

碩士班學生手冊目錄 Student Manual for Master's Degree Program

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1. 修業年限 Years of Study

碩士班修業期限以一至四年為限, 但以在職進修身分錄取或應修畢業學分數達六十學分以上之研究生未在規定修業期限修滿應修課程或未完成學位論文者, 得酌予延長其修業期限, 最高以二年為限。

The duration of the master's degree program is limited to one to four years. However, part-time students or students who require 60 or more credits for graduation but cannot complete the required courses or the thesis within the prescribed period of study may extend the period of their study for a maximum of two years.

2. 臺大土木系碩士班研究生必修及學分規定

General Course and Credit Regulations

89.10.11 教學與課程委員會;89.10.26 系務會議通過 89.10.11 Teaching and Curriculum Committee; 89.10.26 Adopted in Department Affairs Meeting
 92.11.07 教學與課程委員會;92.11.18 系務會議修正通過 92.11.07 Teaching and Curriculum Committee; 92.11.18 Amended in Department Affairs Meeting
 93.09.27 教學與課程委員會;93.10.28 系務會議修正通過 93.09.27 Teaching and Curriculum Committee; 93.10.28 Amended in Department Affairs Meeting
 94.01.17 教學與課程委員會;94.05.09 系務會議修正通過 94.01.17 Teaching and Curriculum Committee; 94.05.09 Amended in Department Affairs Meeting
 94.06.27 系務會議修正通過 94.06.27 Amended in Department Affairs Meeting
 96.09.21 課程委員會;96.10.02 系務會議修正通過 96.09.21 Curriculum Committee; 96.10.02 Amended in Department Affairs Meeting
 98.06.15 課程委員會;98.06.25 系務會議修正通過 98.06.15 Curriculum Committee; 98.06.25 Amended in Department Affairs Meeting
 102.04.29 課程委員會 102.04.29 Curriculum Committee
 104.12.07 課程委員會 104.12.07 Curriculum Committee
 109.02.25 課程委員會 109.02.25 Curriculum Committee
 109.09.30 課程委員會 109.09.30 Curriculum Committee
 112.05.01 課程委員會 112.05.01 Curriculum Committee
 112.11.10 課程委員會 112.11.10 Curriculum Committee

| 碩士班 Master's Degree Program | | | |
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| 組 別 Division | 必修科目名稱 Required Courses | 應修最低 畢業學分數 Required Credits for Graduation | 備 註 Remarks |
| 大地工程組 Geotechnical Engineering | 000 90010 學術倫理 000 90010 Academic Ethics 521 M0010 碩士論文 521 M0010 Thesis (M.S.) 521 M0180 大地工程專題討論(四學期、詳備註 1) 521 M0180 Seminar on Geotechnical Engineering (4 semesters, see remarks for related regulations) | 24 | 1.大地工程、測量及空間資訊、結構力學、水利工程、運輸工程、電腦輔助工程、營建工程與管理組專題討論—「以修習四學期且均及格為原則，惟提前完成學位考試(僅修業二、三學期者)且於同一學期繳交論文者，則於修業期間內每學期均需修習且及格。」 |
| 測量及空間資訊組 Surveying and Geospatial Engineering | 000 90010 學術倫理 000 90010 Academic Ethics 521 M0010 碩士論文 521 M0010 Thesis (M.S.) 521 M6430 測量專題討論(四學期、詳備註 1) 521 M6430 Seminar on Surveying (4 semesters, see remarks for related regulations) | 24 | 1. Students should pass Seminar in each of the first four semesters. If a student completes the degree examination in less than four semesters and submits the master's |

