Business Plan: Discover How to Start a Successful Juice Bar Business" by Suzanne Carpenter
- "Food Law for Public Health" by Jennifer L. Pomeranz

J) Eligibility

No specific prior experience is required, making it accessible to anyone interested in natural juice production, light industry, and entrepreneurship.