# CNC TURNING MACHINE TECHNOLOGY

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| 1 | Course Title: | CNC TURNING MACHINE TECHNOLOGY |
| 2 | Course Code: | MKNS211 |
| 3 | Type of Course: | Optional |
| 4 | Level of Course: | Short Cycle |
| 5 | Year of Study: | 2 |
| 6 | Semester: | 3 |
| 7 | ECTS Credits Allocated: | 3.00 |
| 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 face |
| 14 | Course Coordinator: | Doç.Dr. ABDİL KUŞ |
| 15 | Course Lecturers: | DOÇ.DR. ABDİL KUŞ |
| 16 | Contact information of the Course Coordinator: | abdilkus@uludag.edu.tr, Uludağ Üniversitesi, Teknik Bilimler MYO, Görükle-BURSA Tel: 2942344 |
| 17 | Website: | |
| 18 | Objective of the Course: | The aim of the program is to gain proficiency on writing and production of the parts and usage of the CNC machines |
| 19 | Contribution of the Course to Professional Development: | |
| 20 | Learning Outcomes: | |

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| | 1 | Prepare the CNC machine , and learn the parts |
| | 2 | Writing programas for the CNC turning machines |
| | 3 | Production parts in CNC turning machines, |
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| 21 | Course Content: | |
| | **Course Content:** | |
| Week | Theoretical | Practice |
| 1 | CNC lathe features and parts | |
| 2 | Types of control panels, buttons and features | |
| 3 | Cutter types, properties and possible uses. | |
| 4 | Resetting properties of the elements used. | |
| 5 | Tool rough cutting | |
| 6 | CNC lathe programming principles | |
| 7 | Repeating courses and midterm exam | |

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| **8** | CNC lathes coordinate system. | |
| **9** | Using a CNC lathe programming cycles. | |
| **10** | Using a CNC lathe programming cycles. | |
| **11** | Sub-programming technique and structure. | |
| **12** | CNC looms in the alarm and error codes. | |
| **13** | Measurement and control | |
| **14** | Measurement and control | |

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| **22** | Textbooks, References and/or Other Materials: | 1-CNC turning operation manual book,<br>2-CNC turning usage manual book,<br>3-Gülesin, M., Güllü, A., Avcı, Ö., Akdoğan, G., “CNC Torna ve Freze Tezgahlarının Programlanması”, Asil Yayın Dağıtım, Ankara, 2008.<br>4-Course notes |
| **23** | Assesment | |

| **TERM LEARNING ACTIVITIES** | **NUMBER** | **WEIGHT** |
|---|---|---|
| Midterm Exam | 1 | 25.00 |
| Quiz | 0 | 0.00 |
| Home work-project | 1 | 25.00 |
| Final Exam | 1 | 50.00 |
| Total | 3 | 100.00 |
| Contribution of Term (Year) Learning Activities to | | 50.00 |
| Total | | 100.00 |

## 24 ECTS / WORK LOAD TABLE

| Activites | Number | Duration (hour) | Total Work Load (hour) |
|---|---|---|---|
| Theoretical | 13 | 1.00 | 13.00 |
| Practicals/Labs | 13 | 1.00 | 13.00 |
| Self study and preperation | 13 | 4.00 | 52.00 |
| Homeworks | 1 | 6.00 | 6.00 |
| Projects | 0 | 0.00 | 0.00 |
| Field Studies | 0 | 0.00 | 0.00 |
| Midterm exams | 1 | 1.00 | 1.00 |
| Others | 0 | 0.00 | 0.00 |
| Final Exams | 1 | 0.00 | 0.00 |
| Total Work Load | | | 85.00 |
| Total work load/ 30 hr | | | 2.83 |
| ECTS Credit of the Course | | | 3.00 |

## 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** | 0 | 0 | 4 | 0 | 0 | 2 | 0 | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| **ÖK2** | 3 | 0 | 0 | 0 | 5 | 0 | 0 | 4 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| **ÖK3** | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 |

**LO: Learning Objectives PQ: Program Qualifications**

| Contribution Level: | 1 very low | 2 low | 3 Medium | 4 High | 5 Very High |
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