

**T.C.**

**USKUDAR UNIVERSITY**

**VOCATIONAL SCHOOL OF HEALTH SERVICES**

**ANESTHESIA TECHNICIAN PROGRAM**

Anesthesia technicians assist the competent anesthetist anesthesia practice in the health sector and take part in the preparation and implementation of the patient during the patient in the operating room is so near. Graduates of anesthesia know the patient, disease, drugs used in anesthesia. A team of allied health personnel in anesthesia graduates. Training program, aims to equip students with the knowledge and skills needed in this direction.

All those who graduate from anesthesia program can work private and public hospitals, the operating room anesthesia, the recovery room, intensive care unit, respiratory therapy unit, resuscitation, emergency services, pain treatment and research departments.

Anesthesia program, firstly according to the Secondary School Achievement Score by the Student Selection and Placement Center (SSPC) , the Vocational and Technical Education is placed in the Health Professions High Schools students who prefer to pass without examination. Anesthesia Technician Vocational Secondary Schools and departments of health can be made to pass without examination.

The technician trainees the opportunity to choose to be a researcher is to vertical transmission. Graduates are also 'Vocational Schools and Open Education Graduates of undergraduate education on the continuation of the Regulation' quota opened in the fields when taking advantage of the provisions of the vertical transfer exam (DGS) and gain the right to enroll in undergraduate programs.

**COURSE PROGRAM****I.YEAR****FALL TERM (01 SEMESTER)**

Course Code	Course Title	Theory	Practice	ECTS
MYO 101	Basic Anatomy and Physiology	3	0	4
ECZ 109	Introduction to Pharmacology	2	0	4
ANE 117	Vocational Applications	2	2	7
BİK 101	Biochemistry	2	0	2
RPSI 209	Positive Psychology and Communication Skills	2	0	3
TURK 101	Turkish Language I *	2	0	3
İNGU 101	English I *	3	0	3
ATA 101	Ataturk's Principles and Revolution History I *	2	0	3
RKUL 101	University Culture I	0	2	1
	<b>TOTAL</b>	<b>18</b>	<b>4</b>	<b>30</b>

\* These courses will be given in the form of distance education.

**I.YEAR****FALL TERM (02 SEMESTER)**

Course Code	Course Title	Theory	Practice	ECTS
ANE 106	System Disorders I	2	0	5
ANE 108	Anesthesia Applications I	2	2	8
ANE 110	Reanimation I	2	0	5
TURK 102	Turkish Language II *	2	0	3
İNGU 102	English II *	3	0	3
ATA 102	Ataturk's Principles and Revolution History II *	2	0	3
RKUL 102	University Culture	0	2	1
	Optional Lesson	2	0	2
	<b>TOTAL</b>	<b>15</b>	<b>4</b>	<b>30</b>

\* These courses will be given in the form of distance education.

**II.YEAR****FALL TERM (01 SEMESTER)**

Course Code	Course Title	Theory	Practice	ECTS
ANE 207	Reanimation II	2	2	7
ANE 213	System Disorders II	2	0	5
ANE 211	Anesthesia Applications II	2	0	4
ANE 217	Clinical Application-I	0	8	9
SAH 101	Health Law	2	0	3
MYO006	Introduction To Biomedical Technology	2	0	2
	TOTAL	10	10	30

**II.YEAR****FALL TERM (02 SEMESTER)**

Course Code	Course Title	Theory	Practice	ECTS
MET 101	Professional Ethics	2	0	2
ANE 218	Clinical Anesthesia	2	0	4
ANE 220	Clinical Application-II	0	8	9
KGS 101	Quality Assurance And Standards	2	0	3
İLK 101	First Aid	2	0	3
ANE 999	Summer Internship	0	20 work day	9
	TOTAL	8	8	30

## **COURSE CONTENTS**

### **I.YEAR**

#### **FALL TERM (01 SEMESTER)**

##### **MYO 101 Basic Anatomy and Physiology (3+0) 3, ECTS:4**

Definition of anatomy and teaching methods. Anatomy commonly used terms. Motion system, the circulatory system. Respiratory system. The digestive system. Urinary tract. Genital tract. The central nervous system. Endocrine system. Sense Organs. Peripheral formations.

