

Minnesota

Articulated College Credit (ACC) Agreement

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Agreement Name **MN Agronomy – Plant Biology**

Agreement Last Reviewed **Fall 2024**

Next Review Date **Fall 2026**

College	College Course	College Programs	ACC
Hennepin Technical College	LNDC 1242 – Plant Biology	<ul style="list-style-type: none"> • Landscape/Horticulture Careers (A.A.S.–72 cr.) • Landscape/Horticulture (Diploma – 64 cr.) • Landscape Design & Construction (Diploma –64 cr.) • Urban Forestry Technician (A.A.S. – 60 cr.) • Greenhouse Mgt. Technician (A.A.S. – 60 cr.) 	2 credits of 4 credits
Minnesota West Community & Technical College	AGRI 1102 – Principles of Agronomy	<ul style="list-style-type: none"> • Agriculture Business (A.S.-60 cr.) • Agriculture Business Management and Marketing (A.A.S. – 72 cr.) • Agriculture – Plant Science GIS/GPS (A.S. – 60 cr.) • Agriculture – Precision Agriculture Application Technician (Certificate – 26 cr.) • Agriculture – Production Agriculture (Diploma – 64 cr.) • Agriculture Production (A.A.S – 72 cr.) • Agriculture Production Management (A.S. – 60 cr.) 	1 credit of 2 credits
Ridgewater College	AGRI 1660 – Introduction to Agronomy	<ul style="list-style-type: none"> • Agri Business (A.A.S. – 72 cr.) • Agri Business (Diploma – 72 cr.) • Agriculture Science and Technology (A.S. – 60 cr.) • Agronomy Technology (Diploma – 72 cr.) • Dairy Management (A.A.S. – 72 cr.) • Dairy Management (Diploma – 72 cr.) • Farm Operation and Management (A.A.S – 72 cr.) • Farm Operation Management (Diploma – 72 cr.) • Precision Agriculture (A.A.S – 72 cr.) • Precision Agriculture (Diploma – 72 cr.) 	2 credits of 3 credits
South Central College	PLSC 1300 – Agronomy I	<ul style="list-style-type: none"> • Agribusiness (A.A.S. – 72 cr.) • Agribusiness Sales, Service, and Management (Diploma – 72 cr.) • Agribusiness Chemical Applicator Technician (Certificate – 30 cr.) • Agronomy (Certificate – 13 cr.) • Agricultural Education Technology Partnership (A.S. – 60 cr.) • Production Agriculture – (A.A.S. – 72 cr.) • Farm Production, Management, and Operations (Diploma – 72 cr.) 	1 credit of 2 credits

Curriculum Content Objectives

To receive credit, students will be introduced to 100% of the following content objectives:

1. Describe the field of agronomy
2. Describe human dependence on plants
3. Explain the photosynthetic process
4. Explain respiration and metabolism

5. Identify the anatomy of a seed
6. Identify the chemical structure of plants
7. Identify plant cell structure
8. Identify plant tissue
9. Identify root structures
10. Identify stem structures
11. Identify leaf structures
12. Identify floral structures
13. Identify fruit/seed structures
14. Describe the germination of monocot
15. Describe the growth stages and development of monocot (corn/grass)
16. Describe monocot anatomy
17. Identify monocotyledon plants
18. Describe seed dormancy
19. Describe the germination of dicot
20. Describe the growth stages and development of dicot
21. Describe dicot anatomy
22. Identify dicotyledon plants
23. Explain reproduction and seed development
24. Explain plant breeding
25. Explain seed production/management
26. Describe plant types and classifications
27. Describe genetic engineering
28. Describe GMO hybrids & varieties
29. Describe tissue culture
30. Explain the plant nitrogen cycle
31. Explain the plant carbon cycle
32. Review the history of agriculture as it relates to agronomy
33. Provide a brief overview/definition (general concepts) of the USDA and farm bill
34. Describe transpiration

Suggested Assignments and Information

See additional assignments and information you may want to use regarding the Farm Bill.

- 5 Things to watch with the Farm Bill
- Agricultural subsidies
- Budget issues shaping Farm Bill
- Legislative Report for AG
- Problem with Food Subsidy – Opinion
- What is the Farm Bill
- Farm Bill Assignment

Assessments

Students must achieve no less than 80% or B for a final grade in the high school course to receive ACC.

ACC Concept

Through Articulated College Credit (ACC), specific college curriculum content goals and assessments are embedded in participating high school career and technical education (CTE) programs as specified in this agreement. Relevant knowledge, skills, and standards are taught by qualified CTE high school instructor(s) in one or more high school courses. ACC is awarded if the student meets the college equivalency standards and later enrolls in the college(s) listed below requiring the course in a specific program.