Educational Regulations

Master of Science in

“FOOD SAFETY AND FOOD RISK MANAGEMENT”

(Class LM 70)

Title I
Objectives and Didactic Rules

Art. 1. Premises and Purposes.

1. This Educational Regulation refers to the Master's Degree Program in “Food Safety and Food Risk Management”, Italian class LM70 D.M. 16/3/2007, organization of the academic year 2019/20.

2. The academic year of first application of this Regulation is 2019/20.

3. The teaching structure responsible for the course is the Department of Food and Drug, University of Parma.

5. The Master's Degree Program in “Food Safety and Food Risk Management” is an inter-university international degree course coordinated by the University of Parma in collaboration with the Catholic University of the Sacred Heart of Piacenza, the University of Modena and Reggio Emilia, Alma Mater Studiorum - University of Bologna and University of Ferrara.

6. The duration of the Master's Degree Course is 2 years. The site where the teaching activities of the first year of the course takes place is the Department of Food and Drug Sciences, University of Parma. The venues in which the second-year course activities take place depend on the curriculum chosen by the student, among the following three: a) "Risk Mitigation" curriculum, at the Catholic University of the Sacred Heart, Piacenza Campus; b) "Agro-Food Safety" curriculum, at the University of Modena and Reggio-Emilia; c) "Risk Management" curriculum, at Alma Mater University of Bologna.

5. The Study Program is taught entirely in English and is open to Italian and foreign students interested in the themes of food safety assessment and related risk management.

6. The Degree Course grants the title of Master of Science (MSc) in “Food Safety and Food Risk Management”, a joint degree awarded by the University of Parma, Catholic University of the Sacred Heart (Piacenza branch), University of Modena and Reggio-Emilia, University of Bologna and University of Ferrara.

7. The responsible organism for the Study Program is the Department of Food and Drug of the University of Parma.

8. These Regulations, in accordance with the University Didactic Regulations, rule the general principles and the didactic organization of the Master's Degree Course, for whatever is not defined in the aforementioned University Regulations.

Art. 2. Educational Objectives. Educational path, Learning Outcomes, Career Opportunities

The educational objectives, educational paths, learning outcomes and career opportunities are indicated in the Unique Annual Report (SUA) and on the Course website (https://cdlm-fsafrm.unipr.it).

Art. 3. Sustainable users and access programming.

The MSc Course in “Food Safety and Food Risk Management” is an open access course. The enrollment is to be done according to the modalities communicated on the University of Parma web site (www.unipr.it).

Art. 4. Admission.

In order to profitably attend the MSC in “Food Safety and Food Risk Management” it is necessary to have an adequate basic knowledge in food technology, food microbiology, food chemistry, primary production, human nutrition, as well as an adequate knowledge of the English language (level B2).

Before enrollment, both the possession of the suitable curricular requisites and the adequacy of the personal preparation are to be verified, according to the methods specified below. Candidates in possession of Italian qualifications that meet the conditions specified below will be admitted without any restriction, while all the other cases will be verified by a special Admission Commission, indicated by the President of the Study Program.

4.1 Curricular Requisites

The curricular requirements are automatically satisfied by the possession of a three-year Italian university Bachelor Degree in the Degree classes defined by the italian DM 270/04: L-25 (Agricultural and Forestry Sciences and Technology), L-26 (Agri-Food Science and Technology) e L-38 (Zootechnical Sciences and Sciences of Animal Production), or in the Degree Classes defined by th Italian DM 509/99: 20 (Agricultural, Agri-Food and Forestry Sciences and Technologiesi) e 40 (Zootechnical Sciences and Sciences of Animal Production), as well as an adequate knowledge of english language, certified as indicated below.

