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| **ABU_KKK_01-15.jpg** | **ECTS Course Description Form** |
| **PART I ( Senate Approval)** |
| **Offering School**  | *Tourism Faculty* |
| **Offering Department** | *Gastronomy and Culinary Arts* |
| **Program(s) Offered to** | *Gastronomy and Culinary Arts* | *Must* |
|  |  |
|  |  |
| **Course Code**  | *GAST 104* |
| **Course Name** | *Food Science* |
| **Language of Instruction** | *English* |
| **Type of Course** | *Lecture* |
| **Level of Course** | *Undergraduate* |
| **Hours per Week** | **Lecture: 3** | **Laboratory:** | **Recitation:**  | **Practical:**  | **Studio:** | **Other:** |
| **ECTS Credit** | *5* |
| **Grading Mode** | *Letter Grade* |
| **Pre-requisites** | *na* |
| **Co-requisites** | *na* |
| **Registration Restriction** | *na* |
| **Educational Objective** | *This course aims to provide students with the fundamental principles and various aspects of food science from raw materials to food processing, safety and quality in order to improve students’ cooking skills* |
| **Course Description** | *This course offers an introduction to food science. Topics include the composition and structure of foods, chemical/physical/microbiological properties of foods, food safety, quality and spoilage, contaminants, the usage of additives, methods of food processing and preservation, major food commodities such as meats and poultry, seafood, fruits and vegetables, cereal grains, eggs, dairy, and confectioneries.*  |
| **Learning Outcomes**  | **LO1** | *Apply food science knowledge to describe functions of ingredients in food.* |
| **LO2** | *Understand the physical and chemical properties of food.* |
| **LO3** | *Discuss the major chemical reactions that occur during cooking and storage.* |
| **LO4** | *Explain spoilage mechanisms in foods and relate them to practical examples* |
| **LO5** | *Recognise the importance of food waste management*  |
| **LO6** | *Summarize and interpret current and future trends in food science from a gastronomy perspective and write term paper/reports about these.* |
| **LO7** | *Identify, classify and differentiate major food commodities including grain and grain products, meat, poultry, fish, milk and dairy products, fruits and vegetables, fats and oils, spices and herbs.* |
| **PART II ( Faculty Board Approval)** |
| **Basic Outcomes (University-wide)** | **No.** | **Program Outcomes** | **LO1** | **LO2** | **LO3** | **LO4** | **LO5** | **LO6** | **LO7** |
| **PO1** | **Ability** to communicate effectively and write and present a report in Turkish and English.  |  |  |  |  |  | **X** |  |
| **PO2** | **Ability** to work individually, and in intra-disciplinary and multi-disciplinary teams. |  |  |  | **X** |  | **X** |  |
| **PO3** | **Recognition** of the need for life-long learning and **ability** to access information , follow developments in science and technology, and continually reinvent oneself. | **X** |  |  |  | **X** |  | **X** |
| **PO4** | **Knowledge** of project management, risk management, innovation and change management, entrepreneurship, and sustainable development. |  |  |  |  |  |  | **X** |
| **PO5** | **Awareness** of sectors and **ability** to prepare a business plan. |  |  |  |  |  |  | **X** |
| **PO6** | **Understanding** of professional and ethical responsibility and **demonstrating** ethical behavior. |  |  |  |  |  |  | **X** |
| **Faculty Specific Outcomes** | **PO7** |  |  |  |  |  |  |  |  |
| **PO8** |  |  |  |  |  |  |  |  |
| **PO9** |  |  |  |  |  |  |  |  |
| **PO10** |  |  |  |  |  |  |  |  |
| **PO11** |  |  |  |  |  |  |  |  |
| **PO12** |  |  |  |  |  |  |  |  |
| **Discipline Specific Outcomes (program)** | **PO13** |  |  |  |  |  |  |  |  |
| **PO14** |  |  |  |  |  |  |  |  |
| **PO15** |  |  |  |  |  |  |  |  |
| **PO16** |  |  |  |  |  |  |  |  |
| **PO17** |  |  |  |  |  |  |  |  |
| **PO18** |  |  |  |  |  |  |  |  |
| **Specialization Specific Outcomes** | **PO N….** |  |  |  |  |  |  |  |  |
| **PART III ( Department Board Approval)** |
