**(表283)(Form 283)臺大化學系「新制資格考試申請書」**

**Dept. of Chemistry, NTU -- Qualifying Exam (New System) Application Form** (109.01.07/January 7th, 2020)

\*本表需於資格考口試**3週前**提出申請，系上審查通過後方可舉行資格考口試。Applications must be filed 3 weeks before the oral defense for the qualifying exam, which is held only after the department office has approved the application.

\*申請資料：1.**申請書、2.論文研究構想書、3.歷年成績單正本**。Documents required: 1. Application form, 2. Dissertation research proposal, 3. Full transcript of past records (original copy).

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| --- | --- | --- | --- | --- | --- |
| 姓名Name |  | 學號Student No. |  | 系級Year of Study | 博一1st year 博二2nd year博三3rd year 其他None of the above: \_\_\_\_\_\_\_\_\_\_\_\_ |
| 組別Group | 1. 化學組Chemistry Group：（有機Organic Chemistry無機Inorganic Chemistry物化Physical Chemistry分析Analytical Chemistry） 2.化學生物學Chemical Biology3.TIGP-NANO奈米學程4.TIGP-CBMB化生學程 | 指導教授Advisor(s) |  | 手機Mobile |  |
| 實驗室電話Lab TEL |  |
| 1. **入學學年度(以招生考試學年度為準)：**

**Year of admission (according to the year of the admission exam)** | **107學年度以後：**107 Academic Year and After**\_\_\_\_學年度**Academic Year**第\_\_\_\_學期**Semester (Fall/Spring) |
| **106學年度(含)前：**106 Academic Year and Before**已交切結書**Affidavit submitted\*不得轉回舊制The old system no longer applies.累計考**點數已達**  點Cumulative exam points \*至少需2點以上Two or more is required. |
| **2.已通過之高等課程****Advanced courses passed**\*至少兩門at least 2 courses | 共 門，共 學分 courses, credits | 科目Courses | 高有一4Adv Organic Chem (I)高有二4Adv Organic Chem (II) | 高無一3Adv Inorganic Chem (I)高無二3Adv Inorganic Chem (II) | 高分一3Adv Analytical Chem (I)高分二3Adv Analytical Chem (II) | 高物一3Adv Physical Chem (I)高物二3Adv Physical Chem (II)高物三3Adv Physical Chem (III) | 高化生一4Adv Chemical Biology (I)高化生二3Adv Chemical Biology (II) |
| **3.預計舉行日期****Date of qualifying exam** |  年(YYYY) 月(MM) 日(DD)107學年度後入學生Students enrolled in the 107 Academic Year and after：**此日期為入學後**第 學期This date is the semester after admission. \*至遲需於入學後第5學期開學前舉行The exam must be held before the new semester start of the fifth semester after admission.106(含)前入學生轉新制Students enrolled in the 106 Academic Year and before (who transferred to the new system)：**此日期為轉新制後**第 學期This date is the semester after transferal. \*至遲需於選擇新制後第5學期開學前舉行The exam must be held before the new semester start of the fifth semester after transferal. |
| **4.繳交資料Documents required**\*需依序擺放placed in the specified order | 1.申請書Application form2.論文研究構想書1份 Dissertation research proposal 構想書符合內容與形式：至多15頁(不含reference)，請依照系上提供之論文研究構想書之說明及模版規定，請見次頁以後之說明。The proposal conforms to the format specified: no more than 15 pages (excluding references). Please follow the instruction and template provided by the department office (see detailed instruction on the next page).3.歷年成績單正本1份One full transcript of past records (original copy) |
| **5.論文研究構想書題目：**Proposal Title**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**1.本計畫是否為國際/國內合作研究Is this an international/domestic collaboration project?否No；是，合作對象Yes, in collaboration with：\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_2.本計畫是否有進行下列實驗/研究：Does the research involve any of the following? 人體試驗/人體檢體human trials/specimens 人類胚胎/人類胚胎幹細胞human embryos/embryonic stem cells 基因重組實驗genetic recombination 基因轉殖田間試驗 field testing transgenic plants 第二級以上感染性生物材料infection biological materials (BSL-2 or above) 動物實驗animal testing 以上皆無 none of the above3.本計畫是否為人文司行為科學研究計畫Is this a Behavioral Science Research Project under the Department of Humanities and Social Sciences, MOST? 是(請檢附已送研究倫理審查之證明文件)Yes (please attach the research ethics review documents)； 否No4.本計畫是否為臨床試驗研究計畫Is this a clinical trial research project?是(請增填性別分析檢核表)Yes (please fill out the Gender Analysis Checklist)； 否No |
| **申請博士生本人簽名：\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_申請日期：\_\_\_\_\_年\_\_\_\_\_\_月\_\_\_\_\_\_日**Doctoral Student’s Signature: Date of Application (YYYY/MM/DD) |
| **指導教授核准申請資格考試簽章**Approval by the advisor(s) |  |
| 系辦複核Approval by Department Office | 已完成二門高等課程At least 2 advanced courses passed | 複核人蓋章Reviewer’s Seal（許慧楨）(Ms. Hui-Chen Hsu) |
| 107學年度後入學生：規定採用新制Students enrolled in the 107 Academic Year and after: new system舊制轉新制學生：已繳交切結書且累計考點數至少2點Students who transferred from the old system: affidavit submitted with two or more cumulative exam points |
| 107學年度後入學生：預計口試日期為入學後第5學期開學前Students enrolled in the 107 Academic Year and after: proposed date is before the new semester start of the fifth semester after admission舊制轉新制學生：預計口試日期為轉制後第5學期開學前Students who transferred from the old system: proposed date is before the new semester start of the fifth semester after transferal |
| 系主任核准簽章Approval by Department Chair |  |

