האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

Introduction to Transport Economics - 49824

Last update 29-07-2021

HU Credits: *2*

Degree/Cycle: *2nd degree (Master)*

Responsible Department: *Urban & Regional Studies - Specialization*

Academic year: *0*

Semester: *1st Semester*

Teaching Languages: *Hebrew*

Campus: *Mt. Scopus*

Course/Module Coordinator: *Ms. Ruth Amir*

Coordinator Email: *mail.ruti.amir@gmail.com*

Coordinator Office Hours: *Wednesday between 14:00-14:30*

Teaching Staff:

Ms. Ruth Amir

Course/Module description:

A basic course in transportation economics that will focus on the following issues: transportation demand and supply, assessment of transport projects, subsidies and monopolies, public transport fare policy, congestion, congestion fees and sustainable transport.

Course/Module aims:

Learn basic concepts in transportation economics. Understand the complex relationship between the transport system and various economic characteristics. Comprehend the different economic tools in transportation planning. Analyze the transportation market in Israel and around the world, based on an understanding of the underlying economic theory. Investigate the process of planning, decision making and management of the transport field. Study major issues in the transport economy, through analysis of current cases. Ascertain the economic theory, which serves as a basis for transportation planning and market actuality.
During the course, the students will be required to perform exercises. At the end of the course the students will be asked to submit a course completion work. The work can be done in pairs.

Learning outcomes - On successful completion of this module, students should be able to:

1. Basic recognition of key economic theories and their role in transport planning.
2. Knowledge of basic concepts in transport economics (such as cost-benefit tests, demand flexibility, monopolies and subsidies, externalities, demand management and more).
3. Understand the economic basis of transportation planning and decision-making processes and recognize the actual use of economic tools in these processes.
4. Ability to understand current issues in transport economics in light of the basic concepts learned.
5. Ability to present and analyze these issues.

Attendance requirements(%):

• Active participation in the course (10% of the course score). Attending at least 10 lessons is required to receive the full score. Attending less than four classes equals 0 points. Notice, attending the class means attending the entire class.
• Presentation of a case study in class (10% of course score).
• Presentation of the course completion work (15% of the course score).
• Course completion work grade (65% of the course score).

• The completion work can be done in pairs. Work topics will be given during the first half of the course. The work will be up to 10 pages long and will include current topics in transportation, using the economic tools learned in the course. Preparation of the work should be based on articles and research on the subject. The aim is not to summarize the articles but to present the topic and hold a discussion.
• The submission date is a month after the end of the course.

Teaching arrangement and method of instruction: Frontal

Course/Module Content:
תכנית הקורס
13/10
שיעור 1- מבוא לכלכלת תחבורה ועל ההשקעה בתשתית תחבורה ככלי לפיתוח כלכלי
קריאה:
מדינת ישראל 1999, תכנון כולל של מערכת התחבורה היבשתית – נייר עמדה לכנס קיסריה 1999, המכון הישראלי לדמוקרטיה
Course Plan
13 October
Lesson 1- Introduction to Transportation Economics and about investment in transportation infrastructure as a tool for economic development
Reading:
The state of Israel 1999, Overall design of the inland transportation system – Position Paper, the Israel Democracy Institute
20/10
שיעור 2- היצע וביקוש לתחבורה, שיווי משקל
קריאה:
גרונאו ר. 1997, התערבות לתחרות בשוק התחבורה המוטורית 1. ענף התחבורה המוטורית – סיפור של כשל שוק, המכון למחקר כלכלי בישראל ע"ש מוריס פאלק, מאמר לדיון i97.03, עמודים 1-32
20 October
Lesson 2- Transportation supply and demand, equilibrium
Reading:
Gronau R. 1997, Intervention and Competition in the Motor Transport Market – i. The Motor Transport Branch: A tale of market Failure, The Maurice Falk Institute, Article for discussion 97.03, pages 1-32 (Hebrew)

27/10
שיעור 3- גמישות הביקוש לתחבורה ותחבורה כביקוש נגזר
Sergio R. Jara-Diaz 1986, On the relation between users' benefits and the economic effects of transportation activities, Journal of regional science, Vol.26 No.2, 1986 Pages 379-383
Todd Litman 2013, Transport Elasticities: Impacts on Travel Behavior, GIZ GmbH Sector Project "Transport Policy Advisory Services" Division 44 Water, Energy, Transport

