

## 國立臺灣大學新開課程開授申請表(社科院新開授課程審查用)

## New Course Application Form

## 一、課程大綱 Syllabus

課程名稱 Course Title	(中文 Chinese) 市場操縱力和壟斷法規 (英文 English) Market power, randomization and regulation						<input type="checkbox"/> 中文授課 <input checked="" type="checkbox"/> 英文授課 Chinese conducted/ English conducted
授課教師 Instructor	Simon Loertscher 羅珮瑜	任職單位 Department	經濟系 Economics	專兼任 Full time/ Adjunct	<input checked="" type="checkbox"/> 專任 <input type="checkbox"/> 兼任	職級	<input checked="" type="checkbox"/> 教授 <input checked="" type="checkbox"/> 副教授 <input type="checkbox"/> 助理教授 <input type="checkbox"/> 講師 Professor/ Associate Professor/ Assistant Professor /Instructor
開課系所 Department	經濟系 Economics	課號 Curriculum Number	Assigned by Dept. office	學分數 Credits	3	修課人數上限 Student numbers	40
每週時數 Hours	<input checked="" type="checkbox"/> 演講_____小時 <input type="checkbox"/> 實驗_____小時						
課程性質 Designated for	<input checked="" type="checkbox"/> 博士班課程 (D 字頭) for PhD <input checked="" type="checkbox"/> 碩士班課程 (M 字頭) for MA <input type="checkbox"/> 高年級課程 (U 字頭) for under,MA,PhD <input type="checkbox"/> 學士班課程 for undergraduate			加選方式 Selection method	<input type="checkbox"/> 1. 不限人數。 Add Online no limit for student numbers <input type="checkbox"/> <input checked="" type="checkbox"/> 2. 發給授權碼 Add with Code <input type="checkbox"/> 3. 人數限制___人 Add Online with limit for student numbers of _____		
課程大綱內容 (含課程概述、 教學目標、每週 進度及教學內 容簡述) Course outlines	1. 課程概述 <b>Course Description</b> Monopoly and monopsony pricing problems are of long-standing interest in economics. With the emergence of large online platforms in the digital age, they have received renewed salience and attention. This course provides an overview of recent theoretical advances based on incomplete information models. These shed new light on a broad array of issues, ranging from the optimality of rationing and involuntary						

unemployment to resale, opaque pricing by multi-product monopolies, market definition in antitrust and merger effects to optimal regulation in the tradition of Ramsey.

The incomplete information approach not only provides a coherent explanation for otherwise puzzling phenomena. For example, why does the seller of concert tickets underprice these, thereby inviting resale, rather than set a market-clearing price? Why do multi-product sellers offer opaque products, leaving buyers in the dark as to what they purchased until after the fact? It also implies that, because of incentive compatibility, perfect price discrimination is not possible, and it permits clear-cut predictions of the form price discrimination takes, with and without resale. By assuming that the firm always chooses the optimal mechanism, the approach is immune to the criticism that its predictions hinge on ad-hoc restrictions. A tradeoff between social surplus and profit derives from the primitives.

## 二、教學目標 **Course Objective**

This minicourse aims to introduce students to recent advances in theory about monopoly pricing.

## 三、每週進度及教學內容簡述 **Course outline (Course Schedule of 18 weeks)**

### **Lecture 1: Introduction to Market Structure and Anti-trust Issues**

(Melody Lo) (June 9)

### **Lecture 2: Optimality of Rationing and Involuntary Unemployment**

(Simon Loertscher) (June 10)

Loertscher and Muir (2022)

We start by studying the optimal pricing problem of a monopoly that faces a continuum of buyers with single-unit demand who are privately informed about their values, which is based on Loertscher and Muir (2022, forth.). It shows that selling a fixed quantity at the market-clearing price is optimal if and only if the revenue function at the market-clearing price is concave. Otherwise, the firm optimally uses two prices, inducing excess demand and rationing at the low price. Introducing a tractable model of resale, it then analyzes the effects of resale that emerges when there is rationing. With vertically differentiated goods, the optimal selling mechanism with non-concave revenue involves conflating different goods into opaquely priced categories. Applied to a procurement setting in which a monopsony hires workers who are privately informed about their costs, this means that the procurement-cost minimizing scheme to hire a given number of workers involves involuntary unemployment and an efficiency wage if the procurement-cost function at the market-clearing wage is not convex.

