# University of Transilvania, Braşov, Romania

## Study program: Food Control and Expertise

Faculty: Food and Tourism Study period: 4 years (Bachelor)

Academic year structure: 2 semesters (14 weeks per semester) Examination sessions (two): winter session (January/ February)

summer session (June/ July)

Courses per years (C= course; S = seminar; L = laboratory; P = project)

1st Year

| No.  | Course                               | Code        | 1 Semester |   |   |   |      | 2 <sup>nd</sup> Semester |   |   |   |      |
|------|--------------------------------------|-------------|------------|---|---|---|------|--------------------------|---|---|---|------|
| crt. | 684136                               | Couc        | С          | S | L | Р | Cred | C                        | S | L | Р | Cred |
| 01.  | Mathematical analysis                | MATE        | 2          | 2 | - | ı | 5    |                          |   |   |   |      |
| 02.  | Chemistry                            | CA          | 2          | 1 | 1 | ı | 4    |                          |   |   |   |      |
| 03.  | Physics I                            | FIZ I       | 2          | - | 2 | ı | 5    |                          |   |   |   |      |
| 04.  | Computer Programming and             | PCLP1       | 3          | - | 2 | - | 4    |                          |   |   |   |      |
| 04.  | Programming Languages I              | PCLP1       | )          | _ |   | _ | 4    |                          |   |   |   |      |
| 05.  | Mechanical engineering elements I    | EIM1        | 2          | - | 2 | - | 5    |                          |   |   |   |      |
| 06.  | Ecology and Environmental Protection | EPM         | 2          | - | 1 | - | 4    |                          |   |   |   |      |
|      | English language                     | LE01/LE02   |            |   |   |   |      |                          |   |   |   |      |
|      | French language                      | LF01/ LF02  |            |   |   |   |      |                          |   |   |   |      |
| 07.  | German language                      | LG01/LG02   | 1          | 1 | _ | - | 2    | 1                        | 1 | - | - | 2    |
|      | Spanish language                     | LS01/LS02   |            |   |   |   |      |                          |   |   |   |      |
|      | Italian Language                     | LI01/LI02   |            |   |   |   |      |                          |   |   |   |      |
| 08.  | Sport                                | EF 01/ EF02 | -          | 1 | _ | - | 1    | -                        | 1 | - | - | 1    |
| 09.  | Theory of Probabilities and          | TPSM        |            |   |   |   |      | 2                        | 2 |   | _ | 4    |
| 05.  | Mathematical Statistics              | 11-2141     |            |   |   |   |      |                          |   |   |   |      |
| 10.  | Food Ethics                          | EIA         |            |   |   |   |      | 2                        | 2 | - | - | 5    |
| 11.  | Computer Programming and             | PCLP2       |            |   |   |   |      | 2                        | _ | 2 | _ | 4    |
| 11.  | Programming Languages II             | PCLF2       |            |   |   |   |      |                          | _ |   |   | 4    |
| 12.  | Elements of Mechanical Engineering   | EIM 2       |            |   |   |   |      | 2                        | _ | 2 | _ | 5    |
| 12.  | Applied in Agri-Food Systems II      | LIIVI Z     |            |   |   |   |      |                          | _ |   |   | 2    |
| 13.  | Analytical Chemistry                 | CAN         |            |   |   |   |      | 2                        | _ | 2 | - | 5    |
| 14.  | Organic Chemistry                    | СО          |            |   |   |   |      | 2                        | _ | 2 | - | 5    |
| 15.  | Academic writting                    | SA          |            |   |   |   |      | 1                        | _ | _ | - | 1    |

#### 2<sup>nd</sup> Year

| No.  | Course  | Codo  | 3 <sup>rd</sup> Semester |   |   |   |      |   | 4 <sup>th</sup> Semester |   |   |      |  |  |
|------|---|-------|--------------------------|---|---|---|------|---|--------------------------|---|---|------|--|--|
| crt. | Course  | Code  | C                        | S | L | Р | Cred | U | S                        | ┙ | Р | Cred |  |  |
| 01.  | Elements of Electrical Engineering Applied in Agri-Food Systems | EIE   | 2                        | - | 2 | - | 4    |   |                          |   |   |      |  |  |
| 02.  | Physics II  | FIZ 2 | 2                        | ı | 2 | - | 4    |   |                          |   |   |      |  |  |
| 03.  | General Microbiology  | MG    | 2                        | - | 2 | - | 5    |   |                          |   |   |      |  |  |

