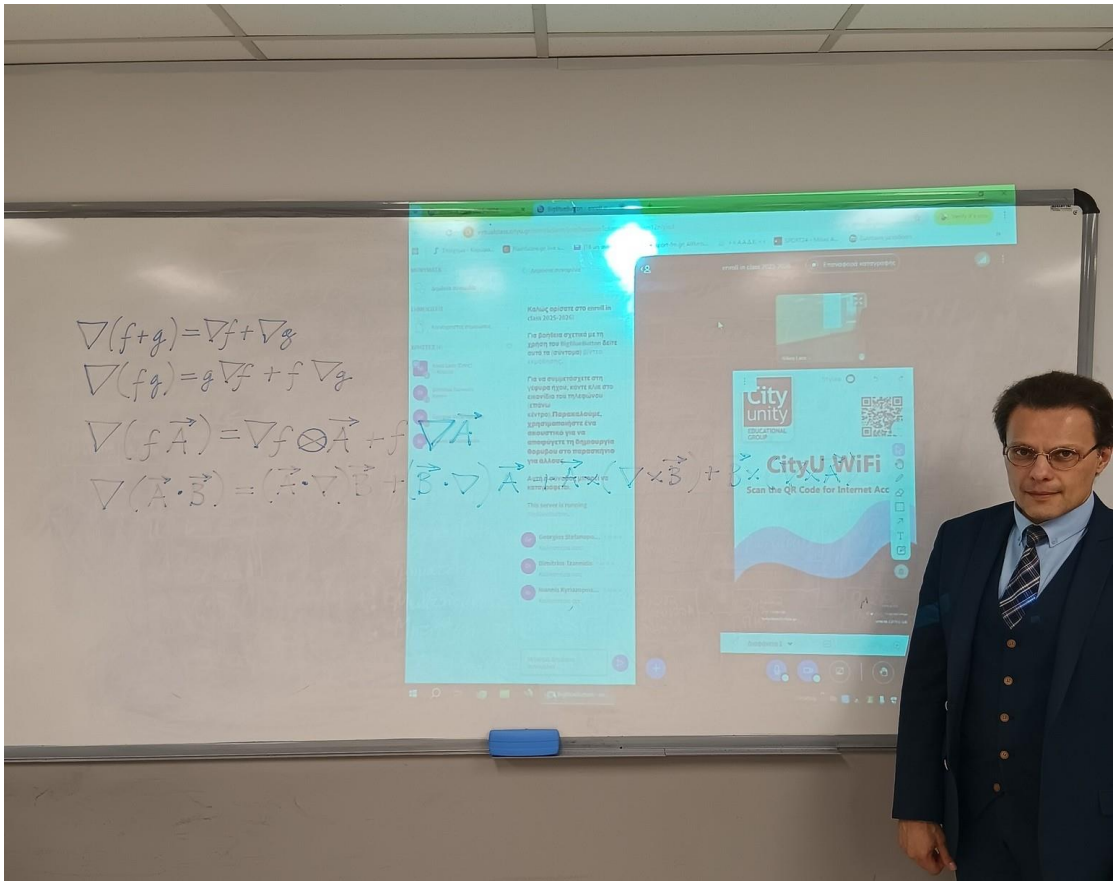

In 2025, I was appointed by the London Metropolitan University to teach undergraduate and postgraduate courses offered by the London Metropolitan University's Guildhall School of Business and Law in Athens, Greece, utilizing my training and expertise in systems science, mathematical modeling, and interdisciplinary mathematics. In this capacity, I developed a series of lectures that cover the following topics:

1. Classical Management Theories (Late 19th–Early 20th Century)
Focus: Efficiency, structure, and control in organizations.

a. Scientific Management – Frederick W. Taylor

- Emphasizes time-and-motion studies, standardization, and optimizing job performance.
- Views management's role as planning work, with employees executing tasks.
- Aimed to increase productivity through scientific analysis.

b. Administrative (or Classical) Theory – Henri Fayol

- Focused on the whole organization, not just the shop floor.
- Introduced the 14 principles of management (unity of command, division of work, etc.).
- Proposed the classic management functions: planning, organizing, commanding, coordinating, controlling.

c. Bureaucratic Management – Max Weber

- Based on formal rules, hierarchy, and impersonal relationships.
- Emphasized rational-legal authority (as opposed to charismatic authority) and standardized procedures.

2. Behavioral Science Approach

- Uses insights from psychology, sociology, and anthropology to understand behavior.
- Key contributors: **Maslow** (Hierarchy of Needs), **Herzberg** (Two-Factor Theory), **McGregor** (Theory X & Theory Y).

