

< 本系博士班修業規章相關規定供參 >
< **The Ph.D. Program Regulations** >

114. 05. 21

1. 本系博士班研究領域包括（但不限於）「組織理論/行為」、「策略管理」、「行銷管理」、「財務金融」、「營運管理」、「人力資源管理」、「資訊管理」、「科技管理」以及「決策科學」等九組，並鼓勵跨領域之研究。

The research fields for the program include (but are not limited to) ‘Organization Theories and Organizational Behavior’, ‘Marketing Management’, ‘Strategic Management’, ‘Financial Management’, ‘Operations Management’, ‘Human Resource Management’, ‘Information Management’, ‘Technology Management’, and ‘Decision Science’. Interdisciplinary research is strongly encouraged.

2. 博士生先修課程包括「經濟學」、「會計學」、「統計學」及「管理學」等四科。方法類選修課程須任選三科；專業選修課程則由本修業規章第5點所列九組領域中任選其中六領域各一門課程；主修領域相關課程則須選修至少三門。以上皆須於申請博士學位考試前修畢且及格。先修或選修課程若曾於入學前修習通過，可申請免修，但不得抵免。

Students are required to complete two semesters of the ‘Seminar on Thesis’ course. The prerequisites include ‘Economics’, ‘Accounting’, ‘Statistics’, and ‘Introduction to Management’. Students are required to complete three fundamental courses on research methodology. Students are required to complete six elective courses for the nine specified fields mentioned above (one course for one field), and at least three concentration courses related to her/his major research field. These courses include those offered by the institute as well as those offered by the IMBA program of the College of Management. Students who have completed prerequisites or electives prior to enrolment may apply for waiver.

國立陽明交通大學管理科學系博士班一般管理組課程體系表

(108學年度(含)前入學適用)

一、先修課程：經濟學、會計學、統計學、管理學

二、研討類課程：論文研討（博士班）、個別研究

三、專業課程：

領域	基礎課程	進階課程
策略管理	策略管理、(GMBA)策略管理、管理經濟	科技管理、知識管理、智財權管理、產業經濟學、創新管理、研發管理、國際企業、新儒學經營管理、管理個案分析、法律的經濟分析、變革管理、財經法律、商務談判、策略管理論文選讀、創業與興業家精神、智慧財產權法、產業分析與策略規劃、策略行銷、宏觀策略管理、綠色產品開發與設計、策略創新與系統動能：理論與方法、創新與技術移轉、(合開)平衡計分卡與管理實務、產業競爭分析與策略、(GMBA)全球企業管理與策略、(GMBA)企業成長與併購、智慧財產權管理、國際企業管理、知識經濟時代的策略思維、領導與策略專題、國際企業論文研討
組織理論/行為	組織理論、組織行為	領導與統御、組織設計、組織變革、企業倫理、日本式經營管理、組織行為專題研討、勞資關係、職業生涯規劃、管理個案分析、習慣領域與決策、變革管理、願景策略與領導專題、領導與創業創新專題、願景領導與企業創新、組織行為專題：職場健康與安全、組織行為研討、(合開)組織設計與管理、企業調查與研究方法、領導與職場健康、組織研究方法研討
人力資源管理	人力資源管理	人力資源專題研討、人力訓練與發展、招募與甄選、薪籌管理、勞資關係、人員甄選專題、(合開)績效評估(博士班)
行銷管理	行銷管理	行銷理論、行銷研究、高階行銷研究、消費者行為、行銷工程、網路行銷、品牌競爭策略、行銷策略、價格理論、物流與運籌管理、整合行銷傳播、廣告學、市調方法、環球行銷、服務業管理、系統晶片(SOC)行銷管理、零售

