# Department of Agronomy(Genetics and Breeding group) Graduation Requirements for Master Students Enrolled after 2023

| Items | Notes |
|---|---|
| I. Years of Enrollment:<br>1. Minimum years of enrollment: 1 year<br>2. Maximum years of enrollment: 4 years (excluding 2 years of suspension) | Part-time students may prolong years of enrollment for 1 more year. |
| II. Minimum credits for graduation: 30 credits (physical education and citizen national defense education are not included), including:<br>1. Courses:<br>minimum of required credits: 12<br>minimum of elective credits: 12<br>2. Master Thesis: 6 credits | Students are considered to have passed both academic and conduct assessment with the grade of 70 or above. Students who fail in conduct will be dismissed.<br>The average of academic grades comprises 50 % of the overall graduation grades.<br>*Required credits+ Elective credits + Master Thesis = minimum credits for graduation |
| III. Transfer credits: maximum 12 credits | According to NCHU Regulation for Credits Exemption, students should apply for credit exemption and complete the process within 2 weeks after the registration date. |
| IV. Undergraduate credits from discipline-related courses may be counted as graduation credits. Maximum 3 credits | According to NCHU regulation, the number of credits students should take is determined by their advisor or the department chairperson. Students who need to take undergraduate courses for research purposes, besides the credits for graduation, may take undergraduate courses with the consent of the instructor. The course may be counted as graduation credits after obtaining the approval form the advisor, and relevant department committee. Nevertheless, the maximum for such undergraduate credits: 6 credits.<br>If graduate students take advanced courses as defined by the NCHU Regulations for Curriculum Planning and Course Opening, a maximum of 12 credits can be counted. |
| V. Credits from other departments: 6 credits. | Including inter-university credits. |
| VI. Core courses and credits: 18 credits | 1. Students who fail the core courses should retake core courses.<br>2. Students who don't complete core courses cannot graduate.<br>3. Seminar (I) and (II) each require earning 2 credits.<br>*Courses can be taken across groups and are not restricted by semester. Upon completing 4 credits of seminars, the course will be considered as completed. |
| VII. Prerequisite Courses (not included in graduation credits): credits | According to NCHU graduate regulation, students should take certain prerequisite courses at the undergraduate level, which are decided by advisors and chairperson. Prerequisite credits will not be counted as graduation credits. Students are not eligible to attend the thesis defense until they complete the prerequisite courses. |
| VIII.Thesis Defense:<br>1. Students should discuss with their advisors prior to the end of first academic year.<br>2. Students must get the certification of "Education on Academic and Research Ethics" course before the application of the oral defense.<br>3. Students who complete minimum of enrollment, fulfill graduation credits, and complete the draft of thesis should apply for oral defense at least 20 days prior to the oral defense. The passing grade for defense is 70. | Oral defense comprises 50% of graduation grade.<br>Students must learn "Education on Academic and Research Ethics" course and take the exam to obtain the certificate form the Center for Taiwan Academic Research Ethics Education website. Each department may additionally require the completion of professional academic research ethics education workshops, which will be implemented according to the regulations established by each department.<br>Master thesis should be written in English and oral defense should be carried out in English. Students who fail oral defense within enrollment should retake it next semester or year. If students who retake oral defense fail again, their study will be terminated. The grade of those who pass retaking the oral defense is uniformly calculated at 70. |
| IX. Others:<br>1. English Proficiency Graduation Criteria: None<br>2. Before graduating, graduate students must publish a paper in an academic journal or present a paper in an academic seminar or poster before they can apply for the thesis examination. | |

| Core Course Title | Credits |
|---|---|
| 1. Seminar in Crop Production and Physiology (I) | 2 |
| 2. Seminar in Crop Genetics and Breeding (I) | 2 |
| 3. Seminar in Statistical Method and Experimental Design(I) | 2 |
| 4. Seminar in Crop Production and Physiology (II) | 2 |
| 5. Seminar in Crop Genetics and Breeding (II) | 2 |
| 6. Seminar in Statistical Method and Experimental Design(II) | 2 |
| 7. Advanced Crop Sciences | 2 |
| 8. Advanced Crop Genetics | 2 |
| 9. Advanced Crop Physiology | 2 |
| 10. Advanced Plant Breeding | 2 |
| 11. Thesis | 6 |