Introduction to Physiology, Homeostasis, Cell Physiology, Blood Physiology, Cardiovascular System, Physiology of Respiratory System, Urinary System Physiology, Digestive System Physiology, Reproductive Physiology, Action Potential, Neuronal Circuits, Neuroplasticity, Physiology of Nervous System, Somatic Senses, Motor Function and Spinal Reflexes in the Spinal Cord, Brain Stem and Basal Ganglia, Reticular Formation, Brain waves, Epilepsy, Alertness and Sleep, Limbic System, Hypothalamus, Autonomic Nervous System, Endocrine System Physiology, Sensory Physiology.

##### **ECZ 109 Introduction to Pharmacology (2+0) 2, ECTS:4**

Introduction to Pharmacology. Pharmaceutical dosage forms. Drugs absorption, distribution. Metabolism and excretion of drugs. Interactions between drugs. (Antagonism, synergism) Autonomic nervous system drugs Mechanisms of drug action. (Cholinergic drugs) Anticholinergic drugs. Autonomic nervous system drugs. (Sympathomimetic drugs) sympatholytic drugs. Drugs affecting the central nervous system. Drugs affecting the cardiovascular system. Anti-inflammatory drugs. Narcotic analgesics. Nonnarkotik analgesics.

##### **ANE 117 Vocational Applications (2+2) 3, ECTS:7**

Infection control programs in the operating theaters, Sterilization and disinfection of the materials used, Standard operating room hardware and work organization, Pre-operative preparation period, Keeping and necessity of anesthesia records, Monitoring methods, Airway control and forcing, Requirement of normothermia, Vascular access method, Blood and blood products applications , Protection from damages, Postoperative patient care, Employee safety, Introduction of emergency codes

##### **BİK 101 Biochemistry (2+0) 2, ECTS:2**

Definition and Interest of Biochemistry, Cell, Water, Acid Base Concept and Buffer Systems, Amino Acids, Peptides, Proteins, Enzymes, Nucleic Acids, Carbohydrates, Lipids and Membranes, Fats, Vitamins and Coenzymes

##### **RPSI 209 Positive Psychology and Communication Skills (2+0) 2, ECTS:3**

Recognition and Empathy for Others: How the person perceives the people around you, events, approaches and processes; Explaining the concepts of determining and defining the expectations,

developing realistic expectations for himself and his environment, understanding the viewpoint of the other person, developing sensitivity to the feelings of others, developing skills to understand others better.

**Communication Skills:** Learning and practicing communication skills, being able to realize their own feelings and thoughts, gaining the ability to express them in a healthy way, using the language of I, and using the skill of "Saying No" on-site and on time To teach the concepts of learning verbal-non-verbal communication skills.

**Motivation and Planning:** The ability of the person to activate himself to achieve his goals, the development of a sense of responsibility, to focus on the goal, to direct his attention to the goal, to be less impulsive, to be more self-control, to develop target-oriented strategies, to realize the values that are important to them, abstract and concrete goal to determine their own future plans by making a distinction, and to acquire the skills of determining healthy decision making steps for their future.

**Problem Solving Skills:** Determining stressful situations, developing strategies for their solutions, studying relaxation methods, positive and negative thinking, developing the ability to analyze and understand social relationships, developing positive peer relationships, increasing the ability to compromise in problem situations, better resolving relationship problems, extroverted To teach the concepts of being democratic in harmony, sharing, collaboration and relationships.

**Anger, Aggression, and Violence:** Understanding anger, aggression, definitions of violence, recognizing anger and stress responses, working on methods of coping with stress, gaining experience of dealing with a stressful situation with role-playing method, and understanding the benefits of thinking positively in stressful situations; the development of the concepts of developing the ability to use the time correctly, quality and targeted.

**Relationship Management:** Communication, communication levels and relationship types, awareness concept, knowing yourself and others, emotion management, responsibility concept, explaining the concepts of managing others' emotions,

**Persistence:** Processing the concepts of controlling impulses, implementing the decisions taken, being patient, not giving up the decision / task, gaining effort skills for the continuation and continuity of the work.

**Healthy Decision Making:** Neurobiological basis of decision making, decision making theories, stages of decision making, decision making styles, processing of factors affecting decision making.

**Reconciliation:** Defining the concepts of identifying the situation that caused the conflict, determining the wishes and needs of both parties, creating suggestions by taking into consideration mutual needs, choosing the appropriate solution proposal for both parties, determining who will do what in the solution decided, and gaining the skills of doing division of labor.

### **TURK 101 Turkish Language -I (2+0) 2, ECTS:3**

This course provides the students with knowledge on the status and importance of language as a social structure of anation, language-culture relations, the place of Turkish among other languages with its historical development and spread.

