

IDENTIFICATION

Course code : E5AG9A21
ECTS : 4

DURATION

Lectures : 14
Tutorial classes : 12
Labs : 10
Total : 36

Project :
Personnal work :

ASSESSMENT

TEACHING MATERIALS

See tutor guide and student guide, IDEONIS and HILL developed tools

LANGUAGE

English

CONTACT

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UE : UE

COURSE : Innovative products based on local starchy roots

SCOPE OF THE COURSE

OBJECTIVES

Project 4 is dedicated to the transformation and processing of local raw materials rich in starch and other agro/bio-molecules. Processing technologies such as extraction, separation techniques and drying processes will be focused on. Formulation of intermediate and/or end products will be carried out. This project will be performed in groups of students.

COMPETENCE AND SKILLS

PROGRAM

Over the courses, students will have to : - Analyze the state of the art ; - Plan experiments with suitable mathematical tools ; - Implement and realize experiments and analyze data with the use of fundamental sciences. - Develop new food products using local starchy resources ; - Propose ways to increase the added value of raw materials and the use of by-products ; - Research for appropriate transformation equipment ; - Assess the feasibility and the suitability of the product or of the global process.

All along the project, students will benefit from tutoring and courses on : - Inter-tropical starchy roots ; - Agri-food processing with special focus on extraction-separation and drying technologies ; - Experimental design using mathematical tools ; - Food formulation and analytical characterization.

Students will benefit from practical work in agro-food technology, culinary and physical-chemistry labs.

BIBLIOGRAPHY

REQUIREMENTS

Knowledge in food process engineering/technologies and unitary operations, notions of experimental planning (experimental design) and statistics, analytical characterization, eco-conception methodologies.