

## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

| Course Title Synthetic Spinning                  |   |             |  |          |                                  |                |             |            |   |
|--|---|-------------|--|----------|----------------------------------|----------------|-------------|------------|---|
| Course Code                                      | TTİ251  |             | Couse Level  |          | Short Cycle (Associate's Degree) |                |             |            |   |
| ECTS Credit 4                                    | Workload  | 106 (Hours) | Theory   |          | 3                                | Practice       | 0           | Laboratory | 0 |
|  |   |             | have information about spinning of wool and cotton artificial fibers in stems and basic texturing of filament yarns. |          |                                  |                |             |            |   |
| Course Content                                   | Spinning of wool and cotton artificial fibers in conventional spinning systems, definition of textures, classification of texturing methods, production principles of these methods, (false twist texturing method and air jet texturing method, etc.), gravity texturing, production of BCF yarns, other bulky yarn production methods, Learning the production techniques of High-Bulk yarns. |             |  |          |                                  |                |             |            |   |
| Work Placement N/A                               |   |             |  |          |                                  |                |             |            |   |
| Planned Learning Activities and Teaching Methods |   |             | Explana  | ation (I | resentat                         | tion), Project | Based Study |            |   |
| Name of Lecturer(s)                              |   |             |  |          |                                  |                |             |            |   |

| Assessment Methods and Criteria |          |                |  |  |  |
|---------------------------------|----------|----------------|--|--|--|
| Method                          | Quantity | Percentage (%) |  |  |  |
| Midterm Examination             | 1        | 40             |  |  |  |
| Final Examination               | 1        | 70             |  |  |  |

| Recommended or Required Reading |  |  |  |  |
|---------------------------------|--|--|--|--|
| 1                               | - Prof.Dr. Suat Canoğlu, ders notları - Sentetik Filament İplik Üretim ve Tekstüre Teknolojileri |  |  |  |
| 2                               | /Ali Demir, İstanbul, -Yarn texturing technology   |  |  |  |
| 3                               | J W S Hearle, L Hollick and D K Wilson, Textile Institute,                                       |  |  |  |

| Week | Weekly Detailed Co | urse Contents   |
|------|--------------------|---|
| 1    | Theoretical        | Definition of synthetic spinning                            |
| 2    | Theoretical        | Concepts related to synthetic spinning                      |
| 3    | Theoretical        | Synthetic yarn production methods                           |
| 4    | Theoretical        | Synthetic yarn production methods                           |
| 5    | Theoretical        | Machine features used in producing synthetic yarn           |
| 6    | Theoretical        | Machine features used in producing synthetic yarn           |
| 7    | Theoretical        | Comparison of synthetic spinning with other methods         |
| 8    | Theoretical        | Midterm Exam  |
| 9    | Theoretical        | Definition of textures, classification of texturing methods |
| 10   | Theoretical        | Explanation of various texturing production methods         |
| 11   | Theoretical        | Texturing with false twist method                           |
| 12   | Theoretical        | Texturing with false twist method                           |
| 13   | Theoretical        | Air jet texturing method                                    |
| 15   | Theoretical        | Air jet texturing method                                    |

| Workload Calculation                         |          |             |          |                |  |
|--|----------|-------------|----------|----------------|--|
| Activity                                     | Quantity | Preparation | Duration | Total Workload |  |
| Lecture - Theory                             | 14       | 1           | 3        | 56             |  |
| Project                                      | 7        | 1           | 3        | 28             |  |
| Midterm Examination                          | 1        | 10          | 1        | 11             |  |
| Final Examination                            | 1        | 10          | 1        | 11             |  |
| Total Workload (Hours)                       |          |             |          |                |  |
| [Total Workload (Hours) / 25*] = <b>ECTS</b> |          |             |          |                |  |
| *25 hour workload is accepted as 1 ECTS      |          |             |          |                |  |

## **Learning Outcomes**

The student learns to design, produce and make production of cotton and wool type artificial fibers.



| 2 | Student will be able to learn texturing methods, texturized yarn production and yarn quality control. |  |  |  |  |
|---|---|--|--|--|--|
| 3 | Compare different methods   |  |  |  |  |
| 4 | To be able to comprehend control points for quality production  |  |  |  |  |
| 5 | To adopt modern and innovative production techniques  |  |  |  |  |

|       | stinguishing textile fibers                        |
|-------|--|
|       | Stringthorning texture inserts                     |
| 2 0   | btaining a sample thread                           |
| 3 O   | btaining a sample woven fabric                     |
| 4 O   | btaining a knitted fabric ( Jersey)                |
| 5 C   | arring out overall discipline operations           |
| 6 G   | arment-making operations                           |
| 7 O   | btaining cotton thread                             |
| 8 O   | btaining cotton thread                             |
| 9 0   | btaining cotton thread                             |
| 10 O  | btaining wool thread                               |
| 11 O  | btaining filament thread                           |
| 12 O  | btaining staple thread                             |
| 13 O  | btaining fancy thread                              |
| 14 O  | btaining thread by means of new apining techniques |
| 15 P  | erforming fibre tests                              |
| 16 P  | erforming thread tests                             |
| 17 In | nplementing Quality Assurance System               |
| 18 N  | aking statistical calculations                     |
| 19 M  | aking projects                                     |
| 20 P  | racticing in a spinning mill                       |

## Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High L1 L2 L3 L4 L5

|     | L1 | L2 | L3 | L4 | L5 |
|-----|----|----|----|----|----|
| P1  | 5  |    |    |    | 2  |
| P2  | 3  |    |    |    | 2  |
| P3  | 3  |    |    |    | 2  |
| P4  | 3  |    |    |    | 2  |
| P5  | 2  |    |    |    | 2  |
| P6  | 2  |    |    |    | 2  |
| P7  | 2  |    |    |    | 2  |
| P8  | 2  |    |    |    | 2  |
| P9  | 2  |    |    |    | 2  |
| P10 | 2  |    |    |    | 2  |
| P11 | 5  | 5  | 4  | 4  | 5  |
| P12 | 5  | 5  | 4  | 4  | 5  |
| P13 | 5  |    |    | 4  | 5  |
| P14 | 3  |    |    |    |    |
| P15 | 5  |    |    |    |    |
| P16 | 4  |    |    |    |    |
| P17 | 4  |    |    |    |    |
| P19 | 5  | 5  | 4  | 4  | 4  |
| P20 | 5  | 5  | 4  | 4  | 4  |