**İNGU 101 English –I (2+0) 2, ECTS:3**

Markers; Preliminary Prepositions: Place, Time, Movement; Singular and Plural Names: Countable and Uncountable nouns; Times: Wide time, Present time, Past time structures; Modes: Will, Should, Should not, Must, Must not, Can; Comparative structures; Fairings: Personal titles, Possessive titles; Adjectives; Positive sentence, Negative sentence and Question sentences; Conjunctions: And, But, While-While, Because.

**ATA 101 Atatürk's Principles and Reforms -I (2+0) 2, ECTS:3**

Reform movements as a reaction to decline and disintegration of the Ottoman Empire caused by political, social, cultural and socio-psychological problems that emerged as a result of the encounter of the western and Turkish cultures; political events during the transitional period from the Ottoman Empire to the national state and the foundation of the Turkish Republic following the national struggle led by Mustafa Kemal Atatürk.

**RKUL 101 University Culture I (0+2) 1, ECTS:1**

Each semester includes seminars, conferences, panels, workshops and speeches that will be held for 14 weeks within the framework of a program consisting of academic units, student council and student clubs at the university.

**I.YEAR****FALL TERM (02 SEMESTER)****ANE 106 System Diseases I (2+0) 2, ECTS:5**

The concept of disease, circulatory system diseases, nervous system diseases, respiratory diseases, hernias, liver and pancreas diseases, gastrointestinal diseases is discussed.

**ANE 108 Anesthesia Applications I (2+2) 3, ECTS:8**

Anesthesia history and definition, Anesthesia Machine, Respiratory Circuits Used in Anesthesia, Intravenous Anesthetic Drugs, Muscle Relaxants, Opioids, Anesthetic Inhalation Agents, Premedication, Intubation, Difficult Intubation and Providing Alternative Airlines, Monitoring, Anesthesia Positions, Anesthesia Maintenance, Termination of Anesthesia.

**ANE110 Reanimation I (2+0) 2, ECTS:5**

Definition of Reanimation and ICU, Recognition, ICU Circular and ICU Types and Patient Rights, Reanimation and ICU Safety Measures, Tools and Equipment Used in Reanimation and ICU, YB Patient Monitoring, Induction in ICU, Liquid-Electrolyte Replacement, Blood Gas Device and Arterial Blood Gas Examination, Sedation and Muscle Looseness in ICU Patients, Sepsis in ICU, Severe Sepsis and Septic Shock, Protection from ICU Infections, Protection from ICU Pressure Wounds

**RKUL 102 University Culture 2 (0+2) 1, ECTS:1**

Each semester includes seminars, conferences, panels, workshops and speeches that will be held for 14 weeks within the framework of a program consisting of academic units, student council and student clubs at the university.

**TURK 102 Turkish Language -II (2+0) 2, ECTS:3**

This course provides the students with knowledge on the status and importance of language as a social structure of a nation, language-culture relations, the place of Turkish among other languages with its historical development and spread.

**INGU 102 English -II (2+0) 2, ECTS:3**

Tenses: Present tense, Wide tense, Past tense, Future tense structures; Modes: Might, Could, Can, Must, May; Envelopes: Place, Direction, Purpose, State envelopes; Adjectives: Order of adjectives, Comparison, Structures which show superiority; Passive Structure: Present, Wide, Past, Passive structure in the future; Conditional Clauses; Adjective clauses; Transfer Sentences; Verb Structures: TO, -ING; Noun Clauses; Envelope Clauses; Comparative Structures.

**ATA 102 Atatürk's Principles and Reforms -II (2+0) 2, ECTS:3**

Political social, economic and cultural changes and developments caused by the restructuring of the state and society in line with the Atatürk's principles and revolutions which aimed at rising the Turkish Republic to the level of modern nations; evaluation of the internal and external political events with the aim of finding solution to current problems.

**Optional Lesson (2+0) 2, ECTS:2****MYO015 Social Responsibility Project**

What is social responsibility? What is the purpose of social responsibility? Why are social responsibility studies important? What is the creation of a social responsibility project? What are the corporate social responsibility studies? Presentation that includes the determined project subject, project purpose and the project team. Presentation of what has been done for the project so far by students, FIELD STUDY-EVALUATION

**II.YEAR****FALL TERM (03 SEMESTER)****ANE 213 System Diseases II (2+0) 2, ECTS:5**

Endocrine system diseases, diseases of the urinary system, reproductive system diseases, nervous system disorders, musculoskeletal diseases, ENT disorders, eye diseases

**ANE 211 Anesthesia Applications II (2+0) 2, ECTS:4**

Assessment of the patient before general anesthesia, material and patient preparation, patient positions monitoring, anesthesia induction, airway patency, endotracheal intubation, alternative airway methods, central catheterization, maintenance of general anesthesia, monitoring and monitoring of anesthesia, may develop during and after anesthesia complications.

