

# Department of Agronomy Graduation Requirements for Students Enrolled after 2025

Items	Items																																																
<b>I. Years of Enrollment :</b> Minimum years of enrollment : 4 years (5 years for Veterinary Medicine) Can be extended for 2 more years (excluding 2 years of suspension)	<b>V. Required professional courses by the department: <u>43</u> credits.</b>																																																
<b>II. Minimum graduation credits required: <u>130</u> credits</b>	<table><tr><th>Core Course Title</th><th>Semester /Year</th><th>Credits</th></tr><tr><td>1. Botany</td><td>Semester</td><td>3</td></tr><tr><td>2. Bio-statistics and Practice</td><td>Semester</td><td>4</td></tr><tr><td>3. Introduction to Crop Production</td><td>Semester</td><td>3</td></tr><tr><td>4. Food Crop Science and Practice</td><td>Semester</td><td>4</td></tr><tr><td>5. Experimental Design and Practice</td><td>Semester</td><td>4</td></tr><tr><td>6. Crop Physiology</td><td>Semester</td><td>4</td></tr><tr><td>7. Genetics and Practice</td><td>Semester</td><td>4</td></tr><tr><td>8. Special Crop Science and Practice</td><td>Semester</td><td>4</td></tr><tr><td>9. Plant Breeding and Practice</td><td>Semester</td><td>4</td></tr><tr><td>10. Soil and Fertilizer</td><td>Semester</td><td>3</td></tr><tr><td>11. Seminar in Crop Science 、 Seminar in Genetics and Breeding 、 Seminar in Biometrics (choose one of the three subjects)</td><td>Year</td><td>2</td></tr><tr><td>12. Farm Practice ( I )</td><td>Semester</td><td>1</td></tr><tr><td>13. Farm Practice ( II )</td><td>Semester</td><td>1</td></tr><tr><td>14. Internship</td><td>Semester</td><td><u>1</u></td></tr><tr><td>15. Introduction to Agronomy</td><td>Semester</td><td>1</td></tr></table>	Core Course Title	Semester /Year	Credits	1. Botany	Semester	3	2. Bio-statistics and Practice	Semester	4	3. Introduction to Crop Production	Semester	3	4. Food Crop Science and Practice	Semester	4	5. Experimental Design and Practice	Semester	4	6. Crop Physiology	Semester	4	7. Genetics and Practice	Semester	4	8. Special Crop Science and Practice	Semester	4	9. Plant Breeding and Practice	Semester	4	10. Soil and Fertilizer	Semester	3	11. Seminar in Crop Science 、 Seminar in Genetics and Breeding 、 Seminar in Biometrics (choose one of the three subjects)	Year	2	12. Farm Practice ( I )	Semester	1	13. Farm Practice ( II )	Semester	1	14. Internship	Semester	<u>1</u>	15. Introduction to Agronomy	Semester	1
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<b>III. Courses required by the university curriculum:</b> 1. Physical Education: <u>2</u> credits, not included in the credits for graduation. Extra taken PE course credits will be counted as from other departments, and are limited to a maximum of 2 credits. Athletes with outstanding sports achievements will be handled according to the relevant regulations of the Office of Physical Education and Sports. 2. English Proficiency Requirement: <u>0</u> credit. 