

DISCIPLINE RECORD

Academic year 2025/2026

1. Information about the program

University	Constanta Maritime University
Faculty	Navigation and Maritime Transport
Department	Management in Transport
Domain of study	Engineering and Management
Academic level	Master
Study programme/ qualification	Business Administration in Transport

2. Information about discipline

Course title	Performance Measurement in Transport				
Lecture tenured	Senior Lecturer Viorela STÎNGĂ PhD				
Application tenured	Senior Lecturer Viorela STÎNGĂ PhD				
Year of study	V	Semester	II	Type of examination	E
Conditions of discipline	Course category: DF – Fundamental subjects, DS – Specialization subjects, DC – Complementary subjects				DS
	Course type: DOB – compulsory subjects; DOP – elective subjects; DFA – optional subjects				DOB

3. The total time estimated

I a) Number of hours per week	4	Course	2	Seminar	2	Laboratory		Project	
I b) Total hours per semester from the curriculum	56	Course	28	Seminar	28	Laboratory		Project	

II Time distribution for the semester:	ore
II a) Study after manual, course support, bibliography and notes	40
II b) Additional documentation in library, specialized electronic platforms	19
II c) Training seminars / labs, homework, essays, portfolios and essays	10
III Tutorial	
IV Examinations	2
V Other activities:	

Total hours of individual study II (a+b+c)	69
Total hours per semester (Ib+II+III+IV+V)	127
Number of credits	5

4. Prerequisites (if necessary)

Curriculum	<ul style="list-style-type: none"> Transport systems, logistics
Expected learning outcomes	<ul style="list-style-type: none"> Understanding general concept regarding transport

5. Conditions (if necessary)

Progress of the course	<ul style="list-style-type: none"> Video projector room, PPT presentation 	
Progress of application	Seminar	<ul style="list-style-type: none"> Video projector room, PPT presentation
	Laboratory	<ul style="list-style-type: none">
	Project	<ul style="list-style-type: none">

6. Objectives of discipline (based on the grid of specific skills acquired – no7)

The overall objective of discipline	The discipline aims to describe opportunities to apply sustainable performance measures in the transportation decision-making process and performance measures that can readily be applied in transportation decision-making.
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The specific objectives of discipline	<ul style="list-style-type: none"> Performance measures are widely used in transport planning, so after this course students will understand the use of various expressions including “sustainable transportation indicators”, “performance indicators” or just “transportation statistics”. Students will be able to conduct performance analysis sector using techniques and indicators specific to the transport field.
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7. Expected learning outcomes:

No.	Knowledge	Skills	Responsibility and autonomy
1	The student understands techniques for financial risk assessment.	The student analyzes internal organizational processes.	The graduate independently proposes risk mitigation strategies.
2	The student is aware of trends and innovations in the transport sector.	The student conducts qualitative and quantitative market research.	The graduate leads initiatives to improve the quality of transport services.
3	The student masters ICT solutions applicable to business problems.	The student advises on strategic business decisions based on data analysis.	The graduate assumes responsibility for implementing ICT innovations.
4	The student knows the principles of financial performance evaluation.	The student accurately interprets complex financial statements.	The graduate manages financial risk with autonomy.
5	The student analyzes external factors impacting the business environment.	The student performs SWOT and PESTEL analyses.	The graduate recommends innovations in current business practices.
6	The student understands quality assurance standards in transport services.	The student ensures compliance with quality and safety metrics.	The graduate is responsible for continuous service quality improvement.
7	The student masters techniques for data acquisition and processing.	The student evaluates business performance through financial indicators.	The graduate takes responsibility for continuous professional development.

8. Competences covered by the discipline, according to the diploma supplement

Professional competences	<ul style="list-style-type: none"> Provides advice on efficiency improvements Analyzes external factors affecting companies <ul style="list-style-type: none"> Adapts to changing situations Assesses financial viability Ensure project management <ul style="list-style-type: none"> Performs quality control Focuses on innovation in current practices <ul style="list-style-type: none"> Plans transport operations Port operations manager
Transversal competences	<ul style="list-style-type: none"> Create risk reports Seek innovation in current practices Propose ICT solutions to business problems

9.Contents

Course	Nr. hours	Teaching methods	Obs.
1. INTRODUCTION IN PERFORMANCE MEASUREMENT - Performance measurement applications - Uses of performance measurement	2	Power-point presentation	
2. KEY PERFORMANCE INDICATORS IN TRANSPORT	2	Power-point presentation	
3. TRANSPORT PROGRAMME INDICATORS: INPUTS, OUTPUTS, RESULTS AND IMPACTS	2	Power-point presentation	

4.CRITERIA OF THE ESTABLISHMENT OF A PERFORMANCE INDICATOR SYSTEM	2	Power-point presentation	
5.SUSTAINABILITY IN TRANSPORTATION DECISION MAKING	2	Power-point presentation	
6. PERFORMANCE MEASUREMENT IN TRANSPORTATION DECISION MAKING	2	Power-point presentation	
7.PERFORMANCE MEASUREMENT IN FREIGHT TRANSPORT	2	Power-point presentation	
8.PERFORMANCE MEASUREMENT IN PUBLIC PASSENGERS TRANSPORT	2	Power-point presentation	
9.PERFORMANCE MEASUREMENT IN LOGISTICS	4	Power-point presentation	
10.PERFORMANCE MEASUREMENT IN SUPPLY CHAINS AND NETWORKS	4	Power-point presentation	
11.PERFORMANCE MEASURE EXAMPLES	2	Power-point presentation	
12. APPLICATIONS OF SUSTAINABLE TRANSPORTATION PERFORMANCE MEASURES	2	Power-point presentation	