Students possessing a three-year Bachelor Degree in one of the following Degrees might also be enrolled:

- Italian DM 509/99: 1 (Biotechnologies), 12 (Biological Sciences), 21 (Chemical Sciences and Technology), 24 (Pharmaceutical Sciences and Technology)

- Italian DM 270/04: L-2 (Biotechnologies), L-13 (Biological Sciences), L-27 (Chemical Sciences and Technology), L-29 (Pharmaceutical Sciences and Technology), L/GASTR (Sciences, Culture and Policy of Gastronomy)

only if they have obtained in their career at least 60 ECTS in courses relevant for the present MSc Degree. All the courses belonging to the following Italian sectors are considered relevant:

FIS/01 Fisica sperimentale (Experimental physics)

FIS/02 Fisica teorica, modelli e metodi matematici (Theoretical physics, mathematical models and methods)

FIS/03 Fisica della materia (Physics of matter)

FIS/04 Fisica nucleare e subnucleare (Nuclear and subnuclear physics)

FIS/05 Astronomia e astrofisica (Astronomy and astrophysics)

FIS/06 Fisica per il sistema terra e il mezzo circumterrestre (Physics of the Earth and of the circumterrestrial medium)

FIS/07 Fisica applicata (a beni culturali, ambientali, biologia e medicina) (Applied physics)

FIS/08 Didattica e storia della fisica (Didactics and history of physics)

MAT/01 Logica matematica (Mathematical logic)

MAT/02 Algebra (Algebra)

MAT/03 Geometria (Geometry)

MAT/04 Matematiche complementari (Mathematics education and history of mathematics)

MAT/05 Analisi matematica (Mathematical analysis)

MAT/06 Probabilità e statistica matematica (Probability and statistics)

MAT/07 Fisica matematica (Mathematical physics)

MAT/08 Analisi numerica (Numerical analysis)

MAT/09 Ricerca operativa (Operational research)

INF/01 Informatica (Informatics)

CHIM/01 Chimica analitica (Analytical chemistry)

CHIM/02 Chimica fisica (Physical chemistry)

CHIM/03 Chimica generale e inorganica (General and inorganic chemistry)

CHIM/06 Chimica organica (Organic chemistry)

CHIM/10 Chimica degli alimenti (Food chemistry)

CHIM/11 Chimica e biotecnologia delle fermentazioni (Chemistry and biotechnology of fermentation)

AGR/01 Economia ed estimo rurale (Agricultural economics and rural appraisal)

AGR/02 Agronomia e coltivazioni erbacee (Agronomy and field crops)

AGR/03 Arboricoltura generale e coltivazioni arboree (Arboriculture and Fruitculture)

AGR/11 Entomologia generale e applicata (General and applied entomology)

AGR/15 Scienze e tecnologie alimentari (Food science and technology)

AGR/16 Microbiologia agraria (Agricultural Microbiology)

AGR/19 Zootecnica speciale (Animal science)

MED/42 Igiene generale e applicata (Hygiene and public health)

MED/49 Scienze tecniche dietetiche applicate (Food sciences and dietetics)

BIO/01 Botanica generale (General botany)

BIO/02 Botanica sistematica (Systematic botany)

BIO/03 Botanica ambientale e applicata (Environmental and applied botany)

BIO/04 Fisiologia vegetale (Plant physiology)

BIO/05 Zoologia (Zoology)

BIO/09 Fisiologia (Physiology)

BIO/10 Biochimica (Biochemistry)

BIO/11 Biologia molecolare (Molecular biology)

BIO/12 Biochimica clinica e biologia molecolare clinica (Clinical biochemistry and molecular biology)

BIO/13 Biologia applicata (Experimental biology)

BIO/14 Farmacologia (Pharmacology)

BIO/15 Biologia farmaceutica (Pharmaceutical biology)

BIO/16 Anatomia umana (Human anatomy)

BIO/19 Microbiologia generale (General microbiology)

VET/01 Anatomia degli animali domestici (Veterinary anatomy)

VET/02 Fisiologia veterinaria (Veterinary physiology)

VET/03 Patologia generale e anatomia patologica veterinaria (Veterinary pathology)

VET/04 Ispezione degli alimenti di origine animale (Inspection of foods of animal origin)

VET/05 Malattie infettive degli animali domestici (Infectious diseases of domestic animals)

VET/06 Parassitologia e malattie parassitarie degli animali (Parasitology and animal parasitic diseases)

VET/07 Farmacologia e tossicologia veterinaria (Veterinary pharmacology and toxicology)

ING-IND/10 Fisica tecnica industriale (Thermal engineering and industrial energy systems)

ING-IND/11 Fisica tecnica ambientale (Building physics and building energy systems)

IUS/03 Diritto agrario (Agri-food law)

IUS/04 Diritto commerciale (Business Law)

SECS-S/01 Statistica (Statistics)

SECS-S/02 Statistica per la ricerca sperimentale e tecnologica (Statistics for experimental and technological research)

The 60 ECTS have to have been acquired in courses, not in Stages or Thesis Projects, and should belong to at least 5 different courses among the ones indicated above..