		學、國際行銷學、行銷分析、國際企業、策略行銷、消費者行為專題、行銷與競爭策略、創新與行銷、休閒產業行銷、行銷研究專題、商業技巧與科技企業經營典範、行銷管理專題、消費者決策科學、顧客關係管理、行銷管理實務、數位行銷、整合行銷溝通、(合開)行銷研究專題研討、科技行銷、行銷專題、行銷策略規劃與分析、消費者行為:理論與實務、顧客關係管理與服務行銷、善因行銷、永續消費與全球永續發展、行為實驗設計、行銷理論、區塊鏈策略與數位治理、企業社會責任與行銷
財務金融	財務管理	財務理論、財務報表分析、高等財務管理、財務計量、財務工程、金融市場、銀行經營與管理、投資銀行、投資學、期貨與選擇權、證券市場管理與實務、投資計劃評估、資本投資決策分析、高等財務計量、財務策略與管理、成本會計、財務經濟專題研討、投資組合分析與管理、企業價值分析、投資分析、財務規劃與分析、管理會計、公司理財專題研討、中國經濟研究、衍生性商品理論、財務工程與金融計算、財務經濟學、財務實證分析、中級會計學(一)、中級會計學(二)、(合開)投資計劃評估、(合開)科技金融產業創新與轉型策略、(GMBA)財務會計、(GMBA)企業會計、(GMBA合開)營收管理、計量經濟學(博士班)、(GMBA)企業成長與併購、(GMBA)財務管理、(GMBA)財務計量經濟學、(GMBA)公司財務會計研究、信用風險與應用、私募股權分析與金融投資實務、財務會計與信用風險論文研討(一)、財務會計與信用風險論文研討(二)、企業分析與評價、企業合併與收購
資訊管理	資訊管理	電子商務、網路行銷、決策輔助系統、專家系統、類神經網路與資訊管理、電子商務系統、再生能源智慧型管理系統、商用資料通訊、巨量資料分析、(GMBA合開)資訊安全、(GMBA)管理資訊系統分析與設計、(GMBA)資訊管理、Python程式設計與基礎資料結構、人工智慧、商業數據分析、深度學習、AI實務
營運管理	營運管理	供應鏈管理、全面品質管理、專案管

		理、服務業管理、動態規劃、計量供應鏈群、物流供應鏈管理、(GMBA 合開)半導體製造管理、作業研究、生產與作業管理、(GMBA)全球供應鏈管理、ESG 經營管理實務專題
科技管理	科技管理	創新管理、國際管理專題、經營管理、創新技術研發管理、智慧財產評價、全球科技競爭與管理議題、電子商務、e化企業之經營管理、電子商務系統、科技策略與創新、高科技產業管理、新產品開發與設計、孫子兵法與競爭優勢、科技政策與經濟分析、願景領導與創業創新、(合開)生技醫藥產業創新與創業、新興科技創新管理、(合開)智慧財產權管理、(合開)創新管理與智慧財產策略、(合開)網路策略:方法與應用、科技產業分析、(合開)科技金融產業創新與轉型策略、(GMBA)全球智慧財產權管理與企業法律、(GMBA)興業家精神與全球企業競賽、(GMBA 合開)創意與創新管理、(GMBA 合開)專利與創新管理、(GMBA 合開)科技管理文獻評析、創業管理:新創事業開發、(GMBA)新創事業規劃、(GMBA)全球科技策略、(GMBA)創業與新產品開發、創新與技術移轉、(GMBA)全球企業管理與策略、知識經濟時代的策略思維、科技創新創業管理、智能產業與科技創新、科技管理與科技政策議題、創新研發管理與創業實務、創業與籌資
決策科學	決策科學	決策原理、作業管理、全面品質管理、專案管理、服務業管理、環境經濟學與管理、線性結構模式、賽局論、績效評估、多變量分析(專題)、管理個案研究、管理決策分析、系統專題、國際企業的經營與策略、模糊理論與決策分析、多目標分析、投資組合理論、多評準決策分析、階層線性模型、排程理論與應用、組合優選論、全球運籌、多目標決策分析與問題解析、決策理論、(合開)網路策略:方法與應用、(合開)組織設計與管理、(合開)全球企業管理、線性規劃、物流作業規劃模式、供應鏈管理

