

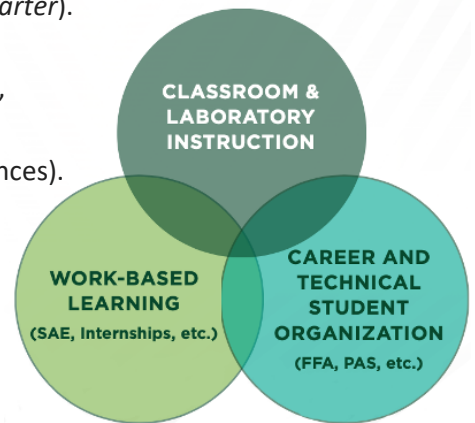


School-Based Agricultural, Food, & Natural Resources Education 101 FAQ, Program Approval, Chartering, Funding, and Course Options

Thank you for exploring a School-Based Agricultural, Food, and Natural Resources (AFNR) Education (SBAE) program, including our integral Work-Based Learning (WBL; i.e., SAE) programs and FFA Chapters for your school district.

A School-Based AFNR Education program—and Career & Technical Education (CTE) overall—consists of three integrated and integral components, which federal and state policy both require and fund to support career preparation in food, fiber, and natural resources careers. (Minn. R. 3505.2500, i.e., *CTE Program Approval*; Minn. §124D.4531, i.e., *CTE Levy*; Public Law 115-224, i.e., *Perkins V*; Public Law 116-7, i.e., *National FFA Federal Charter*).

- (a) Classroom & Laboratory Instruction (academic skills and rigorous experiences),
- (b) Work-Based Learning/SAE (technical skills and relevant experiences), and
- (c) Leadership Development/FFA (workplace/social skills and relationship experiences).



Work-Based Learning (i.e., SAE) and FFA are not clubs or extracurricular activities; they are integral components of School-Based AFNR Education supported and funded by federal and state law. To participate and retain membership in FFA or SAE, students must enroll in at least one School-Based AFNR course per year. The National FFA Organization makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth, and career success through School-Based AFNR Education. School-Based AFNR programs prepare the next generation of problem-solvers, leaders, and agriculturalists through relevant, engaging curriculum and real-life experiences. AFNR includes the science, business, and technology of plant and animal production, and environmental and natural resources systems management. School-Based AFNR programs provide instruction in the following career pathways: a) Agricultural Business Systems, b) Animal Systems, c) Biotechnology Systems, d) Food Products & Processing Systems, e) Natural Resource & Environmental Service Systems, f) Plant Systems, and g) Power, Structural, & Technical Systems.

Minnesota has more than 35,000 students in 200 School-Based AFNR Education programs and FFA chapters. A public charter or a private school may start a program and apply for MDE approval, including chartering an FFA chapter, but they must abide by the same policies as a public school, and typically do not have the same access to taxes and revenue.

As you explore starting your program, know that Team Agricultural Education is composed of a vast network of state leaders and staff to support you. The list of all of our leadership and staff is available at: <https://www.mnffa.org/contact>.

Dr. C. Zane Sheehan
State Supervisor of AFNR
Minnesota Department of Education
zane.sheehan@state.mn.us

Ms. Juleah Tolosky
Executive Director
Minnesota FFA Association
jtolosky@mnffa.org

Ms. Lavyne L. Rada
Regional Supervisor & Program Mgr.
Minnesota FFA Association
lrada@mnffa.org

CTE Program Approval for School-Based Agricultural, Food, and Natural Resources Education

The first step in starting a School-Based AFNR Education program is CTE Program Approval through the Minnesota Department of Education (MDE). The state evaluates school districts for minimum criteria and qualifications using the CTE Program Approval process, which schools must renew and update once every five years (Minn. R. 3505.2500).

The application for CTE Program Approval is online at: <https://education.mn.gov/MDE/dse/cte/progApp/>. There are five tabs on the application. MDE requires each School-Based AFNR program to meet the following criteria:

- ❑ *Tab 2 - Evidence.* The program must provide the following evidence, if not included within each syllabus.
 - **Safety** policies for laboratory or shop classes.
 - **Student leadership integral to the curriculum** through a chartered CTSO chapter of the Minnesota FFA Association or an alternate strategy that incorporates this instruction in all courses comprising the sequence. **FFA** opportunities should be assessable for all; ideally graded and without dues (Affiliation).
 - Work-based learning/**SAE integral to the curriculum** and integrated into all courses that is assessable to all students, ideally for a grade (SAE for All).
- ❑ *Tab 3 - Licensure.* The teacher must be **CTE-Agriculture, Food, and Natural Resources licensed** ([010100 code](#)); MDE strongly recommends the AFNR teacher be Work-Based Learning (WBL) licensed ([160000 license code](#)).
- ❑ *Tab 4 - Courses.* Courses should align to a logical sequence within AFNR pathways, code to MDE's approved CTE courses (See pages 5 and 6, *Table C*), and the program must provide a syllabus for each course, including:
 - **AFNR national standards** (or locally designed standards using state frameworks).
 - Any relevant **certifications**, technical skill attainments, dual credit/college preparation, or CASE credit.
- ❑ *Tab 5 - Industry Advisory Committee.* Use of a **local AFNR advisory committee** (7-11 members; at least 50% of members representing local AFNR business/industry; should include some student or community leadership).

