

<b>Academic subject: TOXICOLOGY OF RESIDUES IN FOOD AND PHARMACOSURVEILLANCE</b>			
<b>Degree Class:</b> LM-86		<b>Degree Course:</b> SAFETY OF FOOD OF ANIMAL ORIGIN AND HEALTH	
		<b>Academic Year:</b> 2020/2021	
		<b>Kind of class:</b> Mandatory	<b>Year:</b> I
			<b>Period:</b> II semester
			<b>ECTS: 6</b> divided into <b>ECTS lessons: [5]</b> <b>ECTS</b> <b>exe/lab/tutor: [1]</b>
<b>Time management, hours, in-class study hours, out-of-class study hours</b> lesson: [60]    exe/lab/tutor:[25]    in-class study: 0    out-of-class study: [65]			
<b>Language:</b> ITALIAN		<b>Compulsory Attendance:</b> YES	
<b>Subject Teacher:</b> Giuseppe Crescenzo		<b>Tel: (+39) 080 5443923</b>  <b>e-mail:</b> giuseppe.crescenzo@uniba.it	<b>Office:</b> Department of Veterinary Medicine  Room    Floor
<b>Office days and hours:</b> Wednesday and Thursday from 14:30 to 17:00			
<b>Prerequisites:</b> no.			
<b>Educational objectives:</b> The student must learn the fundamentals of the residual problem and the implications with public health, in particular, must know the kinetic mechanisms that lead to the formation of residual of xenobiotics in the tissues of food-producing animals and of the experimental practice that allows the evaluation of toxicological risk. They must also know the influence of environmental pollution on the food-producing animals and be able to prepare control and prevention plans.			
<b>Expected learning outcomes (according to Dublin Descriptors)</b>		<p><b>Knowledge and understanding:</b> The student must have a good knowledge of the residual problem and the implications for public health and, in particular, on drugs and other xenobiotics present in foodstuffs of animal origin and on environmental pollutants and their implication in animal production.</p> <p><b>Applying knowledge and understanding:</b> The student must demonstrate adequate ability to identify critical issues and implement the National Residual Plans.</p> <p><b>Making judgements:</b> Graduates must be able to implement supply chain controls and take preventive measures to avoid exposure of animals to pollutants.</p> <p><b>Communication:</b> Graduates must be able to communicate correctly with operators and institutions operating in public health.</p> <p><b>Lifelong learning skills:</b> The graduated student must be able to constantly update themselves on the procedures for the production of food of animal origin and on the legislation issued to protect the consumer.</p>	
<b>Course program</b> <b>General Part:</b> Definition of residue. Classification of residues. Factors influencing the formation of residues in animal species of zoeconomic interest: kinetics, dynamics, biotransformation and elimination of xenobiotics from the animal organism; Bioavailability and toxicity of residue relay; Toxicological risk assessment; Direct and indirect toxicological risks related to the intake of residues. Notes on the Community and national regulations in force regarding residues.			

**Special Section:** Acceptability of toxicological risk and definition of the Maximum Residual Limits for residues derived from substances of voluntary use (Drugs; Food supplements; Additives) Principles of pharmacosurveillance. Tolerability of toxicological risk and PTWI for residues derived from environmental contaminants (Dioxins, Heavy Metals, PAHs, Bio-contaminants).

**Teaching methods:**

The course includes lectures held by the teacher in the classroom, but also the critical analysis of current cases that arise during the lesson period or that have represented case studies. Students are also encouraged by the teacher to choose, study and present a topic of study to the other students.

**Auxiliary teaching:**

White coat and disposable gloves during practical activities.

**Assessment methods:**

The exam takes place orally on the dates established by the exam calendar. The student must demonstrate that he has acquired adequate knowledge and skills on the topics included in the study program, in particular he must know the xenobiotics potentially present in residual shares in products derived from animals, their chemical nature, sources and processes of exposure, the residual capacity in foodstuffs, the processes of elimination and eventual accumulation, the risk connected with their presence, the legislation to protect the consumer. The grade is expressed out of thirty by the examination committee, made up of the lecturer and the professors of the scientific sector.

**Bibliography:**

Tossicologia e Sicurezza degli Alimenti- Derache  
The Physiological Basis of Veterinary Clinical Pharmacology - J.D. Baggot  
Lecture notes and material provided by the teacher at the beginning of the course.