

## GENERAL DIGESTIVE SYSTEM

|           |                                                         |                                                                                                                                                                                                                                         |                                                                                                   |
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| <b>1</b>  | Course Title:                                           | GENERAL DIGESTIVE SYSTEM                                                                                                                                                                                                                |                                                                                                   |
| <b>2</b>  | Course Code:                                            | VFZ5006                                                                                                                                                                                                                                 |                                                                                                   |
| <b>3</b>  | Type of Course:                                         | Compulsory                                                                                                                                                                                                                              |                                                                                                   |
| <b>4</b>  | Level of Course:                                        | Second Cycle                                                                                                                                                                                                                            |                                                                                                   |
| <b>5</b>  | Year of Study:                                          | 1                                                                                                                                                                                                                                       |                                                                                                   |
| <b>6</b>  | Semester:                                               | 2                                                                                                                                                                                                                                       |                                                                                                   |
| <b>7</b>  | ECTS Credits Allocated:                                 | 2.00                                                                                                                                                                                                                                    |                                                                                                   |
| <b>8</b>  | Theoretical (hour/week):                                | 1.00                                                                                                                                                                                                                                    |                                                                                                   |
| <b>9</b>  | Practice (hour/week):                                   | 0.00                                                                                                                                                                                                                                    |                                                                                                   |
| <b>10</b> | Laboratory (hour/week):                                 | 0                                                                                                                                                                                                                                       |                                                                                                   |
| <b>11</b> | Prerequisites:                                          | None                                                                                                                                                                                                                                    |                                                                                                   |
| <b>12</b> | Language:                                               | Turkish                                                                                                                                                                                                                                 |                                                                                                   |
| <b>13</b> | Mode of Delivery:                                       | Face to face                                                                                                                                                                                                                            |                                                                                                   |
| <b>14</b> | Course Coordinator:                                     | Prof. Dr. Cenk AYDIN                                                                                                                                                                                                                    |                                                                                                   |
| <b>15</b> | Course Lecturers:                                       |                                                                                                                                                                                                                                         |                                                                                                   |
| <b>16</b> | Contact information of the Course Coordinator:          | Prof. Dr. Cenk Aydın<br>Bursa Uludağ Üniversitesi<br>Veteriner Fakültesi<br>Fizyoloji Anabilim Dalı<br>16059 Nilüfer Bursa<br>eposta: caydin@uludag.edu.tr<br>tel:+90(224) 294-1274                                                     |                                                                                                   |
| <b>17</b> | Website:                                                |                                                                                                                                                                                                                                         |                                                                                                   |
| <b>18</b> | Objective of the Course:                                | Learning the differences in the structure, development and function, and physiological processes of digestive and endocrine systems from molecule to cell, cell to tissue, tissue to organ, organ to system; basic professional skills. |                                                                                                   |
| <b>19</b> | Contribution of the Course to Professional Development: | To have information on the operation of the digestive system, the absorption of nutrients, disorders of the digestive system.                                                                                                           |                                                                                                   |
| <b>20</b> | Learning Outcomes:                                      |                                                                                                                                                                                                                                         |                                                                                                   |
|           |                                                         | <b>1</b>                                                                                                                                                                                                                                | Recognizes the digestive system organs and structurally at the macroscopic and microscopic level. |
|           |                                                         | <b>2</b>                                                                                                                                                                                                                                | Explains the structural and developmental features of the digestive system and organs.            |
|           |                                                         | <b>3</b>                                                                                                                                                                                                                                | Explain the biochemical processes in digestive and endocrine organs / systems.                    |
|           |                                                         | <b>4</b>                                                                                                                                                                                                                                | Explains the digestive system physiology at the level of molecules, cells and tissues.            |
|           |                                                         | <b>5</b>                                                                                                                                                                                                                                |                                                                                                   |
|           |                                                         | <b>6</b>                                                                                                                                                                                                                                |                                                                                                   |
|           |                                                         | <b>7</b>                                                                                                                                                                                                                                |                                                                                                   |
|           |                                                         | <b>8</b>                                                                                                                                                                                                                                |                                                                                                   |
|           |                                                         | <b>9</b>                                                                                                                                                                                                                                |                                                                                                   |
|           |                                                         | <b>10</b>                                                                                                                                                                                                                               |                                                                                                   |
| <b>21</b> | Course Content:                                         |                                                                                                                                                                                                                                         |                                                                                                   |
|           |                                                         | <b>Course Content:</b>                                                                                                                                                                                                                  |                                                                                                   |
| Week      | Theoretical                                             | Practice                                                                                                                                                                                                                                |                                                                                                   |