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| 結構工程組 Structural Engineering | 000 90010 學術倫理 000 90010 Academic Ethics 521 M0010 碩士論文 521 M0010 Thesis (M.S.) 521 M6200 結構力學專題討論(四學期、詳備註 1) 521 M6200 Seminar in Structural Engineering (4 semesters, see remarks for related regulations) | 24 | thesis for graduation in the same semester, the student should pass Seminar in every semester during the student's study in the program. If a student does not pass any of the required Seminar courses, the student must retake and pass it. |
| 水利工程組 Hydraulics Engineering | 000 90010 學術倫理 000 90010 Academic Ethics 521 M0010 碩士論文 521 M0010 Thesis (M.S.) 521 M0040 水利工程專題討論(四學期、詳備註 1) 521 M0040 Seminar in Water Resources Engineering (4 semesters, see remarks for related regulations) 521 U0570 明渠水力學 521 U0570 Open-channel Hydraulics 521 M2410 高等水文分析 521 M2410 Advanced Hydrologic Analysis | 24 | 2.大學部(U 字頭以外)課程之學分數不計入應修最低畢業學分數。 2. Credits earned from undergraduate level courses, are not counted in the required credits (except for the courses with "U" code in the Curriculum Identity Number). 3.各組應修最低畢業學分數不包含論文及專題討論。 3. Credits earned from Thesis (M.S.) and Seminar are not counted in the required credits. |
| 交通工程組 Transportation Engineering | 000 90010 學術倫理 000 90010 Academic Ethics 521 M0010 碩士論文 521 M0010 Thesis (M.S.) 521 M0320 運輸工程專題討論(四學期、詳備註 1) 521 M0320 Seminar on Transportation Engineering (4 semesters, see remarks for related regulations) | 24 | 4.本組碩士班研究生若依本校交換計畫或雙學位計畫申請並核准者，可提出相關書面申請，並經指導教授及所長同意，則得於出國交換或進修期間以修課及格之課程抵免當學期之專題研究討論。(104.12.07 課程委員會討論通過) |
| 電腦輔助工程組 Computer-Aided Engineering | 111 學年度第二學期以前 Prior to 2023 Spring Semester(111-2) 000 90010 學術倫理 000 90010 Academic Ethics 521 M0010 碩士論文 521 M0010 Thesis (M.S.) 521 M6230 電腦輔助工程專題討論(四學期、詳備註 1) | 24 | 4. Students enrolled in an international exchange or double degree program may submit a written application and, upon approval from the thesis advisor as well as the Department |

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| | <p>521 M6230 Computer-aided Engineering Seminar (4 semesters, see remarks for related regulations)</p> <p>521 M6620 英文寫作基礎</p> <p>521 M6620 Fundamentals of English Writing</p> <p>(若曾修習學術英文寫作或於下列以母語為英文的國家之大學取得學位可免修習本課：澳洲、加拿大、蓋亞那共和國、愛爾蘭、紐西蘭、南非共和國、英國、美國和西印度群島)</p> <p>(Exemption may be granted if one of the following English language requirements is fulfilled:</p> <ol style="list-style-type: none"> 1. You have taken and passed the course Academic English Writing; 2. You have successfully completed a degree at a University in one of the following native English speaking countries: Australia, Canada, Guyana, Ireland, New Zealand, South Africa, United Kingdom, United States of America and West Indies.) <p><u>112 學年第一學期起適用</u> From 2023 Fall Semester (112-1)</p> <p>000 90010 學術倫理</p> <p>000 90010 Academic Ethics</p> <p>521 M0010 碩士論文</p> <p>521 M0010 Thesis (M.S.)</p> <p>521 M6230 電腦輔助工程專題討論(四學期、詳備註 1)</p> <p>521 M6230 Computer-aided Engineering Seminar (4 semesters, see remarks for related regulations)</p> <p>521 M6630 學術英文寫作</p> <p>521 M6630 Academic English Writing</p> <p>(可提出免修或可替代之課程申請，經指導教授同意及組務會議通過後免修。)</p> <p>(You can apply for a course exemption or substitution. However, the application should be first approved by your advisor, and the final decision will be made by the committee formed by the CAE faculty members.)</p> | | <p>Chair, they will be exempt from the required Seminar courses covering the period of international exchange or study for the second degree.</p> |
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| 營建工程與管理組 Construction Engineering and Management (Full-time program) | 000 90010 學術倫理 000 90010 Academic Ethics 521 M0010 碩士論文 521 M0010 Thesis (M.S.) 521 M5950 營建管理專題討論(四學期、例外詳備註 1) 521 M5950 Seminar on Construction Management (4 semesters, see remarks for exceptions) 521 M5790 工程專案管理 521 M5790 Project Management for Construction | 27 | 113 學年度第一學期起適用 應修最低畢業學分為 24 學分。 From 2024 Fall semester (113-1) Credit requirements for the master's degree program: 24 credits |
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| 碩士在職專班 Executive Master's Degree Program | | | |
| 組 別 Division | 必修科目名稱 Required Courses | 應修最低畢業學分數 Required Credits for Graduation | 備 註 Remarks |
| 營建工程與管理組 Construction Engineering and Management | 000 90010 學術倫理 000 90010 Academic Ethics 521 M0010 碩士論文 521 M0010 Thesis (M.S.) 521 M6590 跨領域聯合專題討論 521 M6590 Multi-discipline Seminar | 26(含專題討論 2~4 學分) 26 (including 2-4 credits of Seminar) | 1.大學部(U 字頭以外)課程之學分數不計入應修最低畢業學分數。 1. Credits earned from undergraduate level courses, except for the courses with "U" code in the Curriculum Identity Number, are not counted in the required credits. 2.至少需修習 2 學期聯合專題討論課程(1 學分)，且該學分數計入應修最低畢業學分數以 4 學分為上限。 2. At least 2 semesters of the Joint Seminar are required, but 4 credits at most can be counted for required credits. 3.應修最低畢業學分數不包含論文。 3. Credits earned from Thesis (M.S.) are not counted in the required credits. |