2025/09/26

Coordinator 系(所、學位學程)承辦人：　　Chairperson 系所主管簽章：

# Department of Agronomy(crop science group) Graduation Requirements for Master Students Enrolled after 2023

<table>
<tr><th>Items</th><th>Notes</th></tr>
<tr><td>II. Years of Enrollment:<br>1. Minimum years of enrollment: 1 year<br>2. Maximum years of enrollment: 4 years (excluding 2 years of suspension)</td><td>Part-time students may prolong years of enrollment for 1 more year.</td></tr>
<tr><td>III. Minimum credits for graduation: 30 credits (physical education and citizen national defense education are not included), including:<br>1. Courses:<br>minimum of required credits: 12<br>minimum of elective credits: 12<br>2. Master Thesis: 6 credits</td><td>Students are considered to have passed both academic and conduct assessment with the grade of 70 or above. Students who fail in conduct will be dismissed.<br>The average of academic grades comprises 50 % of the overall graduation grades.<br>*Required credits+ Elective credits + Master Thesis = minimum credits for graduation</td></tr>
<tr><td>III. Transfer credits: maximum 12 credits</td><td>According to NCHU Regulation for Credits Exemption, students should apply for credit exemption and complete the process within 2 weeks after the registration date.</td></tr>
<tr><td>IV. Undergraduate credits from discipline-related courses may be counted as graduation credits. Maximum 3 credits</td><td>According to NCHU regulation, the number of credits students should take is determined by their advisor or the department chairperson. Students who need to take undergraduate courses for research purposes, besides the credits for graduation, may take undergraduate courses with the consent of the instructor. The course may be counted as graduation credits after obtaining the approval form the advisor, and relevant department committee. Nevertheless, the maximum for such undergraduate credits: 6 credits.<br>If graduate students take advanced courses as defined by the NCHU Regulations for Curriculum Planning and Course Opening, a maximum of 12 credits can be counted.</td></tr>
<tr><td>V. Credits from other departments: 6 credits.</td><td>Including inter-university credits.</td></tr>
<tr><td>VI. Core courses and credits: 18 credits
<table>
<tr><th>Core Course Title</th><th>Credits</th></tr>
<tr><td>1. Seminar in Crop Production and Physiology (I)</td><td>2</td></tr>
<tr><td>2. Seminar in Crop Genetics and Breeding (I)</td><td>2</td></tr>
<tr><td>3. Seminar in Statistical Method and Experimental Design(I)</td><td>2</td></tr>
<tr><td>4. Seminar in Crop Production and Physiology (II)</td><td>2</td></tr>
<tr><td>5. Seminar in Crop Genetics and Breeding (II)</td><td>2</td></tr>
<tr><td>6. Seminar in Statistical Method and Experimental Design(II)</td><td>2</td></tr>
<tr><td>7. Advanced Crop Sciences</td><td>2</td></tr>
<tr><td>8. Advanced Crop Genetics</td><td>2</td></tr>
<tr><td>9. Advanced Crop Physiology</td><td>2</td></tr>
<tr><td>10. Advanced Plant Breeding</td><td>2</td></tr>
<tr><td>11. Thesis</td><td>6</td></tr>
</table></td><td>1. Students who fail the core courses should retake core courses.<br>2. Students who don’t complete core courses cannot graduate.<br>3. Seminar (I) and (II) each require earning 2 credits.<br>*Courses can be taken across groups and are not restricted by semester. Upon completing 4 credits of seminars, the course will be considered as completed.</td></tr>
<tr><td>VII. Prerequisite Courses (not included in graduation credits): credits</td><td>According to NCHU graduate regulation, students should take certain prerequisite courses at the undergraduate level, which are decided by advisors and chairperson. Prerequisite credits will not be counted as graduation credits. Students are not eligible to attend the thesis defense until they complete the prerequisite courses.</td></tr>
<tr><td>IX. Thesis Defense:<br>1. Students should discuss with their advisors prior to the end of first academic year.<br>2. Students must get the certification of “Education on Academic and Research Ethics” course before the application of the oral defense.<br>3. Students who complete minimum of enrollment, fulfill graduation credits, and complete the draft of thesis should apply for oral defense at least 20 days prior to the oral defense. The passing grade for defense is 70.</td><td>Oral defense comprises 50% of graduation grade.<br>Students must learn “Education on Academic and Research Ethics” course and take the exam to obtain the certificate form the Center for Taiwan Academic Research Ethics Education website. Each department may additionally require the completion of professional academic research ethics education workshops, which will be implemented according to the regulations established by each department.<br>Master thesis should be written in English and oral defense should be carried out in English. Students who fail oral defense within enrollment should retake it next semester or year. If students who retake oral defense fail again, their study will be terminated. The grade of those who pass retaking the oral defense is uniformly calculated at 70.</td></tr>
<tr><td>X. Others:<br>1. English Proficiency Graduation Criteria: None<br>2. Before graduating, graduate students must publish a paper in an academic journal or present a paper in an academic seminar or poster before they can apply for the thesis examination.</td><td></td></tr>
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2025/9/26

