

# LABORATORY TECHNIQUES I

|           |                                                         |                                                                                                             |                                                                                                                         |
|-----------|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| <b>1</b>  | Course Title:                                           | LABORATORY TECHNIQUES I                                                                                     |                                                                                                                         |
| <b>2</b>  | Course Code:                                            | GIDZ107                                                                                                     |                                                                                                                         |
| <b>3</b>  | Type of Course:                                         | Compulsory                                                                                                  |                                                                                                                         |
| <b>4</b>  | Level of Course:                                        | Short Cycle                                                                                                 |                                                                                                                         |
| <b>5</b>  | Year of Study:                                          | 1                                                                                                           |                                                                                                                         |
| <b>6</b>  | Semester:                                               | 1                                                                                                           |                                                                                                                         |
| <b>7</b>  | ECTS Credits Allocated:                                 | 4.00                                                                                                        |                                                                                                                         |
| <b>8</b>  | Theoretical (hour/week):                                | 2.00                                                                                                        |                                                                                                                         |
| <b>9</b>  | Practice (hour/week):                                   | 2.00                                                                                                        |                                                                                                                         |
| <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:                                     | Öğr. Gör. Dr. NEŞE ÖZMEN                                                                                    |                                                                                                                         |
| <b>15</b> | Course Lecturers:                                       | Meslek Yüksek okulları yönetim kurullarının görevlendirdiği öğretim elemanları                              |                                                                                                                         |
| <b>16</b> | Contact information of the Course Coordinator:          | Öğr. Üyesi Dr. Süreyya Saltan EVRENSEL<br>ssaltanev@gmail.com<br>0224 294 23 42                             |                                                                                                                         |
| <b>17</b> | Website:                                                |                                                                                                             |                                                                                                                         |
| <b>18</b> | Objective of the Course:                                | Students to conduct laboratory studies, and laboratory tools and equipment used to inform about the work of |                                                                                                                         |
| <b>19</b> | Contribution of the Course to Professional Development: | Getting information about laboratory experiments.                                                           |                                                                                                                         |
| <b>20</b> | Learning Outcomes:                                      |                                                                                                             |                                                                                                                         |
|           |                                                         | <b>1</b>                                                                                                    | Food lab to learn the rules of                                                                                          |
|           |                                                         | <b>2</b>                                                                                                    | Laboratory accidents and be aware of first aid methods                                                                  |
|           |                                                         | <b>3</b>                                                                                                    | Food Laboratory of the material, chemical, and learn solutions                                                          |
|           |                                                         | <b>4</b>                                                                                                    | Food Lab to learn about basic methods and tools used in the general                                                     |
|           |                                                         | <b>5</b>                                                                                                    | Ability to work effectively as a multi-disciplinary teams and individual self-confidence to have to take responsibility |
|           |                                                         | <b>6</b>                                                                                                    | Having professional and ethical values in society                                                                       |
|           |                                                         | <b>7</b>                                                                                                    | Effective use of Turkish language in written and oral communication                                                     |
|           |                                                         | <b>8</b>                                                                                                    | Related to the field to run computer programs, records and documentation to gain the ability to make                    |
|           |                                                         | <b>9</b>                                                                                                    |                                                                                                                         |
|           |                                                         | <b>10</b>                                                                                                   |                                                                                                                         |
| <b>21</b> | Course Content:                                         |                                                                                                             |                                                                                                                         |
|           |                                                         | <b>Course Content:</b>                                                                                      |                                                                                                                         |
| Week      | Theoretical                                             | Practice                                                                                                    |                                                                                                                         |
| <b>1</b>  | Course introduction, showing the resources              | presentation of the laboratory                                                                              |                                                                                                                         |
| <b>2</b>  | Personal Security Precautions                           | Work rules in the laboratory                                                                                |                                                                                                                         |
| <b>3</b>  | Laboratory General Safety Precautions                   | Laboratory work rules (continued)                                                                           |                                                                                                                         |