Bibliography

- Performance Measurement in Transport, Stinga Viorela, course notes on eCampus platform
- Beamon, B. (1999). Measuring supply chain performance. International Journal of Operations & Production Management, 19(3), 275-292
- Björklund, M., Martinsen, U., Abrahamsson, M. (2012). Performance measurements in the greening of supply chains. Supply Chain Management: An International Journal, 17(1) , 29-39
- Chan, F. (2003). Performance measurement in a supply chain. International Journal of Advanced Manufacturing Technology, 21, 534-548
- Coyle, J., Novack, R., Gibson, B., Bardi, E. (2011). Transportation: A Supply Chain Perspective(7th edn). Cengage Learning
- Hervani, A., Helms, M., Sarkis, J. (2005). Performance measurement for green supply chain management. Benchmarking: An International Journal, 12(4) , 330-353
- Kennerly, M.; Neely, A. (2002). A framework of the factors affecting the evolution of performance measurement systems. International Journal of Operations & Production Management, Vol 22, No 11, p. 1222-1245
- Todd Litman (2003). Measuring Transportation Traffic, Mobility and Accessibility. ITE Journal (Institute of Transportation Engineers, www.ite.org) Vol. 73, No. 10, pp. 28-32

Selective bibliography

- Performance Measurement in Transport, Stinga Viorela, course notes on eECampus platform
- Björklund, M., Martinsen, U., Abrahamsson, M. (2012). Performance measurements in the greening of supply chains. Supply Chain Management: An International Journal, 17(1) , 29-39
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- Course notes available on the platform campus.cmu-edu.eu

Application (Seminar / laboratory / project)	Nr. hours	Teaching methods	Obs.
1. General concepts regarding performance measurement	4	Power-point presentation Case studies	
2. Transport programme indicators	4	Power-point presentation Case studies	
3. Criteria of the establishment of a performance indicator system	4	Power-point presentation Case studies	

4. Performance measurement in transportation decision making	4	Power-point presentation Case studies	
5. Performance measurement in freight/passenger transport	4	Power-point presentation Case studies	
6. Performance measurement in supply chains and networks	4	Power-point presentation Case studies	
7. Case studies of transport performance measurement programs from around the globe	4	Power-point presentation Case studies	

Bibliography

- Performance Measurement in Transport, Stinga Viorela, course notes on eCampus platform
- Beamon, B. (1999). Measuring supply chain performance. *International Journal of Operations & Production Management*, 19(3), 275-292
- Björklund, M., Martinsen, U., Abrahamsson, M. (2012). Performance measurements in the greening of supply chains. *Supply Chain Management: An International Journal*, 17(1), 29-39
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- Coyle, J., Novack, R., Gibson, B., Bardi, E. (2011). *Transportation: A Supply Chain Perspective*(7th edn). Cengage Learning
- Kennerly, M.; Neely, A. (2002). A framework of the factors affecting the evolution of performance measurement systems. *International Journal of Operations & Production Management*, Vol 22, No 11, p. 1222-1245
- Seminar notes available on the platform campus.cmu-edu.eu

Additional Notes

- Students may take photographs or make audio-video recordings in classrooms where teaching activities are conducted **only with the consent of the instructor and under the conditions established by the instructor**.
- Upon entering the classroom, students are kindly requested to **switch their mobile phones to silent mode and refrain from using them during classes**.
- All materials received by students, either directly or through postings on the platform *campus.cmu-edu.eu*, are subject to **national and international copyright legislation**. These materials may be used by students **solely for educational purposes**. Any other use or posting on publicly accessible websites without the consent of the copyright holder may be punished in accordance with **Law no. 8/1996 on copyright and related rights** and the **Berne Convention**.

10. The corroboration of contents of discipline with expectations epistemic community representatives, professional associations and representative employers in the corresponding program

- The content of the discipline takes into consideration the concerns of the professional institutions and organizations in the field, such as forwarding companies or port operators. Companies staff and stakeholders need to be able to engage in a much richer conversation about the trade-offs among policy and investment decisions.

11. Examination

Type of activity	Examination Criteria	Methods of examination	Percentage of final grade
Course		The exam is a multiple choice test. It consists of questions with 4 answer options, of which only one is correct.	100%
Seminar			
Laboratory			
Project			
Grading Requirements Minimum score required: 50 points: 50-54->nota 5; 55-64-> nota 6; 65-74-> nota 7; 75-84-> nota 8; 85-94-> nota 9; 95-100-> nota 10 Additional Notes <ul style="list-style-type: none"> • A midterm exam may be organized during the semester. • If a student participates in conferences (student, local, national, or international) or competitions (national or international) related to the subject of this course, they may receive additional points or equivalence for certain assignments, papers, and/or attendance, depending on the results obtained. • During written examinations, students are not allowed to use mobile phones or any other electronic devices, except for simple scientific calculators. 			
Minimum performance standards Grade 5			

Date of completion	Signature of lecture tenured	Signature of application tenured
22.09.2025	Senior Lecturer Viorela STÎNGĂ PhD	Senior Lecturer Viorela STÎNGĂ PhD

Date of approval in the department	Signature of Director of Department
26.09.2025	Lecturer Ana Cornelia OLTEANU PhD

Date of approval in the faculty council	Signature of Dean
29.09.2025	Associated Professor Nicoleta ACOMI EngD