DEPARTMENT	Scienze Agrarie e Forestali
ACADEMIC YEAR	2014-2015
DEGREE STUDY PROGRAM	**MSc AGRO-INGEGNERIA**
COURSE	**Plants and Technology for Food Processing**
PARTITION IN MODULES	Yes
NUMBER OF MODULES	2
SCIENTIFIC SECTOR	AGR/09 (Agricultural Mechanisation)
SUBJECT	**Plants for Food Processing**
TEACHER	Antonio Comparetti Researcher Università di Palermo
NUMBER OF CREDITS	4
NUMBER OF INDIVIDUAL STUDY HOURS NECESSARY TO ACHIEVE FULL LEARNING	60
NUMBER OF TEACHING HOURS	40
PREREQUISITES	None
STUDY PROGRAM YEAR	First
LOCATION	Shown in the timetable published before the beginning of the semester
TEACHING ORGANISATION	Lectures; exercises; technical visits of plants for food processing.
ATTENDANCE	Elective
EVALUATION METHOD	Oral
EVALUATION RESULT	Mark ranging between 18 and 30 with honours
SEMESTER	Second
AGENDA OF TEACHING ACTIVITIES	Shown in the timetable published before the beginning of the semester
TIMETABLE OF STUDENT RECEPTION	Wednesday, from 4 to 6 p.m. Appointment can be required to antonio.comparetti@unipa.it

EXPECTED LEARNING OUTCOMES

The expected learning outcomes of the course are : i) basic technical and scientific knowledge about machines and plants of food industry, as well as the technical and economic criteria for selecting different types of those offered by the market; ii) competences about types, characteristics, main parts, working, performance and management of food industry machines and plants, as well as the basic principles of assessment and selection of machines and plants for processing milk, cereal products, olives and Citrus fruits.

Hours	Lectures
1	Introduction to the course.
5	Basic physical quantities and practical aspects of measurements (including exercises).
4	References to mechanics and basic thermodynamics (including exercises).
4	Issues about the selection of machines and plants for food processing.
4	Types and criteria for selecting electric engines.
2	Types and criteria for selecting pumps.
4	Machines and plants of dairy industry (including technical visits).
5	Machines of mills and pasta factories (including technical visits).
4	Machines of breweries (including technical visits).
2	Machines of oil mills (including technical visits).
3	Machines of Citrus industry (including technical visits).
2	Plants for producing biogas and digestate from food industry by-products.
Suggested references	MS PowerPoint presentations and lecture notes given by the teacher.