Coordinator 系(所、學位學程)承辦人：　　Chairperson 系所主管簽章：

# Department of Agronomy(Biostatistics group) Graduation Requirements for Master Students Enrolled after 2023

<table>
<tr><th>Items</th><th>Notes</th></tr>
<tr><td>III. Years of Enrollment:<br>1. Minimum years of enrollment: 1 year<br>2. Maximum years of enrollment: 4 years (excluding 2 years of suspension)</td><td>Part-time students may prolong years of enrollment for 1 more year.</td></tr>
<tr><td>IV. Minimum credits for graduation: 30 credits (physical education and citizen national defense education are not included), including:<br>1. Courses:<br>minimum of required credits: 13<br>minimum of elective credits: 11<br>2. Master Thesis: 6 credits</td><td>Students are considered to have passed both academic and conduct assessment with the grade of 70 or above. Students who fail in conduct will be dismissed.<br>The average of academic grades comprises 50 % of the overall graduation grades.<br>*Required credits+ Elective credits + Master Thesis = minimum credits for graduation</td></tr>
<tr><td>III. Transfer credits: maximum 12 credits</td><td>According to NCHU Regulation for Credits Exemption, students should apply for credit exemption and complete the process within 2 weeks after the registration date.</td></tr>
<tr><td>IV. Undergraduate credits from discipline-related courses may be counted as graduation credits. Maximum 3 credits</td><td>According to NCHU regulation, the number of credits students should take is determined by their advisor or the department chairperson. Students who need to take undergraduate courses for research purposes, besides the credits for graduation, may take undergraduate courses with the consent of the instructor. The course may be counted as graduation credits after obtaining the approval form the advisor, and relevant department committee. Nevertheless, the maximum for such undergraduate credits: 6 credits.<br>If graduate students take advanced courses as defined by the NCHU Regulations for Curriculum Planning and Course Opening, a maximum of 12 credits can be counted.</td></tr>
<tr><td>V. Credits from other departments: 6 credits.</td><td>Including inter-university credits.</td></tr>
<tr><td>VI. Core courses and credits: 19 credits
<table>
<tr><th>Core Course Title</th><th>Credits</th></tr>
<tr><td>1. Seminar in Crop Production and Physiology (I)</td><td>2</td></tr>
<tr><td>2. Seminar in Crop Genetics and Breeding (I)</td><td>2</td></tr>
<tr><td>3. Seminar in Statistical Method and Experimental Design(I)</td><td>2</td></tr>
<tr><td>4. Seminar in Crop Production and Physiology (II)</td><td>2</td></tr>
<tr><td>5. Seminar in Crop Genetics and Breeding (II)</td><td>2</td></tr>
<tr><td>6. Seminar in Statistical Method and Experimental Design(II)</td><td>2</td></tr>
<tr><td>7. Statistical Theory</td><td>6</td></tr>
<tr><td>8. Linear Models</td><td>3</td></tr>
<tr><td>9. Thesis</td><td>6</td></tr>
</table></td><td>1. Students who fail the core courses should retake core courses.<br>2. Students who don’t complete core courses cannot graduate.<br>3. Seminar (I) and (II) each require earning 2 credits.<br>*Courses can be taken across groups and are not restricted by semester. Upon completing 4 credits of seminars, the course will be considered as completed.</td></tr>
<tr><td>VII. Prerequisite Courses (not included in graduation credits): credits</td><td>According to NCHU graduate regulation, students should take certain prerequisite courses at the undergraduate level, which are decided by advisors and chairperson. Prerequisite credits will not be counted as graduation credits. Students are not eligible to attend the thesis defense until they complete the prerequisite courses.</td></tr>
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<tr><td>IX. Others:<br>1. English Proficiency Graduation Criteria: None<br>2. Before graduating, graduate students must publish a paper in an academic journal or present a paper in an academic seminar or poster before they can apply for the thesis examination.</td><td></td></tr>
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2025/9/26

