

## Munzur University

### Tunceli Vocational School

#### 2018-2019 Academic Year

#### List of Courses

Code	Course	Credits	Semestr	Contents	Contact Details of Lecturer	Department
ALT101	History of Atatürk's principles and reforms I	2	Winter	* Basic Concepts * Causes of the Collapse of the Ottoman Empire * Turkish Modernization Movement * The First World War * Turkish National Struggle	Name: Adem Surname: Kızkapan E-mail: akizkapan@munzur.edu.tr Tel: 04282131794-2137	Tunceli Vocational High School
TD1103	Turkish Language I	2	Winter	Definition of language. Language and communication, language-thought-religion-literature-culture relationship. Types of language Languages on earth. The place of Turkish among world languages. Historical development of Turkish written language. The current status of Turkish is not spreading.	Name: Cem Surname: Topal E-mail: Tel: 04282131794	Tunceli Vocational High School
MAT105	Mathematics I	2	Winter	Numbers, Decimal Numbers, Exponential Numbers, Rooted Numbers, Identities and Factorization, Absolute value, Simple equalities, Ratio-Proportion, Arithmetic Operations, Problems, Graphs and graph problems	Name: Murat Surname: Korunur E-mail: Tel: 04282131794	Electric and Energy
YD1107	Foreign Language I	2	Winter	Introducing yourself-Meetings & Greetings - Opposite Adjectives, Talking about you and your family Food and Drink Possessive 's- Present Simple Tense Questions and Negatives Jobs-What time is it? Leisure Time Activities-Simple Present Tense- There is/ are-How many/ How much-Social expressions- Prepositions of Place some and any this/thathese/those- Directions can and can't could- Past simple tense was/were could- Past Simple Tense - Regular and Irregular Verbs - Time Expressions- Past Simple Tense Negatives and Questions - Count and Uncount nouns I like and I'd like a and some- Present Continuous Whose- Possessive Pronouns	Name: Diek Surname: Düztaş Kırnıztaş E-mail: Tel: 04282131794	Tunceli Vocational High School

FIZ109	Physics	3	Winter	Unit systems, vectors, force and moment, equilibrium and equilibrium conditions, calculate of center of mass, laws of motion, work, power, energy, impulse and momentum, rotational motion.	Name: Murat Surname: Korunur E-mail: Tel: 04282131794	Electric and Energy
TI111	Main Machining Processes	4	Winter	Basic concepts of manufacturing process, Conventional manufacturing processes and classification, Plastic shaping methods-Casting, Forging-Pressing-Rolling, Sheet metal processing, Powder Metallurgy, Machining Methods, Lathe Processing, Milling process, Drilling and related operations, Broching-Planning-Dragline, Grinding, Precision finishing operations, non-detachable joining operations, Detachable Joining operations	Name: Ali Kemal Surname: ASLAN Email: akaslan@munzur.edu.tr Tel: 04282131794-2137	Machine Technology
MTR	Technical Drawing	3	Winter	Angle, Arc, Curve, Line and so on. geometric shapes, technical illustration drawing methods-Making multiple partitions are circular and circular joints-Projection, extraction and appearance-Appearance and help removing the use of the image-Expression of invisible details on the image-Dimensions-Description and the importance of making section view-Section types and rules of application-Appearance, dimensioning and recovery of sections-Surface machining signs and application rules-Fit tolerances and application rules-Shape location tolerances and application rules-Uses of assembly and manufacturing drawings	Name: Ali Kemal Surname: ASLAN Email: akaslan@munzur.edu.tr Tel: 04282131794-2137	Machine Technology
MAL115	Materials Technology I	3	Winter	Introduction to engineering materials, Metals-Ceramics, Polymers-Composite materials-Semiconductors, Structure of the atom and atomic bondings, Crystal structures and geometry, Crystallographic directions and planes, Crystal structure defects, Deformation of the materials, Mechanisms of the plastic deformation, Mechanical properties of the materials, Tensile Strength Test, Hardness-Impact test, Fracture-Fatigue-Creeping, Alloys	Name: Ali Kemal Surname: ASLAN Email: akaslan@munzur.edu.tr Tel: 04282131794-2137	Machine Technology
MEL117	Machine Elements	3	Winter	Description of the machine, the machine types -- Parts of Machine -- Detachable connection elements -- screws, bolts, nuts, washers and wedge -- non-detachable connection elements -- Welding, soldering -- bonding and tight connection -- Machine elements that transmit motion and power-- shafts and bearings --	Name: Ali Kemal Surname: ASLAN Email: akaslan@munzur.edu.tr Tel: 04282131794-2137	Machine Technology

