

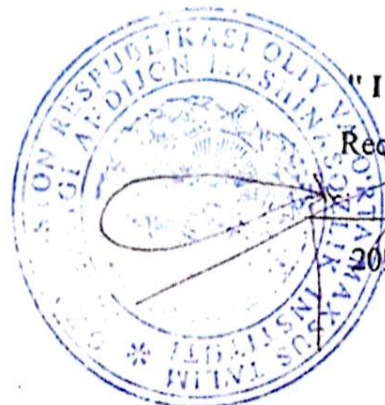
**MINISTRY OF HIGHER AND SECONDARY SPECIALIZED  
EDUCATION OF THE REPUBLIC OF UZBEKISTAN**

**ANDIJAN MACHINE-BUILDING INSTITUTE**

**Registered:**

No. 235

29 08 2022 year



" I CONFIRMED "

Rector of the Institute

U.M. Turdialiev

2022 " " "

**ORGANIZATION OF ROAD TRAFFIC**

**CURRICULUM**

**Field of knowledge** 600.000- Services sector  
**Field of study:** 620.000 – Transport  
**Field of study:** 5620400 – Organization of traffic (vehicle transport)

**Andijan-2022**

Recommended by the scientific council of the Andijan Machine Building Institute , 2022 “\_\_” is numbered “\_\_” in \_\_\_\_\_. The scientific council approved the program of the subject “Organization of road traffic”.

The scientific method was developed at the Andijan Mechanical Engineering Institute.

**Responsible for subject:**

1. Erkinjanov A.B. - Intern teacher of the Vehicle Engineering department of AndMBI

**Reviewers:**

1. Almatayev T.O. - AndMBI Professor of Department of Automotive Engineering

2. Askarov I.B. - Jizzakh Polytechnic Institute, head of the Vehicle Engineering department , PhD, Assoc .

The educational methodological complex of the subject was reviewed and recommended for use by the scientific-methodological council of the Andijan Machine Building Institute (2022 report No. “\_\_” ).

## **I. The content of science**

**The purpose of teaching science** - is to teach students the methods of studying traffic, collecting the characteristics of traffic and pedestrian flows and organizing traffic based on them.

**The task of the subject** is to provide students with theoretical knowledge, practical skills, a methodical approach to the processes of organization and management of traffic and the formation of a scientific worldview, to know the content and essence of the laws and principles of traffic flows, and the role of a specialist in his work by forming a personal attitude towards them. and reveal the importance .

## **II . The main theoretical part (lecture exercises )**

The subject includes the following topics:

### **5th semester**

#### **Module 1. Enter. Ways to study traffic**

##### **Topic 1. Goals and tasks of the science of traffic organization.**

Automotiveization and traffic in Uzbekistan on a global scale . Systemic character of traffic operation . OT organizing factors: development of normative documents in the field of OT, development of vehicles, practical application of requirements of legislation in the processes of design, construction and operation of street-road networks. Organization of control of reliability of activity of all components of street road networks .

##### **Topic 2. The main directions of engineering activity on the organization of traffic.**

Gathering information about the current state of traffic organization . Organization of work to determine the occurrence of many road traffic accidents . Traffic organization projects. Direct participation in the implementation of measures designed to improve traffic management. International organizations, services, organizations, and international conventions operating in the field of traffic management

##### **Topic 3. Traffic characteristics.**

Traffic characteristics, traffic flow. Movement speed. Action composition. Irregularity of traffic flow in time and space. Intervals of vehicles by time. Dimensions of vehicles. Dynamic corridor and safety distance of the car. Transport flow composition factor

##### **Topic 4. Pedestrian flow.**

The role of pedestrians in the organization of traffic. Pedestrian flow characteristics.

Methods of studying the flow of pedestrians. Movement speed and speed of pedestrians. Pedestrian accidents and their study and analysis. Interaction of traffic flows with pedestrian flows.

**Topic 5. Mathematical description of transport flows.**

Movement speed. Spatial-spatial characteristics of vehicle speeds in transport flows. Macroscopic and microscopic models of transport flows. Load coefficient of the road.

**6th semester**

**Module 2. “Methods of traffic organization”**

**Topic 6. Road capacity.**

Factors affecting the carrying capacity of highways . Traffic operational indicators of highways. Causes of traffic jams on the roads. Mathematical modeling of the capacity of different parts of the highway. Models representing traffic and pedestrian flows. Transport connections and road networks.

**Topic 7. Methods of traffic research.**

Collect traffic data. Classifications and characteristics of obtaining information on traffic parameters. Document research. Direct research. Study of road conditions. Study stationary posts. Study of traffic flow using moving vehicles. Studying conflict situations. Topographical analysis of road transport in street networks.