3. 修課規定 Additional Course and Credit Regulations

| 組別 Division | 修課各組規定 Regulations |
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| <p>大地組 Geotechnical Engineering</p> | <p>108 學年度第二學期前 Prior to the second semester of Academic Year 2019</p> <p>授權指導教授全權規定及負責其指導學生應選科目內容。 A student's thesis advisor has authority over and is responsible for the student's course selection.</p> <p>109 學年度第一學期起適用 Began from the first semester of Academic Year 2020</p> <ol style="list-style-type: none"> 1. 大地組現行碩士班畢業學分為 24 學分，其中 18 學分必須滿足三大領域的最低修習學分要求，分別為共同領域(大地材料組成律模式、大地工程之數值分析、大地工程可靠度分析與設計、大地工程實務)最低修習學分為 6 學分；土壤領域(中等土壤力學、土壤動力學、大地地震工程、土壤行為學、地工合成材料之應用、基礎設計與施工一、深開挖設計與分析)最低修習學分為 9 學分；岩石領域(岩石力學、高等工程地質、隧道工程)最低修習學分為 3 學分。 1. The required credits for graduation are 24 credits. Students must meet the minimum requirement of credits in three major areas. Six credits are required from the common areas, including Constitutive Law of Geomaterials, Numerical Methods in Geotechnical Engineering, Geotechnical Reliability Analysis and Reliability-based Design, and Geotechnical Engineering Practice. Nine credits are required in the area of soil mechanics, including Intermediate Soil Mechanics, Soil Dynamics and Foundation Vibration, Geotechnical Earthquake Engineering, Soil Behavior, Application of Geosynthetics, Foundation Design and Construction (I) and Deep Excavation Analysis and Design. Three credits are required in the area of rock mechanics, including Rock Mechanics, Advanced Engineering Geology, and Tunnel Engineering. 2. 若該學年本組未開授上開課程者，可以三校聯盟相近課程替代，但需事先撰寫學生報告書並經授課教師和指導教授同意。(110.1.14 組務會議修正通過) 2. If any of the above courses is not offered during an academic year, a student may take a similar course offered by the National Taiwan University System. Prior to taking the course, the special request form must be filled out by the student and approved by both the course instructor and the student's thesis advisor. 3. 授權指導教授全權規定及負責其指導學生其他應選科目內容。(110.1.14 組務會議修正通過) 3. A student's thesis advisor has authority over and is responsible for the student's other course selection. |

