

## SYLLABUS

<b>Code/Discipline</b>	PPGT0266/Economia dos Transportes I (Transportation Economics I)		
<b>Workload</b>	30 hours	<b>Credits</b>	2 credits
<b>Level</b>	Master		
<b>Type</b>	Optional		
<b>Concentration area</b>	Logistics, Operations and Transportation Planning		
<b>Professor</b>	Neantro Saavedra Rivano (neantro@unb.br)		
<b>Semester</b>	2024/1 (March 21 <sup>st</sup> , 2024, to July 11 <sup>th</sup> , 2024)		
<b>Class meetings</b>	Thursdays: 08:00 – 09:50		
<b>Location</b>	Anexo SG-12 (AT 08/7 - Térreo)		
<b>Course objectives</b>	The objective of this course is to present the basic concepts of transportation economics: demand, costs, price determination, and infrastructure development. The course will also review needed concepts of economics.		
<b>Teaching method</b>	Theoretical classes for presentation of programmatic content, and resolution of exercises in the classroom		
<b>Program</b>	<ol style="list-style-type: none"> <li>1. Introduction: the economic dimension of transportation science; transportation and economic development; main actors in economic transportation analysis</li> <li>2. The market for transportation services (Cowie ch. 3, Mankiw ch. 4)</li> <li>3. Transportation demand elasticity (Cowie 4, Mankiw 5)</li> <li>4. Transportation costs (Cowie 5, Mankiw 13)</li> <li>5. Perfect competition in transportation markets (Cowie 6, Mankiw 14)</li> <li>6. Imperfect competition in transportation markets (Cowie 7, Mankiw 15)</li> <li>7. Exam 1</li> <li>8. Pricing (Cowie 8)</li> <li>9. Transportation and the environment (Cowie 10)</li> <li>10. Transportation regulation and ownership (Cowie 10)</li> <li>11. Forecasting demand for transportation (Cowie 13)</li> <li>12. Transportation appraisal and evaluation (Cowie 14)</li> <li>13. Exam 2</li> <li>14. Project paper presentation I</li> </ol>		
<b>Evaluation criterion</b>	<b>1 – Evaluation components</b>  The student will be evaluated by: <ul style="list-style-type: none"> <li>- Exam 1 (items 1 to 6 of the program) – May 9<sup>th</sup>, 2024</li> <li>- Exam 2 (items 8 to 12 of the program) – July 4<sup>th</sup>, 2024</li> <li>- Final Project Paper – July 11<sup>th</sup>, 2024</li> </ul>		

The exams will contain a combination of multiple choice and open questions and will take place during the same time slots of the lectures (08:00 AM – 09:50 AM).

The Project Paper must deal with a subject of relevance to the discipline and clearly specify its theme, objective, methodology, results, and conclusion. The paper must have 5-10 pages and follow the guidelines of ANPET ([http://www.anpet.org.br/ssat/interface/content/autor/arquivos/formato\\_trabalhos.pdf](http://www.anpet.org.br/ssat/interface/content/autor/arquivos/formato_trabalhos.pdf)). Students may organize themselves in groups for the sake of the paper (AT MOST 2 PER GROUP). They will be presented during the last session of this course (see Program). The evaluation of the Project Paper will be based on the quality of the paper itself and on the presentation made in class, including the ability to properly answer questions from colleagues and professors.

## 2 – Final Score

Arithmetic mean of the 2 exams and the Project Paper

$$FS = (\text{Exam1} + \text{Exam2} + \text{paper})/3$$

## 3 – Conditions for approval

To be approved, the student must the following conditions:

- get  $FS \geq 5,0$
- get frequency  $\geq 75\%$

## 4 – Final grade

It will be assigned per the following table:

Grade	Final Score (FS)
SS	$FS \geq 9,0$
MS	$7,0 \leq FS \leq 8,9$
MM	$5,0 \leq FS \leq 6,9$
MI	$3,0 \leq FS \leq 4,9$
II	$0,1 \leq FS \leq 2,9$
SR	$FS = 0,0$

## Bibliography

### BIBLIOGRAFIA BÁSICA

Main reference is the textbook (below) by Cowie, to be supplemented in the first group of lectures by the textbook by Mankiw.

1. Cowie, Jonathan (2009). **The Economics of Transport – A Theoretical and Applied Perspective**. Routledge
2. Cole, Stuart (2005). **Applied Transport Economics – Policy, Management & Decision Making**. Kogan Page Publishers.
3. Martland, Karl (2012). **Toward More Sustainable Infrastructure –Project Evaluation for Planners and Engineers**. John Wiley & Sons.

4. Mankiw, Gregory (2017). **Principles of Microeconomics**. 8<sup>th</sup> Edition. Cengage Learning, Boston.
5. Varian, Hal R. (2010). **Intermediate Microeconomics: a Modern Approach**. 8<sup>th</sup> Edition. W.W. Norton & Company.
6. Levinson, David and Gillen, David and Iacono Michael, (2016). **Transportation Economics**/Wikibooks.  
([https://upload.wikimedia.org/wikipedia/commons/4/42/Transportation\\_Economics.pdf](https://upload.wikimedia.org/wikipedia/commons/4/42/Transportation_Economics.pdf))

[Neantro Saavedra Rivano]  
Brasília, February 1<sup>st</sup>, 2024