



Institute of Transport and Logistics Studies

144 Burren Street, Newtown, Sydney

Directions and map: <http://sydney.edu.au/business/itls/about/directions>

Note: ITLS is not on the main campus

Please see the ITLS website for other important details about units at ITLS:

http://sydney.edu.au/business/itls/courses/transport_and_logistics

ITLS student enquiries office:

Email: business.itlsinfo@sydney.edu.au

Office: Room 312B, Level 3, ITLS, 144 Burren Street, Newtown

Assessment collection / viewing: Monday to Friday 12pm to 1.30pm ONLY

Timetable:

Please note that the timetable provided in this outline is subject to change. You should check your timetable on MyUni for final dates and to see which group you have been assigned to, see: <http://myuni.usyd.edu.au/>



TPTM6470

Sustainable Transport and Logistics Systems

Semester One 2011

Unit of study outline

Unit Coordinator: A/Prof Stephen Greaves

Phone: (02) 9351-0078

Email: stephen.greaves@sydney.edu.au

Office: ITLS Building, Level 2, Room 203

Consultation times: Mondays 12:30 – 14:00 or by appointment.

Please use email as your first method of communication.

Staff: Ms. Claudine Moutou

Phone: 9351-0162

Email: claudine.moutou@sydney.edu.au

Office: ITLS Building, Level 2, Room 201-6

Consultation times: By appointment.

Please use email as your first method of communication.

Classes

Class times: 9:00AM to 5:00PM

Venue: LT2, Level 2, ITLS Building, 144 Burren Street, Newtown

Class	1	2	3	4	5	6	7
Day	Friday	Friday	Friday	Friday	Friday	Friday	Friday
Date	11 March 2011	25 March 2011	1 April 2011*	8 April 2011	6 May 2011	20 May 2011	3 June 2011*

***To be confirmed**

See Section 7 for more information about each class and other important dates.

1. Unit of study information

1.1. School handbook description

How can we accommodate the rapidly expanding movement of passengers and freight in a way that is environmentally and socially sustainable into the future? This unit introduces students to the major environmental issues that must be considered in contemporary transport and logistics operations including climate change, regional and local air pollution, noise pollution and safety. The focus then turns to specific modes, focusing initially on passenger transport, where we identify the major trends working against sustainability and the range of regulatory, behavioural, pricing, and voluntary strategies available to try to reverse these trends. We then introduce the notion of 'green' logistics and what regulators and companies can/should be doing to facilitate more sustainable practices in the shipment of freight. We then consider the issues/challenges around sustainable aviation and international shipping practice. Finally, we consider the critical issue of safety and what strategies have/could be employed to mitigate the impacts. Throughout the unit, we focus on what is going on in both the developed and emerging world nations, where the challenges are potentially on a different order of magnitude. The unit is of particular value to students majoring in transport, logistics, environmental planning, and urban planning.

1.2. Pre-requisite units

There are no pre-requisite units for TPTM6470.

1.3. Assumed knowledge and/or skills

You are assumed to have successfully completed an undergraduate degree or equivalent.

1.4. Workload requirement

It is expected that you will spend approximately 150 hours on this unit (including preparing for and attending classes) and produce approximately 9,000 words or equivalent of work. This time should be made up of reading research, working on exercises and problems and participating in classes. In periods where you need to complete assignments or prepare for examinations, the required workload may be greater.

Teaching Activity / Assessment	Approximate # of Hours Dedicated To It
Face-to-Face Teaching	7 hours x 6 = 42 hours
Pre-lecture Preparation	2 to 3 hours x 6 = 12 to 18 hours
Preparation for Pop Quizzes	3 hours x 3 = 9 hours
Preparation for Individual Task	20 to 25 hours
Preparation for Group Project	30 to 40 hours
Preparation for Presentation	20 hours
Total	Approximately 150 hours

2. Learning aims and outcomes

2.1. Aims of the unit

The aims of this unit are to deepen students' understanding of the economic, social and environmental implications of current (and future) transportation and logistical decisions. More importantly it will ask what can actually be done to move towards a future state that is more sustainable than that which we are currently pursuing. It brings together many different elements from other units in this degree program, including issues of transportation economics, policy, aviation management and logistics management.