27 October
Lesson 3- Transport demand elasticity and Transportation as a derived demand
Reading:
Sergio R. Jara-Diaz 1986, On the relation between users' benefits and the economic effects of transportation activities, Journal of regional science, Vol.26 No.2, 1986 Pages 379-383
Todd Litman 2013, Transport Elasticities: Impacts on Travel Behavior, GIZ GmbH Sector Project "Transport Policy Advisory Services" Division 44 Water, Energy, Transport

3/11
שיעור 4 - מודלים לחיזוי הביקוש לתחבורה
November 3
Lesson 4 -Forecast transport demand models

10/11
שיעור 5 – מבוא להערכה כלכלית של פרויקטים תחבורתיים
November 10
Lesson 5- Introduction to economic evaluation of transport projects

17/11
שיעור 6 – הערכה כלכלית של פרויקטים תחבורתיים – הניסיון העולמי
קריאה:
Shiftan Y., Ben-Akiva M., De Jong G. at all 2002, Evaluation of Externalities in Transport Projects, European Journal of Transport and Infrastructure Research, 2(3/4). pp. 285-304

November 17
Lesson 6- Economic evaluation of transport projects – the world experience
Reading:
Shiftan Y., Ben-Akiva M., De Jong G. at all 2002, Evaluation of Externalities in Transport Projects, European Journal of Transport and Infrastructure Research, 2(3/4). pp. 285-304

24/11
שיעור 7 – הערכה כלכלית של פרויקטים תחבורתיים – הניסיון בישראל
הערכה של השפעות בטיחותיות וסביבתיות
קריאה:
מדינת ישראל, נוהל פר"ת 2012
November 24
Lesson 7- Economic evaluation of transport projects – the Israeli experience
Evaluation of safety and environmental effects
Reading:

The state of Israel 2012, Procedure for transportation Projects (Hebrew)

12/1
שיעור 8 – תחבורה בת קיימא
סובסידיות בתחבורה
קריאה:
גרונאו ר. 1997, התערבות ותחרות בשוק התחבורה המוטורי 3 סיבסוד התחבורה הציבורית והתערבות בשוק המוניות, המכון למחקר כלכלי בישראל על שם מוריס פאלק, מאמר לדיון iii97.03 עמודים 34-38
December 1
Lesson 8- Sustainable Transport
Transport Subsidies
Reading:
Gronau R. 1997, Intervention and Competition in the Motor Transport Market – iii. The Subsidization of Public Transportation and Intervention in the Taxi cab Market, The Maurice Falk Institute, Article for discussion 97.03, pages 34-38 (Hebrew)

8/12
שיעור 9 – מונופולים והשפעת התחרות בענף התחבורה הציבורית
קריאה:
Shiftan Y. and Sharaby N. 2006, Competition in bus public transport in Israel, TRB

December 8
Lesson 9- Monopolies and effects of the competition in public transport
Reading:
Shiftan Y. and Sharaby N. 2006, Competition in bus public transport in Israel, TRB

15/12
שיעור 10 – מדיניות תעריפים בתחבורה הציבורית
קריאה:
Cats O., Susilo Y.O. and Reimal T., 2017 The Prospects of Fare-Free Public Transport: Evidence from Tallinn. Transportation. 44 (5), 1083-1104
מדינת ישראל 2015, הרפורמה בתעריפי התחבורה הציבורית במטרופולינים מסמך מסכם
December 15
Lesson 10- Fare policy in public transport
Reading:
Cats O., Susilo Y.O. and Reimal T., 2017 The Prospects of Fare-Free Public Transport: Evidence from Tallinn. Transportation. 44 (5), 1083-1104
The State of Israel 2015,

/1222
שיעור 11 – מגמות כלכליות, חברתיות וטכנולוגיות בתחום התחבורה – סקירה עולמית
December 22
Lesson 11- Economic, social and technological trends in transportation