				Lubrication of the machine elements -- Joints -- Springs and other machine elements -- rivets, welding and soldering account -- Bolts, screws, spindle, spring, bearing elements and calculation methods		
AIT102	History of Atatürk's principles and reforms II	2	Spring	Atatürk's reforms * Turkish Foreign Policy in Atatürk's period * Atatürk's principles * Political developments in Turkey and the world after 1938.	Name: Adem Surname: Kızkapan E-mail: akizkapan@munzur.edu.tr Tel: 04282131794-2137	Tunceli Vocational High School
TDI104	Turkish Language II	2	Spring	* The concept of speech. * The methods of speech developing. * The genres of speech. * The general aspects of listening, speaking, reading and writing. * The verbal speech and genres of verbal speech. * The written speech and genres of written speech.	Name: Surname: E-mail: Tel:	Tunceli Vocational High School
MAT106	Mathematics II	2	Spring	Linear equations and matrices, limits and continuity, derivatives and their applications, Integral and its applications, statistics	Name: Murat Surname: Korunur E-mail: Tel: 04282131794	Electric and Energy
YDI108	Foreign Language II	2	Spring	Adjectives, colors Have / has got, statements Giving news in emails and letters Story- Parts of the body, articles Have / has got questions Describing illnesses Asking for things- Past Simple negative statements- Vocabulary, Grammar, Skills (Reading-Listening-Speaking, Writing)	Name: Hasret Surname: Şaroğlu E-mail: Tel:	Tunceli Vocational High School
MAL110	Materials Technology II	3	Spring	Phase diagrams, Iron-Carbon alloy system, Heat treatments that are applied to steels, Alloy steels, Cast Irons, Non-Ferrous alloys, Corrosion of metals, Testing of materials	Name: Ali Kemal Surname: ASLAN Email: akaslan@munzur.edu.tr Tel: 04282131794-2137	Machine Technology
MII112	Manufacturing Processes I	3	Spring	Introducing the machine measuring and control instruments, Introducing the conventional lathe, Calculations the cutting parameters of the turning, Turning the non-cylindrical workpieces on the lathe, Introducing the universal milling machine, Calculations the cutting parameters of the milling, Peripheral milling operations, Face milling operations, Gear manufacturing on milling machine, , Introducing the drilling, Calculations the cutting parameters of the drilling, Hole making process on drilling, Hole widening and threading with guide on drilling machines	Name: Ali Kemal Surname: ASLAN Email: akaslan@munzur.edu.tr Tel: 04282131794-2137	Machine Technology
MMR114	Machine Vocational Technical Drawing	3	Spring	Understand and draw the structure technical drawings, Drawing of the gears, Drawing of the screw, bolt and nut, Drawing of the cam and joints, Drawing of the pin-perno-rivet, Drawing of	Name: Yahya Surname: Taşkın E-mail: Tel: 04282131794-	Mechanical Engineering