2.2. Learning outcomes

The following describes the learning goals that this Unit of Study aims to achieve and details how the achievement of these goals will be assessed. **For further information on each assessment please refer to Section 3.** The design of the unit recognizes that students have different learning approaches; this is reflected in the learning objectives and assessment design.

Specifically the course seeks to develop **personal and intellectual autonomy** through the completion of individualised research assignments; promote **research and inquiry** through both individual and group assignments and by teaching knowledge seeking skills; develop **ethical, social and professional understanding** by working in teams; and cultivate **communication** skills via course emphasis on data presentation and through the completion of the research projects. The specific learning outcomes put forward by this Unit of Study are as follows:

1. Demonstrate a commitment to lifelong learning through continuous reflection on personal and professional experiences, self-evaluation and self-improvement.
2. Demonstrate a capacity to work independently including the ability to plan and achieve goals.
3. Identify, define and analyse problems and recommend creative solutions within real-world constraints.
4. Develop coherent arguments when recommending solutions and critically evaluating theories in major fields of study.
5. Work with people from diverse backgrounds with inclusiveness, open-mindedness and integrity.
6. Confidently and coherently communicate, orally and in writing, to a professional standard in major fields of study.
7. Employ technologies effectively in communicating information relevant to practice in major fields of study.

2.3. Links between learning outcomes and learning and teaching methods

Face-to-face

Lectures are used to set the scene and provide the theoretical development and underpinnings of that week's topic as well as to show how each topic fits into the overall unit of study aims. At the beginning of each lecture any administrative announcements are made (and these are duplicated online as well). Up to 5 minutes will be allocated for Q&A on any aspect of the unit at the beginning/end of the lecture. I will also use various audio-visual materials to support lectures. Opportunities to apply concepts will be provided a number of times during each lecture. You are strongly advised to actively participate.

Occasional guest lecturers will be invited to provide insights into industry practices. These have been popular with students in the past so make sure you are there. Incomplete lecture notes will be placed on Blackboard 3 days prior to the lecture; treat these as an outline to read before the lecture and fill in the gaps during or afterwards.

Staff consultation hours may be utilised for all other queries (or post them online).

Print

Hard copies of important handouts are provided at lectures or downloaded from the unit's Blackboard site and printed yourself.

A hard copy of assessments should be kept, even after submitting them online.

Online

Blackboard (<http://blackboard.econ.usyd.edu.au>) provides the main online learning support. It is essential that you log in at least twice per week to keep abreast of unit-wide announcements and use the resources to supplement your learning.

Outlines/presentation/notes for each lecture will be available prior to the day of lecture for you to download from Blackboard (<http://blackboard.econ.usyd.edu.au>). **You will be expected to print and bring this material to class.** You may use the printer in CR2 to do this rather than have to use your own personal computer. Please note however that due to the limited number of printers available in that room, attempting to print five minutes before class starts may result in you being late for class.

Online discussion forums will be available over the semester to all students on the Blackboard site (<http://blackboard.econ.usyd.edu.au>). This will host the 'topic of the week' to which you are expected to contribute and can also be used to clarify questions relating to the assessments as well as any other general queries that you may have. Please check the FAQ list prior to posting a new question as duplicate questions will simply be ignored or removed. Appropriate online behaviour in such discussions is expected at all times.

Podcasts will be provided a few days after each class. Podcasts are short (2-5 minutes) summaries of key points, tips on assignments, preparing for next time etc.

Results on each assessment (except the final exam) are posted into Grade Centre online when all marks have been finalised. The average for each assessment and a brief summary of common errors and suggested improvement options will be posted online at the same time.