29/12
שיעור 12 – גודש ואגרות גודש
קריאה:
רום הנדסת תחבורה בע"מ 2008, אגרות גודש במטרופולין תל אביב דו"ח מסכם
גרונאו ר. 2010, התערבות ותחרות בשוק התחבורה המוטורית 4. הרכבת – חולצת הפקקים של המדינה, המכון למחקר כלכלי בישראל על שם מוריס פאלק, מאמר לדיון iv 10.07, עמודים 60-64

December 29
Lesson 12- Congestion and congestion fees
Reading:
Rom Traffic Engineering Ltd.2008, Congestion Fees in the Tel Aviv Metropolitan Area- Summery Report
Gronau R. 2010, Intervention and Competition in the Motor Transport Market - iv The Israeli Railroad: Road Jam Panacea? The Maurice Falk Institute, Article for discussion 10.07, pages 60-64

5/1
שיעור 13 – סטודנטים מציגים את עבודות הגמר
January 5
Lesson 13- Students present course completion works
12/1
שיעור 14 – סטודנטים מציגים את עבודות הגמר
January 12
Lesson 14- Students present course completion works

<u>Required Reading:</u>
Course Plan
October 21
Lesson 1- Introduction to Transportation Economics and about investment in transportation infrastructure as a tool for economic development
Reading:
The state of Israel 1999, Overall design of the inland transportation system – Position Paper, the Israel Democracy Institute

October 28
Lesson 2- Transportation supply and demand, equilibrium, Transportation as a derived demand
Reading:
Gronau R. 1997, Intervention and Competition in the Motor Transport Market – i. The Motor Transport Branch: A tale of market Failure, The Maurice Falk Institute, Article for discussion 97.03, pages 1-32 (Hebrew)

November 4
Lesson 3- Transport demand elasticity

Transportation as a derived demand
Reading:
Sergio R. Jara-Diaz 1986, On the relation between users' benefits and the economic effects of transportation activities, Journal of regional science, Vol.26 No.2, 1986 Pages 379-383

November 11
Lesson 4- Forecast transport demand models

November 18
Lesson 5 - Introduction to economic evaluation of transport projects

November 25
Lesson 5- Economic evaluation of transport projects – the world experience
Reading:
Shiftan Y., Ben-Akiva M., De Jong G. at all 2002, Evaluation of Externalities in Transport Projects, European Journal of Transport and Infrastructure Research, 2(3/4). pp. 285-304

December 2
Lesson 7- Economic evaluation of transport projects – the Israeli experience
Evaluation of safety and environmental effects
Reading:
The state of Israel 2012, Procedure for transportation Projects (Hebrew)

December 9
Lesson 8- Sustainable Transport
Transport Subsidies
Reading:
Gronau R. 1997, Intervention and Competition in the Motor Transport Market – iii. The Subsidization of Public Transportation and Intervention in the Taxi cab Market, The Maurice Falk Institute, Article for discussion 97.03, pages 34-38 (Hebrew)

December 16
Lesson 9- Monopolies and effects of the competition in public transport
Reading:
Shiftan Y. and Sharaby N. 2006, Competition in bus public transport in Israel, TRB

December 23
Lesson 10- Fare policy in public transport
Reading:
Cats O., Susilo Y.O. and Reimal T., 2017 The Prospects of Fare-Free Public Transport: Evidence from Tallinn. Transportation. 44 (5), 1083-1104

December 30

Lesson 11- Economic, social and technological trends in transportation

January 6
Lesson 12- Congestion and congestion fees
Reading:
Rom Traffic Engineering Ltd.2008, Congestion Fees in the Tel Aviv Metropolitan Area- Summery Report
Gronau R. 2010, Intervention and Competition in the Motor Transport Market - iv The Israeli Railroad: Road Jam Panacea? The Maurice Falk Institute, Article for discussion 10.07, pages 60-64

January 13
Lesson 13- Students present course completion works

January 20
Lesson 14- Students present course completion works

Additional Reading Material:

Course/Module evaluation:
End of year written/oral examination 0 %
Presentation 0 %
Participation in Tutorials 0 %
Project work 0 %
Assignments 0 %
Reports 0 %
Research project 0 %
Quizzes 0 %
Other 100 %
see additional information

Additional information:
Percent of Final Grade
10% Exercises
15% Presentation of the course completion work in class
75% Course completion work grade