Moreover, an adequate knowledge of the English language is necessary, resulting from the fulfillment of one of the following conditions:

- to have successfully passed, for the attainment of the first level Bachelor degree or in subsequent certified university training activities, an examination for the learning of the English language at (at least) B2 level (with reference to the Common European Framework of Reference for Languages: Learning, Teaching, Assessment - CEFR);

- To possess an official certification of English knowledge at (at least) B2 level issued by an organism certified by the Italian Ministry of Education, University and Research (MIUR);

- To possess a three year Bachelor Degree officially taught in English language.

For students having obtained the Bachelor Degree abroad, and/or in possession of qualifications with systems without ECTS, or in possession of other qualifications, the verification of the curricular requirements will be carried out by the Admission Commission, considering the appropriate equivalences between the contents of the courses attended by the student (and passed with positive evaluation) and the tables above.

In order to fill eventual knowledge gaps in the requisites, students will also have the possibility, before the admission, to enroll themselves to single teaching activities and to pass the corresponding exam, then receiving a regular certification, for a maximum of 30 ECTS

4.2 Verification of the adequacy of personal preparation

The personal preparation will always be verified, and it is distinct from the simple possession of the curricular requirements.

For students coming from the Italian Bachelor Degrees belonging to the Degree classes defined by the italian DM 270/04: L-25 (Agricultural and Forestry Sciences and Technology), L-26 (Agri-Food Science and Technology) e L-38 (Zootechnical Sciences and Sciences of Animal Production) (or equivalent) the knowledge level provided will be considered sufficient to carry out the activities foreseen in the MSc "Food Safety and Food Risk Management".

The verification of the personal preparation will be considered fulfilled if the BSc holders have obtained a final degree mark of at least 88/110 or equivalent

The BSc holders that have obtained a final degree mark lesser than 88/110 is obliged to sustain a colloquium finalized to verify the personal preparation.

For the students which are going to graduate in the BSc course, but are not graduated yet, the average mark of the single examinations will be considered, possibly followed by a colloquium.

For extra-EU non-resident candidates only, with a foreign qualification, the verification of the adequacy of personal preparation must also guarantee the preparation of a merit ranking list, except in the case of international agreements that provide for a different student enrollment method.

The Admission Committee which will evaluate careers and personal preparation, will also indicate the sectors where knowledge gaps have been identified, which will have to be fulfilled before enrollment.

Art. 5. Didactic Organization and Development of the Educational Path.

5.1. Curricula.

The MSc Degree in “Food Safety and Food Risk Management” is divided in three different *curricula* (specialisations), after the first common year at the University of Parma:

a) **Risk Mitigation** (offered by the the Catholic University of the Sacred Heart, Piacenza, in collaboration with the University of Parma;

b) **Agro-Food Safety** (offered by the University of Modena e Reggio Emilia);

c) **Risk Management** (offered by the Alma Mater University of Bologna, in collaboration with the University of Ferrara).

5.2. Development of teaching activities.

1. By June 15th of each year, or in any case by the date set by the University, the Department Council approves the Study Manifesto of the MSc Degree, specifying also the free choice courses offered and specifying, for each educational activity, the methods, the number of hours of frontal teaching activities, exercises and laboratory activities, the venue, the period and any specific attendance obligations.

2. The training activities provided, corresponding to 120 ECTS, are organized on a six-monthly basis and spread over four teaching periods. The training activities can be organized in lectures, exercises, laboratory activities and internships.

3. The procedures for carrying out the activities related to the internship and the final examination, and to obtain the relative ECTS, are governed by the MSc Thesis regulation available on the website of the Department of Food and Drug Sciences, which constitutes an integral appendix to this regulation.

4. The learning workload, including individual study, for every single ECTS is equal to 25 hours.

5. For the courses listed in the study plan on the website of the Department of Food and Drug Science, each ECTS corresponds to:

- 8 hours, if frontal teaching activity;

- 12 hours, if exercises and laboratory activities.

5.3. Verification and evaluation of the student preparation

1. The Department defines the periods for the exams. The dates of the exams are announced with the modalities prescribed by the regulations.

