| FORENSIC GENETICS |                                                            |                                                                                                                                                                                                                                                                            |                                                                                          |  |  |  |  |  |
|-------------------|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|--|--|--|--|--|
| 1                 | Course Title:                                              | FORENSIC GENETICS                                                                                                                                                                                                                                                          |                                                                                          |  |  |  |  |  |
| 2                 | Course Code:                                               | BYL4097                                                                                                                                                                                                                                                                    |                                                                                          |  |  |  |  |  |
| 3                 | Type of Course:                                            | Optional                                                                                                                                                                                                                                                                   |                                                                                          |  |  |  |  |  |
| 4                 | Level of Course:                                           | First Cycle                                                                                                                                                                                                                                                                |                                                                                          |  |  |  |  |  |
| 5                 | Year of Study:                                             | 4                                                                                                                                                                                                                                                                          |                                                                                          |  |  |  |  |  |
| 6                 | Semester:                                                  | 7                                                                                                                                                                                                                                                                          |                                                                                          |  |  |  |  |  |
| 7                 | ECTS Credits Allocated:                                    | 4.00                                                                                                                                                                                                                                                                       |                                                                                          |  |  |  |  |  |
| 8                 | Theoretical (hour/week):                                   | 2.00                                                                                                                                                                                                                                                                       |                                                                                          |  |  |  |  |  |
| 9                 | Practice (hour/week):                                      | 0.00                                                                                                                                                                                                                                                                       |                                                                                          |  |  |  |  |  |
| 10                | Laboratory (hour/week):                                    | 0                                                                                                                                                                                                                                                                          |                                                                                          |  |  |  |  |  |
| 11                | Prerequisites:                                             | None                                                                                                                                                                                                                                                                       |                                                                                          |  |  |  |  |  |
| 12                | Language:                                                  | Turkish                                                                                                                                                                                                                                                                    |                                                                                          |  |  |  |  |  |
| 13                | Mode of Delivery:                                          | Face to t                                                                                                                                                                                                                                                                  | face                                                                                     |  |  |  |  |  |
| 14                | Course Coordinator:                                        | Prof. Dr. Tolga Çavaş                                                                                                                                                                                                                                                      |                                                                                          |  |  |  |  |  |
| 15                | Course Lecturers:                                          | Prof. Dr. Tolga ÇAVAŞ                                                                                                                                                                                                                                                      |                                                                                          |  |  |  |  |  |
| 16                | Contact information of the Course<br>Coordinator:          | Görükle Kampüsü, Nilüfer/BURSA 16059<br>e-posta: tcavas@uludag.edu.tr<br>Telefon: 0 224 294 1869<br>Uludag University Faculty of Arts and Science Department of<br>Biology<br>Gorukle Campus, Nilufer/BURSA 16059<br>e-mail: tcavas@uludag.edu.tr<br>Phone: 0 224 294 1869 |                                                                                          |  |  |  |  |  |
| 17                | Website:                                                   |                                                                                                                                                                                                                                                                            |                                                                                          |  |  |  |  |  |
| 18                | Objective of the Course:                                   | The aim of this course is to bring students the knowledge of genetic tools used in forensic analyses.                                                                                                                                                                      |                                                                                          |  |  |  |  |  |
| 19                | Contribution of the Course to<br>Professional Development: |                                                                                                                                                                                                                                                                            |                                                                                          |  |  |  |  |  |
| 20                | Learning Outcomes:                                         |                                                                                                                                                                                                                                                                            |                                                                                          |  |  |  |  |  |