方法類	<p>研究方法、計量經濟學、作業研究、統計方法與資料分析、多變量分析、數量方法、數理統計、管理數學、實驗設計、類神經網路、預測及時間序列、迴歸模式及 SAS 應用、線性結構模型分析專題、線性結構模式、系統方法導論、最適化理論、數值偏微分方程、隨機過程、研究方法：賽局理論與個案分析、財務數值方法、資訊經濟、技術評估與預測、財務計量經濟學、高等教育統計研究、企業調查與研究方法、財務數學、質性研究法導論、行銷研究專題（一）、模糊集合及其應用、多評準決策之理論與應用、研究方法之問題解析、資料探勘研究與實務、應用計量經濟學、研究方法與決策分析、高等演算法、統計套裝軟體專題、階層線性模型、高等統計方法、多目標決策分析與問題解析、多目標決策之產業最佳實踐、多評準決策分析、統計研究方法、(GMBA 合開)隨機過程、成長模型、(GMBA)排隊理論與應用、行銷研究專題、統計應用方法、Advanced Business Research Methods、社會科學研究方法、實驗設計、商業智慧分析、機器學習商業應用、人工智慧、資料科學、高等作業研究、萬用啟發式演算法、傳播研究方法:量化取向、最佳化導論、信用風險實證分析(一)、信用風險實證分析(二)、財金研究方法與論文寫作(一)、元啟發式演算法</p>
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【備註】若欲修課程未列入上述領域所列課程，請於修課前另填申請表由本系相關領域老師及博委會認定之。

Curriculum table
(Applies to students enrolled before 2020)

1. prerequisites : Economics 、 Accounting 、 Statistics 、 Introduction to Management
 2. seminars : Seminar on Thesis 、 independent study
 3. elective courses :

fields	fundamental courses	advance courses
Strategic Management	Strategic Management (GMBA) Strategic Management, Managerial Economics	Technology Management 、 Knowledge Management 、 Intellectual Property Law and Management 、 Industrial Economics 、 Innovation Management 、 R&D Management 、 International Business 、 Neo-Confucian Business and Management 、 Analysis of Management Cases 、 Economic Analysis of Law 、 Change Management 、 Financial and Economic Laws 、 Business Negotiation 、 Strategic Management thesis readings 、 Entrepreneurs and Entrepreneurship 、 Intellectual Property Laws 、 Industry Analysis and strategy Planning 、 Strategic Marketing 、 Macro-Strategic Management, Innovation and Technology Transfer , Balanced Scorecard and Management Practice , Industry Competition Analysis and Strategy , (GMBA) Global Business Management and Strategy , (GMBA) Enterprise growth and M&A , Intellectual Property Management, International Business Management, Strategic Thinking in the Era of Knowledge Economy 、 Seminar on Leadership and Strategy 、 Research Seminar on International Business
Organization Theories and Organizational Behavior	Organization Theory 、 Organizational Behavior	Leadership 、 Organizational Design 、 Organizational Change 、 Business Ethics 、 Japanese Business and Management 、 Seminar on Organizational Behavior 、 Industrial Relations 、 Career Development 、 Analysis of Management Cases 、 Habitual Domains Decision Making 、 Change Management , Seminar on Organizational Behavior , Organization

		Design and Management, Business Survey and Research Method、Leadership and Occupational Health、Seminar on Organizational Research Methods
Human Resource Management	Human Resource Management	Human Resources Seminar、Employee Training and Development、Personnel Recruitment and Selection、Salary Raise Management、Industrial Relations、Special Topics in Personnel Selection、Performance Assessment (PHD)
Marketing Management	Marketing Theory	Marketing Theory、Marketing Research、High-Level Marketing Research、Consumer Behavior、Marketing Engineering、Internet Marketing、Branding Competition、Marketing Strategy、Price Theory、New Venture Capital Investment、Integrated Marketing Communication、Introduction to Advertising、Market Survey Methods、Global Marketing、Services Management、SOC Marketing Management、Retailing、International Marketing、Marketing Analysis、International Business、Strategic Marketing、Special topics on Consumer Behavior、Marketing and Competitive Strategy、Innovation and Marketing、Leisure Industry Marketing、Special Topics in Marketing Research、Business Skills and Technology Business Model、Integrated marketing communication, Marketing Research Seminar Technology Marketing, Marketing Research, Marketing strategy planning and analysis, Consumer Behavior: Theory and Practice., Consumer Relationship Management and Service Marketing, Cause-Related Marketing, Sustainable Consumption And Global Sustainable Development、Experimental Design in Behavioral Studies、Marketing Theory、Corporate Social Responsibility and Marketing