| 04. | Food Industry Processes and Operations I        | OUIA1      | 2 | - | 2 | - | 5 |    |     |       |     |   |
|-----|---|------------|---|---|---|---|---|----|-----|-------|-----|---|
| 05. | Biochemistry                                    | ВСН        | 2 | - | 2 | - | 5 |    |     |       |     |   |
| 06. | Food chemistry                                  | CA         | 2 | - | 2 | - | 5 |    |     |       |     |   |
| 07. | Enzymatic and immunological methods of analysis | MEIA       | 2 | ı | 2 | ı | 5 |    |     |       |     |   |
|     | English language                                | LE03/LE04  |   |   |   |   |   |    |     |       |     |   |
|     | French language                                 | LF03/ LF04 |   |   |   |   |   |    |     |       |     |   |
| 08. | German language                                 | LG03/ LG04 | 1 | 1 | _ | - | 2 | 1  | 1   | -     | -   | 2 |
|     | Spanish language                                | LS03/LS04  |   |   |   |   |   |    |     |       |     |   |
|     | Italian Language                                | LI03/ LI04 |   |   |   |   |   |    |     |       |     |   |
| 08. | Consumer behaviour                              | coco       |   |   |   |   |   | 2  | -   | 2     | -   | 5 |
| 09. | Hygiene in Food Industry                        | ISIA       |   |   |   |   |   | 2  | -   | 2     | -   | 4 |
| 10. | Human Nutrition Principles                      | PNU        |   |   |   |   |   | 2  | _   | 2     | -   | 3 |
| 11. | Special Microbiology                            | MS 2       |   |   |   |   |   | 2  | _   | 2     | -   | 5 |
| 13. | Food Industry Processes and Operations II       | OUIA2      |   |   |   |   |   | 2  | -   | 2     | ı   | 4 |
| 14. | Computer Added Design                           | GAC        |   | , |   |   |   | 2  | -   | 2     | -   | 3 |
| 15. | Technological Work Placement                    | PD         |   |   |   |   |   | 90 | hou | rs /y | ear | 4 |

# 3<sup>rd</sup> Year

| No.  | Course                                     | 5 <sup>th</sup> Semester |      |      |      | 6 <sup>th</sup> Semester |      |    |     |       |     |      |  |  |  |
|------|--|--------------------------|------|------|------|--------------------------|------|----|-----|-------|-----|------|--|--|--|
| crt. | Course                                     | Code                     | С    | S    | L    | Р                        | Cred | С  | S   | L     | Р   | Cred |  |  |  |
| 01.  | Food Control and Quality Assurance         | CSVSA                    | 2    | -    | 2    | -                        | 4    |    |     |       |     |      |  |  |  |
| 02.  | Food General Industry Technologies I       | TGIA1                    | 2    | -    | 2    | ı                        | 4    |    |     |       |     |      |  |  |  |
| 03.  | Food Products Analysis I                   | APA1                     | 2    | -    | 2    | ı                        | 4    |    |     |       |     |      |  |  |  |
| 04.  | Sensorial Analysis I                       | AS 1                     | 2    | -    | 1    | ı                        | 4    |    |     |       |     |      |  |  |  |
| 05.  | Food Industry Machinery and Equipment I    | UIA1                     | 2    | 1    | 2    | -                        | 4    |    |     |       |     |      |  |  |  |
| 06.  | Food Industry Machinery and Equipment I -  | UIA1 -                   |      | 1    |      | 7                        | 2    |    |     |       |     |      |  |  |  |
| 06.  | project                                    | project                  | _    | _    | _    | 2                        | 2    |    |     |       |     |      |  |  |  |
| 07.  | Additives and Ingredients in Food Industry | AIIA                     | 2    | -    | 2    | -                        | 4    |    |     |       |     |      |  |  |  |
| 08.  | Statistical food control                   | CSA                      | 2    | -    | 1    | -                        | 4    |    |     |       |     |      |  |  |  |
| 08.  | Phytosanitary control                      | CF                       |      |      |      |                          |      |    |     |       |     |      |  |  |  |
|      | Packaging, labelling and design in food    | ٨٦١٨                     | ADIA | ۸۵۱۸ | ۸۵۱۸ |                          |      |    |     |       |     |      |  |  |  |
| 09.  | industry                                   | ADIA                     |      |      |      |                          |      | 2  | _   | 2     | -   | 4    |  |  |  |
|      | Food chemistry                             | CA                       |      |      |      |                          |      |    |     |       |     |      |  |  |  |
| 10.  | Food General Industry Technologies II      | TGIA2                    |      |      |      |                          |      | 2  | -   | 2     | -   | 3    |  |  |  |
| 11.  | Food Industry Machinery and Equipment II   | UIA2                     |      |      |      |                          |      | 2  | -   | 2     | -   | 3    |  |  |  |
| 12.  | Food Industry Machinery and Equipment II   | UIA2 -                   |      |      |      |                          |      | _  | _   |       | 2   | 2    |  |  |  |
| 12.  | - project                                  | project                  |      |      |      |                          |      |    | _   |       |     | ۷    |  |  |  |
| 13.  | Food Products Analysis II                  | APA 2                    |      |      |      |                          |      | 2  | -   | 2     | -   | 4    |  |  |  |
| 14.  | Food Expertise and Safety I                | ESA 1                    |      |      |      |                          |      | 2  | -   | 2     | -   | 4    |  |  |  |
| 15.  | Functional Food Products                   | AF                       |      |      |      |                          |      | 2  | -   | 2     | -   | 3    |  |  |  |
|      | Mineral and radioactive contamination of   | CMRA                     |      |      |      |                          |      |    |     |       |     |      |  |  |  |
| 16.  | food products                              | CIVIKA                   |      |      |      |                          |      | 1  |     | 1     |     | 3    |  |  |  |
| 10.  | Production Technologies of Animal Based    | TPAA                     |      |      |      |                          |      | '  | _   | '     | _   | 5    |  |  |  |
|      | Food Products                              | IFAA                     |      |      |      |                          |      |    |     |       |     |      |  |  |  |
| 17.  | Technological Work Placement               | PRAC                     |      |      |      |                          |      | 90 | hou | rs /y | ear | 4    |  |  |  |