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|----|--------------------------------------------------------------------------------------|--|
| 1  | the functions and components of the monogastric and ruminant digestive systems       |  |
| 2  | Describe the digestion process in the oral cavity                                    |  |
| 3  | Movements in the digestive tract, chewing, swallowing, drooling                      |  |
| 4  | Gastric movements, gastric secretions and emptying mechanisms in the digestive tract |  |
| 5  | Colon movements, secretion, defecation mechanisms                                    |  |
| 6  | Entry to digestion in the ruminant stomach and development of the ruminant stomach   |  |
| 7  | Duties of the sulcus esophagus, reticulum, omasum and abomasum                       |  |
| 8  | Rumen microorganisms                                                                 |  |
| 9  | Digestive events in the rumen                                                        |  |
| 10 | Digestion of carbohydrates in the rumen                                              |  |
| 11 | Digestion of protein and fats in the rumen                                           |  |
| 12 | Ruminohepatic nitrogen circulation                                                   |  |
| 13 | Volatile fatty acids and physiology functions                                        |  |
| 14 | Liver and pancreatic physiology                                                      |  |

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| 22 | Textbooks, References and/or Other Materials: | 1.Modelling Nutrient Digestion and Utilisation in Farm Animals, Wageningen Academic Publishers, 2011. |
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| Activites                                                                 |                                                              | Number | Duration (hour) | Total Work Load (hour) |
|---------------------------------------------------------------------------|--------------------------------------------------------------|--------|-----------------|------------------------|
| Theoretical                                                               | (CILT I)1989<br>4. Prof Dr Kemalettin Yaman, Fizyoloji -2009 | 14     | 1.00            | 14.00                  |
| Practicals/Labs                                                           |                                                              | 0      | 0.00            | 0.00                   |
| Self study and preparation                                                |                                                              | 1      | 30.00           | 30.00                  |
| Homeworks                                                                 |                                                              | 1      | 15.00           | 15.00                  |
| Projects                                                                  |                                                              | 0      | 0.00            | 0.00                   |
| Midterm Exam                                                              |                                                              | 0      | 0.00            | 0.00                   |
| Field Studies                                                             |                                                              | 0      | 0.00            | 0.00                   |
| Midterm exams                                                             |                                                              | 0      | 0.00            | 0.00                   |
| Home work-project                                                         |                                                              | 2      | 25.00           | 0.00                   |
| Others                                                                    |                                                              | 0      | 0.00            | 0.00                   |
| Final Exams                                                               |                                                              | 1      | 1.00            | 1.00                   |
| Total                                                                     |                                                              | 3      | 100.00          |                        |
| Total Work Load                                                           |                                                              |        |                 | 60.00                  |
| Contribution of Term (Year) Learning Activities to Total work load/ 30 hr |                                                              |        |                 | 2.00                   |
| ECTS Credit of the Course                                                 |                                                              |        |                 | 2.00                   |

|       |        |
|-------|--------|
| Total | 100.00 |
|-------|--------|

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| Measurement and Evaluation Techniques Used in the Course | "Norm Based Assessment" will be applied after the measurement to be made with multiple choice questions, questions with correct or incorrect options, questions with short answers and Matching questions. |
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| 24 | ECTS / WORK LOAD TABLE |
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| 25  | CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |
|-----|---------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|
|     | PQ1                                                           | PQ2 | PQ3 | PQ4 | PQ5 | PQ6 | PQ7 | PQ8 | PQ9 | PQ10 | PQ11 | PQ12 | PQ13 | PQ14 | PQ15 | PQ16 |
| ÖK1 | 3                                                             | 4   | 2   | 3   | 4   | 3   | 2   | 1   | 2   | 4    | 1    | 3    | 0    | 0    | 0    | 0    |

|                                                       |            |   |   |       |   |   |          |   |   |        |   |   |             |   |   |   |
|-------------------------------------------------------|------------|---|---|-------|---|---|----------|---|---|--------|---|---|-------------|---|---|---|
| ÖK2                                                   | 3          | 3 | 1 | 2     | 3 | 3 | 3        | 4 | 2 | 1      | 1 | 3 | 0           | 0 | 0 | 0 |
| ÖK3                                                   | 4          | 2 | 1 | 3     | 3 | 2 | 3        | 2 | 2 | 4      | 3 | 3 | 0           | 0 | 0 | 0 |
| ÖK4                                                   | 3          | 3 | 2 | 3     | 3 | 3 | 4        | 2 | 1 | 2      | 3 | 2 | 0           | 0 | 0 | 0 |
| LO: Learning Objectives    PQ: Program Qualifications |            |   |   |       |   |   |          |   |   |        |   |   |             |   |   |   |
| Contribution Level:                                   | 1 very low |   |   | 2 low |   |   | 3 Medium |   |   | 4 High |   |   | 5 Very High |   |   |   |