2. The methods for verifying the student preparation may include written and/or oral exams, ongoing tests, tests with free or multiple answers questions, laboratory tests, computer exercises, personal papers or the recognition of training activities carried out in the field of international mobility programs.

3. The methods of performing the teaching activities and the methods of examination are published for each course in the corresponding Syllabus.

4. The exam is evaluated on a scale of 30, with possible “cum laude” appraisal.

5. For anything not covered by this regulation, please refer to the provisions of the University Academic Regulations of the Universities taking part in the Consortium.

5.4. Final Exam and MSc Degree awarding.

The MSc Degree in “Food Safety and Food Risk Management” is awarded after passing the final exam (MSc Degree final exam), which consists of the discussion of a MSc Thesis on an original research topic independently developed by the graduating student during

the internship period, under the supervision of a supervisor. Internship and final examination are therefore strongly interconnected, so that the student can acquire further operational skills by developing an original research but also the ability to organize the obtained results in a written report (MSc Degree Thesis) and to discuss them critically. The study, the elaboration and the presentation (synthesis and communication skills) of the subject of the MSc Degree Thesis are part of the final exam, in a synergic and joint didactic path.

To be admitted to the MSc Degree final exam the student must:

- have passed the exams for the acquisition of all the credits required by the course, with the exception of the ones related to the final exam;
- have carried out, during the training period, a consistent experimental part and in-depth studies in a field related to the evaluation and management of food safety;
- have developed an experimental MSc Degree thesis that will be the subject of the final exam.

The final grade of the MSc Thesis is expressed in a 110 scale, with possible “cum laude” appraisal.

The Course Council annually appoints a Reference Professor for the MSC Degree Theses in “Food Safety and Food Risk Management”, whose name is indicated on the Department's and Course website.

The activity foreseen by the MSC Degree Thesis can be carried out in three different ways:

- Internship in International Mobility
- Internship in University Structures (at Departments or Research Groups operating within the University of Parma, Catholic University of the Sacred Hearth of Paicenza, University of Modena and Reggio Emilia, Alma Mater – University of Bologna, University of Ferrara).
- Internship in External Structures (at companies, public or private organism outside the Universities of Emilia Romagna Region (including other universities), with which specific agreements have been stipulated.

The procedures for executing and evaluating the final examination are governed by the specific Regulations the internship and equivalent training activities and the final exam, which constitutes an integral appendix to these Regulations and which is available on the website of the MSc Degree Program in "Food Safety and Food Risk Management" (https://cdlm-fsafrm.unipr.it/laurearsi/tesi-di-laurea-prova-finale).

Title II
Functioning Regulations

Art. 6. Student Attendance and admission into the second year.

Lecture attendance by the students is strongly suggested, but it is not compulsory.

There are no limitations whatsoever for the admission to the second year for the already registered students.

Art. 7. Tutoring and Career Orientation Activities

The Tutoring activity is offered to all registered students to guide and support them during the training course, guaranteeing an informative and motivational support, in order to facilitate the completion without delay of the studies. The study path is supported by the presence of Tutors. Career Orientation activities are also provided for students enrolled in degree programs and for those who have already achieved an academic degree, to facilitate their job placement.

On the WEB site of the MSc Degree Course in “Food Safety and Food Risk Management” the names of the contact professors for orientation and tutoring activities are available (https://cdlm-fsafrm.unipr.it/il-corso/docenti-di- reference-and-teacher-tutor)

Art. 8. Study Plan

When registering for the first year of the course, the student is given a standard study plan. The study plan is reported on the website of the Master's Degree in “Food Safety and Food Risk Management” (https://cdlm-fsafrm.unipr.it/studiare/piano-degli-studi).

It is also possible for the student to present an individual study plan, which must in any case meet the requirements of the Course Regulations.

As part of the "freely chosen" training activities, the Course Council, at the beginning of each academic year, prepares a list of the offered activities. The student can choose among those activities, or independently choose other activities, consistent with the training project, within the Universities of Parma, Piacenza, Modena and Reggio, Bologna and Ferrara or at other universities and / or public or private, Italian or foreign, institutions.

Art. 9. Transfer

The transfer from other Degrees from the Universities of Piacenza, Parma, Modena and Reggio Emilia, Bologna or Ferrara, or from other universities, is allowed, pending the verification of all the requirements set forth in Art. 4 of this Regulation and in compliance with the current legislation. If specific courses can be recognized as already fulfilled by external activities or course, the Course Council proposes the year of the course of registration.