2.4. Links between learning outcomes and assessment

Assessments and their relationship/s with learning and teaching outcomes in this unit include the following.

1. Three Pop Quizzes designed to evaluate the first three learning outcomes.
2. An individual homework designed to evaluate the first four learning outcomes.
3. A group-based task designed to evaluate learning outcomes three through eight.

Specific details are provided in Section 3.

3. Assessment

Assessment items	Relevant unit learning outcome/s	Word length equivalent	Weight	Due Date*
1. Pop Quizzes (3)	1, 2, 3	2,000	20%	25-Mar, 8-Apr, 6-May
2. Individual Homework Task	1, 2, 3, 4	2,500	25%	1-Apr
3. Major Project – Group Task	3, 4, 5, 6, 7, 8	3,500	40%	13-May
4. Project Presentation – Group & Individual Component	5, 6, 7, 8		15%	20-May
Academic honesty module **		N/A	0%	21-Mar
Total		9,000	100%	

* The due date is also the closing date. This means that assessment items will not be accepted after the due date except by prior agreement.

** Students must complete the academic honesty module in Blackboard with a mark above 80%, or an Absent Fail (AF) grade will be given for the entire unit. Students can complete the module multiple times until this grade is achieved. Students who completed the module with a score of 80% or above last semester do not need to do it again.

All written assignments must be submitted electronically via Blackboard with the marking criterion sheet, which will be given to you with the assignment brief. Assignments submitted electronically do not require cover sheets. Ensure that your student ID number (SID) is in the top right hand corner of each page for individual assignments and the Group name or number plus SID of all members is in the top right hand corner for group assignments. **Ensure you include the marking criterion sheet with all submissions.** Full information about how to prepare assignments for electronic submission can be found at

http://blackboard.econ.usyd.edu.au/modules/_1454_1/Turnitin%20Student%20Guide%20%285.2%29%20280610.pdf).

Should submission problems occur, students should contact Faculty eLearning Support first on 90366433 or business.elearning@sydney.edu.au or the Unit Coordinator as soon as possible.

3.1. Detailed assessment information

- 1. Pop Quizzes:** There will be three pop quizzes, **beginning at 9 a.m. on the dates indicated.** Students should come to each class prepared to answer a pop quiz covering any material covered in lectures, required readings and the topic under discussion on the discussion board. They are designed to encourage students to keep up-to-date and come to class prepared.
- 2. The individual homework task** will involve short answer questions to material covered in class to check individual understanding and cognition of concepts. This will require students to employ various methods of enquiry [e.g., literature search, Internet, newspapers] and will involve the preparation of short answers.
- 3. For the group project** you will take on the role of 'green' logistics consultants providing advice to a small/medium-sized transport logistics firm on managing/adapting their operations to reduce their carbon footprint in line with recent federal and state legislation. You will need to measure their existing carbon footprint and then propose and evaluate initiatives to improve the energy efficiency of operations and reduce their carbon footprint. The deliverable for this project is a group-based report comprising a preliminary (Phase 1) phase due on Friday 15th April and the final (Phase 2) due on Friday 13th May. An individual contribution sheet to be submitted through Blackboard by each student with the Phase 2 report, which will indicate the contribution of each team member including themselves. This will be used to moderate marks if it is clear the workload has been shared unequally.
- 4. The group presentation** will involve the preparation and delivery of a PowerPoint presentation to the board of directors on a component of your recommendations. Students will prepare 10-12 slides, which must be handed in and give a 10-15 minute presentation. There will be a group and individual grading component to this assignment.

3.2. Referencing style and style guide

For this unit the referencing style is the Harvard Referencing Style. Students should download and adhere to the 'How to write a paper at the Institute of Transport and Logistics Studies' report available at http://sydney.edu.au/business/its/courses/transport_and_logistics/student_resources.