3. General Education : <u>28</u> credits i. Core Competencies: at least <u>3</u> credits. International students do not need to take the “Information Literacy” course. ii. Language Competencies: (at least <u>8</u> credits) ➢ <u>Native Language and Literature</u> : 4 credits <u>Narrative Expression: Language Literacy</u> <u>Narrative Expression: Language Application</u> ➢ Foreign Language: at least 4 credits and at most 6 credits. ■ <u>English Communication and Expression</u> ■ <u>Academic English : Listening and Reading</u> □ <u>Academic English : Speaking and Writing</u> iii. Domain Competencies: at least <u>10</u> credits ➢ Humanistic Domain, Social Science Domain, and Natural Domain: at least one course in each Domain, total at least <u>6</u> credits. ➢ Integrated Domain: at least <u>4</u> credits. ➢ For National Defense education courses, only credits of 1 course can be counted as general education credits. ➢ Our program belongs to the area of <u>Life Science Discipline</u> ; therefore, <u>only one course</u> from this area will be recognized. IV. Extra credits □ can ■ can’ t be counted in the graduation credits.	<b>VI. Minimum of professional elective credits: <u>40</u> credits</b> <b>VII. Other Regulations:</b> 1. The department’s "Seminar" courses are divided into three subjects: Seminar in Crop Science, Seminar in Genetics and Breeding, and Seminar in Biometrics. These seminars are full-year courses offered by the department. Students may choose any one of the subjects, and regardless of whether they take it in the first or second semester, upon completing 2 credits from any of the seminar subjects, they will be recognized as having completed the department's "Seminar" course requirement. 2. The following courses are recognized as department credits: Genetics, Genetics Practice,Irrigation and Drainage, Biostatistics and Experimental Design (including practice), and Biostatistics (including practice). (Note: Regardless of which department offers the course, if the course title matches, it will be recognized.) 3. " Research Method for Agronomy Science (I), (II), (III)" are full-year courses. Upon completing each semester, students will receive 1 credit, regardless of whether the course is taken in the first or second semester. 4. Credits from other departments: A maximum of <u>19</u> credits will be recognized. 5. Students may take " Practice in Agro-Industry (I), (II), and (III)" offered by the College of Agriculture and Natural Resources to fulfill the department's " Internship" requirement; however, a maximum of 1 credit may be counted.																																																
<b>IV. Courses required by college curriculum: <u>0</u> credits</b> <table><tr><th>Course Title</th><th>Semester /Year</th><th>Credits</th></tr><tr><td>1.</td><td></td><td></td></tr><tr><td>2.</td><td></td><td></td></tr><tr><td>3.</td><td></td><td></td></tr><tr><td>4.</td><td></td><td></td></tr></table>	Course Title	Semester /Year	Credits	1.			2.			3.			4.																																				
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**VIII. Minor Degree:** If a student intends to study for a minor degree, he/she will need to take 20 (or more) credits in addition to the department's minimum credits required for graduation. For more details, please see the bulletin of Curriculum Division website.

