

**BDB103 - Nutritional Principles And Application I**

| Course Name                                    | Code   | Term     | Theory (hours/week) | Application (hours/week) | Laboratory (hours/week) | ECTS |
|--|--|----------|---------------------|--------------------------|-------------------------|------|
| NUTRITIONAL PRINCIPLES AND APPLICATION I       | BDB103   | 1.Autumn | 2                   | 0                        | 2                       | 4    |
| Prerequisites                                  | None   |          |                     |                          |                         |      |
| Language of Instruction                        | Turkish  |          |                     |                          |                         |      |
| Course Type                                    | Compulsory   |          |                     |                          |                         |      |
| Learning and Teaching Techniques of The Course | Lecture,<br>Question-answer method,<br>Brainstorming<br>Problem solving method<br>Individual working method  |          |                     |                          |                         |      |
| Instructor(s)                                  |  |          |                     |                          |                         |      |
| Goal   | 1. To teach the concept of adequate and balanced nutrition and its importance for health,<br>2. To teach the functions of energy, macronutrients (carbohydrates, protein, fat), micronutrients (vitamins, minerals), water and pulp in body work,<br>3. To teach energy, macro, micronutrients, water and pulp content of foods,<br>4. To teach the daily energy, macro, micronutrients, water and pulp requirements of individuals of different ages and genders and to compare and evaluate them with daily recommended amounts.   |          |                     |                          |                         |      |
| Learning Outcomes                              | 1. Learn the functions of energy, macro (carbohydrate, protein, fat), micronutrients (vitamins, minerals) water and pulp in body work.<br>2. Learn the energy, macro, micronutrients, water and pulp content of foods.<br>3. Learn the daily energy, macro, micronutrients, water and pulp requirements of individuals of different ages and genders. Calculates the type and amount of nutrients to provide macro and micronutrients.<br>4. Learn to measure and evaluate body weight.<br>5. Learn the methods of recording food and beverage consumption and physical activity.<br>6. Identifies and evaluates the nutritional status of the individual.                                     |          |                     |                          |                         |      |
| References                                     | 1. Baysal, A. Beslenme (12. baskı). Hatipoğlu Publishing. 2009, Ankara.<br>2. Shils ME, Olson JA, Shike M. Modern Nutrition in Health and Disease (eighth edition). Philadelphia Publishing, 1994, London<br>3. Zempleni J, Suttie JW, Gregory III JF, Stover PJ. Handbook of Vitamins (fifth edition). CRC Press Taylor&Francis Group.2014, New York<br>4. Passmore R, Easwood MA. Human Nutrition and Dietetics (eighth edition). ELBS. 1986, Edinburg<br>5. Türkiye Beslenme Rehberi (TÜBER) (2015). T. C. Ministry of Health Public Health Agency of Turkey, Ankara.<br>6. National Food Composition Database (Türkomp) (2020). <a href="http://www.turkomp.gov.tr">www.turkomp.gov.tr</a> |          |                     |                          |                         |      |

**Course Outline Weekly:**

| WEEKS    | TOPICS   |
|----------|--|
| 1. Week  | The importance of nutrition and an overview of nutrition   |
| 2. Week  | Carbohydrates  |
| 3. Week  | Oils   |
| 4. Week  | Proteins and amino acids   |
| 5. Week  | Proteins (application: calculation of the actual protein value of food / diet)   |
| 6. Week  | Energy metabolism<br>Application: Calculation of the individual's energy expenditure   |
| 7. Week  | Water and Minerals I   |
| 8. Week  | <b>MIDTERM EXAM</b>  |
| 9. Week  | Minerals II  |
| 10. Week | Vitamins Fat Soluble Vitamins  |
| 11. Week | Water Soluble Vitamins I   |
| 12. Week | Water Soluble Vitamins II  |
| 13. Week | Application: Determination of individual food consumption status and physical activity level, evaluation of energy and nutrient intake student presentations |
| 14. Week | Application: Determination of individual food consumption status and physical activity level, evaluation of energy and nutrient intake student presentations |
| 15. Week | Application: Determination of individual food consumption status and physical activity level, evaluation of energy and nutrient intake student presentations |