				the Split pin and segment, Drawing of the bearings, Drawing of the belt and pulleys, Drawing of the welding	
MTM116	Strength	3	Spring	Unit systems and comparison, Mechanical Properties of the materials, Stress-Shear Stress - Engineering Tensile strength test, strain, elastic modulus, poisson rate -- Yield Stress, proportional limit, maximum tensile strength, fracture stress -- Stresses caused of Temperature, Stress on the composite bars -- Bending beams: bending moment shear stress and bending moment diagrams description -- The second moment of area, parallel axes theorem, section modulus -- Calculation of collapse in beams, definition of torsion -- Buckling (Buckle) event and Euler equation --- Calculations of Connecting elements, rivets, welding and soldering -- Bolts, screws, spindle, spring, bearing elements and calculation methods	Mechanical Engineering Name: Yilmaz Surname: Kismet E-mail: yilmaz_kismet@hotmail.com Tel:
MBT118	Computer Aided Technical Drawing	3	Spring	Introducing to computer aided design programme, Setting up of basic options of the programme, Edit commands of basic drawing display, Basic drawing commands, Applications of drawing of the 2D machine parts, Basic modify commands, Applications about drawing of the 2D machine parts, Layers, Dimension commands, Text commands, 3D workspace, Set up of the 3D drawing display, Applications of the 3D machine parts	Machine Technology Name: Ali Kemal Surname: ASLAN Email: akaslan@munzur.edu.tr Tel: 04282131794-2137
MI1201	Manufacturing Processes II	3	Winter	Boring Process, Grinding, Precision Finishing Operations, Lapping operation, Honing, Casting and types, Cast Design, Sand mold casting, Centrifugal Casting, Precision Casting, Sheet cutting process, Gear product, Manufacturing of Plastics, Manufacturing of Ceramics	Machine Technology Name: Ali Kemal Surname: ASLAN Email: akaslan@munzur.edu.tr Tel: 04282131794-2137
BDÜ203	Computer Aided Manufacturing I	3	Winter	Complementary elements for computer aided manufacturing, Numerical Control, Uses of CNC, Structure of the CNC machining units, Computer aided design CAD- Computer aided manufacturing CAM, Standard connection apparatus- connection casts, Introduction of programming for CNC machining tools, Using of a simulation program called Swansoft, Cutting tool movements on CNC machining tools- Basic axe tools, absolute and additive angular definition system, Introducing to basic G and M codes,	

				Applications of G00, G01, G04, G28, G20, G21 etc., Programming according to ISO system, examples, applications		
MTT205	CNC Turning Technology	3	Winter	Numerical control, uses are of the CNC – Main parts of the CNC loom -- Types of control panels, buttons and features – Cutting tools which are used at CNC looms – Connecting the parts of the CNC loom – Part resetting and calibration of the cutting tool – Calculating the cutting tool rough machining parameters – Move and coordinat systems on the CNC lathe machines – Fundamentals of the programming on the CNC lathe – Programming the part production on the CNC lathe – Determining the tool path on the CNC lathe machine – Technique and structure of the Subprogramming – Alert and error codes on the CNC looms – Measuring and control	Name: Surname: E-mail: Tel:	
MKT207	Welding Technology	3	Winter	Welding and types – Gas welding – Arc Welding – Electrical arc welding – Arc welding under gas – MIG/MAG Welding – Resistance Welding – Special Welding methods – Quality of the welding	Name: Surname: E-mail: Tel:	
MMB209	Engineering Science I	3	Winter	Physical magnitudes and size analysis, Circular motion – Angular velocity –Momentum –Work-Power – Kinetic and Potential Energy – Mass Moment of inertia – Simple machines – Liquid fluids – Heat Energy	Name: Surname: E-mail: Tel:	
MAY211	Untraditional Manufacturing Methods	3	Winter	Powder metallurgy – EDM and ECM techniques and uses areas -- Wire erosion methods and application areas -- CNC plasm technology and application areas -- CNC Laser technology and its applications -- CNC Water jet technology and application areas -- CNC welding technology and its applications -- CNC marking technology and its applications -- Rapid prototyping technology and its applications -- Additive manufacturing technologies and uses areas.	Name: Ali Kemal Surname: ASLAN Email:akaslan@munzur.edu.tr Tel: 04282131794-2137	Machine Technology
MIS213	Heating Systems	2	Winter	Introducing the heating systems – Territorial heating systems, Central heating systems, individual heating systems – Calculations of heat loss – Calculations of pipe diameter – Selections of heating device, pump, expansion tank – Assembly of the pipes, heater – Assembly of the expansion tank – Heating system furnaces – Burners, selection of the burner – Combusts, Assembly of the tank – Types of the radiators,	Name: Surname: E-mail: Tel:	