|                   |                                                            | 1                                                                                                                                                                                                                                                                          | To have knowledge on the genetic structure and molecular properties of living organisms. |  |  |  |  |  |
|                   |                                                            | 2                                                                                                                                                                                                                                                                          | To know about the use of genetic analysis in forensic cases                              |  |  |  |  |  |
|                   |                                                            | 3                                                                                                                                                                                                                                                                          | To know about ethics in genetic research.                                                |  |  |  |  |  |
|                   |                                                            | 4                                                                                                                                                                                                                                                                          |                                                                                          |  |  |  |  |  |
|                   |                                                            | 5                                                                                                                                                                                                                                                                          |                                                                                          |  |  |  |  |  |
|                   |                                                            | 6                                                                                                                                                                                                                                                                          |                                                                                          |  |  |  |  |  |
|                   |                                                            | 7                                                                                                                                                                                                                                                                          |                                                                                          |  |  |  |  |  |
|                   |                                                            | 8                                                                                                                                                                                                                                                                          |                                                                                          |  |  |  |  |  |
|                   |                                                            | 9                                                                                                                                                                                                                                                                          |                                                                                          |  |  |  |  |  |
|                   |                                                            | 10                                                                                                                                                                                                                                                                         |                                                                                          |  |  |  |  |  |
| 21                | Course Content:                                            |                                                                                                                                                                                                                                                                            |                                                                                          |  |  |  |  |  |
|                   |                                                            | Co                                                                                                                                                                                                                                                                         | ourse Content:                                                                           |  |  |  |  |  |
| Week              | Theoretical                                                |                                                                                                                                                                                                                                                                            | Practice                                                                                 |  |  |  |  |  |

|                                                                     |                                                    |         | L     | 0: L    | earr   | ning C | bjec    | tives                                             | 5         | PQ: F | rogra           | ım Qu | alifica     | tions        | 5     |      |      |  |
|---------------------------------------------------------------------|----------------------------------------------------|---------|-------|---------|--------|--------|---------|---------------------------------------------------|-----------|-------|-----------------|-------|-------------|--------------|-------|------|------|--|
| OK3                                                                 |                                                    | J       | 0     | 5       | 0      | U      | 0       | U                                                 | U         | 0     | 0               | U     | 0           | 0            | 0     | U    | U    |  |
| ÖKS                                                                 |                                                    |         | 0     | 5       | 0      | 0      | 0       | 0                                                 |           |       |                 | 0     |             | 0            |       |      |      |  |
| ÖK2                                                                 | (                                                  | )       | 0     | 0       | 0      | 0      | 0       | 3                                                 | 0         | 0     | 0               | 0     | 0           | 0            | 0     | 0    | 0    |  |
| ÖK1                                                                 | Ę                                                  | 5       | 0     | 0       | 0      | 0      | 0       | 0                                                 | 0         | 0     | 0               | 0     | 0           | 0            | 0     | 0    | 0    |  |
|                                                                     | F                                                  | PQ1     | PQ2   | PQ3     | PQ4    | PQ5    | PQ6     | PQ7                                               | PQ        | 8 PQ9 | PQ1<br>0        | PQ11  | PQ12        | PQ1<br>3     | PQ14  | PQ15 | PQ16 |  |
| 25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME<br>QUALIFICATIONS |                                                    |         |       |         |        |        |         |                                                   |           |       |                 |       |             |              |       |      |      |  |
|                                                                     |                                                    | l or tr |       |         | דרים   |        |         | -,-                                               |           |       |                 |       |             |              |       |      |      |  |
| FCTS (                                                              | rwork load/ 30 hr                                  |         |       |         |        |        |         |                                                   |           |       |                 |       |             | 3.93<br>4 00 |       |      |      |  |
| Total W                                                             | I Work Load                                        |         |       |         |        |        |         |                                                   |           |       | 138.00          |       |             |              |       |      |      |  |
| Totol V                                                             | >Exams it and Evaluation Techniques Used in the    |         |       |         |        |        |         | 5                                                 | 1 20.00 2 |       |                 | 20.00 |             |              |       |      |      |  |
