

|   |             |  |                               |                            |      |   |
|---|-------------|--|-------------------------------|----------------------------|------|---|
| MODUL   | D 2W.2/FOOD | COURSE TITLE                                     | Food chemistry                |                            | ECTS | 5 |
| FACULTY COORDINATOR   |             | prof.dr hab. Zbigniew Krejpcio                   | DEPARTMENT                    | Food Science and Nutrition |      |   |
| TEACHER   |             |  | prof. dr hab.. Erwin Wąsowicz |                            |      |   |
| VOLUME (H)  |             | 30   |                               | PERSONAL WORK (H)          | 80   |   |
| LECTURE (H)   | LAB (H)     | PLACEMENT (H)                                    | PROJECT (H)                   | OTHER MODALITIES (H)       |      |   |
| 22  | 8           |  |                               |                            |      |   |
| EVALUATION  |             |  | TEACHING METHODS              |                            |      |   |
| EVALUATION MODALITIES   |             | Multimedial lecture adressed to all participants |                               |                            |      |   |
| ORAL INDIVIDUAL REPORT  |             | Participation in demonstrations and labs         |                               |                            |      |   |
| WRITEN INDYVIDUAL REPORT  |             | 30%  | Participation in discussions  |                            |      |   |
| FINAL ORAL EXAM   |             | 70%  |                               |                            |      |   |
| FINAL WRITTEN EXAM  |             |  |                               |                            |      |   |
| COMMENTS OF EVALUATION  |             |  |                               |                            |      |   |
|   |             |  |                               |                            |      |   |
| SEMESTER (WINTER/SUMMER)  |             |  | LANGUAGE                      |                            |      |   |
| WS  |             |  | ENGLISH                       |                            |      |   |
| <b>OBJECTIVES</b>   |             |  |                               |                            |      |   |
| The aim of course is to get information about basic chemistry of food constiuents: water, lipids, carbohydrates, proteins and flavour compounds |             |  |                               |                            |      |   |
| Learn about reactions which occur during the production, processing, storage and handling of foods  |             |  |                               |                            |      |   |
| Student should get also basis lab skills about selected methods used in analyzing important food constituents                                   |             |  |                               |                            |      |   |
| <b>CONTENTS</b>   |             |  |                               |                            |      |   |
| Basic concepts, definition and history food chemistry   |             |  |                               |                            |      |   |
| Structure of classification, physical, chemical and sensory properties of food contstituents  |             |  |                               |                            |      |   |
| Reaction of food constituents in different condition, temperature, pH, water content  |             |  |                               |                            |      |   |
| Chemical and physical modification of food constituent  |             |  |                               |                            |      |   |
| Aroma substances, sensory relevance,individual aroma compounds  |             |  |                               |                            |      |   |
| Gas chromatography, high pressure, liquid chromatography, mass spectrometry in analysis of some food constituents                               |             |  |                               |                            |      |   |
| PRE-REQUISITES  |             | basis of organic chemistry and biochemistry      |                               |                            |      |   |