

| General information                                     |  |
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| Academic subject  | <b>FOOD HYGIENE AND SAFETY</b><br>Module of the course: Hygiene and Safety of primary production |
| Degree course   | Animal Science   |
| Academic Year   | 2021/2022  |
| European Credit Transfer and Accumulation System (ECTS) | 3  |
| Language  | Italian  |
| Academic calendar (starting and ending date)            | II Semester  |
| Attendance  | Mandatory  |

| Professor/ Lecturer     |  |
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| Department and address  | Veterinary Medicine Campus – Valenzano (BA)  |
| Virtual headquarters    | 5c15lah  |
| Tutoring (time and day) | Receives by appointment via email:<br>In Department: Tuesday: 11.30 – 13.30; Wednesday: 14:30-16:30<br>Teams: all days |

| Syllabus                      |  |
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| <b>Learning Objectives</b>    | The teaching aim is to transfer scientific knowledge on the notion of food safety and food hygiene. Specifically, the course aims to: (i) define primary production risks; (ii) define the hygienic and sanitary quality of food; (iii) provide the principles of the development and application of food hygiene to develop and apply the control systems needed to guarantee the hygiene and safety of primary production.   |
| <b>Course prerequisites</b>   | The student should have previous knowledge related to the teaching of: <ul style="list-style-type: none"> <li>- Hygiene and safety of primary production of animal origin</li> <li>- Drug legislation, pharmacovigilance and toxicology</li> <li>- Anatomy, physiology and microbiology</li> </ul>   |
| <b>Contents</b>               | <p>Definitions: food, production chains, food hygiene and food safety, hygienic and sanitary quality of food, biotic and abiotic contamination of food.</p> <p>Recall references to the physical and chemical characteristics of food that allow the growth of microorganisms (water activity, pH, acidity, etc..).</p> <p>Definitions of biological, chemical, and physical hazards.</p> <p>Food contamination: primary contamination (water, soil, air and animals), secondary contamination (workplaces, food handler); tertiary contamination (food storage and selling).</p> <p>Recalls of references to some of the main zoonoses in the primary food production and related current legislation.</p> <p>Sanitary requirements in the primary production in accordance according with the current legislation.</p> <p>Implementation of good practice program in primary production.</p> |
| <b>Books and bibliography</b> | <p>Antonietta Galli Volonterio - Microbiologia degli Alimenti, Casa Editrice Ambrosiana.</p> <p>Farris, Gobbetti, Neviani, Vincenzini - Microbiologia dei prodotti alimentari, Casa Editrice Ambrosiana.</p>   |

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|                             | Cenci Goga – Ispezione e controllo degli alimenti. Point Veterinaire Italie.<br>Lecture notes. |
| <b>Additional materials</b> | <i>Books will be integrated with lecture notes.</i>  |

| <b>Work schedule</b>  |  |  |   |
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| Total   | Lectures   | Hands on (Laboratory, working groups, seminars, field trips)                           | Out-of-class study hours/<br>Self-study hours |
| <b>Hours</b>  |  |  |   |
| 75  | 20   | 25 (Exercises will be repeated in turns, on the bases of the total number of students) | 30  |
| <b>ECTS</b>   |  |  |   |
| 3   | 2  | 1  |   |
| <b>Teaching strategy</b>  |  |  |   |
| Lessons are held in class, using multimedia devices such as a personal computer connected to the projector, internet connection in order to show, at the same time as the explanation, Power Point slides and explanatory videos/films. Practical activities include laboratory exercises at the facilities of the Food Safety section and educational visits to primary production companies operating in the sectors of interest. |  |  |   |
| <b>Expected learning outcomes</b>   |  |  |   |
| <b>Knowledge and understanding on:</b>  | <ul style="list-style-type: none"> <li>○ The student has to be able to identify the sources of contamination of food in the primary production, the main biotic and abiotic contamination sources, the connected risks and related prevention and related control strategies.</li> </ul>   |  |   |
| <b>Applying knowledge and understanding on:</b>   | <ul style="list-style-type: none"> <li>○ The student has to be able to identify the hazards and the related risks in the primary production field. Moreover, he has to be able to apply specific measures aimed at guaranteeing the hygiene and safety of primary food production.</li> </ul>  |  |   |
| <b>Soft skills</b>  | <ul style="list-style-type: none"> <li>• <i>Making informed judgments and choices</i> <ul style="list-style-type: none"> <li>○ Evaluation and interpretation of data related with food safety and food hygiene.</li> <li>○ Ability to evaluate the effectiveness of corrective actions for food safety and quality.</li> </ul> </li> <li>• <i>Communicating knowledge and understanding</i> <ul style="list-style-type: none"> <li>○ Ability to clearly discuss with appropriate language information and ideas on the acquired topics.</li> </ul> </li> <li>• <i>Capacities to continue learning</i> <ul style="list-style-type: none"> <li>○ Ability to consult scientific publications, current legislation, and books on food safety, autonomously.</li> </ul> </li> </ul> |  |   |

| <b>Assessment and feedback</b> |   |
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| Methods of assessment          | The skills acquired will be assessed during the course through questions on topics related to the course. At the end of the course, the student should be able to:  |
| Evaluation criteria            | <ul style="list-style-type: none"> <li>• <i>Knowledge and understanding</i> <ul style="list-style-type: none"> <li>○ Know the major sanitary hazards in the animal origin primary production</li> </ul> </li> <li>• <i>Applying knowledge and understanding</i> <ul style="list-style-type: none"> <li>○ Know how to prevent and manage the identified hazards</li> </ul> </li> </ul> |

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|   | <ul style="list-style-type: none"> <li>• <i>Autonomy of judgment</i> <ul style="list-style-type: none"> <li>○ The students should be able to express their own opinion autonomously.</li> </ul> </li> <li>• <i>Communicating knowledge and understanding</i> <ul style="list-style-type: none"> <li>○ The students should be able to clearly explain the main topics discussed during the course.</li> </ul> </li> <li>• <i>Communication skills</i> <ul style="list-style-type: none"> <li>○ The students should be able to (i) clearly present the proposed topics, (ii) use appropriate terminology; (iii) express ideas regarding food safety in a personal and competent way.</li> </ul> </li> <li>• <i>Capacities to continue learning</i> <ul style="list-style-type: none"> <li>○ Students should improve their knowledge of the topics through by consulting the legislation and scientific papers regarding food safety.</li> </ul> </li> </ul> |
| Criteria for assessment and attribution of the final mark | The assessment of the learning achieved by the student takes place through oral interview, with the aim of ascertaining the degree of knowledge on the proposed topics. The final mark is expressed in thirtieths. The minimal final mark to pass the exam is 18/30. Top marks will be awarded to the students able to use the correct scientific terminology and with good explanation skills.   |
| <b>Additional information</b>                             |   |