3. Quantitative / Management Science School (1940s–1960s)

Focus: **Mathematical models, statistics, optimization**.

- Emerged from operations research during WWII.
- Tools: linear programming, queuing theory, forecasting, simulation.
- Applied in logistics, production scheduling, decision-making under uncertainty.

4. Systems Theory (1950s–1970s)

Focus: Organizations as **interrelated subsystems** within an environment.

- Organization = system of **inputs → processes → outputs → feedback**.
- Key idea: **interdependence**—change in one part affects the whole.
- Encouraged holistic thinking rather than isolated decisions.

5. Strategic Management

- Emphasizes long-term planning, competitive advantage, market positioning.
- Understanding the difference between grand strategy, strategic planning, operational planning, and tactical planning within a scientifically rigorous context.

Key Mathematical Theories Used in Management & Strategy

1. Optimization Theory

Used to allocate limited resources for maximum efficiency or profit.

Includes: Linear programming (e.g., production scheduling, logistics), **Integer programming** (e.g., selecting projects under constraints), **Nonlinear optimization** (pricing, portfolio optimization), **Dynamic programming** (staged decisions, inventory control). **Applications:** supply chain design, capacity planning, workforce scheduling.

2. Game Theory

Analyzes strategic interaction between competitors.

Includes: Nash equilibrium, Zero-sum and non-zero-sum games, Repeated games, evolutionary game theory, Signaling and screening models. **Applications:** competitive strategy, pricing wars, negotiations, market entry strategies.

3. Decision Theory & Behavioral Decision Theory
Frameworks for rational and behavioral decision-making under uncertainty.
Includes: Expected utility theory, Bayesian decision theory, Prospect theory (behavioral biases), Multi-criteria decision-making (AHP, TOPSIS). **Applications:** risk assessment, strategic choices, evaluating alternatives.

4. Probability Theory & Stochastic Processes
Models uncertainty in operations and markets.
Includes: Markov chains, Markov decision processes (MDPs), Poisson processes, Random walks, Stochastic calculus (in finance). **Applications:** customer behavior modeling, demand forecasting, queueing, pricing.

5. Statistical Inference & Econometrics
Extracting insights from data to guide managerial decisions.
Includes: Regression analysis, Time-series analysis, Causal inference (DID, IV, RCTs), Forecasting models (ARIMA, exponential smoothing). **Applications:** KPI analysis, sales forecasting, marketing ROI, policy evaluation.

6. Operations Research (OR)
An umbrella field combining optimization, probability, and modeling for organizational decisions.
Includes: Queueing theory, Inventory theory, Network theory, Simulation (Monte Carlo). **Applications:** supply chain, operations planning, logistics, resource allocation.

7. Control Theory & Systems Theory
Managing dynamical systems over time.
Includes: Feedback loops (positive/negative), Stability analysis, Differential equations. **Applications:** managerial control systems, strategy execution monitoring, organizational cybernetics (e.g., Beer's Viable System Model).

8. Mathematical Information Theory
Understanding value and transmission of information.
Includes: Shannon entropy, Coding theory, Value of information frameworks. **Applications:** communication strategy, market signals, managing uncertainty.

9. Network Theory
Analyzing connected systems—useful for organizations, markets, and social networks.
Includes: Graph theory, Centrality measures, Complex network modeling. **Applications:** organizational structure, innovation networks, supply network resilience, influence mapping.

10. Complexity Theory & Nonlinear Dynamics
Understanding emergent behavior in organizations and markets.
Includes: Agent-based modeling, Chaos theory, Adaptive systems. **Applications:** competitive dynamics, innovation ecosystems, strategic agility.

LONDON METROPOLITAN UNIVERSITY

To the best of my knowledge and belief this is a true photocopy of a genuine document issued by an educational establishment recognised by the Department for Education in the United Kingdom.
Sofia Mamali
British Council Greece
on behalf of the British Embassy
24 SEP 2025

Dr Konstantinos Pitsakis
Tower Building
166–220 Holloway Road
London, N7 8DB

9th September 2025

To Whom it May Concern:

London Metropolitan University confirms that Nicolas Laos has been approved as City Unity College (CUC) faculty member to teach on the Guildhall School of Business and Law (GSBL) validated and franchised undergraduate and postgraduate business courses. These higher education programmes are awarded by London Metropolitan University and are delivered by City Unity College, 15-17 Thiseos St., Syntagma, Athens, 10562, Greece.

To gain approval, Nicolas Laos has achieved the required formal and substantial academic qualifications for teaching on education programmes in the same subjects and at the same level as in the United Kingdom.

Yours faithfully,
Dr Konstantinos Pitsakis

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