|    |                                                                  |                                                  |
|----|------------------------------------------------------------------|--------------------------------------------------|
| 4  | Personal Security Precautions                                    | The introduction of materials used in laboratory |
| 5  | Laboratory General Safety Precautions                            | The introduction of materials used in laboratory |
| 6  | The basic equipment in the laboratory                            | Presentation devices in the laboratory           |
| 7  | Laboratories cleaning materials, sampling, analysis, preparation | Presentation devices in the laboratory           |
| 8  | Repeating courses, MIDTERM EXAM                                  |                                                  |
| 9  | General methods of analysis                                      | Learning the use of pipettes                     |
| 10 | Colorimetric methods of analysis-physical methods of analysis    | Learning the use of burette                      |
| 11 | Preparation of Solutions-calculation-                            | preparation of solution                          |
| 12 | Preparation of Solutions-calculation-                            | preparation of solution                          |
| 13 | Preparation of Solutions-calculation-                            | Solution concentration control                   |
| 14 | Preparation of Solutions-calculation-                            | Solution concentration control                   |

|    |                                               |                                                                |
|----|-----------------------------------------------|----------------------------------------------------------------|
| 22 | Textbooks, References and/or Other Materials: | Laboratuar Teknikleri/ Yrd.Doç.Dr.Süreyya SALTAN EVRENSEL/2011 |
| 23 | Assesment                                     |                                                                |

| TERM LEARNING ACTIVITIES | NUMBER | WEIGHT |
|--------------------------|--------|--------|
| Midterm Exam             | 2      | 40.00  |
| Quiz                     | 0      | 0.00   |
| Home work-project        | 0      | 0.00   |

| Activites                  | Number                        | Duration (hour) | Total Work Load (hour) |
|----------------------------|-------------------------------|-----------------|------------------------|
| Theoretical                | 14                            | 2.00            | 28.00                  |
| Practicals/Labs            | 14                            | 2.00            | 28.00                  |
| Self study and preperation | 10                            | 2.00            | 28.00                  |
| Homeworks                  | 0                             | 0.00            | 0.00                   |
| Projects                   | the principle of Bursa Uli... | 0.00            | 0.00                   |
| Field Studies              | 0                             | 0.00            | 0.00                   |
| Midterm exams              | 2                             | 10.00           | 20.00                  |
| Others                     | 0                             | 0.00            | 0.00                   |
| Final Exams                | 1                             | 10.00           | 10.00                  |
| Total Work Load            |                               |                 | 114.00                 |
| Total work load/ 30 hr     |                               |                 | 3.80                   |
| ECTS Credit of the Course  |                               |                 | 4.00                   |

| 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 | 2                                                             | 4   | 4   | 4   | 4   | 4   | 5   | 5   | 5   | 5    | 5    | 5    | 0    | 0    | 0    | 0    |
| ÖK2 | 3                                                             | 3   | 4   | 4   | 4   | 4   | 4   | 5   | 5   | 5    | 5    | 5    | 0    | 0    | 0    | 0    |
| ÖK3 | 2                                                             | 2   | 3   | 3   | 3   | 4   | 4   | 4   | 4   | 4    | 4    | 4    | 0    | 0    | 0    | 0    |
| ÖK4 | 2                                                             | 2   | 2   | 3   | 3   | 3   | 2   | 2   | 2   | 3    | 3    | 3    | 0    | 0    | 0    | 0    |

|                                                       |            |   |   |       |   |   |          |   |   |        |   |   |             |   |   |   |
|-------------------------------------------------------|------------|---|---|-------|---|---|----------|---|---|--------|---|---|-------------|---|---|---|
| ÖK5                                                   | 1          | 1 | 1 | 1     | 1 | 1 | 1        | 1 | 1 | 1      | 1 | 1 | 0           | 0 | 0 | 0 |
| ÖK6                                                   | 1          | 1 | 1 | 1     | 1 | 1 | 1        | 1 | 1 | 1      | 1 | 1 | 0           | 0 | 0 | 0 |
| ÖK7                                                   | 3          | 3 | 3 | 3     | 3 | 3 | 3        | 3 | 3 | 3      | 3 | 3 | 0           | 0 | 0 | 0 |
| ÖK8                                                   | 1          | 1 | 1 | 1     | 1 | 1 | 1        | 1 | 1 | 1      | 1 | 1 | 0           | 0 | 0 | 0 |
| LO: Learning Objectives    PQ: Program Qualifications |            |   |   |       |   |   |          |   |   |        |   |   |             |   |   |   |
| Contribution Level:                                   | 1 very low |   |   | 2 low |   |   | 3 Medium |   |   | 4 High |   |   | 5 Very High |   |   |   |