| **Course Subjects, Contribution of Course Subjects to Learning Outcomes, and Methods for Assessing Learning of Course Subjects** | **Subjects** | **Week** |  | **LO1** | **LO2** | **LO3** | **LO4** | **LO5** | **LO6** | **LO7** |
| **S1** | 1 | *Introduction and Orientation: Discuss the Syllabus* |  |  |  |  |  |  |  |
| **S2** | 2 | [*Constituents of Foods*](https://link.springer.com/chapter/10.1007/978-1-4615-4985-7_3) | A1,A2 | A1,A2 |  |  |  |  |  |
| **S3** | 3 | [*Nutritive Aspects of Food*](https://link.springer.com/chapter/10.1007/978-1-4615-4985-7_4)  | A1,A2 | A1,A2 |  |  |  |  | A1,A2 |
| **S4** | 4 | *Food Microbiology* |  |  |  | A1,A2 |  |  |  |
| **S5** | 5 | *Food Chemistry* |  |  | A1,A2 |  |  |  | A1,A2 |
| **S6** | 6 | *Food Spoilage and its control* |  |  | A1,A2 | A1,A2 |  |  | A1,A2 |
| **S7** | 7 | *Food preservation* |  |  | A1,A2 |  | A1,A2 |  | A1,A2 |
| **S8** | 8 | *Food quality assurance and food safety* |  |  | A1,A2 | A1,A2 |  | A5, A6 | A1,A2 |
| **S9** | 9 | *Evaluation of Sensory Properties of Foods* | A1,A2 | A1,A2 |  |  |  | A5,A6 |  |
| **S10** | 10 | *Food sanitation and hygiene* |  |  |  |  | A1,A2 |  | A1,A2 |
| **S11** | 11 | *Food Safety management systems and HACCP* |  |  |  |  | A1,A2 |  |  |
| **S12** | 12 | *Food Legislation* |  | A1,A2 |  |  |  | A5,A6 |  |
| **S13** | 13 | *Functional foods* |  |  |  |  |  | A5,A6 |  |
| **S14** | 14 | *Waste Management*  |  |  |  |  | A1,A2 |  |  |
| **Assessment Methods, Weight in Course Grade, Implementation and Make-Up Rules**  | **No.** | **Type** | **Weight** | **Implementation Rule** | **Make-Up Rule** |
| **A1** | **Exam:** | *30%**40%* | *Midterm**Final* | - |
| **A2** | **Quiz** | *5%**5%* | *Quiz 1**Quiz 2* | - |
| **A3** | **Homework** | *10%* | - | - |
| **A4** | **Project** | - | - | - |
| **A5** | **Report** | - | - | - |
| **A6** | **Presentation** | *10%* | - | - |
| **A7** | **Attendance/ Interaction** | - | - | - |
| **A8** | **Class/Lab./****Field Work** | - | - | - |
| **A9** | **Other** | - | - | - |
| **TOTAL** | **100%** |  | - | - |
| **Evidence of Achievement of Learning Outcomes** | Via discussions throughout the lectures (students’ ability to develop an argument and use evidence to support it), exams, student presentations, student term paper) |  |  | - | - |
| **Method for Determining Letter Grade** |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Total Points | 100 | 100-90 | 89-87 | 86.-84 | 83-80 | 79-77 | 76-74 | 73-70 | 69.-67 | 66.-64 | 63-60 | 59-0 |
| Letter Grade | A+ | A | A- | B+ | B | B- | C+ | C | C- | D+ | D | F |
| Value | 4.00 | 4.00 | 3.70 | 3.30 | 3.00 | 2.70 | 2.30 | 2.00 | 1.70 | 1.30 | 1.00 | 0.00 |

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| **Teaching Methods, Student Work Load** | **No** | **Method** | **Explanation** | **Hours** |
| ***Time applied by instructor*** |
| **1** | **Lecture** | Preparation for the lecture notes, slides etc | 12x8=96 |
| **2** | **Interactive Lecture** | Delivering presentations for the lectures | 12x3=36 |
| **3** | **Recitation** | - | - |
| **4** | **Laboratory** | - | - |
| **5** | **Practical** | - | - |
| **6** | **Field Work** | - | - |
| ***Time expected to be allocated by student*** |
| **7** | **Project** | - | - |
| **8** | **Homework** | Writing a term paper and preparing a presentation | 1x8=8 |
| **9** | **Pre-class Learning of Course Material**  |  | 12x2=24 |
| **10** | **Review of Course Material** |  | 12x2=24 |
| **11** | **Studio** |  |  |
| **12** | **Office Hour** |  | 2x1=2 |
| **TOTAL** | 190 |
| **IV. PART** |
| **Instructor** | **Name** |  |
| **E-mail** |  |
| **Phone Number** |  |
| **Office Number** |  |
| **Office Hours** |  |
| **Course Materials** | **Mandatory** | *Stewart, G.F.; Amerine, M.A.: Introduction to food science and technology: New York: Academic Press. 1982* |
| **Recommended** |  |
| **Other** | **Scholastic Honesty** | Any form of academic dishonesty, cheating, copying or plagiarizing, is prohibited. |
| **Students with Disabilities** |  |
| **Safety Issues**  |  |
| **Flexibility** |  |