

Digital Economics

数字经济

INSTRUCTOR	COURSE FORMAT	CREDITS / HOURS
Si Zuo · sz549@sjtu.edu.cn	MIB specialized advanced course English · In-person	2 credits · 32 hours

COURSE OVERVIEW

Digital Economics focuses on digital platforms as a central organizational form in the modern economy. It introduces platform strategy, network effects, multi-sided markets, platform pricing, governance, open versus closed ecosystems, data network effects, and the implications of artificial intelligence. Lectures, cases, and research-paper guidance help students analyze how platforms launch, grow, compete, govern participation, and create and capture value. No software engineering background is required.

LEARNING OBJECTIVES

- Explain direct and indirect network effects, multi-homing, critical mass, and winner-take-all dynamics.
- Evaluate platform launch, pricing, monetization, and marketplace-versus-reseller choices.
- Analyze platform rules, trust systems, ecosystem openness, competition, and governance.
- Assess whether data and algorithms create durable competitive advantage.
- Apply economic and strategic frameworks to digital platforms and AI-enabled business models.

COURSE STRUCTURE

The course combines lectures, case discussion, group work, and guided project development. The sequence below represents 11 modules across 32 teaching hours; exact dates, classroom information, and case assignments will be announced before the semester.

MODULE	FOCUS	HRS
01. Introduction to Digital Economics 课程导论与数字经济概览	Digital platforms as economic infrastructure; course framework and case method.	3
02. Network Effects and Multi-homing 网络效应、多归属与赢家通吃	Direct and indirect network effects, critical mass, multi-homing, and market tipping.	3
03. Platform Launch and Early Growth 平台启动与早期增长	Cold start, subsidies, user acquisition, complementor entry, and positive feedback.	3
04. Platform Pricing and Business Models 平台定价与商业模式	Cross-subsidization, free strategies, subscriptions, advertising, commissions, and monetization.	3
05. Platform Design and Governance 多边平台设计与治理	Access rules, quality control, trust, reputation systems, and participant incentives.	3
06. Marketplace versus Reseller 市场型平台与转售型平台	Platform boundaries, inventory risk, control rights, commissions, and value capture.	3

MODULE	FOCUS	HRS
07. From Product to Platform 从产品到平台	Complementor ecosystems, APIs, modularity, platform extension, and business-model redesign.	3
08. Openness, Closure, and Competition 开放、封闭与平台竞争	Ecosystem control, data access, self-preferencing, antitrust, and platform competition.	3
09. Data Network Effects 数据网络效应与数字竞争优势	Data scale, algorithmic improvement, feedback, privacy, governance, and competitive barriers.	3
10. Artificial Intelligence and Platforms 人工智能与数字平台	Generative AI, AI value chains, platform ecosystems, algorithmic decisions, and complementarities.	3
11. Final Paper and Course Wrap-up 课程论文展示与总结	Student presentations, research feedback, and synthesis of platform strategy in the AI era.	2

ASSESSMENT

COMPONENT	WEIGHT
Class participation and case discussion	20%
Assignments and case analysis	20%
Course paper presentation	20%
Final course paper	40%

The final paper analyzes a digital platform or a firm working with a platform, focusing on value creation, value capture, governance, competitive advantage, scalability, and long-run sustainability. Students may use generative AI for information organization or language polishing, but must disclose its use and remain fully responsible for the analysis and academic integrity of the submission.

COURSE RESOURCES

- Parker, Geoffrey, Marshall Van Alstyne, and Sangeet Paul Choudary. Platform Revolution. W.W. Norton, 2016.
- Belleflamme, Paul, and Martin Peitz. The Economics of Platforms: Concepts and Strategy. Cambridge University Press, 2021.

ACADEMIC INTEGRITY

Students are expected to cite all sources, disclose material use of generative AI tools, and submit original analysis consistent with Shanghai Jiao Tong University's academic integrity requirements.