ISTINYE UNIVERSITY

VOCATIONAL SCHOOL

DEPARTMENT OF AIRCRAFT TECHNOLOGY

COURSE DESCRIPTIONS

1st SEMESTER

İSG114 Physics

Basic physics concepts and principles will be given in detail. To introduce the fundamental principles and concepts of physics in detail at freshmen level. To show the necessity and importance of physics for other branches of natural sciences and engineering through applications in real life, and industry and technology.

UCT102 Basic Aircraft Information

History of aeronautics, flying principle, lifting force, power systems, control surfaces, aircraft systems.

UTE104 Professional Drawing

Drawings of axle, wedges, gearwheels and other machine parts and their mounting systems.

UTE101 Basic Electrical And Electronics

electron theory, static electricity and its conduction, electrical terminology, generation of electricity, DC electrical sources and circuits, resistance, power and energy, capacitance, magnetism, inductance, DC motors and generators, AC theory Resistive-Capacitive-Inductive (RLC) circuits, filters, AC generators and motors, semi-conductors, transistors, integrated circuits, printed circuit boards, servomechanism

English – I

Students will be able to understand English, use it effectively, and compare basic grammar rules of English. Through this course, students can interpret simple dialogue in English and use the new structure and words they have learned in their daily lives.

İSG111 Mathematics

Basic mathematical concepts related to profession will be processed.

Information And Communication Technology

To develop fundamental knowledge and skill in information and communication technologies, and to empower the students to explore the capabilities of technologies in IT.

Social Progress-I

It aims to provide a culture of student leadership, team spirit, competitiveness, rationality, strategically thinking knowledge, ethical values, diligence, collective responsibility, athletic personality traits and istanism.

Occupational Health And Safety-I

Basic Concepts of Occupational Health and Safety, Risk Factors and Types of Risk, Inspection of Environment, Occupational Accident and Reasons for Occupational Diseases, Preventives and Occupational Safety Culture

2nd SEMESTER

UTE201 Aerodynamic

Introduction to Atmospheric Physics, Introduction to Flight Theory, Return Theory, Flight Stability and Dynamics, Aircraft Aerodynamics and Flight Controls, High Speed Flight.

UTE209 Airplane Materials And Equipment

Ferrous and non-ferrous aircraft materials, composite materials, wooden structures, corrosion and prevention methods, screws, bolts, studs, locking devices, pipes, records, bearings, transmissions, control cables, electrical cables

UTE202 Aircraft Maintenance And Applications-I

Safety Precautions - Aircraft and Workshop, Tools / Tools, Compliance and Openings, Riveting.

UTE108 Aviation Acts

EASA / PART-OPS, EASA / PART-145, EASA / PART-66, EASA / PART 147 and EASA / PART, EASA / PART-OPS Commercial Aircraft Carrier

İNG102 Foreign Language – II

Students will be able to understand and interpret simple dialogues in English, use basic grammar rules effectively, use new structure and words they will have learned in their daily lives.

Flight Instrument

Introducing mechanical and electronic displays of airplanes used up to daily use and teaching their working principles.

Social Progress-II

This course aims to introduce the concepts that will contribute to the social and personal development of students during the university period and to enable them to participate in society by applying these concepts in their lives.

First Aid

Introduction to First Aid, Human Body and Vital Signs, Basic Life Support, First Aid in an Emergency Case, General Principles of a Casualty Evacuation and Transfer of Patients, First Aid Materials.

3rd SEMESTER

UTE213 Aircraft Propellers

Basic Information, Propeller Structure, Propeller 'Pitch' Command, Propeller Synchronization, Propeller Protection from Frost, Propeller Maintenance, Propeller Storage and Protection.

Air Vehicle Construction And System Applications – 1

Having knowledge about all the systems and works that make up the airplanes.

Air Vehicle Maintenance And Applications – 2

Tools, tools, electrical cables, pipes and hoses.

UTE207 Gas Turbine Engines

'Inlet', Compressors, 'Combustion', Exhaust, Lubricants and Fuel, Fuel Systems, Air Systems, Starting and Ignition Systems, Engine Indication Systems, Turbo-prop Motors, 'Turbo-shaft' motors, Auxiliary Power Units (APUs), Engine Placement, Engine 'Monitoring' and on-site operation.

Communication Navigation And Electrical Systems

To have information about airborne indicator systems working with radio signals

UTE211 Research Methods

Making observations, experimental design and interpretation, library research, visual library research, uses of tables and figures, types of research, research papers, scientific misconduct, error and fraud, ethics in science.

MYO203 Emotional Intelligence

The concept of Emotional Intelligence and its importance in professional and social life.

ENG111-English For Specific Purposes-I

Students will be able to understand English, use it effectively, and compare basic grammar rules of English. Through this course, students can interpret simple dialogue in English and use the new structure and words they have learned in their daily lives.

Fire Protection

Combustion and Fire Types, Fire Class Extinguishing Techniques, Explosive Atmospheres.

4th SEMESTER

Air Vehicle Maintenance And Applications -3

Springs, bearings, transmissions, disassembly-tooling techniques, storage

Air Vehicle Construction And System Applications-2

Dismantling tool applications of aircraft mechanical, hydraulic, pneumatic and electrical working systems.

UTE107 Human Factors In Aviation

General information about human factors, vision, hearing and human performance and limits, responsibility, motivation and pressure, culture, team work and management mistake, leadership and professional leadership, health, wellness and attention, physical environment, workload, stress and shift work, alcohol, drug use, lack of sleep/insomnia, communication, missions, error models, workplace hazards

UTE210 Graduation Project

Students will prepare a project proposal in the field of Aircraft Technology and conduct a scientific research on the selected subject and deliver the results in a report.

GAS Turbine Engine Workshop

'Inlet', Compressors, 'Combustion', Exhaust, Lubricants and Fuel, Fuel Systems, Air Systems, Starting and Ignition Systems, Engine Indication Systems, Turbo-prop Motors, 'Turbo-shaft' motors, Auxiliary Power Units (APUs), Engine Placement, Engine 'Monitoring' and on-site operation. To have knowledge about gas turbine engines used in today's passenger aircrafts and to be able to practice about maintenance and repair.

İSG214 Entrepreneurships

Entrepreneurship and its Importance, Entrepreneur and Characteristics of Successful Entrepreneur, Creativity and Innovation in Entrepreneurship, Conversion of a Business Idea into the Project and Investment, Entrepreneurship in the World, Developments in the Entrepreneurship and Suggestions to the Young Entrepreneurs, Environmental Factors and Industry Analysis in Business Plan Preparation, Marketing Plan, Production Plan, Management Plan, Finance Plan and Risk Analysis.

ENG111-English For Specific Purposes-II

Students will be able to understand English, use it effectively, and compare basic grammar rules of English. Through this course, students can interpret simple dialogue in English and use the new structure and words they have learned in their daily lives.