Department of Industrial Engineering and Management (For Ph.D. Students)

Academic Year 2023

Minimum Term of Study	Two Years
Minimum Credits	27 credits (for Ph.D. students) 42 credits (for MS-Ph.D. program students)
Curriculum and Regulations	It is required to take (and earn credits of) four seminar courses, typically in the first four semesters enrolled. The credits will not be counted as the minimum credits for graduation.
Notes	Please refer the "Academic Guidelines for Ph.D. Students for Academic Year 2023" for further details.

國立陽明交通大學工業工程與管理學系 博士班研究生修業規章

Department of Industrial Engineering and Management at National Yang Ming Chiao Tung University

Academic Guidelines for PhD Students (Academic Year 2023)

Revised by Departmental Conference Questionnaire, Mar. 18, 2021 Revised by Departmental Conference Questionnaire, Mar. 21, 2022 Revised at Departmental Conference, Mar. 15, 2023

- 第一條 為督導工業工程與管理學系(以下簡稱本系)博士班研究生進修,並維持博士 班學術水準,特訂定本辦法。
- Article 1. This guideline has been proposed in order to provide a general instruction and maintain the academic standards of doctoral students of Industrial Engineering and Management at National Yang Ming Chiao Tung University.
- 第二條 國內各公立或立案之私立大學或獨立學院或經教育部認可之外國大學研究所獲碩士學位或碩士班應屆畢業,或具有同等學力之資格,經本校博士班研究生入學考試通過者,得進入本系博士班修讀博士學位。 本系或本校其他系所之碩士班研究生修業一年以上,具有明顯之研究潛力,且修業期間各學期學業成績均在該碩士班前三分之一以內,或有其他特殊情形(如發表論文)經評定為成績優異者,得提出申請進入本系修讀博士學位。 本校其他系所之博士班研究生修業滿一學期以上,取得原系所同意後得依本校學生轉系所辦法提出轉所申請,經本系相關會議審議通過者,得進入本系博士班修讀博士學位。
- Article 2. 1. Applicants who have obtained a master degree or equivalent from a national or private university, individual colleges, or an accredited foreign institution approved by the Ministry of Education and also passed the entrance exam are qualified to enter the Department of Industrial Engineering and Management as doctoral students.
 - 2. Master students from this department or other departments of NYCU who have taken courses more than a year, achieved outstanding academic performance (ranked top 1/3 of the class every semester), and passed a distinguished screening process hold by the recruiting committee are eligible to apply for the PhD program.
 - 3. PhD students from other departments of NYCU who have taken courses more than one semester and obtained the approval from the original department are eligible to apply for the PhD program of this department. Applicants are qualified to enter this department as doctoral students if passed a process hold by the related committee.
- 第三條 博士班研究生(含一般生及在職生,以下亦同)入學後即可敦請論文指導教授, 最晚須於修課第一學年結束前完成敦請論文指導教授;若無法按時完成,由系 主任協助該生尋找論文指導教授。博士論文指導教授,至少一位應由本系專任 助理教授以上之教師擔任。更換指導教授時,須知會原指導教授並向系上報備; 師生雙方有爭議時,則依本校論文指導教授與研究生互動準則,由學生或指導 教授以書面文件向本系提出申請,經系務會議裁決後,於通知雙方後終止指導 關係。
- Article 3. PhD students (including fulltime doctoral students and part-time doctoral students, same situations as below) can consult with advising professors for their dissertations after being admitted and the deadline of the same shall be at the end of the first academic year. Failure of the same within such term shall lead to assistance of the

Chairman of Department in looking up advising professors for the said student's dissertation. At least one among advising professors for the PhD dissertation shall be one teacher who acted as a full-time assistant professor of the Department. In the replacement of an advising professor, the former advisor shall be given a notice and the same shall be reported to the Department. Should there be any dispute between teachers and students, teachers and students can follow the *Guidelines for the Interaction between Thesis Advisor and Graduate Students* to submit a writing request form for terminating the advisory relationship. The advisory relationship will be terminated after teachers and students are informed of the ruled results by Department Meeting.