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| <p>結構組 Structural Engineering</p> | <ol style="list-style-type: none"> 1. 核心課程：以下科目 6 科選 4 科，必須修習且達 (C-) 方能畢業—本組開授之"高等結構學、結構動力學、有限元素法、塑性力學、高等混凝土學"，及"彈性力學"共 6 科。 1. A student must take 4 out of the following 6 core courses with a grade of C- or above: Advanced Structural Theory, Structural Dynamics, Finite Element Method, Theory of Plasticity, Advanced Concrete Theory, and Theory of Elasticity. 2. 選修「非本組教師開授之 6 選 4 核心課程」需經過指導教授及本組授課教師同意。 2. A student requires the approval from the thesis advisor and the instructor who teaches the same courses in the structural division before taking any courses in the 4-out-of-6 core courses from other divisions or departments. 3. 授權指導教授全權規定及負責其指導學生應選科目內容。 3. A student's thesis advisor has authority over and is responsible for the student's course selection. |
| <p>水利組 Hydraulic Engineering</p> | <p>授權指導教授全權規定及負責其指導學生應選科目內容。</p> <p>A student's thesis advisor has authority over and is responsible for the student's course selection.</p> |
| <p>交通組 Transportation Engineering</p> | <ol style="list-style-type: none"> 1. 本組碩士班研究生於畢業前應修過本組至少四位專任老師所開授之研究所課程，若借調或休假之專任老師於該年度未開授課程，該專任老師可選定一門交通組研究所課程視同可承認之課程 (101.4.10 組務會議修正通過)。若本組碩士班研究生於大學時已選修本組專任老師所開授研究所課程 (M 或 U 字頭) 課程且及格者，亦可予以承認為前述畢業要求中本組專任老師所開授之課程。 1. A student must pass courses from at least four different full-time professors in the transportation division. A professor who is on sabbatical leave or secondment from the university can specify other courses in the division as the alternative to the professor's courses. If a student has passed the graduate-level courses (Curriculum Identity Number with M or U) offered by the full-time professors in the transportation division during the undergraduate study, passing these courses can be recognized as fulfilling the requirement above. 2. 授權指導教授全權規定及負責其指導學生應選科目內容。 2. A student's thesis advisor the authority over and is responsible for the student's course selection. |
| <p>電輔組 Computer-Aided Engineering</p> | <ol style="list-style-type: none"> 1. 應於第一學期加退選前決定指導教授，並由指導教授核可其它選修科目內容。 A student must have a thesis advisor by the deadline of the course add/drop period of the first semester after enrollment. The thesis advisor is responsible for the student's course selection. 2. 論文口試初試：於申請正式論文口試前須先經過組內初試，由本組教師二分之一以上認可，方得申請正式論文口試。 |

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| | <p>Preliminary oral defense: A student must pass the preliminary oral defense of their master's thesis and obtain approval from at least half of the professors in the division before they apply for the official oral defense.</p> |
| <p>營管組(一般生) Construction Engineering and Management (Full-time program)</p> | <p>1. 應修最低畢業學分規定如下: 27 學分 (不含專題討論及碩士論文及 2 學分之在職專班課程), 其中至少有 18 學分以上為本組所開授之課程。</p> <p>1. Credit requirements for the master's degree program: 27 credits (excluding seminars and the Master's Thesis and 2-credit courses that are specifically for the Executive Master's Degree Program), at least 18 out of 27 credits must be with from the courses offered by this division.</p> <p>113 學年度第一學期起適用 From 2024 Fall semester (113-1) 應修最低畢業學分規定如下: 24 學分 (不含專題討論、專案研究、及碩士論文及 2 學分之在職專班課程), 其中至少有 12 學分以上為本組所開授之課程。 Credit requirements for the master's degree program: 24 credits (excluding seminars, independent study, and the Master's Thesis and 2-credit courses that are specifically for the Executive Master's Degree Program), at least 12 out of 24 credits must be with from the courses offered by this division.</p> <p>2. 須經指導教授核可後, 方得提出論文口試。</p> <p>2. The application for the oral defense of their thesis must be approved by their advisor.</p> <p>3. 論文口試初審: 學生於申請論文口試前, 須先於專題研討(Seminar)所排定之初審日期進行口試初審, 由本組專任教師二分之一以上認可, 方得申請論文口試, 未達水準者, 須於申請論文口試截止日期前進行書面複審並經本組專任教師三位以上認可, 方得提出論文口試。</p> <p>3. Preliminary oral defense: Before applying for official oral defense, students must take the preliminary oral defense scheduled in the Seminar and pass the preliminary oral defense with the approvals from at least one half of the faculty members in the division. Students who had failed the preliminary oral defense must pass the written defense review with the approvals from at least 3 faculty members before the application deadline of the official oral defense.</p> <p>4. 碩士班畢業前至少須有一篇論文投稿至期刊或研討會。若申請畢業該學期無適當之研討會可供投稿, 學生可繳交其期刊或研討會論文草稿給本組組務教授並由組務教授簽名核可。</p> <p>4. Students must have at least one paper that has been submitted to a journal or conference. If there is no conference suitable for the students to attend during the semester of applying for graduation, students may submit their paper draft to the coordinating professor of the Construction Engineering and Management Division for approval and signature.</p> |