**新制資格考-論文研究構想書**

Qualifying Exam (New System) – Dissertation Research Proposal

論文研究構想書之設立，是為了讓博士生在開始研究工作前，學習如何沉澱思考，訓練博士生從多方觀點出發，評估並提出獨立之研究計畫及研究方向，以提高博士生撰寫研究計畫的能力。除紙本的構想書外，博士生需要蒐集參考資料、培養紮實之理論基礎，為自己所提出研究構想書進行答辯。論文研究構想書並非研究報告書，不要求提出大量的研究數據與成果，在論文構想書最後的一章只需提供初步研究成果，以利論文研究構想書進行答辯與審查。博士生在撰寫論文研究構想書時，應遵守論文研究構想書的格式:

The dissertation research proposal mechanism was established to help doctoral students refine their thinking before the work of research, and to train them to evaluate and propose an independent research plan with clear goals from a variety of perspectives. The goal is to facilitate and improve doctoral students’ writing skills in terms of research plans. In addition to the copy of dissertation research proposal, students also need to collect references, cultivate a solid theoretical foundation, and defend their research proposal during the qualifying exam. Please keep in mind that dissertation research proposal is different from a research report, as it does not require a large quantity of data and results. Students only need to provide preliminary research results in the last chapter to facilitate the defense and review of the proposal. As doctoral students write the proposal, they should follow the format as follows:

**題目、摘要與內文：** 論文研究構想書之題目與摘要限用英文撰寫，內文則可以用中文或英文撰寫，中文字體為微軟正黑體，英文字體為calibri。字體方面，題目需使用18號字體，章節題目字體為14號字體，內文字體為12號正體。行距為1.5行，全計畫書至多15 頁，參考資料為外加，不列入15 頁計算內，參考資料的表列應使用ACS格式。

**Title, Abstract, and Text:** The title and abstract of the proposal can only be written in English, but the text can be written in either Chinese or English. Font for Chinese text should be “Microsoft JhengHei”, and font for English text should be “Calibri”. The title should be 18 pt, chapter title 14 pt, text 12 pt, with 1.5 line spacing. The proposal should have no more than 15 pages (excluding references). The list of references should be in accordance with the ACS Style.

**示意圖、插圖：** 圖片之表示應有編號，於文內應有對應之討論。指稱圖片中的不同部分時用英文撰寫時，Figures 的字首應為大寫。圖片編號應使用阿拉伯數字。指稱圖片中的不同部分時，使用阿拉伯數字加上具一致性及順序性的標號，例如：圖1-甲.、圖1-1.、圖1-II 等. 英文撰寫時可用Figure 1a、Figure 1b；Figure 1A、Figure 1B；Figure 1-I、Figure 1-II等。圖片說明文字。可以用非完整句子的形式呈現，但結尾仍須加上句點。在說明圖片當中的符號或是其他面向時，使用分號。

**Diagram and illustration:** All diagrams and illustrations should be numbered, with corresponding discussion in the text. If you wish to refer to different parts of a diagram or illustration in English, capitalize the initial of “Figures”. Diagrams and illustrations should be numbered in Arabic numerals. If you wish to refer to different parts of a diagram or illustration, use Arabic numerals with consistent and sequential sub-numbers, e.g. Figure 1a, Figure 1b; Figure 1A, Figure 1B; Figure 1-I, Figure 1-II, etc. Caption texts do not have to be complete sentences, but a period must be added at the end, or semicolons when you wish to describe the symbols or other details in the diagram or illustration.