- 第四條 教師每屆可指導博士生人數上限:每屆二名。每位教師指導博士班學生總人數達5人時,不可再收博士班學生;但過去3年內曾獲本校彈性薪資研究類獎勵之教師得放寬至7人。兩位老師共同指導一名學生,視為0.5名。本系老師與非本系老師共同指導一名學生,視為1名。
- Article 4. Maximum number of doctoral students a teacher may instruct number in each term: Two in each term. When the total number of students each teacher guides for the doctoral class reaches five, no more students may be admitted to the said class. However, a teacher who has won incentives for studies with flexible salary hosted by the School over the past 3 years may be granted up to seven students. In a case of two teachers' guidance of one student, the number of students shall be deemed as 0.5. In the case of guidance of a teacher in this Department and another teacher in peer department of one student, the number of student shall be deemed as 1.
- 第五條 博士班修業年限以二至七年為限,在職生之修業年限得增加二年。若有博士生 修業未滿三年擬申請畢業,需經系務會議審議通過,再經教務處核備後,方同 意其畢業。
- Article 5. Full-time students are required to complete the degree from two to seven years while part-time students are able to complete with two additional year. Students who wish to apply for graduation without completing three years of study will have to obtain permission from the departmental committee and office of academic affairs.
- 第六條 博士班研究生第一學年修課不得少於 6 學分。
- Article 6. The total credit points for the first academic year shall be at least 6.
- 第七條 博士班學生須通過博士班資格考。資格考以審查方式進行,符合下列 2 項視為 審查通過:
- Article 7. PhD students have to pass the Qualification Examination of PhD Classes. Such exams shall be executed via review where students who meet two of the following conditions are deemed as pass:
 - 一、基礎課程:非工工相關背景學生由其論文指導教授決定需補修之大學部課程,補修之課程學期成績均達 B (百分制 70 分)以上。
 - 1. Basic course: University Courses which need supplementary credit points for students who studied non-industrial programs shall be determined by the advising professors for dissertations, where such supplementary courses shall be scored at least B- (70 out of 100 total score).
 - 二、專業核心課程:見核心課程列表**附件一**。由其論文指導教授指定四門課修習(可算畢業學分)。

2. Professional Core Courses: Please refer to **Annex 1** for List of Core Courses. Four of them are designated by the advising professors for further studies (credit points incurred therein may be included into ones for graduation).

博士生須通過博士班資格考,並經指導教授同意後,方可舉行其論文計畫書審查。

PhD students have to pass the Qualification Examination of PhD Classes. With approval of the advising professor, students may launch dissertation proposal reviewing process.

- 第八條 博士班研究生通過資格考與修滿畢業學分,即成為本系博士候選人。
- Article 8. After passing the doctoral qualification examination and completing required number of credits, student will be regarded as a PhD candidate.
- 第九條 博士班研究生之論文指導教授經本系審核通過後,該生應擬具博士論文計劃, 經論文指導教授簽證後,送本系轉交該生「博士論文指導及審查委員會」審查。
- Article 9. After the status of dissertation advisor is verified by the department, students will submit a dissertation proposal to the "PhD Dissertation Supervision and Review Committee" with signature of their advisors.
- 第十條 博士班研究生之博士論文指導及審查委員會(以下簡稱論文委員會),由該生之 論文指導教授,在該生通過資格考之後,就本校副教授以上之教師中,推薦二 人以上,經本系聘請組成之,論文指導教授為當然委員。論文委員會負責審查 該生之論文計畫書、論文研究題目或方向之變更、指導教授之更換、論文研究 進度及擔任系上博士論文口試等事宜。
- Article 10. After passing the doctoral qualification examination, the dissertation advisor of PhD candidates will recommend two or more supervising members (associate professors or above) in addition to him or herself to form a PhD Dissertation Supervision and Review Committee (hereon will be refer to as the dissertation committee). The dissertation committee will be responsible for supervising dissertation proposals, alteration to research topic, direction, or advisor, progress of the entire dissertation, and the final oral examination.
- 第十一條 博士候選人在論文研究進行中,不得任意變更論文指導教授或論文計劃(指研究方向)。如因故確需更換者,須先以書面向論文委員會提出申請,經審查通過後,方得變更。依前述第十條及第十一條之程序,經重新組成之論文委員會審查通過,以重新取得博士候選人之資格。
- Article 11. During study period, PhD candidates are not allowed to change dissertation proposal (research direction) or advisor regularly. If for any reason that the research direction need to be changed, candidates will have to submit a written request to the dissertation committee for approval. In order to change a research direction or topic, candidates will need to follow the procedures stated previously to obtain an approval from the dissertation committee for their new topic and regain the PhD candidate status.
- 第十二條 博士候選人修業符合部定最低年限,修畢本系所訂應修學分,且距離博士論 文計畫書受審通過日期至少四個月以上,並完成「論文原創性比對」後方可 提出博士學位考試。但若修業年限只剩一學期時,博士學位考試可不受四個 月之限制。博士候選人通過計畫書口試後須符合下列2項要求方具申請博士