**ANE 217 Clinical Application-I (0+8) 4, ECTS:9**

To give the student the ability to apply on the field with the theoretical knowledge he / she received during the semester. Practice with theoretical information.

**ANE 207 Reanimation II (2+2) 3, ECTS:7**

Determination of resuscitation algorithms, Adult Basic Life Support, Electrical Therapies (Automatic External Defibrillator, Defibrillation, Cardioversion), Pacing, CPR Techniques and Tools, Adult Advanced Cardiac Life Support, Post Cardiac Arrest Care, Acute Coronary Syndromes, Adult Stroke, Cardiac Arrest in Special Cases , Child Basic Life Support, Child Advanced Life Support, Newborn Resuscitation, Mechanical Ventilation Modes, Separation from Mechanical Ventilation, Training, Practice and Teams

**SAH 101 Health Law (2+0) 2, ECTS:3**

Social Rules and Law; Concept of Law and Law Enforcement, Legal Rules, Sources of Law Handles; Definition and Types of Vesting, Forfeiture, and applications; Person and Person Types: Real persons, legal entities; Real Person Qualifications: Rights license , verb license; Kinship, of residence; Protection of Personality; Possession, Property, Debt Obligation and Responsibility; Judicial Bodies. Health Law.

**MYO006 Introduction To Biomedical Technology (2+0) 2, ECTS:2**

Introduction to Biomedical Technology, Fundamentals, Biomedical Ethics, Biomechanics (Mechanical Properties of Muscle and Skeletal System), Biomechanics (Respiratory System and Mechanical Properties of Circulatory System), Bioelectronics, Bioelectric Events and Biocinals (EEG, ECG, EMG), Biomedical Measurement and Instrumentation, Physiological Modeling of Systems, Biomedical Device Types and Properties, Biomedical Device Types and Properties, Biomedical Devices Quality and Safety Standards, Use and Maintenance of Biomedical Devices, Biomaterials, Bioinformatics Technologies, Clinical Engineering Applications

**II.YEAR****FALL TERM (04 SEMESTER)****MET 101 Professional Ethics (2+0) 2, ECTS:2**

What is Deontology? Definition and introduction, the definition and principles of ethics. What is a Job? Profession with the principles, concepts of health and disease. Teamwork in health care. Health professionals in society. Universal declaration of human rights. Patients' rights, laws and regulations related to health care management. Euthanasia and ethics, organ transplantation, ethics, geriatrics and ethics.



**ANE 218          Clinical          Anesthesia          (2+0)          2,          ECTS:4**

Anesthesia applications in cardiovascular system diseases, Anesthesia applications in respiratory system diseases, Anesthesia applications in central nervous system diseases, Anesthesia applications in obstetrics and diseases, Anesthesia applications in endocrine system diseases, Anesthesia applications in renal system diseases, Anesthesia applications in urogenital system diseases, Anesthesia applications in orthopedic diseases, KVC anesthesia applications in emergency surgeries, anesthesia applications in emergency patients, anesthesia applications in pediatric patients, anesthesia applications in blood diseases, anesthesia applications in musculoskeletal diseases, anesthesia applications in rare diseases

**ANE 220          Clinical Application-II (0+8) 4, ECTS:9**

To give the student the ability to apply on the field with the theoretical knowledge he / she received during the semester. Practice with theoretical information.

**KGS 101 Quality Assurance and Standards (2+0) 2, ECTS:3**

The concept of Standardization, TSE, the concept of quality, batch quality management, ISO 9000, professional standards, regulation and obligations of standardization, the sample quality management

**İLK 203 First Aid (2+0) 2, ECTS:3**

Description of first aid, the importance of the principles of the first aid kit. Bleeding. Shock and types. Injuries. CPR (Cardio-Pulmonary Resuscitation) Foreign body aspiration. Fractures, dislocations and sprains. Burns. Hot and cold exposure. Poisoning. Medical first aid situations. Geriatric emergencies and first aid.

**ANE 999          Summer Internship (0+20 work day) 0, ECTS:9**

To give the student the ability to apply on the field with the theoretical knowledge he / she received during the semester. Practice with theoretical information.