### **Lecture 3: Optimality of Product Opacity**

(Simon Loertscher). (June 13)

Loertscher and Muir (2024b)

The second part then studies a multi-product monopoly pricing problem in which the firm has horizontally differentiated products on the Hotelling line for sale, assuming that consumers are uniformly distributed, have linear transportation costs, single-unit demand and private information about their locations. From a formal perspective, the analysis, based on Loertscher and Muir (2024b), performs mechanism design using the toolkit of undergraduate IO. If the placements of the firm's products are exogenously given, then market-clearing pricing is

	<p>optimal if and only if the firm prices in the same way as two independent sellers. If the firm optimally places the products, focusing on market-clearing pricing is never without loss of generality. The optimal selling mechanism involves an opaque product that gives consumers a fifty-fifty chance of obtaining the left or the right good.</p> <p><b>Lecture 4: Optimality of Inefficient Job Matching and Implication of Resale</b> (Simon Loertscher) (June 16) Loertscher and Muir (2024a)</p> <p>Applying the reasoning from Lecture 3 to a labor market setting, we show that the procurement- cost minimizing recruitment scheme for an employer with horizontally differentiated jobs involves deliberate inefficient mismatching of workers to jobs; see Loertscher and Muir (2024a). Resale mitigates but typically does not eliminate the benefits of opaqueness. The analysis has implications for market definition in antitrust economics and shows that mergers that by traditional tools would be considered neutral can be profitable and increase social surplus while reducing consumer surplus. A Ramsey regulator who aims to maximize a convex combination of the firm's profit and social surplus can achieve its objective with appropriately chosen price ceilings, whether or not the firm is free to choose the placement of its products.</p> <p><b>Lecture 5: Ramsey Regulation</b> (Simon Loertscher) (June 18) Loertscher and Muir (2024c)</p> <p>Here we revisit the homogeneous good model of the first part and analyze Ramsey regulation for that setting. We introduce the notion of perfect regulation—a set of regulatory instruments is sufficient if, using these instruments, the Ramsey regulator does as well as it would if it operated the firm itself. We show that, in general, price ceilings are not sufficient for perfect regulation because, on the margin, the firm may engage in excessive production. Price ceilings, price floors and average price ceilings are, in general, sufficient for perfect regulation. Comparative statics of the effects of price ceilings and minimum wages, based on Loertscher and Muir (2024a), are also discussed.</p> <p><b>Student Presentation.</b> (June 25) (Melody Lo)</p>
<p>指定閱讀及 延伸閱讀 Required readings and extension readings (Textbooks &amp; Reference)</p>	<p><b>Reference</b></p> <ol style="list-style-type: none"> <li>1. Loertscher, S. and E. V. Muir (2022): “Monopoly pricing, optimal randomization and resale,” <i>Journal of Political Economy</i>, 130, 566–635.</li> <li>2. ——— (2024a): “Optimal labor procurement under minimum wages and monopsony power,” Working Paper.</li> <li>3. ——— (2024b): “Optimal opaqueness: Multi-product monopoly pricing without contractual restrictions,” Working paper.</li> <li>4. ——— (2024c): “Ramsey pricing revisited,” Working Paper. ——— (forth.): “Market power, randomization and regulation,” <i>International Journal of Industrial Organization</i>.</li> </ol>
<p>成績評量方式 與標準</p>	<p>• Student Presentations and Term paper (100%) Student should present introduction to a related paper.</p>

(請說明各項 評量項目內容 設計、比例及標 準) <b>Grading</b>	
本課程對學生 課後學習之要 求 <b>Requirements for students after the class:</b>	

**一、 授課教師申請開授課程之相關著作或近五年所發表之學術性著作目錄**

**(任教未滿 2 年之專(兼)任教師才須填寫此項目)**

**Working papers, published papers in 1~5 years**

**(Optional for faculty who are in NTU more than 2 years)**