### 4<sup>th</sup> Year

| No.  | Course   | Codo  |   | 7 <sup>tl</sup> | Ser | nest | er   |    | 8 <sup>th</sup> | Ser | nest | er   |
|------|--|-------|---|-----------------|-----|------|------|----|-----------------|-----|------|------|
| Crt. | Course   | Code  | С | S               | L   | Р    | Cred | С  | S               | L   | 1    | Cred |
| 01.  | Marketing  | MAR   | 2 | 1               | -   | 1    | 4    |    |                 |     |      |      |
| 02.  | Control of Agri-Foods of Vegetal Origin          | CCPV  | 2 | -               | 2   | -    | 5    |    |                 |     |      |      |
| 03.  | Control of Agri-Foods of Animal Origin           | CCPA  | 2 | -               | 2   | -    | 5    |    |                 |     |      |      |
| 04.  | Agri-Food Expertise II                           | ESA2  | 2 | -               | 2   | -    | 4    |    |                 |     |      |      |
| 05.  | Methods and Techniques for Instrumental Analysis | MTAI  | 2 | -               | 2   | -    | 4    |    |                 |     |      |      |
| 06.  | Principles and Methods of Food<br>Conservation   | PCPA  | 2 | -               | 2   | -    | 4    |    |                 |     |      |      |
|      | Biochemistry 1                                   | BCH1  |   |                 |     |      |      |    |                 |     |      |      |
| 07.  | Food Safety Policies and Global Strategies       | PSGSA |   |                 | ٦   | _    | 4    |    |                 |     | 1    |      |
| 07.  | Biochemistry 2                                   | BCH2  | 2 | _               | 2   |      | 4    |    |                 |     |      |      |
| 08.  | Management                                       | MNG   |   |                 |     |      |      | 2  | 1               | -   | ı    | 3    |
| 09.  | Sensorial Analysis 2                             | AS2   |   |                 |     |      |      | 2  | -               | 2   | -    | 4    |
| 10.  | Food Authentication and Falsification            | AFA   |   |                 |     |      |      | 2  | -               | 2   | -    | 3    |
| 11.  | Quality Management                               | MC    |   |                 |     |      |      | 2  | 1               | -   | ı    | З    |
| 12.  | Food Rheology                                    | RA    |   |                 |     |      |      | 2  | -               | 1   | -    | 3    |
| 13.  | General Economy                                  | EG    |   |                 |     |      |      | 2  | 1               |     | 1    | 3    |
| 13.  | Environment protection                           | PM    |   |                 |     |      |      |    | ı               | _   | ı    | n    |
| 14.  | Special Biotechnologies                          | BS    |   |                 |     |      |      | 2  | _               | 1   |      | 3    |
| 14.  | New products development                         | PPA   |   |                 |     |      |      |    | _               | ı   | 1    | ٥    |
| 15.  | BSc Project Preparation                          | PD    |   |                 |     |      |      | _  | 4               | _   | -    | 4    |
| 16.  | BSc Practice                                     | PRDI  |   |                 |     |      |      | 60 | ) hoι           | ırs | -    | 4    |
| 17.  | BSc Project Presentation                         |       |   |                 |     |      |      |    |                 |     |      | 10   |