**Topic 8. The main directions and methods of traffic organization.**

Methods of traffic organization. The role of traffic organization in comprehensive measures to ensure the efficiency and safety of motor transport. Improvement of the “Driver-Vehicle-Road-Environment” complex, as well as the organization of car transportation as an important basis for the organization of road traffic. Forecasting the development of motorization and traffic in the regions. Designing the organization of traffic in the process of city and road construction. Normative methodical requirements for traffic planning.

**Topic 9. Improvement of traffic organization.**

Improvement of traffic organization. Separation of traffic. Separation by time. Forming a type of traffic flow. Optimization of traffic speed on streets and roads. Solving the problems of organizing passenger traffic. Solving the problem of temporary parking spaces. Implementation of automated traffic management systems. Assessment of the impact of road traffic on the ecological characteristics of the environment.

**Topic 10. Practical activities on the organization of traffic.**

General and specific tasks of organizing traffic in cities and highways . Organization of traffic at uncontrolled intersections. Provide visibility and privilege. Reducing the level and number of conflict points. Controlled and uncontrolled intersections and their separation criteria. Round traffic at intersections. Positive and negative sides.

Organization of unilateral and reversible movement, pros and cons.

**Topic 11. Organization of pedestrian traffic.**

for pedestrian traffic . Organization of pedestrian crossings. Location and dimensions. Equipment. Level of visibility. Information supply. Residential areas. Measures to increase the carrying capacity of sidewalks . Requirements for organization of surface transport movement. Capacity of traffic lanes and stops.

**7th semester**

**Module 3. “Methods of traffic organization”**

**Topic 12. Organization of truck traffic.**

Special requirements for organizing the movement of trucks. Basic requirements for planning parameters of shipping routes. Organization of parking places and loading-unloading places.

**Topic 13. Organization of movement in cities.**

Accommodations for temporary storage of cars. Required capacity . Placement of parking spaces and control of parking mode. Paid parking spaces. Conditions and general requirements for the complex organization of traffic in urban spaces and transport links.

**Topic 14. Organization of movement in special conditions.**

Organization of movement in special conditions. Difficult traffic conditions. Organization of movement in dark hours of the day, in winter conditions, in mountainous conditions and at railway crossings. Artificial lighting of roads and streets. Requirements and control of lighting of roads and road structures. Traffic management measures to improve the orientation of drivers in the dark and not to dazzle them.

**Topic 15. Organization of movement in places where road repair works are being carried out.**

Traffic procedures in places where road repairs are being carried out. Organization of movement in places where road repair works are being carried out. To organize a tour of the places where the repair work is being carried out and to determine the transfer capabilities of these places. Ensuring traffic safety in the areas where road repairs are being carried out.

**Topic 16. Traffic information.**

Information provision in different operating conditions in street-road networks. Measures to organize movement in conditions of traffic jams on streets and roads. Information system for drivers and pedestrians about various situations in street networks. Public transport traffic information system. Information supply in traffic management.

#### **IV. Instructions and recommendations on practical training**

##### **5th semester**

##### **Module 1. Organization of traffic .**

Basic detail of traffic rules.

Convention on Road Traffic and Road Signs and Signals .

describing road traffic and methods of their study.

Organization of movement at intersections.

Organization of pedestrian traffic.

##### **6th semester**

##### **Module 2. Organization of traffic**

Ways of lighting roads and streets .

Methods of calculating conflicting points.

Transport flow modeling.

Determining the capacity of roads.

Direct study of transport flows.

##### **7th semester**

##### **Module 3. Organization of traffic**

Direct research of the speed of movement of vehicles at stationary posts.

Analysis of RTA record cards.

pedestrian traffic patterns on sidewalks and sidewalks.

Investigation of speed regimes by the method of floating in a vehicle stream.

Research the level of organization of traffic at a given intersection .

#### **V. Instructions and recommendations for laboratory training**

“Organization of traffic” science training on laboratory training is not planned in the plan .

#### **VI. Independent education and independent work**

impact of automobileization on the organization of traffic on a global scale and in Uzbekistan.

Systemic nature of traffic operation.

Factors affecting the organization of traffic.

Normative documents in the field of OT.

Organization of control of operational reliability of all components of street road networks.

Gathering information about the current state of traffic management.

Traffic organization projects.

conventions operating in the field of traffic organization.

