

GDYNIA MARITIME UNIVERSITY
Academic year 2025/2026
Faculty of Navigation
Transport
Erasmus Faculty Coordinator - Przemysław Wilczyński
Courses in English

Semester II (Summer) ECTS 10

Code	Name	Description/Content	ECTS	Teacher's name
1.	English	General English and elements of business English.	2	mgr Bożena Foryś
2.	Mathematics	Multidimensional mathematical analysis: differential calculus of functions of several variables, multiple integrals. Sequences, numerical and function series. Spherical trigonometry. Elements of probability calculus.	6	dr hab. Sambor Guze
3.	Transport infrastructures	Road, railroad construction aggregates, materials for transport infrastructure	2	dr inż. Aleksandra Wawrzyńska

Semester III (Winter) ECTS 10

Code	Name	Description/Content	ECTS	Teacher's name
1.	English	General English. Maritime English- Modes of Transport. Types of Ships. Types of Cargo.	2	mgr Bożena Foryś
2.	Transport infrastructure	Presentation of the main characteristics and parameters of the transport infrastructure. Indication of the modal specific concern infrastructure. The state-of-art and future development plans of the European transport infrastructure. The financial aspects of the infrastructure development (incl. national budget structure, PPP, European Funds assistance).	4	dr inż. Aleksandra Wawrzyńska
3.	Means of Transport	Elements highway engineering, vehicles and buildings. Railway transport, rolling stock: vehicles and wagons. Air transport engineering: airports, airways, runways, air crafts. Instrument Landing Systems. IATA and ICAO code. Air containers. Pipelines transport. Gas and petroleum pipelines.	2	dr inż. Aleksandra Wawrzyńska
4.	Organization and management	Management of the organization as a form of control. Control, management, leadership, governance, management, administration. Power steering. Management styles. Leadership. The difference between managers and the contractors. Planning as a function of management. Strategic management of organization. Marketing management.	2	dr Adam Salomon

Semester IV (Summer) ECTS 14

Code	Name	Description/Content	ECTS	Teacher's name
1.	English	General English. Maritime English- Sea Transport. Packing. Containerization. Cargo Damage.	3	mgr Bożena Foryś
2.	Transport Economics	The economic nature and character of transport processes. Transport costs and charging schemas for transport services.	2	mgr inż. Ewelina Ziajka
3.	Basic of Statistics	Descriptive statistics: simple and cumulative series, histogram, mean value, variance, standard deviation, median, quantiles, mode, simple and central moments. Estimation problem: point estimation, interval estimation of parameters, confidence intervals for mean value, variance and proportion. Parametric tests: critical domain, test for mean value, variance and proportion, test for two samples: test for two mean values, two variances and two proportions. Nonparametric tests: Pearson's chi-squared test, chi-square test for independence, serial test for randomness. Correlation and regression analysis: linear and nonlinear regression, multiple regression, estimation of correlation and regression coefficients. Investigation of trend and stability of stochastic process. Time series. (general information).	2	dr hab. Sambor Guze
4.	Transport Infrastructures	Infrastructure of maritime transport.	5	dr inż. Aleksandra Wawrzyńska
5.	Logistics	The definition, origin and main characteristics of logistics. Basic rules and kinds of logistics systems. Logistics of delivery, production and distribution, main challenges and solutions. Spatial planning of logistics systems location and development. Characteristics and management of the integrated logistics chains/networks. The role of transport in logistics management.	2	dr Adam Salomon, mgr inż. Ewelina Ziajka

Semester V (Winter) ECTS 12

Code	Name	Description/Content	ECTS	Teacher's name
1.	English	General English. Maritime English- Cargo Operations in Ports. Loading and Discharging.	4	mgr Bożena Foryś
2.	Fundamentals of traffic	Maintasks of traffic engineering for road transport	2	dr inż. Aleksandra Wawrzyńska
3.	Transport systems	Transport systems in the theory of systems. Transport policy in Poland and the European Union. Subsystem for road transport. Road passenger and freight transport. Subsystem of railway transport. Inland waterway transport subsystem. Inland vessels and equipment; Subsystem of maritime transport. Subsystem of air transport. Multimodal transport systems.	3	dr inż. Aleksandra Wawrzyńska
4.	Transport Telematics	Basics of telematics in transport.	3	dr inż. Aleksandra Wawrzyńska

Semester VI (Summer) ECTS 16

Code	Name	Description/Content	ECTS	Teacher's name
1.	Means of internal transport	Characteristics and parameters of the internal transport.	4	dr inż. Aleksandra Wawrzyńska
2.	Fundamentals of Traffic Engineering	Maintasks of traffic engineering, characteristics of canals and fairways, port approaches & harbours, VTS functioning.	3	dr inż. Aleksandra Wawrzyńska
3.	Reliability and safety of the transportation systems	Basic concepts and characteristics of the reliability of non-renewable multi-state objects. Multi-state reliability function, mean lifetime of the system in the subset of reliability states, variance and standard deviation of the system in the subset of reliability states. Safety of technical systems. Risk function and safety analysis of transportation port and shipbuilding systems.	4	dr hab. Sambor Guze
4.	Forwarding	The role of freight forwarding in the contemporary international trade. Influence of customs of trade for the work of the forwarder.	5	dr Adam Salomon