

Syllabus Food Waste Management

Course title	Food waste management
Credits number	24
Year	2019/ 2020
Instructor	Amira HADDARAH

Brief description

This course is basically about minimization of waste in food Processing, valorization of unused co-products, and improvement of the management of unavoidable wastes. The different sessions of the course are described below.

Sessions

Session 1. Key drivers for waste management and co-product recovery in food processing: Waste minimization, management and co-product recovery in food processing. Consumer interest in food processing waste.

Session 2. Optimizing manufacturing to minimize waste in food Processing: Chain management issues and good housekeeping procedures to minimise food processing waste.

Session 3. Key issues and technologies for food waste separation and co-product recovery: Process optimization to minimize energy use in food.

Session 4. The importance of microbiological risk management in the stabilization of food processing co-products.

Session 5. Effects of postharvest changes in quality on the stability of plant co-products: Response to adverse environments.

Session 6. Effect of destructuring on foods and their components and their components: lessons from other industries, preservation process and tools for breakdown/disassembly.

Session 7. Enzymatic extraction and fermentation for the recovery of food. Supercritical fluid extraction and other technologies for extraction.

Session 8. Separation technologies for food wastewater treatment and product recovery: Principal for separation, separation and recovery technologies. Fermentation, biogas and biohydrogen production.

Session 9. The importance of microbiological risk management in the stabilisation of food processing co-products. Waste management and co-product recovery in dairy processing. Waste management and co-product recovery in fish processing

Session 10. Recovery and reuse of trimmings and pulps from fruit and vegetable. High-value co-products from plant foods: nutraceuticals, micronutrients, cosmetics and pharmaceuticals.

Session 11. Waste management in particular food industry sectors and recovery of specific co-products: meat, dairy product and fish. Responsible waste disposal and waste value-addition.

Session 12. High-value co-products from plant foods: nutraceuticals, micronutrients and functional ingredients.

References

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