學位考試之資格:

- Article 12. Candidates to PhD programs shall have the minimum number of years of studies as stipulated by the Department. They have to fulfill given credit points by this Department, plus at least 4 months must have passed since dissertation proposal was reviewed as pass, and complete the "thesis originality check" to be legible to propose an examination for a PhD degree. However, when only one semester is left in the time limits for studying, the exam may go beyond such term. Upon passing the oral test of the proposal, candidates to PhD programs have to fulfill two of the following conditions to be eligible to apply for the test for a PhD degree:
 - 一、必須有兩篇論文發表(或被接受)於國際 SSCI/SCI 期刊。
 - 1. Candidate has two papers released (or accepted) in International SSCI/SCI Periodical.
 - 二、英文能力檢定:須具備下列任何一種能力之證明(請檢附成績單正本驗證):
 - 2. English Proficiency Examination: Candidate has to present one certificate proving any capability as follows (please also present original transcript for validation):
 - (一)、曾在國外取得英語系國家之學士以上學位。 Has acquired at least bachelor's degree in English-speaking country.
 - (二)、通過全民英檢(GEPT)「中高」級測驗之初試及複試且成績達 80 分。 Has passed preliminary exam & reexamination of GEPT "Intermediate to High" Quiz with scored at 80.
 - (三)、劍橋大學英語能力認證分級測驗 (Cambridge Main Suite) 達到 First Certificate in English (FCE)。
 Has achieved First Certificate in English (FCE) in Cambridge Main Suite).
 - (四)、外語能力測驗 (FLOT-English) 達 195 分。 Scored at FLOT-English by 195.
 - (五)、大學院校英語能力測驗 (CSEPT) 第二級達 240 分。 Scored at 2nd Grade of CSEPT by 240.
 - (六)、托福測驗 (TOEFL) 網路化 IBT 達 80 分。 Scored at Internet-based IBT of TOEFL by 80.
 - (七)、托福測驗(TOEFL)電腦化 CBT 達 213 分。 Scored at Computer-based CBT of TOEFL by 213.
 - (八)、IELTS 達 6.0。 Achieved 6.0 in IELTS.
 - (九)、多益測驗(TOEIC)達 750 分。 Scored at 750 in TOEIC.
 - (十)、劍橋大學國際商務英語能力測驗(BULATS)達ALTE Level 3。 Achieved ALTE Level 3 in BULATS.
- 第十三條 博士候選人在符合博士學位考試資格且經論文指導教授認可後,由論文指導 教授以書面向本系推薦舉行博士學位考試(推薦書中須列明該候選人在被接 受或刊登論文中之貢獻及博士論文在學術上之貢獻)。經本校博士學位考試通 過後,即成為國立陽明交通大學工業工程博士。學位考試委員依學校博士班 學位考試之規定組成。
- Article 13. Upon being eligible for attendance in PhD degree examination and approved by the advising professors, the advising professors shall make a written reference to

this Department for said candidate's launch of the exam for PhD Program (in such reference, there shall be contributions by the said candidate's being accepted or his own paper is published and contributions by his dissertation in the academic circles). Upon passing in the School's test for PhD degree, the candidate hereby becomes a Doctor of Industrial Engineering, National Yang Ming Chiao Tung University. The Committee in charge of the degree exam shall be organized pursuant to the regulations as to PhD degree examination in the School.

- 第十四條 依本校「研究生學位授予作業規章」之規定,博士學位考試委員會置委員五 至九人,由系上就校內外學者專家中對該博士學位候選人之研究領域有專門 研究,並具備下列資格之一者,向校長推薦,由校長遴聘組成之,校內外委員 均各須佔三分之一(含)以上。
- Article 14. According the "Regulations for Master and Doctoral Degrees Conferment", the Examination Committee of each PhD candidate must consist of five to nine members recommended to the president by department from among the scholars and experts inside and outside of NYCU specializing in the area of research or study of the applicant. These members must fulfill at least one of the following requirements. The organization of the committee shall be subject to the president's decision. The number of members from inside and outside of NYCU must be no less than a third of the total number of members.
 - 一、現任或曾任教授、副教授。
 Is or was a professor or associate professor.
 - 二、中央研究院院士、現任或曾任中央研究院研究員、副研究員。
 Is a research fellow, or is or was a researcher or associate researcher of Academia Sinica.
 - 三、獲有博士學位,且在學術上著有成就。 Holds a doctoral degree, and has outstanding academic achievements.
 - 四、研究領域屬於稀少性或特殊性學科,且在學術或專業上著有成就。 Has been researching in a rare, or specific field, and has outstanding academic or professional achievements.