**表格：** 表示表格編號時，以表1或Table 1等表示。英文的首位字母須大寫，編號可以是阿拉伯或羅馬數字，表格標題後不須句點。表格應有足以描述表格資訊的簡短標題，且不得為完整句子。表格標題所傳達的資訊應夠完整，讀者即使不看正文也能了解該表格意涵。說明表格內資料細節時使用註解，置於表格下方而非標題中。

**Table:** When indicating table numbers, please use “Table 1” with the first letter capitalized. The number can be Arabic or Roman numerals, and no period is required after the title of the table. All tables should come with a short title describing the information, and it should not be a complete sentence. The information conveyed in the title should be sufficient for readers to understand the meaning even without reading the text. Use annotations if you wish to explain the details in the table and place them under the table instead of within the title.

**Title of Research Proposal (論文研究構想書題目)**

1. **摘要(Abstract)**

構想書摘要須就研究構想作一概述，簡要說明工作之重要性，及可能帶來的突破。並依構想性質自訂關鍵詞。構想書摘要應以英文書寫。摘要字數在五百字以內，摘要中不得引用參考文獻、表格、圖表或是研究構想中的章節。首次提及數學常數、變項或未知量的縮寫及符號等時，應附帶寫出完整名稱及定義。非必要時不要使用縮寫，除非是為了簡化不必要的重複，或冗長的句構。

The proposal abstract should give an overview of the research concept and briefly explain the significance of the present research as well as possible breakthroughs. Keywords should be included according to the nature of the proposal. The abstract should be written in English with no more than 500 words. References, tables, diagrams, or text in the proposal should not be cited in the abstract. When mentioning abbreviations and symbols of mathematical constants, variables, or unknowns for the first time, the full name and definition should be included. Do not use abbreviations unless it is to avoid unnecessary repetitions or lengthy sentence structures.

1. **研究背景(Research Background)**

應就研究構想之背景作分析，以彰顯研究構想之重要性。研究背景分析，應簡介過去之歷史背景，近期之研究發展方向，相關文獻與專利之數量分析，及研究構想領域之成熟度等。

Analysis regarding the research background should be included to highlight the significance of the present research. The analysis should briefly summarize the past developments, recent research trends, quantitative analysis of related literature and patents, and maturity of the research field.

1. **研究動機(Research Question or Questions)**

應簡要說明研究構想所要解決的問題、其重要性與原創性、分析研究構想在整體發展中的定位、預期帶來的突破及影響力，及認為研究構想能夠成功的理據。

A brief description of the research question(s) to be solved should be included by discussing the significance and originality of the research question(s), the positioning of research in the overall research trend, expected breakthrough and influence, as well as evidence which can support the future success of the present research.

1. **預計研究內容(Tentative Research Methods and Expected Results)**

就預計研究內容作一概述，簡要說明工作策略、所需的實驗研究方法與儀器、進行步驟及時程進度規劃，與預期的困難。若為跨領域合作，合作對象為何。在分工上對於申請人預期可獲之訓練。預期完成之研究成果（如實務應用績效、期刊論文、研討會論文、專書、技術報告、專利或技術移轉等質與量之預期成果）。在學術研究、國家發展及其他應用上的預期貢獻。

A brief overview of tentative research methods should be included in this section. Briefly explain the strategies, research methods and instruments required, procedure and schedule planning, as well as anticipated difficulties. In case of a cross-disciplinary project, specify the collaborator(s) and the training which the applicant is expected to receive in such division of work. Also include the expected research results after completion (such as practical performance in application, publication in journal or seminar papers, book publication, technical reports, patents, technology transfer, etc.), and the expected contributions to academic research, national development, or other areas of application.

1. **初步研究成果(Preliminary Research Results)**

就已進行的初步研究內容作一概述，簡要說明初步研究成果與未來規劃之關係。

Summarize the preliminary research that has been conducted, and briefly explain the relationship between the preliminary research results and your future research plan.

1. **參考資料(Reference)**