Financial Management	Financial Management	<p>Financial Theory 、 Financial Statement Analysis 、 Advanced Financial Management 、 Financial Econometrics 、 Financial Engineering 、 Financial Markets 、 Banking Management 、 Investment Banking 、 Investments 、 Futures and Options 、 Securities market management and practice 、 Project Evaluation 、 Decision analysis for Capital Investment 、 Advances in Financial Econometrics 、 Financial Strategies and Management 、 Cost Accounting 、 Special Topics in Financial Economics 、 Portfolio Analysis and Management 、 Business Valuation 、 Investment Analysis 、 Financial Planning and Analysis 、 Managerial Accounting 、 Corporate Finance Seminar 、 China Economy Studies 、 Theory of Derivatives, Intermediate Accounting(I), Intermediate Accounting(II) , Investment plan evaluation, Fin Tech, Industrial Innovation and Transformation Strategy,(GMBA) Financial Accounting, (GMBA) Enterprise Accounting, (GMBA) Revenue Management, Econometrics, Enterprise growth and M&A, (GMBA) Financial Management, (GMBA) Financial Econometrics, (GMBA) Corporate Financial Accounting Research, Credit Risk and Its Application, Private Equity Analysis and Investment Practice, Research Seminar on Financial Accounting and Credit Risk (I), Research Seminar on Financial Accounting and Credit Risk (II) 、 Business Analysis and Valuation 、 Mergers and Acquisitions</p>
Information Management	Information Management	<p>Electronic Commerce 、 Internet Marketing 、 Decision Support Systems 、 Expert Systems 、 Neural Networks and Information Management 、 Electronic Commerce Systems 、 Development Strategy for the Energy Industry, Business Data Communication , Big Data Analytics, (GMBA) Information Security, (GMBA) Corporate Financial Accounting Research 、 Business Data</p>

		Communications 、 Big Data Analytics, (GMBA) Information Management 、 Python Programming and Basic Data Structures, Artificial Intelligence in Business 、 Big Data Analytics for Business Intelligence 、 Introduction to Deep Learning, Foundations of AI: From Basics to Practice
Operations Management	Operation Management	Supply Chain Management 、 Total Quality Management 、 Project Management 、 Services Management 、 Dynamic Programming 、 Econometrics for Supply Chains, Operation Management, (GMBA) Semiconductor Manufacturing Management, Operation Research , Production and Operation Management, (GMBA) Global Supply Chain Management 、 ESG Business and Management Practical Topics
Technology Management	Technology Management	Innovation Management 、 International Management Topics 、 Business Management 、 Technological Innovation and R&D Management 、 Valuation of Intellectual Property 、 Issues on Global High-Tech Competition and Management 、 Electronic Commerce 、 Management of e-Business 、 Electronic Commerce Systems 、 Technology strategy and innovation, , New Product Design and Development, Visionary Leadership and Entrepreneurship Innovation , Innovation and Entrepreneurship in Biotechnology & Biomedical Industries , Intellectual Property Management , Innovation and Strategic Management of Intellectual Property , Network Strategies: Method and Applications, Science & Technology Industry Analysis, Fin Tech, Industrial Innovation and Transformation Strategy, (GMBA) Global IP Management & Business Law, (GMBA) Entrepreneurship and Global Business Competition, (GMBA) Creativity and Innovation Management, (GMBA) Patent and Innovation Strategy , (GMBA) Literature Analysis on Technology Management, Entrepreneurship: New Venture Creation, (GMBA) Business Development for Start-ups, (GMBA)