前項第三款至第四款資格之認定基準,由本系系務會議訂定之。

The determination criteria of the qualifications in subsections 3 and 4 of the foregoing paragraph shall be prescribed by the department.

博士班研究生之配偶、前配偶或三等親內之血親、姻親,不得擔任其博士班學位考試委員。

PhD candidates' spouse, or the blood relatives and the affinity within the third degree should not serve as a member of the committee.

- 第十五條 博士學位候選人之論文考試,以口試行之,必要時得以視訊方式進行,並依 下列規定辦理:
- Article 15. The dissertation exam held for candidates to PhD degree shall be conducted orally, and may be conducted by video conference if necessary, and subject to the following regulations:
 - 一、博士班研究生申請學位考試至遲需於考試日前十五日提出申請,經核准 後方得舉行。
 - PhD students need to submit their written application 15 days before the exam day.
 - 二、口試以公開舉行為原則,須於事前公佈口試時間、地點及論文題目。

Oral examination should be public and the time, place, and thesis topic should be announced beforehand.

- 三、學位考試委員應親自出席委員會,不得委託他人為代表,委員會至少應有委員五人出席,且出席委員中校外委員需有三分之一(含)以上始得舉行。不符合本款規定者不得舉行考試,已舉行者其成績以不予採認。 Degree examination members should attend the exam in person and should not entrust other personnel to represent him or herself. The exam will only start when at least five committee members and at least one-third of the non-NYCU committee members are present. Those who do not meet the requirements of this paragraph shall not be allowed to hold the examination, and the results of those that have already been held shall not be accepted.
- 四、博士生論文口試審查時,除指導教授外至少應有一位本系專任教師擔任口試委員。如本系無適當人選時,應以本院其他系所之專任教師擔任之。 The examination committee of each PhD candidate should consist of at least one professor from the department in addition to the advisor, or at least one professor from other departments of the College of Management if under special occasions.
- 五、學位考試委員會,由系主任核定委員一人為召集人,但指導教授不得兼 任召集人。

The department chairman will appoint a committee member as the convener of the exam. However the dissertation advisor of the student should not be appointed as the convener.

- 六、論文考試成績,以B(百分制七十分)為及格,A[†](百分制一百分)為滿分, 評定以一次為限,並以出席委員評定分數平均決定之,但有三分之一以 上出席委員評定不及格者,以不及格論,不予平均。
 - The passing grade for the degree examination will be B- (70 out of 100 total score) and full grade will be A+ (100). Exam will be graded only once and final grade will be the average from all attending members of the committee. However when more than half of the committee members come to a decision to fail the examinee, no average will be counted and the exam will be considered failing.
- 七、論文有造假、變造、抄襲、由他人代寫或其他舞弊情事,經學位考試委員會審查確定者,學位考試成績以零分登錄且不得重考。 If any fraud, alternation, plagiarism, ghostwriting, or other dishonest conducts

were found on the thesis and confirmed by the committee, a zero grade will be granted and students are not allowed to apply for the retrial.

- 八、學位考試成績不及格者,應於其修業年限屆滿前完成重考。重考以一次 為限,重考成績仍不及格者,應令退學。
 - Students who failed to pass the degree defense may apply for the retrial in the next semester or next academic year of their extended study period. Retrial will be limited to be once. Students who fail to pass the retrial of degree defense is required to drop out of NYCU.
- 九、論文口試成績應於口試結束後,三天內由召集人送交系辦公室。「論文口試委員會審定書」應於口試結束後,二個月內由召集人送交系辦公室。 The score in the oral paper test shall be submitted by the caller to the office of Department within 3 days upon oral test ends. "Review of Oral Paper Test Report by Committee" shall be submitted by the caller to the office of Department within 2 months upon such oral test ends.