**IX. Double Major:** The graduation requirements for students in pursuit of a double major (department or degree program) shall be based on the relevant regulations applicable at the time (year) when the application was approved. Double major students not only have to fulfill all graduation credit requirements of their original major (department or degree program), they must also complete all core courses for the second major (department or degree program) in order to be granted a double major degree.

Undergraduate students who did not complete or are short of 40 credits for the second major must make up for those credits by taking courses designated by the second-major department or degree program.

**X. Cross-Disciplinary Expertise Development Program :** The department ☐ none ☒ Yes (please check) opened, who can apply for ☒ undergraduates ☒ undergraduates of extension education programs (please check); For students whose compulsory courses and credits are the same as the ones offered by the departments (degree programs), double major, minor, or other cross-disciplinary expertise programs providing cross-disciplinary expertise courses, they shall take other elective courses that are related to their expertise and designated by the departments (degree programs) or colleges providing cross-disciplinary expertise module courses.

**XI. Students who graduate from the study period of the senior high school less than 6 years will be required to take at least 12 extra credits in their graduation requirements.**

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## professional elective courses

Core Course Title				Semester /Year	Credits
1	General Chemistry			S	3
2	General Chemistry Experiment			S	1
3	General Physics			S	3
4	General Physics Laboratory			S	1
5	Organic Chemistry			S	3
6	Organic Chemistry Laboratory			S	1
7	Taxonomy of Plants			S	3
8	Agricultural Mechanics			S	3
9	Biochemistry			S	4
10	Laboratory of Biochemistry			S	2
11	Processing and Preparation for Agricultural Products			S	3
12	Irrigation and Drainage			S	3
13	Climatology			S	3
14	Crop Protection			S	3
15	Applied Microbiology			S	3
16	Horticulture			S	2
17	Horticultural Science Laboratory			S	1
18	Agricultural Policies and Regulations			S	3
19	Research Methods for Agronomy Science ( I )			Y	2
20	Research Method for Agronomy Science ( II )			Y	2
21	Research Method for Agronomy Science ( III )			Y	2
22	Growth and Differentiation of Crop Plants			S	2
23	Crop Biochemistry			S	3
24	Crop Anatomy			S	3
25	Introduction to Herbicides			S	2
26	Weed Management			S	2
27	Vegetative Propagation Methods of Crop and Practice			S	3
28	Plant Nutrition Management			S	3
29	Seed Science and Technology			S	2
30	Rice Science			S	2
31	Tea Corp Science			S	2
32	Medicinal Crop Science			S	2
33	Operation and Management of Organic Farm			S	2
34	Regression and Correlation			S	3
35	Design and Analysis of Factorial Experiments			S	3
36	Quantitative Genetics			S	2
37	Introduction to Mathematic Statistics			S	3
38	Introduction to Applied Statistical Packages			S	3
39	Plant Anatomy			S	2
40	Bio-information			S	3
41	Information Management			S	3
42	Calculus ( I )			S	2
43	Calculus ( II )			S	2
44	Molecular Biology			S	3

Core Course Title				Semester /Year	Credits
45	Introduction to Cytogenetics			S	3
46	Crop Breeding Method			S	2
47	Plant Germplasm Collection and Conservation			S	2
48	Plant Biotechnology			S	3
49	Production and Utilization of Medicinal Herbs			S	3
50	Agronomic Crop Pest Management			S	2
51	Agronomic Crop Diseases			S	3
52	Utilization of Agricultural Wastes			S	2
53	Tea Making Science			S	2
54	Health Management for Tea Garden			S	3
55	Principles of Genetics and Plant Breeding			S	3
56	Introduction to Agriculture			S	2
57	Agricultural Economic			S	3
58	Policy Study of Sustainable Agriculture			S	2
59	Food and Agriculture Education(I)			S	3
60	Food and Agriculture Education(II)			S	3
61	Operation and Management of Organic Farm (College of Agriculture and Natural Resources)			S	3
62	Molecular Marker-assisted Breeding of Crop			S	1
63	Molecular Marker-assisted Breeding of Crop Laboratory			S	1
64	Practice in Agro-Industry ( I )			S	2
65	Practice in Agro-Industry ( II )			S	2
66	Practice in Agro-Industry ( III )			S	9
67	Crop science			S	2
68	Practice on Fundamental Research Methods in Crop Science			S	3
69	Introduction to Biostatistics			S	2
70	Bioinformatics in Crop Breeding			S	2
71	Introduction to Plant Genomics and Breeding			S	2
72	Technologies of precision breeding			S	2
73	English for Agriculture			S	1
74	Introduction of reading and writing for scientific reports			S	2
75	Statistics			S	3
76	The development of precision farms in the elderly industry			S	2
77	Carbon Farming Technology			S	2
78	Smart-Precision Agricultural Technology			S	2
79	Soil Fertility Management			S	3
80	Statistical Methods in Bioinformatics			S	3
81	Genomics			S	3

NOTES:

1. The department should take a minimum of 40 credits (excluding military training).
2. The above elective courses include electives that can be recognized as majors of the department Divided into other departmental courses.
3. The course of " Program for Farm Managers " offered by the College of Agricultural Materials shall be approved by the Curriculum Committee of the Department and can be recognized as an elective credit for the major of the Department.
4. Courses with codes beginning with 5 are classified as advanced courses as defined by the "National Chung Hsing University Regulations for Curriculum Planning and Course Offering.