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| | <p>5. 碩士班在學期間應主動參與本組組務工作之推展，並於口試初審時提出對本組或營建工程與管理界之具體貢獻及服務說明，以列入初審之審核參考。</p> <p>5. Students are required to participate in the service of divisional affairs during their study and to demonstrate in their preliminary oral defense their contributions or efforts made to the division or the field of construction engineering and management for the consideration of preliminary oral defense.</p> |
| <p>營管組碩士(在職專班) Construction Engineering and Management (Executive Master's Degree Program)</p> | <p>1. 應修最低畢業學分規定如下：26 學分，不含論文學分數，但應含至少修習 2 學期之聯合專題討論，惟該課程計入畢業學分以 4 學分為上限。</p> <p>1. The graduation requirements are a minimum of 26 credits of courses (including at least 2 semesters of the 1-credit Joint Seminar, up to a maximum of 4 credits) excluding Thesis (M.S.).</p> <p>2. 須經指導教授核可後，方得提出論文口試。</p> <p>2. A student may apply for the oral defense of the thesis upon approval by the thesis advisor.</p> <p>3. 學生在學期間應主動參與本組組務工作之推展，其服務內容可做為指導教授是否核可其論文口試申請之參考。</p> <p>3. Students are required to participate in the service of divisional affairs during their study and their contributions or efforts made to the division may be considered toward their advisor's approval of their application of official oral defense.</p> |
| <p>測量及空間資訊組 Surveying and Geospatial Engineering</p> | <p>授權指導教授全權規定及負責其指導學生應選科目內容。</p> <p>A student's thesis advisor has authority over and is responsible for the student's course selection.</p> |

4. 碩士班各組抵免規定 Regulations of Course Exemption

| 組別 Division | 抵免規定 Regulations |
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| <p style="text-align: center;">大地組 Geotechnical Engineering</p> | <p>108 學年度第二學期前: Prior to the second semester of Academic Year 2019: 本組碩士生於本校大學部已修畢本組研究所課程，等第成績達A、且該課程學分並未用作大學部畢業學分者，經指導教授同意，可用以抵免學分數。其餘狀況皆不得抵免。抵免之總學分數以 6 學分為上限，欲申請抵免學生應於每學年上學期加退選截止日前申請。</p> <p>For credit exemption, the following conditions shall be met:</p> <ol style="list-style-type: none"> Courses offered by the division have already been taken during the student's undergraduate studies at National Taiwan University. The course grade must be A or above. Credits must not be counted for the student's credit requirement of the bachelor's degree. Approved by the thesis advisor. The total exempted credits are limited to a maximum 6 credits. Application of credit exemption should be filed before the deadline of the course add/drop period of the first semester of the academic year. <p>109 學年度第一學期起適用 Began from the first semester of Academic Year 2020 本組碩士生於本校大學部已修畢本組研究所課程，等第成績達A、且該課程學分並未用作大學部畢業學分者，經指導教授同意，可用以抵免學分數。其餘狀況皆不得抵免。抵免之總學分數以 6 學分為上限，欲申請抵免學生應於每學年上學期加退選截止日前申請。</p> <p>For credit exemption, the following conditions shall be met:</p> <ol style="list-style-type: none"> Courses offered by the division have already been taken during the student's undergraduate studies at National Taiwan University. The course grade must be A or above. Credits must not be counted for the student's credit requirement of the bachelor's degree. Approved by the thesis advisor. The total exempted credits are limited to a maximum 6 credits. Application of credit exemption should be filed before the deadline of the course add/drop period of the first |