第十六條 依本校「研究生學位授予作業規章」之規定:

- Article 16. In accordance with the regulations set forth in the "Regulations for Master and Doctoral Degrees Conferment" by the School:
 - 一、論文考試舉行前,應完成論文原創性比對報告並供學位考試委員參考; 於論文考試結束後,由指導教授於學位考試成績資料表簽核確認。 Student shall first complete the "thesis originality check" and submit the result to the members of the examination committee before conducting the oral defense. Advisor shall confirm and sign on the Degree Examination Evaluation Form after the oral examination.
 - 二、學位考試含論文考試及論文審查。
 The degree exam consists of paper test and paper review.
 - 三、論文通過口試者由口試委員明示論文修改方向及要點,做為學生修改論 文之依據。學生修改論文後應提交論文審查,論文審查至少須經三分之 二考試委員同意始為通過。修改後之論文定稿應完成論文原創性比對報 告並經指導教授確認。論文審查不另評分,論文審查通過者,由出席論 文考試之委員簽署「論文口試委員會審定書」。完成論文審定者,論文考 試成績即為學位考試成績。

Oral Test Committee shall indicate direction and focus of amendments to the paper explicitly for the basis of modification by the candidates who pass oral paper test. Upon being amended, candidate students shall submit paper for review. There shall be at least two-third seats of examination committee to approve the paper, which will thus deemed as pass. Postgraduate students should complete a report of originality comparison of their revised dissertation and it should also be confirmed by their advisor. Paper review will not be scored additionally. Committee members who appeared in the paper test shall sign the "Review of Oral Paper Test Report by Committee" for candidates who pass the review. For candidates who fulfilled review of paper, the score they acquired in the paper test shall be the final score in the degree examination.

四、學位考試通過後,學生應於考試當學期繳交「學位考試成績資料表」至註冊組,第一學期需於1月31日前繳交;第二學期需於7月31日前繳交。

After passing the degree examination, students must submit the Degree Examination Evaluation Form by the end of January 31st if the exam is taken in the Fall semester and by the end of July 31st if it is taken in the Spring semester.

五、通過學位考試之研究生,應繳交學位考試成績資料表、學位論文紙本、 學位論文原創性比對報告、學位論文學術倫理暨原創性比對聲明書,將 論文摘要及全文電子檔上網建檔,並完成畢業離校程序後,註冊組始得 發給學位證書。

Postgraduate students who have passed the degree examination should submit their degree examination result sheet, hard copies of their dissertation, a report of originality comparison of their dissertation, and a statement of academic ethics and originality comparison, as well as upload their thesis abstract and full-text electronic file online and complete the schoolleaving procedures before the Division of Registrar issue a degree certificate to them.

六、學位論文紙本之繳交期限為舉行學位考試日的次學期上課開始日前最後一個工作日,逾期未繳交論文紙本且未達修業年限者,次學期仍應註冊。

The deadline for submission of a printed thesis shall be the final working day

before the date when the class starts as identified in the calendar of the following semester to the one in which the degree examination is conducted. Any student who has failed to submit a printed thesis by the deadline and whose study period has not expired shall still register in the next semester.

修業年限屆滿者,未於年限屆滿當學期繳交學位考試成績資料表或未於 次學期上課開始日前最後一個工作日前繳交紙本論文,應予退學。

Any student whose study period has expired and who has failed to submit the Degree Examination Grade Sheet within the semester when his/her study period expires or submit a printed thesis by the final working day before the date when the class starts as identified in the calendar of the next semester shall withdraw from NYCU.

七、 已申請學位考試之研究生,若因故無法於該學期內完成學位考試,本系 應於次學期第一個工作日將未舉行考試之名單提交註冊組。

Where any graduate student who has applied for a degree examination is unable to complete the degree examination within the semester, regardless of the reason, the relevant academic unit shall submit a list of graduate students for whom the degree examination has not been conducted to the Division of the Registration on the first working date of the next semester.

第十七條 博士學位論文(含摘要)以中文撰寫為原則,並須符合本校學位論文格式規範。學位考試通過後應將論文摘要及全文電子檔上網建檔(依照本校圖書館學位論文摘要及全文電子檔建檔規範辦理),並繳交論文兩冊(一冊本校圖書館陳列,一冊由國家圖書館收藏)。

學位論文之保存或提供依學位授予法第十六條辦理。但涉及機密、專利事項或依法不得提供者,則依本校學位論文延後公開相關規定處理。

Article 17. As a general rule, doctoral dissertation (including abstract) will be written in Chinese and follow the format stated in the "National Yang Ming Chiao Tung University Thesis Format Regulation". According to the school library regulation, students should submit an electronic copy of their dissertation and abstract and two formal copies (one for the school library, and one for the National Central Library) of their dissertation after they passed their oral defense.

The storage or provision of theses and dissertations shall be subject to Article 16 of the Degree Conferment Law. Notwithstanding, any content related to confidential or patent matters or the provision is prohibited by the law, shall be subject to the "National Yang Ming Chiao Tung University Regulations for Embargo of Thesis/Dissertation."

