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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* | *Elective* |
|  |  |
|  |  |
| **Course Code**  | *GAST 331* |
| **Course Name** | *Formulation and Sensory Evaluation of Food Products* |
| **Language of Instruction** | *English* |
| **Type of Course** | *Lecture* |
| **Level of Course** | *Undergraduate* |
| **Hours per Week** | **Lecture:** 3 | **Laboratory:** | **Recitation:**  | **Practical:**  | **Studio:** | **Other:** |
| **ECTS Credit** | *4* |
| **Grading Mode** | *Letter Grade* |
| **Pre-requisites** | **na** |
| **Co-requisites** | **na** |
| **Registration Restriction** | *na* |
| **Educational Objective** | *The aim of this course is to provide students with the knowledge to formulate new products and/or reformulate existing products, to develop skills and then to apply this alongside the basic principles of sensory science in a food service context* |
| **Course Description** | *This course deals with sensory science in relation to food formulation and quality standards in a food service environment. Students learn the sensory-evaluation concept and its applications, physiological and psychological factors affecting sensory perception, as well as the relationships between sensory properties and product acceptability. There is also discussion of how to conduct sensory evaluation tests for final products in relation to their appearance, colour texture, flavour and taste, along with the interpretation of these data. Students need to generate ideas and think critically to formulate new food products and/or to reformulate existing products with acceptable sensory attributes as both the characteristics of food and the use of various cooking techniques affect their sensory properties.* |
| **Learning Outcomes**  | **LO1** | *Develop new food products* |
| **LO2** | *Apply sensory evaluation methods for food formulations to assess the acceptability and quality of food.* |
| **LO3** | *Use sensory terminology.* |
| **LO4** | *Demonstrate an ability to identify solutions to problems related to the sensory analysis of food.* |
| **LO5** | *Write term paper/reports and give oral presentations on the results of sensory evaluation tests.* |
| **LO6** | *Implement critical thinking, teamwork, and communication skills regarding the design and formulation of new and improved food products* |
| **PART II ( Faculty Board Approval)** |
| **Basic Outcomes (University-wide)** | **No.** | **Program Outcomes** | **LO1** | **LO2** | **LO3** | **LO4** | **LO5** | **LO6** |
| **PO1** | **Ability** to communicate effectively and write and present a report in Turkish and English.  |  |  |  |  | **X** | **X** |
| **PO2** | **Ability** to work individually, and in intra-disciplinary and multi-disciplinary teams. |  |  |  |  |  | **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** |  |  |
| **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** |
| **S1** | 1 | *Introduction and Orientation: Discuss the Syllabus.* |  |  |  |  |  |  |
| **S2** | 2 | *Overview of sensory principles and practices* |  |  | A1,A2 |  |  |  |
| **S3** | 3 | *Physiological and psychological foundations of sensory function* |  | A1,A2 |  |  |  |  |
| **S4** | 4 | [*Principles of Good Practice*](https://link.springer.com/chapter/10.1007/978-1-4419-6488-5_3) |  |  | A1, A2 |  |  |  |
| **S5** | 5 | *Measurement of sensory thresholds* |  | A1,A2 |  |  |  |  |
| **S6** | 6 | [*The Sense of Taste*](http://www.sciencedirect.com/science/article/pii/B9781483200187500064) | A1,A2 |  |  |  |  |  |
| **S7** | 7 | [*Texture Evaluation*](https://link.springer.com/chapter/10.1007/978-1-4419-6488-5_11) | A1,A2 |  |  |  |  |  |
| **S8** | 8 | [*Color and Appearance*](https://link.springer.com/chapter/10.1007/978-1-4419-6488-5_12) | A1,A2 |  |  |  |  |  |
| **S9** | 9 | [[*Preference Testin*](https://link.springer.com/chapter/10.1007/978-1-4419-6488-5_13)](https://link.springer.com/chapter/10.1007/978-1-4419-6488-5_15)*g* |  |  |  |  | A5,A6 | A5,A6 |
| **S10** | 10 | [*Acceptance Testing*](https://link.springer.com/chapter/10.1007/978-1-4419-6488-5_14) |  |  |  |  | A5,A6 | A5,A6 |
| **S11** | 11 | [*Consumer Field Tests and Questionnaire Design*](https://link.springer.com/chapter/10.1007/978-1-4419-6488-5_15) |  |  | A1,A2 |  | A5,A6 | A5,A6 |
| **S12** | 12 | *Descriptive Analysis* |  |  |  |  | A5,A6 | A5,A6 |
| **S13** | 13 | *Sensory Evaluation in quality control* | A1,A2 |  |  |  | A5,A6 | A5,A6 |
| **S14** | 14 | [*Sensory Evaluation Problems of the Food Industry*](http://www.sciencedirect.com/science/article/pii/B9781483200187500052) |  |  |  | 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 | 12x5=60 |
| **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** | - | - |
| **9** | **Pre-class Learning of Course Material**  |  | 12x1=12 |
| **10** | **Review of Course Material** |  | 12x1=12 |
| **11** | **Studio** |  |  |
| **12** | **Office Hour** |  | 2x1=2 |
| **TOTAL** | 128 |
| **IV. PART** |
| **Instructor** | **Name** |  |
| **E-mail** |  |
| **Phone Number** |  |
| **Office Number** |  |
| **Office Hours** |  |
| **Course Materials** | **Mandatory** | *Lawless, T. H.; Heymann, H.: Sensory Evaluation of Food: Springer science. 2010* |
| **Recommended** |  |
| **Other** | **Scholastic Honesty** | Any form of academic dishonesty, cheating, copying or plagiarizing, is prohibited. |
| **Students with Disabilities** |  |
| **Safety Issues**  |  |
| **Flexibility** |  |