**Student Work Load Table**

| Activities   | Number | Duration   | Total Work Load |
|--|--------|------------|-----------------|
| Course Duration  | 14     | 2          | 28              |
| Laboratory   | 14     | 2          | 28              |
| Practice   |        |            |                 |
| Field Study  |        |            |                 |
| Study Time Of Outside Of Class (Pre-Study, Practice, Etc.)             | 14     | 2          | 28              |
| Presentations (Video shoot/Poster preparation/Oral presentation, Etc.) | 1      | 4          | 4               |
| Seminars   |        |            |                 |
| Project  |        |            |                 |
| Case study   |        |            |                 |
| Role playing, Dramatization  |        |            |                 |
| Writing articles, Critique   |        |            |                 |
| Time To Prepare For Midterm Exam                                       | 1      | 5          | 5               |
| Final Exam Preparation Time  | 1      | 7          | 7               |
| <b>Total Work Load ( hour ) / 25(s)</b>                                |        | 100 / 25=4 |                 |
| <b>ECTS</b>  |        |            | <b>4</b>        |

**Evaluation System**

| Mid-Term Studies                            | Number | Contribution |
|---|--------|--------------|
| Midterm exams                               | 1      | 40%          |
| Quiz  |        |              |
| Laboratory                                  |        |              |
| Practice                                    |        |              |
| Field Study                                 |        |              |
| Course Internship (If There Is)             |        |              |
| Homework's                                  | 1      | 60%          |
| Presentation and Seminar                    |        |              |
| Project                                     |        |              |
| Other evaluation methods                    |        |              |
| <b>Total Time To Activities For Midterm</b> |        | <b>100</b>   |
| <b>Final works</b>                          |        |              |
| Final                                       | 1      | 100          |
| Homework                                    |        |              |
| Practice                                    |        |              |
| Laboratory                                  |        |              |
| <b>Total Time To Activities For Midterm</b> |        | <b>100</b>   |
| Contribution Of Midterm Studies On Grades   |        | 40%          |
| Contribution Of Final Exam On Grades        |        | 60%          |
| <b>Total</b>                                |        | <b>100</b>   |

**The relationship between learning outcomes and the program qualifications of the courses**

| Program qualifications   | Learning Outcomes of the Course |       |       |       |       |       |
|--|---------------------------------|-------|-------|-------|-------|-------|
|  | L.O.1                           | L.O.2 | L.O.3 | L.O.4 | L.O.5 | L.O.6 |
| 1. Enables the students to use theoretical knowledge based on basic and social sciences in practice.   | 1                               | 1     | 5     | 1     | 2     | 1     |
| 2. Has the ability to use equipments and information Technologies required for the professional practice efficiently.  | 1                               | 1     | 5     | 3     | 5     | 5     |
| 3. Knows his rights, duties and responsibilities towards the society, colleagues, and other professions, individuals and patients, and learns how to behave in harmony with the professional ethical rules.  | 1                               | 1     | 1     | 1     | 1     | 2     |
| 4. When confronted with problems within any field of Nutrition and Dietetics, has the ability to observe, diagnose, assess, report and come up with solutions thanks to their up-to-date knowledge and skills.   | 1                               | 1     | 3     | 1     | 3     | 4     |
| 5. Gains efficient working skills based on the principles of effective communication, responsibility, solution-oriented working in disciplinary and interdisciplinary conditions.  | 1                               | 1     | 1     | 1     | 1     | 2     |
| 6. Has the ability to make a plan for a research individually or as part of a team, make experiments, collect and analyze the data, interpret and write a report by using theoretical / practical knowledge and skills gained in the field of Nutrition and Dietetics. | 1                               | 1     | 4     | 4     | 2     | 4     |
| 7. Develops suggestions for healthy/sick individuals and those at risk considering their lifelong diet.  | 4                               | 4     | 4     | 2     | 2     | 5     |
| 8. Gains knowledge to contribute to the diet plans and politics to be developed based on the needs of the individuals and the society.   | 5                               | 5     | 5     | 3     | 4     | 5     |
| 9. Improves themselves by following the latest advances in their profession nationally and internationally, and acquires awareness in lifelong learning.   | 5                               | 5     | 5     | 5     | 5     | 5     |

**Contribution to the level of proficiency: 1. Lowest, 2. Low / Medium, 3. Average, 4. High, 5. Excellent**