Traffic characteristics.  
Dynamic corridor and safety distance of the car.  
The role of pedestrians in the organization of traffic.  
Pedestrian flow characteristics.  
Methods of studying the flow of pedestrians .  
Movement speed and speed of pedestrians.  
Pedestrian accidents and their study and analysis.  
Interaction of traffic flows with pedestrian flows .  
Movement speed.  
Spatial-spatial characteristics of vehicle speeds in transport flows.  
Macroscopic and microscopic models of transport flows.  
Load coefficient of the road.  
Factors affecting the carrying capacity of highways .  
Transport and operation indicators of highways .  
Reasons for traffic jams on the roads. Mathematical modeling of the capacity of different parts of the highway.  
Models representing traffic and pedestrian flows.  
Transport connections and road networks.  
Collect traffic data. Classifications and characteristics of obtaining information on traffic parameters.  
Ways to identify accident hotspots in street-road networks.  
Conflicting points and situations.  
Typographical analysis of road traffic accident.  
methods of traffic organization.  
role of traffic organization in comprehensive measures to ensure the efficiency and safety of motor transport .  
"Driver-Vehicle-Road- Environment" complex, as well as the organization of car transportation as an important basis for the organization of traffic.  
Directions of motorization and traffic development in the regions .  
Designing the organization of traffic in the process of urban and rural construction.  
Normative -methodical requirements for traffic planning.  
improvement of traffic organization.  
Separation of traffic.  
Forming a type of traffic flow.  
Optimizing traffic speed on streets and roads.  
Solving the problems of organizing passenger traffic.  
Solving the problem of temporary parking spaces.  
Implementation of automated traffic management systems.  
Assessment of the impact of road traffic on the ecological characteristics of the

environment.

General and specific tasks of organizing traffic in cities and highways .

Organization of traffic at uncontrolled intersections. Provide visibility and privilege.

Controlled and uncontrolled intersections and their separation criteria.

Organization of circular movement at intersections.

Organization of unilateral and reversible movement.

Organization of pedestrian crossings  
for pedestrian traffic .

Residential areas.

Measures to increase the carrying capacity of sidewalks .

Requirements for organization of surface transport movement

Capacity of traffic lanes and stops.

Special requirements for organizing the movement of trucks.

Basic requirements for planning parameters of shipping routes.

Organization of parking places and loading-unloading places.

Accommodations for temporary storage of cars.

Conditions and general requirements for the complex organization of traffic in urban areas and transport links.

Organization of movement in special conditions.

Difficult traffic conditions.

Organization of traffic at railway crossings in the dark hours of the day, in winter conditions, in mountainous conditions .

Artificial lighting of roads and streets.

Traffic procedures in places where road repairs are being carried out.

Organization of movement in places where road repair works are being carried out.  
of the places where repair work is being carried out and to determine the carrying capacity of these places.

Measures to organize traffic in conditions of traffic congestion.

Information system for drivers and pedestrians about various situations in street networks .

Information system about public transport movement .

Information supply in traffic management.

## **VII . Instructions and recommendations for course work, course project and accounting graphic work**

Course work, course project and calculation graphic work Scheduled for the 7th semester.

is carried out according to a separate assignment given to each student .



the course project , the student in the given street network :  
determines the characteristics of the traffic flow;  
develops the laws of traffic flow characteristics;  
constructs graphs based on the laws of traffic flows;  
studies and analyzes the existing traffic organization scheme in the transport network ;  
of the completed calculations and analysis , he develops a scheme that includes proposals for improving traffic .

## **IX. Basic and additional literature and sources of information.**

### **Main literature :**

1. Azizov Q.KH. Fundamentals of organization of traffic safety. Tashkent, Science and technology, 2009.-244b.
2. Клинковштейн.Г.И., Афанасьев М.Б, организация дорожного движения Транспортб, 2001.-247с.
3. Организация и безопасность движения. Учебное пособие для студ. высш.учеб.заведений/ И.Н.Пугачёв, А.Э.Олешенко, М.:Издательский центр “Академия”, 2009-272с

### **Additional literature.**

1. Sh. Mirziyayev We will build a free and prosperous democratic country of Uzbekistan together. T.: Uzbekistan. 2016
2. Decree of the President of the Republic of Uzbekistan On the Strategy of Actions for Further Development of the Republic of Uzbekistan ( “Halq Sozi” newspaper, February 8, 2017)

### **Internet resources:**

1. [www.lex.uz](http://www.lex.uz) - National database of legal documents of the Republic of Uzbekistan .
2. [www.ziyonet.uz](http://www.ziyonet.uz) .
3. <http://www.motorpage.ru>
4. [www.uzavtosanoat.uz](http://www.uzavtosanoat.uz)