					selection of the radiators – Heating Projects		
TME217	Professional Ethics	2	Winter	Concepts of ethic and morality – Ethic systems -- Factors involved in the formation of morality -- The principals of professional ethics -- Unethical behaviours in the profession and professional corruption issues -- Concept of social responsibility	Name: Surname: E-mail: Tel:		
TMJ219	Heat Treatment Technologies	2	Winter	Introducing the heat treatments, Classification of the heat treatments -- Diagram of heat circuit -- Main heat treatments applied on ferrous and non-ferrous metals -- Austenitic transformation, Annealing -- Normalisation, homogenization, Coarse grain Annealing --Recrystallisation Anneal, Strain removing Anneal, spheroidization Annealing -- Hardening heat treatments and Joining test -- Tempering, Ostempering, Martempering -- Hardenability, TTT Curves, CCT curves --Martensitic Transformation -- Main heat treatments applied on non-ferrous metals -- Precipitation hardening, operations under zero -- Heat treatment faults -- Surface hardening and strength enhancing treatments	Name: Ali Kemal Surname: ASLAN Email: akaslan@munzur.edu.tr Tel: 04282131794-2137	Machine Technology	
TMJ215	Management Manufacturing	of 2	Winter	Operations and Operations Management -- Production Systems and System Approach -- Global Competitiveness and Technology -- Technology Strategy and Technology Management -- Technological Cooperation -- Factory Location Selection -- WinQSB Implementation -- Plant Layout -- Product Design -- Job Analysis -- Capacity Planning -- Demand Foreing -- Production Planning and Control	Name: Ali Kemal Surname: ASLAN Email: akaslan@munzur.edu.tr Tel: 04282131794-2137	Machine Technology	
BDJ204	Computer Manufacturing II	Aided 3	Spring	Drawing and modelling applications with CAD/CAM softwares -- Product modelling techniques with CAD/CAM softwares, Prismatic and cylindrical part modelling -- Modelling complex shaped parts with CAD/CAM softwares -- Necessary operations for surface modelling -- CNC code derivation methods and code sending to CNC loom -- Standart data bases that are used in CAD/CAM systems and data processing between the systems -- Transferring the 3D part that will be machine to the machining unit -- Element definition -- Evaluating the tool path and to simulate it -- Choosing the postprocessor for the deriving the NC codes -- Derivating the NC codes -- Applications of G00, G01, G04, G28,	Name: Surname: E-mail: Tel:		



