



No. _____ of _____

USAMV form 0709010214

SUBJECT OUTLINE

1. Information on the programme

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|--------------------------------------|--|
| 1.1. Higher education institution | University of Agricultural Sciences and Veterinary Medicine of Cluj-Napoca |
| 1.2. Faculty | Food Science and Technology |
| 1.3. Department | Food Science |
| 1.4. Field of study | Food Engineering |
| 1.5. Cycle of study ¹ | Master |
| 1.6. Specialization/ Study programme | Gastronomy, Nutrition and Food Dietetics |
| 1.7. Form of education | Full time |

2. Information on the discipline

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|---|--------------------------|---------------|----|----------------------|------------|------------------------|-----------------------------|----|
| 2.1. Discipline name | Applied biostatistics | | | | | | | |
| 2.2. Course coordinator | Prof. dr. Diana Dumitraș | | | | | | | |
| 2.3. Seminar/ laboratory/ project coordinator | Prof. dr. Diana Dumitraș | | | | | | | |
| 2.4. Year of study | I | 2.5. Semester | IU | 2.6. Evaluation type | continuous | 2.7. Discipline status | Content ² | BD |
| | | | | | | | Compulsoriness ³ | OD |

3. Total estimated time (teaching hours per semester)

| | | | | | |
|---|-----|----------------------------|----|-----------------------------------|-------|
| 3.1. Hours per week – full time programme | 2 | out of which: 3.2. lecture | 1 | 3.3. seminar/ laboratory/ project | 1 |
| 3.4. Total number of hours in the curriculum | 28 | Out of which: 3.5. lecture | 14 | 3.6. seminar/laboratory | 14 |
| Distribution of the time allotted | | | | | hours |
| 3.4.1. Study based on book, textbook, bibliography and notes | | | | | 20 |
| 3.4.2. Additional documentation in the library, electronic platforms and field experiences | | | | | 20 |
| 3.4.3. Preparing seminars/ laboratories/ projects, subjects, reports, portfolios and essays | | | | | 35 |
| 3.4.4. Tutorials | | | | | 10 |
| 3.4.5. Examinations | | | | | 12 |
| 3.4.6. Other activities | | | | | |
| 3.7. Total hours of individual study | 97 | | | | |
| 3.8. Total hours per semester | 125 | | | | |
| 3.9. Number of credits ⁴ | 5 | | | | |

4. Prerequisites (is applicable)

| | |
|-------------------------|---|
| 4.1. curriculum-related | Statistics, Informatics |
| 4.2. skills-related | Efficient use of knowledge cumulated in the previous years of study |

5. Conditions (if applicable)

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|--|--|
| 5.1. for the lecture | The course is interactive. Academic discipline requires attention from the beginning to the end of the course and respect for its schedule. There are not allowed any other disturbing activities during the lecture, mobile phones will be shut down. |
| 5.2. for the seminar/ laboratory/ project | Applications will be solved by students for each theoretical topic presented at the course. The focus will be on the correct use of statistical methods, interpretation and applicability. The academic regulation is imposed during the class hours. |
| If the teaching activity will be carried out online, the teaching methods will be adapted. | |



6. Specific competences acquired

| | |
|--------------------------|---|
| Professional competences | <ul style="list-style-type: none"> - Knowledge of the principles of scientific research and statistics; knowledge of current technologies and how they can be used in different areas of current practice or research - Use of knowledge on methods: experimental, expertise, sociological, statistical to assess the level of quality and safety of gastronomic products |
| Transversal competences | <ul style="list-style-type: none"> - Development of complex, interdisciplinary, individual projects |

7. Course objectives (based on the list of competences acquired)

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|--------------------------|--|
| 7.1. General objective | Learning the main concepts, principles and steps of conducting applied research in the field of study |
| 7.2. Specific objectives | Knowledge of how to collect and organize data, statistical analysis, interpretation of results and their use in practice |

8. Content

| 8.1.COURSE Number of hours – 14 | Teaching methods | Notes |
|---|------------------|------------|
| - Introduction to Biostatistics. Data collection and presentation. | Lecture | 1 lecture |
| - Processing and analysis of data: Descriptive statistics | Lecture | 2 lectures |
| - Processing and analysis of data: Regressions analysis and correlation | Lecture | 2 lectures |
| - Processing and analysis of data: Hypothesis testing | Lecture | 2 lectures |

| 8.2. PRACTICAL WORK Number of hours – 14 | Teaching methods | Notes |
|---|------------------|------------|
| - Introduction to Biostatistics. Data collection and presentation. Examples and discussions | Discussions | 1 seminar |
| - Processing and analysis of data: Descriptive statistics. Exercises. | Exercises | 2 seminars |
| - Processing and analysis of data: Regressions analysis and correlation. Exercises | Exercises | 2 seminars |
| - Processing and analysis of data: Hypothesis testing. Exercises | Exercises | 2 seminars |

Compulsory bibliography:
 Merce, E., C.C. Merce, D.E. Dumitras, 2011, *Prelucrarea statistică a datelor*, Editura AcademicPres, Cluj-Napoca
 Dumitras, Diana E., 2012, *Prelucrarea statistică a datelor*, Cap. 18, p.189-215, In: *Ecologie aplicată. Metode și principii*, Șandor M. (ed.), Ed. Digital Data, Cluj-Napoca, România

Optional bibliography:
 Fowler, J., L. Cohen, P. Jarvis, 2000, *Practical statistics for field biology*, 2nd ed., John Wiley & Sons

9. Corroborating the discipline content with the expectations of the epistemic community representatives, of the professional associations and of the relevant employers in the corresponding field

The content of the course is in accordance with what it is studied in other national and international universities, by using applications from the real world.



10. Evaluation

| Type of activity | 10.1. Evaluation criteria | 10.2. Evaluation type | 10.3. Percentage of the final grade |
|---|---|--|-------------------------------------|
| 10.4. Course | Knowledge of theoretical aspects and their application in practice A logical and correct use of concepts and methods learned | - Exam | 50% |
| 10.5. Seminar/Laboratory | A logical and correct use of concepts and methods learned Project presentation | The following will be evaluated: - In-class activity - Assignments - Project presentation | 50% |
| 10.6. Minimum performance standards | | | |
| Mastering scientific information taught through lectures and practical work at an acceptable level. | | | |

¹ Cycle of studies- choose of the three options: Bachelor/Master/Ph.D.

² Discipline status (content)- for the undergraduate level, choose one of the options:- **FD** (fundamental discipline), **BD** (basic discipline), **CS** (specific disciplines-clinical sciences), **AP** (specific disciplines-animal production), **FH** (specific disciplines-food hygiene), **UO** (disciplines based on the university's options).

³ Discipline status (compulsoriness)- choose one of the options – **CD** (compulsory discipline) **OD** (optional discipline) **ED** (elective discipline).

⁴ One credit is equivalent to 25-30 hours of study (teaching activities and individual study).

Filled in on
10.09.2021

Course coordinator
Prof. dr. Diana Dumitraș

Laboratory work/seminar coordinator
Prof. dr. Diana Dumitraș

Discipline coordinator
Prof. dr. Diana Dumitraș

Head of the Department
Prof. dr. Ramona Suharoschi

Approved by the
department on

Approved by Faculty
Council

Dean
Prof dr Elena Mudura