Art. 10. General Rules

For any administrative aspects, the student must always refer to the Study Manifesto published annually on the University website.

The enrollment application can be submitted exclusively online, according to the procedures indicated on the website (www.unipr.it) in the Study Manifesto.

Title III
Final and Transitional Rules

Art. 11. Validity of the present Regulation.

This Educational Regulation enters into force with the cohort of students enrolled in the academic year 2019-20 and remains valid for each cohort for a period at least equal to the number of years of the normal duration of the MSc Degree or in any case until the next regulation is issued.

At the request of the students, the Department Council deliberates concerning the correct application of this Regulation.

Art. 12. Modifications of the present Regulation.

Modifications to this Regulation are proposed by the President of the Course Council or by at least one third of the members of the Course Council, and must be approved with the favorable vote of the absolute majority of those present during the meeting of the Course Council.

International and Inter-University Master of Science in "Food Safety and Food Risk Management" (LM 70)

Study Plan

Year 1

Common for all Curricula

(seat: University of Parma)

	TAF	ECTS	Sector
First semester			
Risk characterization and exposure assessment in food Exposure assessment and risk/benefit evaluation (Mod. II)	B	6	BIO/09
Food Technology and Microbiology Food Technology (Mod. I) Food Microbiology (Mod. II)	 B B	 6 6	 AGR/15 AGR/16
Biological hazards in food	C	6	VET/04
Xenobiotics in food	B	6	CHIM/10
Second semester			
Hazard identification in primary production Plant Health (Mod. I) Animal welfare (Mod. II)	 B B	 6 6	 AGR/12 AGR/19
Food Law and International policies	B	6	IUS/03
Risk characterization and exposure assessment in food Food toxicology (Mod. I)	C	6	BIO/14
Biostatistics	C	6	SECS-S/01
Bioethics	F	3	NN
TOT		**63**	
Exams		**7**	

Year 2

Curriculum: Risk mitigation

(Seat: University of Piacenza)

	TAF	ECTS	Sector
First semester			
Mitigation of risk in food production	B	6	AGR/15
Emerging risks	B	6	AGR/16
Mitigation of process-related toxicants	B	6	CHIM/10
Food Allergens	B	6	CHIM/06
Students' free choice	D	6	
Second semester			
Students' free choice	D	6	
Practical training	F	17	
Internship at external structure			
Internship at University Structure			
Internship within the international Mobility Program			
Final Dissertation	E	4	
TOT		**57**	
Exams		**5**	

Year 2

Curriculum: Agri-Food Safety

(Seat: University of Modena and Reggio Emilia)

	TAF	ECTS	Sector
First semester			
Post-harvest diseases and their management	B	6	AGR/12
Animal pests in stored agri-food products and their management	B	6	AGR/11
Mycotoxigenic fungi in agri-food and pesticide contamination: analysis and risk management	B	6	AGR/12
Biotechnology and Agronomy for safety and identity preservation of agrifood products			
Biotechnology and safety aspects of vegetable-based foods (Mod I)	C	3	AGR/16
Good agricultural practices and identity preservation (Mod II)	C	3	AGR/02
Students' free choice	D	6	
Second semester			
Students' free choice	D	6	
Practical training	F	17	
Internship at external structure			
Internship at University Structure			
Internship within the international Mobility Program			
Final Dissertation	E	4	
TOT		**57**	
Exams		**5**	

Year 2

Curriculum: Risk Management

(Seat: University of Bologna)

	TAF	ECTS	SSD
First semester			
Advanced food technology and food process	B	6	AGR/15
Advanced and predictive food microbiology	B	6	AGR/16
Farm biosecurity and foodborne risk Foodborne risk traceability Farm biosecurity and zoonotic diseases prevention	 C C	 3 3	 VET/04 VET/05
Risk assessment of food products to human health Evaluation of adverse health effects from human exposure to foodborne hazards Innovative approach for risk assessment in microbiome food value chain	 C C	 3 3	 BIO/14 CHIM/11
Students' free choice	D	6	
Second semester			
Students' free choice	D	6	
Practical training	F	17	
Internship at external structure			
Internship at University Structure			
Internship within the international Mobility Program			
Final Dissertation	E	4	
TOT		**57**	
Exams		5	