| Others                                                              | amo                                                | nt an   | d Eva | luatio  | n Tec  | hnique | 5   100 | d in th                                           | ۵         | 0     |                 |       | 0.00        | 0.00         |       |      | 0.00 |  |
| Midtern                                                             | erm exams                                          |         |       |         |        |        |         |                                                   |           |       | 20.00           | 20.00 |             |              | 20.00 |      |      |  |
| Field St                                                            |                                                    |         |       |         |        |        |         |                                                   | 0         |       |                 | 0.00  | 0.00        |              |       | 0.00 |      |  |
| ENTER                                                               | Contribution of Term (Year) Learning Activities to |         |       |         |        |        | 4       | 40,00                                             |           |       | 20.00           | 20.00 |             |              | 20.00 |      |      |  |
| Homew                                                               | lomeworks                                          |         |       |         |        |        |         | 0                                                 |           |       | 0.00            |       |             | 0.00         |       |      |      |  |
| Self study and preperation 1                                        |                                                    |         |       |         |        | 6      | 60_00   |                                                   |           | 15.00 | 15.00           |       | 30.00       |              |       |      |      |  |
| Practica                                                            | Practicals/Labs                                    |         |       |         |        |        |         | 0                                                 |           |       | 0.00            |       |             | 0.00         |       |      |      |  |
| RHeoretical 0                                                       |                                                    |         |       |         | 0      | ୦.୧୦   |         |                                                   | 2.00      |       |                 | 28.00 |             |              |       |      |      |  |
|                                                                     |                                                    |         |       |         |        |        |         |                                                   |           |       |                 |       | Load (hour) |              |       |      |      |  |
| Activites                                                           |                                                    |         |       |         |        |        | Number  |                                                   |           | Dura  | Duration (hour) |       |             | Total Work   |       |      |      |  |
| 23 Assesment                                                        |                                                    |         |       |         |        |        |         |                                                   |           |       |                 |       |             |              |       |      |      |  |
|                                                                     |                                                    |         |       |         |        |        | A       | Analysis" CRC pres, (2001).                       |           |       |                 |       |             |              |       |      |      |  |
|                                                                     | ivialenais:                                        |         |       |         |        |        | R       | Rudin N. Inman K "An Introduction to Ecropsic DNA |           |       |                 |       |             |              |       |      |      |  |
| 22                                                                  | Textbooks, References and/or Other                 |         |       |         |        |        | G       | Goodwin, W. ve ark. "An Introduction to Forensic  |           |       |                 |       |             |              |       |      |      |  |
| 14                                                                  | Law                                                | and     | genor | n righ  | ts     |        |         |                                                   |           |       |                 |       |             |              |       |      |      |  |
| 13                                                                  | Interpretation of results                          |         |       |         |        |        |         |                                                   |           |       |                 |       |             |              |       |      |      |  |
| 12                                                                  | Analysis of results                                |         |       |         |        |        |         |                                                   |           |       |                 |       |             |              |       |      |      |  |
| 11                                                                  | PCR methods                                        |         |       |         |        |        |         |                                                   |           |       |                 |       |             |              |       |      |      |  |
| 10                                                                  | Characterisation                                   |         |       |         |        |        |         |                                                   |           |       |                 |       |             |              |       |      |      |  |
| 9                                                                   | Quantification                                     |         |       |         |        |        |         |                                                   |           |       |                 |       |             |              |       |      |      |  |
| 8                                                                   | Preservation of biological samples                 |         |       |         |        |        |         |                                                   |           |       |                 |       |             |              |       |      |      |  |
| 7                                                                   | Collection of biological samples                   |         |       |         |        |        |         |                                                   |           |       |                 |       |             |              |       |      |      |  |
| 6                                                                   | DNA resources                                      |         |       |         |        |        |         |                                                   |           |       |                 |       |             |              |       |      |      |  |
| 5                                                                   | Repating sequences                                 |         |       |         |        |        |         |                                                   |           |       |                 |       |             |              |       |      |      |  |
| 4                                                                   | Gen                                                | omic    | organ | nizatio | n      |        |         |                                                   |           |       |                 |       |             |              |       |      |      |  |
| 3                                                                   | DNA structure                                      |         |       |         |        |        |         |                                                   |           |       |                 |       |             |              |       |      |      |  |
| 2                                                                   | Histo                                              |         | faene | tics a  | nd for | ensics |         |                                                   |           |       |                 |       |             |              |       |      |      |  |
| 1                                                                   | Intro                                              | ducti   | on to | forens  | sic ae | netics |         |                                                   |           |       |                 |       |             |              |       |      |      |  |

| Contrib | 1 very low | 2 low | 3 Medium | 4 High | 5 Very High |
|---------|------------|-------|----------|--------|-------------|
| ution   |            |       |          |        |             |
| Level:  |            |       |          |        |             |