				G20, G21 – Writing programme according to ISO system, Examples, Practice – Manufacturing applications on CNC looms		
MCF206	CNC Milling Technology	3	Spring	Main parts of the CNC milling machine -- Types of control panels, buttons and features -- Cutting tools which are used at CNC milling machines -- Connecting the parts of the CNC milling machines -- Part resetting and calibration of the cutting tool -- Calculating the cutting tool rough machining parameters -- Move and coordinate systems on the CNC milling machines -- Fundamentals of the programming on the CNC milling machines -- Programming on CNC milling machine by using circuits -- Determining the tool path on the CNC milling machine -- Programming on CNC milling machine by using sub-programming -- Alert and error codes on the CNC milling machines -- Machining of various shaped parts on CNC milling machine	Name: Surname: E-mail: Tel:	
MMB208	Engineering Science II	3	Spring	Thermodynamic laws -- Basics of fluid mechanics -- Basic equations of the fluid mechanics -- Pipe diameter calculations -- Flow types -- Kinetic -- Kinematic -- Dynamic	Name: Surname: E-mail: Tel:	
MTM210	Reverse Engineering and Quality Control	3	Spring	Introducing the reverse engineering -- Fundamentals of the reverse engineering -- Set up of the 3D scanning system -- Calibration of the system -- Scanning of the objects -- Compilation of the data -- Comparing of the data -- Setting up system for photogrammetry measurements -- Locating the assistive equipments -- Shooting -- digitization of photos -- Exporting the points -- Quality controlling	Name: Ali Kemal Surname: ASLAN Email: akaslan@munzur.edu.tr Tel: 04282131794-2137	Machine Technology
MHP212	Hydraulic - Pneumatic	3	Spring	Fundamentals of Hydraulic, Principle of Pascal -- Hydraulic circuits and elements -- Hydraulic pumps -- Engines and valves -- Direction control valves -- Flow controlling valves -- Pressure Controlling valves -- Making a hydraulic circuit scheme -- Pneumatic circuits and elements -- Pneumatic valves -- Making a pneumatic circuit scheme -- Designing electro pneumatic systems -- Determining the failures of the pneumatic systems -- To resolve the failures of the pneumatic systems	Name: Surname: E-mail: Tel:	
MCE214	CNC Electro-Erosion	3	Spring	Properties, parts and working principals of electro erosion workbench -- Coordinate axes of the workbench, reference points -- Properties, types	Name: Ali Kemal Surname: ASLAN Email: akaslan@munzur.edu.tr	Machine Technology

				and buttons of the control panel – Dielectric liquids, Part and electrode locating methods, part resetting methods – Processing modes and parameters of electro erosion workbench, Wire connecting methods, wire locating selections, workpiece connecting methods – Cutting liquid types and properties – Fundamentals of programming on CNC wire erosion work bench – Locating systems – ISO processing commands, Selection of wire moving direction, Diameter compensation and offsets – Setting up Inclination angle, Selections of simulating, Power-up functions in corners and slopes, modifying of generator values – Applications of CNC wire erosion machining	Tel: 04282131794-2137	
MIS216	Air Conditioning Systems	3	Spring	Introducing the air conditioning systems – Confidential and sensible heat, and temperature measurement – Pressure and pressure measurement, Gas laws – Types of heat transfer and heat transfer: conduction, convection and radiation – Basic fluid properties, types of flow continuity and energy equation – Channel and pipe flow – The definition of refrigeration, cooling types, basic mechanical compression refrigeration cycle and applications, examples – The Ph diagram showing the refrigeration cycle – Psychometric Diagram – Types of air conditioning systems, uses areas, selection criterias – Components of air conditioning and cooling systems – Designing the air conditioning systems	Name: Surname: E-mail: Tel:	
TFT222	Installation Drawings of Factory	2	Spring	Introducing the factory installation systems – Air ventilation systems, Compressors – Technical guidelines of gas installations – Fire extinction systems and projecting principals – Plumbing projects and guidelines – Heating systems and projecting principals – Waste water treatment plants –	Name: Ali Kemal Surname: ASLAN Email: akaslan@munzur.edu.tr Tel: 04282131794-2137	Machine Technology
TMI218	Working Moulds	2	Spring	Drilling mould design – Mould construction drawing of elements – Processing elements of drill pattern – Drill pattern elements assembly – Test drilling pattern – Linking mold design – Mould construction drawing of elements – Processing elements Linking mold – Assembly of mould components Linking – Linking pattern testing	Name: Surname: E-mail: Tel:	



TMYY220	Professional Language	Foreign	2	Spring	<p>Replay of the basics of the English grammar -- To make basic level definitions using basic description patterns -- Basic vocational words -- Mostly used concepts in Machine area -- Manufacturing Concepts -- Concepts of computer aided design and manufacturing -- Preparing CV -- Professional correspondence -- Professional job interviews -- To make a presentation in the professional area</p>	<p>Name: Surname: E-mail: Tel:</p>	
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