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| | <p>semester of the academic year.</p> <p>本組碩士生於本校大學部已修畢本組研究所課程，等第成績達 B+，經指導教授同意，可用以抵免本組課程，但不能抵免學分數，欲申請抵免學生應於每學年上學期加退選截止日前申請。(110.1.14 組務會議修正通過)</p> <p>The required courses can be exempted if all of the following requirements are met:</p> <ol style="list-style-type: none"> The courses offered by the division have to be taken during the student's undergraduate study at National Taiwan University. The student must obtain course grades of B+ or above. Approved by the student's thesis advisor. The exempted courses do not count towards the required credits for graduation. Application of course exemption should be filed before the deadline of the course add/drop period of the first semester of the academic year. |
| <p>結構組 Structural Engineering</p> | <ol style="list-style-type: none"> 學生欲提出抵免申請前，需先經過指導教授同意。 Students must have the approval of the dissertation supervisor to be eligible to apply for credit exemptions. 研究生於本校大學部已修畢本組認定之研究所開授之課程，包含本校及三校聯盟或本組教師開授所有 M 字頭課程及 7 門 U 字頭課程「彈性力學一」、「基礎複合材料設計與實作」、「高等材料力學」、「訊號處理與頻譜分析」、「電腦模擬與計算材料力學」、「工程數學三」、「工程數學四」，等第成績達 A-者，經指導教授同意，可用以抵免學分數。抵免之總學分數以該學位應修最低畢業學分數四分之一為上限。於碩士班階段抵免之學分不得於博士班階段重複抵免。 For the credit exemption, the following requirements shall be met: <ol style="list-style-type: none"> The following courses have been taken in the students' undergraduate studies at National Taiwan University. <ol style="list-style-type: none"> Course numbers beginning with the letter M and acknowledged offered by National Taiwan University and National Taiwan University System and acknowledged by the structural division. Course numbers beginning with the letter U and acknowledged by the structural division, including Theory of Elasticity (I), Fundamental Design and Manufacture of Fiber-Reinforced-Polymer (FRP) Composites, Advanced Mechanics of Materials, Signal Processing and Spectral Analysis, Computational Modeling for Mechanics of Materials, Engineering Mathematics (III), and Engineering Mathematics (IV). The course grade must be A- or above. The applications must be approved by the thesis advisor. The total credits to be exempted cannot be greater than 1/4 of the minimum credit requirement for the degree. |

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| | <p>e. The credits that have been exempted in the master's program cannot be reused and/or exempted in the doctoral program.</p> <p>3. 抵免「非本組教師開授之 6 選 4 核心課程」需經過指導教授及本組授課教師同意。 A student requires the approval from the thesis advisor and the instructor who teaches the same courses in the structural division before exempting any courses in the 4-out-of-6 core courses from other divisions or departments.</p> |
| 水利組 Hydraulic Engineering | <p>研究生於大學部已修畢土木系研究所必修或土木系各組認定之課程，成績已達 B- 者可抵免該課程，但不可抵免學分。</p> <p>The required and acknowledged courses can only be exempted when meeting all the following requirements:</p> <ol style="list-style-type: none"> The courses have to be taken during the students' undergraduate studies at National Taiwan University. Students must obtain a grade of B- or above in the courses. <p>Exempted courses are not counted in the required credits for graduation.</p> |
| 交通組 Transportation Engineering | <ol style="list-style-type: none"> 交通組碩士班生若於大學時已選修本組 M 或 U 字頭若干課程且及格者，其於研究所期間可不再重複修前述課程，但於畢業前仍須另修滿二十四學分。 If students have passed a course with "M" or "U" code in the Curriculum Identity Number during their undergraduate studies at National Taiwan University, the course can be exempted. However, the exempted courses are not counted in the required credits for graduation. 交通組碩士生若曾於他校碩士班就讀時修畢若干課程，其抵免與否由本組相同課程任課老師決定之，但其總抵免學分以六學分為上限。 For courses that students have taken during their master's program studies at other universities, the professor who offers the same course determines whether it can be exempted or not. The total exempted credits cannot be greater than 6 credits. |
| 電輔組 Computer-Aided Engineering | <p>111 學年度第二學期前 Prior to and including the 2023 Spring Semester (111-2)</p> <ol style="list-style-type: none"> 研究生曾於他校研究所修習及格之課程，該課程可否抵免需由組務會議審核，其餘皆不得抵免。 For courses that students have taken during their master's degree program studies at other universities, the Division Affairs Meeting determines if they can be exempted or not. 本組研究生於本校大學部已修畢本組研究所必修或本組認定之研究所開授之課程，等第成績達 A 者，經指導教授同意，可用以抵免學分數。抵免之總學分數以該學位應修最低畢業學分數四分之一為上限。於碩士 |

