



## Course Learning Objectives

<b>Course Objectives:</b> by the end of this course students should be able to	
<b>C1</b>	Comprehend the ideas and methodology of industrial organization
<b>C2</b>	Analyze models of product differentiation and product choice
<b>C3</b>	Understand the theory of strategic investments
<b>C4</b>	Get insight into the topics of collusion and price wars
<b>C5</b>	Explain the consequences of network externalities and switching costs
<b>C6</b>	Analyze models of competition with imperfect information
<b>C7</b>	Discuss the effect of innovation on entry, competition and government policies
<b>C8</b>	Identify the reasons for price discrimination and bundling
<b>C9</b>	Understand the implications of time consistency for market power
<b>C10</b>	Solve basic auction models

## Course Content

**Lecture 1: Introduction.** Quantity games and price games; homogeneous and heterogeneous products; the role of commitment; strategic complements versus strategic substitutes.

**Lecture 2: Differentiation.** Horizontal differentiation; linear city models; preference-for-variety models; vertical differentiation; welfare implications.

**Lecture 3: Product Choice.** Location choice with regulated prices; models with unregulated prices: linear and quadratic transportation costs; circular city models.

**Lecture 4: Strategic Investment.** Taxonomy of business practices; deterrence of entry; accommodation of entry; application: the Dixit – Spence model of entry deterrence.

**Lecture 5: Collusion and Price Wars.** Facilitating practices; collusion and dynamic competition; price wars, collusion with uncertain demand

**Lecture 6: Network externalities and switching costs.** Network externalities and compatibility; switching costs and clienteles; Varian’s model of sales

**Lecture 7: Competition with Imperfect Information.** Accommodation and tacit collusion; limit pricing and the entry model of Milgrom and Roberts; characterization of the separating and the pooling equilibria.

**Lecture 8: Innovation.** The value of innovation; patent races; innovation and entry; optimal patent policies.

**Lecture 9: Price discrimination and Bundling.** Two part tariffs; second degree price discrimination; commodity bundling: mixed bundling and the leverage theory.

**Lecture 10: Dynamic Consistency and Market Power.** Durable goods monopolies; perfect rational expectation equilibria; habit formation

**Lecture 11: Auctions.** First price sealed bid auctions; second price auctions; the revenue equivalence theorem; optimal auctions; the winner’s curse.

**Lecture 12: Review.**

## **Readings**

The main text is: Jean Tirole, *The Theory of Industrial Organization*, MIT Press, 1988

## **Materials and Equipment**

Detailed lecture notes will be posted on blackboard. The students are allowed to use electronic calculators in tests.

## **Assessment**

The Assessment Handbook will apply to all VUW courses: see

<http://www.victoria.ac.nz/documents/policy/staff-policy/assessment-handbook.pdf>.

The final grade in this course will be calculated using the results of two assignments and a final examination.

Assignment 1: Due at end of week 6.	Weight: 20%
Assignment 2: Due at end of week 12.	Weight: 20%
Final exam: Three hours, date to be advised.	Weight: 60%

## **Penalties**

Late assignments will not be marked.

## **Examinations**

Students who enrol in courses with examinations are obliged to attend an examination at the University at any time during the formal examination period. The final examination for this course will be scheduled at some time during the following period:

Friday 12<sup>th</sup> June – Wednesday 1st July (inclusive)

## **Mandatory Course Requirements**

In addition to obtaining an overall course mark of 50 or better, students must submit at least one assignment and take the final exam.

If you cannot complete an assignment or sit a test or examination, refer to

[www.victoria.ac.nz/home/study/exams-and-assessments/aegrotat](http://www.victoria.ac.nz/home/study/exams-and-assessments/aegrotat)

## **Class Representative**

A class representative will be elected in the first class, and that person's name and contact details made available to VUWSA, the course coordinator and the class. The class representative provides a communication channel to liaise with the course coordinator on behalf of students.

## **Communication of Additional Information**

Additional information will be posted on Blackboard.

## **Student feedback**

Student feedback on University courses may be found at

[www.cad.vuw.ac.nz/feedback/feedback\\_display.php](http://www.cad.vuw.ac.nz/feedback/feedback_display.php)

## **Link to general information**

For general information about course-related matters, go to

<http://www.victoria.ac.nz/vbs/studenthelp/general-course-information>

**Note to Students**

Your assessed work may also be used for quality assurance purposes, such as to assess the level of achievement of learning objectives as required for accreditation and academic audit. The findings may be used to inform changes aimed at improving the quality of VBS programmes. All material used for such processes will be treated as confidential, and the outcome will not affect your grade for the course.

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