3.3 Feedback on assessment

Timely feedback is intended to help you to improve your learning during the unit. Students will receive the following feedback during the course of the Semester:

- All marks will be posted into the Blackboard GradeCentre within 3 weeks of submission. Marks will not be given over the phone.
- Assignments will be returned electronically with the marking criterion sheet. The marking criterion sheet will be the primary way in which feedback is communicated on the assignment.
- A summary of class-wide errors and appropriate improvement action for each criterion is provided on Blackboard wherever possible.

- We will go through each piece of assessment in class, once that assessment has been returned. In the case of pop quizzes, we will go through them later in the day on which they were taken.
- If you would like further feedback on the assessment task, you are encouraged to ask during tutorials or consultation hours. This can be done in pairs or groups if you have similar issues to discuss.
- Your peers during discussion or activities timetabled during class and through online discussion board activities.
- Yourself as you compare and reflect on your thought and solutions with the formal feedback given.

3.4. Academic honesty, plagiarism, legitimate cooperation and groupwork

Commencing students should complete the academic honesty module available via Blackboard before their first assessment submission. Students should refer to Faculty and University policies on academic dishonesty and plagiarism

(sydney.edu.au/business/currentstudents/student_information/student_administration_manual), copyright (sydney.edu.au/senate/policies/Intellectual_Property_Rule.pdf) and the 'All your own work website' (sydney.edu.au/student_affairs/plagiarism_index.shtml) for information about legitimate cooperation, group work, how to reference correctly and how to avoid plagiarism.

Academic honesty is important to protect students' right to receive due credit for work submitted for assessment. It is clearly unfair for students to submit work for assessment that dishonestly represents the work of others as their own and gain marks and degrees, which are not based on their own efforts and abilities. Deliberate breaches of academic honesty constitute academic misconduct. These breaches include: plagiarism, fabrication of data, recycling previously submitted material, engaging someone else to complete an assessment on one's behalf and misconduct during supervised assessments.

The penalties for academic misconduct may include: a mark of zero on the assessment; a fail grade in the unit of study, additional assessment (including an unseen exam), and reference of the matter to the University Registrar.

All assessments will be checked for plagiarism. Where plagiarism is suspected, the assessment will be fully checked and monitored using manual process, Google checks and also electronic plagiarism detectors. In order to do this, the Faculty may reproduce the assessment, provide a copy to another member of faculty, and/or communicate a copy of this assignment to a plagiarism checking service (which may then retain a copy of the assignment on its database for the purpose of future plagiarism checking).

Academic dishonesty involves more than just copying material. Cooperation and helping other students may at times trigger academic dishonesty proceedings if it appears you have worked too closely with another student.

In this unit,

1. Assessment tasks 1 and 2 are individual assessments.
2. Assessment tasks 3 and 4 are group assessments.

Individual assignments must be written and prepared alone. You may consult with other students about ideas and possible research sources but the analysis and writing of the assignment must be done alone. Group assignments should be prepared within the group. Students should contribute fully to the group and take part in all group activities, contributing ideas, analysis and writing to the final product. While students within the group should assist each other freely, students should not carry this level of cooperation outside the group. One group may cooperate and help another group about ideas and possible research sources but the analysis and writing of the assignment must be done by the group alone.

4. Texts and other resources

Required text: none required – all reading materials will be made available to you (indirectly) via Blackboard.

Useful Resources (note, each week you will be given specific readings):

There are a number of relevant journals (all of which can be accessed through the library e-journals), the most relevant of which are:

- Transportation Research D, *Transport and Environment*
- Transportation Research E, *Logistics and Transportation*
- Transport Policy

A very useful search engine is TRIS available at: <http://ntlsearch.bts.gov/tris/index.do>

Within Australia, a particularly useful site is the Bureau of Infrastructure, Transportation & Regional Economics (www.bitre.gov.au).