第十八條 本校對已授予之博士學位,有下列情事之一者,將予撤銷,並公告註銷已頒 給之學位證書。

一、入學資格或修業情形有不實或舞弊情事。

二、論文有造假、變造、抄襲、由他人代寫或其他舞弊情事。

依前項規定撤銷學位後,將通知當事人繳還該學位證書,並將撤銷及註銷事項,通知其他專科學校、大學及相關機關。

- Article 18. NYCU will cancel the master's degree that has been conferred to a student, and announce the cancellation of the conferred diploma certificate in any of the following situations:
 - 1. Any admission qualification fraud, or any misrepresentation or dishonesty during the study period.
 - 2. Any fraud, alternation, plagiarism, ghostwriting, or other dishonest conducts regarding the thesis.

After the degree has been cancelled pursuant to the foregoing paragraph, NYCU

will notify the student to return his or her diploma certificate(s), and notify other colleges, universities, and relevant institutions about the cancellation.

- 第十九條 博士候選人在學期間研究成果論文之發表,須以國立陽明交通大學全銜刊登, 本系始給與承認。研究論文之抽印本一本或影印本一本須送本系存查。
- Article 19. The Department shall not acknowledge any release of PhD candidates' research papers during studies until the paper is published with full title in National Yang Ming Chiao Tung University. One set of printed research paper or copy shall be submitted to the Department for further checks.

註:依教育部臺陸字第1000164032號函~論文必須掛名「Taiwan」或「R.O.C.」, 如掛名「China」或「Taiwan, China」,一概不承認。

Remark: In accordance with the Letter, letter No. Ministry of Education-Tai-Lu-Tzi No. 1000164032~ The dissertation shall be in the name of "Taiwan" or "R.O.C.". Failure of the same as above, such as, titled "China" or "Taiwan, China", may be rejected without exception.

- 第二十條 博士班之一般研究生至少每週須留校四天,在職研究生至少每週須留校三天。 但基於論文研究需要,必須使用其他單位研究設備者,經由論文指導教授同 意,准予減少留校時間。論文委員會得視實際情形,延長該生修業年限。
- Article 20. Fulltime doctoral students have the responsibility to occupy at least four days on campus each week whereas part-time doctoral students will need to spend three days. However, students are able to request for shorter occupancy from their dissertation advisor if extra research time is needed. Depending on different situation, the dissertation committee will determine whether an extension of study will be granted to the students.
- 第二十一條 博士班研究生得由論文指導教授指定研修第二外國語言,修滿六學分課程。 Article 21. Doctoral students will be responsible to complete six credits of a foreign language course, assigned by the dissertation advisor.
- 第二十二條 本修業辦法未盡事宜,悉依本校研究生學位授予作業規章辦理之。
- Article 22. Any revisions necessary to this guideline will follow the procedures stated in the "Regulations for Master and Doctoral Degrees Conferment".
- 第二十三條 新辦法實施後可溯及既往 (適用舊生,但新、舊辦法需二擇一)。
- Article 23. The enforcement of measures herein may be retroactive (applicable to existing students; however, only either the new or the old measure prevails).
- 第二十四條 本辦法經本系系務會議通過,管理學院課程委員會及校級課程委員會審查 通過後實施,修正時亦同。
- Article 24. This guideline has been carried out after the approval of the departmental meeting, evaluation of the course committee members of College of Management and the university, and the review of the university academic meeting. Any revision to this guideline will follow the same procedures.

本法規有中英文兩個版本,在有疑義的情況下以中文版為準。

The Regulations were drawn up in Chinese and translated into English. In the event of any discrepancy between the two versions, the original Chinese version shall prevail.

國立陽明交通大學工業工程與管理學系 博士班專業核心課程列表

Department of Industrial Engineering and Management at National Yang Ming Chiao Tung University

Professional Core Course List for PhD Students

112.3.15 更新 Update at Mar. 15, 2023

多目標決策分析 Multiple Criteria Decision Making

供應鏈管理 Supply Chain Management

排程理論與應用 The Theory and Application of Scheduling

統計推論 Statistical Inference

進階資料分析 Advanced Data Analysis with R

萬用啟發式演算法 Metaheuristic Algorithms

資料採礦 Data Mining

實驗設計 Experimental Design

製程能力分析 Process Capability Analysis

線性規劃 Linear Programming

隨機過程 Stochastic Process

網路可靠度 Network reliability

使用者研究 User Research