		<p>Global Technology Strategy, (GMBA) Entrepreneurship and New Product Development 、 Management for high tech industry 、 New Product Design and Development 、 War Strategies & Competitive Advantage 、 Science and Technology Policy and Economic Analysis 、 Innovation and Technology Transfer 、 (GMBA) Global Business Management and Strategy, Strategic Thinking in the Era of Knowledge Economy 、 Technological Innovation and Entrepreneurship Management 、 The Intelligent Industry and Technology Innovation 、 Technology Management and Issus of Technology Policy 、 Management of Research and Development and the Practice of Entrepreneurship, Entrepreneurship and New Venture Funding 、 BlockChain Strategy and Digital Governance</p>
Decision Science	Decision Science	<p>Principles of Decision-making 、 Operation Management 、 Total Quality Management 、 Project Management 、 Services Management 、 Environmental Economics and Management 、 Structural Equation Modeling 、 Game Theory 、 Performance Assessment 、 Multivariate Analysis 、 Case Study Methods in Management Research 、 Managerial Decision-Making Analysis 、 System Topics 、 International Management Workshop 、 Fuzzy Theory and Its Decision-Making 、 Multi-Objective Analysis 、 Portfolio Theory 、 Multiple Criteria Decision Making 、 Hierarchical Linear Models 、 Scheduling Theory and Applications 、 Combinatorial Optimization, Global Logistics Management , Multiple Criteria Decision Making , Principle of Decision Making, Network Strategies: Method and Applications, Organization Design and Management,Global Business Management 、 Linear Programming 、 Planning Models for Logistics Operations, Global Supply Chain Management</p>

research methodology	<p>Research Methods 、 Econometrics 、 Operations Research 、 Statistical Methods and Data Analysis 、 Multivariate Analysis 、 Quantitative Methods 、 Mathematical Statistics 、 Management Mathematics 、 Experimental Design 、 Neural Networks 、 Forecasting and Time Series 、 Regression Models and Applied SAS System 、 Thematic Analysis of Linear Structural Model 、 Structural Equation Modeling 、 Intro. to Systems Approach 、 Optimization Theory 、 Numerical Partial Differential Equations 、 Stochastic Processes 、 Methods : Case Analysis and Game Theory 、 Numerical Methods in Finance 、 Economics of Information Technology 、 Technology Forecasting & Impact Assessment 、 Financial Econometrics 、 Research on Advanced Educational Statistics 、 Business survey and research 、 Financial Mathematic 、 Qualitative Research Methodology 、 Seminar on Marketing Research (I) 、 Fuzzy Sets and Its Applications 、 Multiple Criteria Decision Making:Theory and Application 、 Research method for problem solving 、 Data Mining Research & Practice 、 Applied Econometrics 、 Research Methods and Decision Analysis 、 Advanced Algorithms 、 Special Topics in Statistical Software 、 Hierarchical Linear Models 、 Advanced Statistical Methods 、 Multiple Criteria Decision Making 、 Multiple Criteria Decision Making for the best industry practice 、 Statistical Research Methods, (GMBA) Stochastic Processes, Growth Modeling, (GMBA) Queueing Theory with Applications, Seminar on Marketing Research, Applied Methods in Statistics, Advanced Business Research Methods 、 Research Methodology for Social Science 、 Experimental Design 、 Data Science for Business 、 Machine Learning for Business 、 Artificial Intelligence in Business 、 Data Science, Advanced Operations Research 、 Metaheuristic Algorithms 、 Communication Research Methods:Quantitative Approach 、 Optimization Methods and Applications 、 Empirical Analyses on Credit Risk (I) 、 Empirical Analyses on Credit Risk (II) 、 Financial Research Methods and Thesis Writing (I) 、 Meta-Heuristic Algorithm</p>
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*In case of any inconsistency between the English version and the Chinese version, the Chinese version shall prevail.

* If the course you want to take is not included in the courses listed, please fill in an application form before taking the course and be recognized by the teacher in the relevant field of the department and the PhD committee.