- A particularly useful website for transport/sustainability issues maintained by Todd Litman with lots of links is the Victoria Transport Policy Institute (www.vtpi.org).
- Hensher, D.A. and K.J. Button, 2003, *Handbook of transport and the environment*, Volume 4 of the Handbooks in Transport Series, Elsevier.
Although this is getting dated, the main issues are still with us today.
- Flannery, T., 2005, *The Weather Makers: the history and future impact of climate change*. Griffin Press.
more of a 'good bedtime read' if you want to get a clear, scientific account of the reasons we believe climate change is happening, the impacts and what can potentially be done.

5. University and Faculty policies and support

5.1. Faculty policies

Faculty policies are contained in the Administration Manual for Students:

sydney.edu.au/business/currentstudents/student_information/student_administration_manual.

It is crucial that you take the time to consult this manual early in your studies in order to familiarise yourself with policies and procedures relating to critical issues such as the Faculty's policy on special consideration (including requirements and timelines. e.g. lodging applications five working days after a missed assessment), appeals (lodge within 15 working days of the decision) and other policies such as enrolment, credit etc. Assistance is available from the Faculty's Student Information Office (sydney.edu.au/business/student_information_office).

5.2. University policies

- **University policies:** sydney.edu.au/policy
- **Assistance** is available from the University's Student Centre: sydney.edu.au/current_students/student_administration
- **The code of conduct** is an important policy which outlines the University's expectations about treating all staff employees and students with respect, dignity, impartiality, courtesy and sensitivity and refrain from acts of discrimination, harassment or bullying: sydney.edu.au/ab/policies/Student_code_conduct.pdf

5.3.

Student resources and services

Links to other student services and resources are included on Blackboard and on the learning and teaching section of the Faculty website: sydney.edu.au/business/learning

6. Continual improvement of the Unit

6.1 Past Feedback

Student feedback is highly valued and taken very seriously. Based on the evaluations completed last year, there are some structural changes to the course, which will hopefully improve the learning experience.

6.2 Improvements made

- Student representatives will be elected on Day 1 to liaise regularly with the teaching staff throughout the semester in an effort to improve communications and address any issues promptly that arise.
- The major project is a large, complex piece of work, which many students found daunting in terms of time-management. The project will be broken into two smaller phases with due dates for each to ensure a more consistent workload over the semester rather than students leaving things to the end. In addition the preparation of a separate individual report (which added immensely to the workload and caused confusion) will be scrapped and instead students will complete a peer assessment to gauge levels of contribution within the group.

6.3. How feedback will be collected

Three mechanisms will be provided for feedback and generally improving the student experience:

- Students will have the opportunity to provide (anonymous) feedback through written comments at the end of each day so the lecturer can gauge what changes are needed before the next class.
- Students will complete a short feedback form at the mid-point of the semester so that any issues can be addressed during the current semester.
- A unit of study evaluation will be conducted at the end of the semester during lectures. Feedback will be used to make changes to improve the unit of study for future years.

7. Topic schedule

Day	Date	Topic	Required Reading (See Section 4)	Assessments Due (See Section 3)
1	Friday 11 March	Welcomes, aims & outlines; Sustainability concepts; Environmental externalities & their impacts.	Carbon footprint calculator	
2	Friday 25 March	Sustainable passenger transport; policy options – technological, voluntary/behavioural, regulatory, market-based; green travel plans.	Read through course notes and assigned materials, participate in discussion board topic of the week	Pop Quiz 1
3	Friday 1 April	Sustainable road freight transport; policy options - technological, behavioural, regulatory, market- based, modal shift, supply-side initiatives		Assignment 2
4	Friday 8 April	Sustainable business practices; waste management and recycling.		Pop Quiz 2 Phase I of Group Project [by 17:00 on 15-April]
5	Friday 6 May	Aviation and marine, the great forgotten in the sustainability debate?		Pop Quiz 3 Phase 2 of Group Project [by 17:00 on 13-May]
6	Friday 20 May	Group presentations; Contemporary issues;		Group Presentations
7	Friday 3 June	Course wrap-up and review.		

*All assessments will be returned within 21 days of the due submission date.