

## **ENE 431 Shipping Economics and Analytics. Fall 2025.**

### **Group Assignment and Oral Presentation (50% of grade)**

#### **Case 1.**

You are the fleet manager for a shipping company, responsible for managing a fleet of 6 vessels. Your task is to develop a strategy to promote better fleet utilization while going through market volatility and geopolitical uncertainties.

Firstly, analyze the current trends in freight rates, demand for the commodities to be transported, and geopolitical risks in major shipping routes. Use data from the last two years on your segment freight rates, commodity demand, and vessel layup statistics. Present your findings with tables, graphs, and maps of key shipping routes.

Secondly, develop a utilization strategy for your fleet over the next year. Consider promising markets, and trading patterns. Argue your selection based on economic theory. Recommend actions such as time charters, spot market participation, or vessel layups based on market conditions.

Lastly, assess the financial implications of your proposed strategy. Discuss potential earnings from freight rate fluctuations and suggest whether the company should explore long-term charter agreements or go in voyage charters.

Choose from any of the following vessel segments for your report:

Group 1) Capesize

Group 2) Handymax

Group 3) Panamax Bulker

Group 4) LNG

Group 5) LPG

Group 6) VLCC/ULCC

Group 7) Suezmax

Group 8) LR1/LR2

Group 9) Chemical tankers

## **Case 2.**

You are a strategic analyst for a shipping company, and you are tasked with evaluating the feasibility of expanding trade routes to new markets.

First, analyze the current demand for the commodity transported in your type of vessels in the new promising regions. Assess the projected growth of the industry in the next 2 years, including any trade agreements, policy frameworks, or geopolitical factors that could affect demand. Use visual tools such as supply-demand graphs and regional demand heat maps.

Next, examine the historical freight rates for your vessels on traditional routes. Provide a comparison of existing trade routes versus potential new ones. Use economic theory to explain how entering these new markets could impact competition and shipping rates. Present your findings with tables, graphs, and maps.

Finally, propose a fleet expansion strategy, including the type of vessels to charter or purchase and the trade routes to prioritize. Outline the financial implications of the expansion and the risks associated with entering new markets (e.g., regulatory uncertainty, volatility in demand, or competition from other shipping segments).

Choose any of the following market segments:

Group 10) Capezize

Group 11) Handymax

Group 12) Panamax Bulker

Group 13) LNG

Group 14) LPG

Group 15) VLCC/ULCC

Group 16) Suezmax

Group 17) LR1/LR2

Group 18) Chemical tankers

### **Case 3.**

As the head of logistics for a large exporter, you are responsible for managing the transportation of a commodity of choice over the next year. The amount is based on the type of commodity. You are tasked with developing a freight rate hedging strategy to mitigate the risks of fluctuating rates in the commodity shipping market.

First, analyze the historical freight rates for the type of vessel transporting the cargo. Identify trends, seasonal variations, and potential geopolitical and climate risks that may affect rates over the next year. Present your findings using freight rate charts and risk factor tables. For the risk factor table assess, the risk by determining the risk factor, a description of the risk, the likelihood (low, medium, high) under your criteria, the impact (low, medium, high), the risk level (low, medium, high) and the mitigation strategy. At least 4 risk factors should be included.

Second, recommend a hedging strategy using freight derivatives such as Forward Freight Agreements (FFAs), options or other derivatives. Assess the potential financial benefits and risks of locking in freight rates through derivatives contracts. Include a discussion on the role of volatility in your decision-making process.

Finally, propose a combined physical and financial strategy to propose the transportation of grain. This may involve a mix of long-term time charters, spot market participation, etc. Support your strategy with graphs and maps.

Group 19) Crude Oil (5 M tonnes)

Group 20) Iron Ore (3 M tonnes)

Group 21) Coal (3 M tonnes)

Group 22) Fertilizers (1 M tonnes)

Group 23) LNG (2 M cubic meters)

Group 24) Grain (1 M tonnes)

Group 25) Dirty and Clean products (800,000 tonnes)

Group 26) Chemicals (250,000 tonnes)

## **Submission:**

One submission per group of the **essay plus slides** shall be made electronically via **Wiseflow** before the deadline **October 22<sup>nd</sup>, 2025, at 1200.**

### Additional instructions (Essay):

- Submit the essay as a PDF
- Feel free to use arguments from shipping analyst (e.g., Clarksons) but be sure to: 1) cite the source and 2) justify the argument with your own figures, tables, maps, etc.
- Use Arial 11 pt. or Times New Roman 12 pt. and 1.5 line spacing. Use any referencing format but be consistent.
- Maximum number of words, excluding list of references; **3,000 words.**

### Criteria for evaluation (Essay)

- Well-structured essay, including introduction and conclusion in line with main body.
- Applies relevant theory to the analysis
- Includes sources and references.
- Can connect in a good flow what is observed on figures and tables to the main body of work
- Figures and tables are used where needed.
- Can give a general description of the methods used for retrieving the results

### Additional instructions (Oral Exam/Presentation):

- Submit your slides on Powerpoint or PDF
- You will have 10 minutes for presenting your main points and 5 minutes for answering questions
- You can choose between a single or various speakers
- Any member of the group can answer the questions. Therefore, all members must be present. We may arrange a hybrid session such that missing members can participate via Zoom.

### Criteria for evaluation (Oral Exam/Presentation)

- Can properly summarize the main takeaways of their analysis
- Well-structured presentation of case and recommendations
- Easy to follow oral presentation
- Uses allocated time efficiently to get the point across. Max 10 mins.
- Answers to the questions