班階段抵免之學分不得於博士班階段重複抵免。

2. For credit exemption, the following shall be met:
 - a. Required courses or courses acknowledged by the division have already been taken during the student's undergraduate studies at National Taiwan University.
 - b. The course grade must be A or above.
 - c. Approved by the thesis advisor.
 - d. The total exempted credits cannot be greater than 1/4 of the minimum credits required for the degree.
 - e. The credits that have been exempted during the master's degree program cannot be reused and exempted in the doctoral program.
3. 本組認定之研究所開授之課程：BIM 導入實務與演練、有限元素法、設計模式與軟體開發、工程視覺化專題。
3. The course acknowledged by the division: BIM Implementation Practice, Method of Finite Elements, Software Design Pattern and Development, Visualization in Engineering.

112 學年度第一學期起適用 From 2023 Fall Semester (112-1)

1. 本組研究生於本校大學部已修畢本組研究所必修或本組認定之研究所開授之課程，等第成績達 **A+** 者，經指導教授同意，可用以抵免學分數。**抵免之總學分數以 9 學分為上限**。於碩士班階段抵免之學分不得於博士班階段重複抵免。
1. For credit exemption, the following shall be met:
 - a. Required courses or courses acknowledged by the division have already been taken during the student's undergraduate studies at National Taiwan University.
 - b. The course grade must be **A+**.
 - c. Approved by the thesis advisor.
 - d. **The total exempted credits cannot be higher than 9 credits.**
 - e. The credits that have been exempted during the master's degree program cannot be reused and exempted in the doctoral program.
2. 本組認定之研究所開授之課程：機器學習與深度學習導論、能源系統工程與經濟、深度學習應用於電腦視覺、BIM 技術與應用、數據分析之計算統計學、**工程科學研究方法、BIM 導入實務與演練**
2. The courses acknowledged by the division: Introduction to Machine Learning and Deep Learning, Energy Systems Engineering and Economics, Deep Learning in Computer Vision, Technology and Application of BIM, Computational Statistics for Data Analytics, **Research Methods for Engineering and Natural Science, and BIM Implementation Practice.**

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| <p>營管組 Construction Engineering and Management</p> | <ol style="list-style-type: none"> 1. 營建工程與管理組碩士班總抵免學分以 6 學分為上限。 1. The total credits that can be exempted for the master's degree program cannot be more than 6 credits. 2. 本組研究生於本校已修畢本組研究所開授若干課程且及格，成績超過 A（含）以上者，經指導老師同意，可用以抵免學分。研究所期間可不再重複修前述課程。 2. For credit exemption, the following conditions shall be met: <ol style="list-style-type: none"> a. Courses are offered by the division. b. The course grade must be A or above. c. Approved by the advisor. d. Students do not need to retake the courses that have already been exempted. 3. 於碩士班階段抵免之學分不得於博士班階段重複抵免。 3. The credits that have been exempted during the master's degree program cannot be counted and exempted in the doctoral program. |
| <p>測量及空間資訊組 Surveying and Geospatial Engineering</p> | <p>選修課程應由研究生與其指導教授共同商議。對於曾修畢本組研究所之課程，且分數達 A(含)以上者，其學分之抵免與否應由其指導教授決定。</p> <p>The thesis advisor of a student determines whether a course that the student took during the undergraduate study at National Taiwan University with a grade of A or above can be exempted or not.</p> |