Coordinator 系(所、學位學程)承辦人：　　Chairperson 系所主管簽章：

# Department of Agronomy Graduation Requirements for Master Students Enrolled after 2023

## professional elective courses

| | Core Course Title | Semester /Year | Credits |
|---|---|---|---|
| 1 | Crop Molecular Breeding | S | 3 |
| 2 | Advanced Methodology of crop breeding | S | 3 |
| 3 | Genomics | S | 3 |
| 4 | Plant Physiological and Ecological Genetics | S | 3 |
| 5 | Cytogenetics:with Practice | S | 3 |
| 6 | Crop Resources | S | 2 |
| 7 | Advanced Seed Science | S | 2 |
| 8 | Crop Environmental Physiology | S | 2 |
| 9 | Crop Metabolic Physiology | S | 2 |
| 10 | The Physiology of Crop Yield | S | 2 |
| 11 | Physiology of Herbicide Action | S | 2 |
| 12 | Regression Analysis | S | 3 |
| 13 | Advanced Experimental Design and Statistical Analysis | S | 3 |
| 14 | Sampling Techniques | S | 2 |
| 15 | Multivariate Statistical Analysis | S | 3 |
| 16 | Categorical Data Analysis | S | 3 |
| 17 | Nonparametric Analysis | S | 3 |
| 18 | Applied Statistical Packages | S | 3 |
| 19 | Technique in Health Cultivation Management for Crops | S | 3 |
| 20 | Design and Analysis of Experiments in Agricultural Science | S | 3 |
| 21 | The application of genetics and genomics in crop improvement | S | 2 |
| 22 | Statistical Methods in Bioinformatics | S | 3 |
| 23 | Introduction to Biostatistics | S | 2 |
| 24 | Advanced Research Methods in Crop Science | S | 3 |

| | Core Course Title | Semester /Year | Credits |
|---|---|---|---|
| 25 | Auditing Practice for Certification of Organic and TAP Agro-Product | S | 2 |
| 26 | Technologies of precision breeding | S | 2 |
| 27 | Bioinformatics in Crop Breeding | S | 2 |
| 28 | Utilization of Agricultural Wastes | S | 2 |
| 29 | Crop Breeding Method | S | 2 |
| 30 | Carbon Farming Technology | S | 2 |
| 31 | Smart-Precision Agricultural Technology | S | 2 |
| 32 | Soil Fertility Management | S | 3 |
| 33 | Data Analysis for Crop Breeding Experiments | S | 3 |
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Note:

1. The elective courses listed above are part of the academic curriculum plan; however, they may not be offered or may be canceled due to insufficient enrollment.
2. Courses with codes starting with 6 or 7 are designated as graduate-level courses.
3. Courses with codes starting with 5 are classified as advanced courses under the "Curriculum Planning and Course Offering Guidelines," and a maximum of 12 credits from these courses may be counted toward graduation requirements.