Programs will provide evidence of the required components of program approval at minimum in their syllabi. Most programs pull FFA and SAE reports from AET, and submit any supplemental safety, FFA, and SAE materials they use in classes, along with each course syllabus. A dummy or fake syllabus made just for program approval is not appropriate; programs should submit/revise their actual syllabi and materials used in their classes.

MAAE Program Approval Resource Drive

The Minnesota Association of Agriculture Educators (MAAE) has created a resource—supported by MDE—to make the Program Approval process easier and take less time. Within the linked resource drive is:

- a Guide that walks schools through the program approval process,
- an Example Application, representing what most program's final application will resemble, and
- Resource folders of example forms of evidence others have shared for syllabi, safety, leadership, and WBL.

The Drive is online at: <https://www.mnffa.org/programapproval>
https://mnffa-my.sharepoint.com/:f/g/personal/admin_mnffa_org/Eg5HyKuvU4IFs-Q2YKrQeqQB8j1GjnfhdXyvYT5l_ws8g?e=25qLY8

Minnesota Teacher Induction Program

MDE strongly encourages all new, first year and any Tier 1 or 2 School-Based AFNR Education teachers to participate in the Teacher Induction Program (TIP) through Team Ag Ed and the University of Minnesota. The Minnesota Legislature funds the program, which is free for teachers to participate in, offering mentoring, professional development, and curriculum resources. There is a 93% retention rate between years one and two for teachers who participate in TIP. More information is online at: <https://ag-ed.cfans.umn.edu/tip>.

CTE Program Approval for a School-Based AFNR Education, Continued

Minnesota Association of Agriculture Educators (MAAE)

Finally, we encourage all AFNR teachers at both the secondary and post-secondary level to participate and engage in the state's AFNR professional organization: MAAE. The organization seeks to advance AFNR and promote the professional interests and growth of agriculture and natural resources teachers, as well as recruit and prepare students who have a desire to teach. Membership benefits assist members in growing professionally and in becoming more effective teachers. MAAE is committed to developing professional pride, to nourishing a spirit of unity among teachers, and to recognize members for conducting outstanding programs. MAAE works with legislation affecting School-Based AFNR Education in Minnesota and assists in the development of educational priorities and strategies.

Chartering an FFA Chapter

An FFA chapter requires an MDE approved School-Based AFNR Education program to operate. The Minnesota FFA Association will not charter an FFA chapter unless there is adequate evidence (or evidence of plan) for the required elements of program approval. If a program ever lapses in program approval, the FFA chapter is immediately suspended.

Once a district has submitted program approval and received a tentative confirmation from the State Supervisor of Agricultural, Food, and Natural Resources Education and FFA State Advisor, the program may submit a charter application. The application for Chartering an FFA Chapter is online at: <http://www.mnffa.org/how-to-join/>.

Submission of an application affirms that students enrolled in AFNR courses have organized for the purposes of applying for membership within the Minnesota Association of the National FFA Organization. The local program must submit:

- An adopted a constitution (almost never changes) and bylaws (uncommonly changes).
 - The constitution should be concise and simple. It should state that it is a local chapter of the national and state organizations, follows their constitutions and rules (which contains the object of the organization, qualifications of membership, officers positions, and required annual business meetings/banquet) and how to amend the constitution. A local constitution or bylaws may not conflict with either the national or state provisions. A constitutional should require a 2/3 vote to amend.
 - The bylaws should include any unique mission or goals of the local chapter, additional officer positions unique to the program, officer duties and election procedures, committee operations, meeting procedures, the membership fees/structure and any additional local fees, and the parliamentary governance of the organization. The bylaws should require a 2/3 vote to amend.
 - The standing rules include any other specific policies, customs, and practices of the chapter. Standing rules should require a majority vote to amend. The chapter does not need to submit this to the state.
- The name and signature of each officer: President, Vice President, Secretary, Treasurer, Reporter, and Sentinel.
- The name, file folder number, and signature of each licensed AFNR instructor/FFA advisor.
- The name and signature of the school principal, including their acknowledgment and commitment to support a comprehensive, integrated model of School-Based AFNR Education including a) Classroom and Laboratory Instruction, b) Work-Based Learning and Experiential Learning (SAE), and c) Leadership Development (FFA).
- A program of activities (strategic plan, goals, and calendar of events) completed within the online AET system.

FFA Chartering Resources

A sample constitution and bylaws, as well as a signature page, and resources for FFA strategic planning are online at: <http://www.mnffa.org/chapter-resources>.

Funding Sources for School-Based AFNR Education Programs

Federal Perkins V (Public Law 115-224). <https://education.mn.gov/MDE/dse/cte/pol/perk/>

- Perkins V improves and expands services for students enrolled in CTE programs. It provides an increased focus on the academic achievement of CTE students, strengthening the connections between secondary and postsecondary education, and improving state and local accountability. Minnesota receives about \$18 million; split \$9 million to the secondary level. Each consortium's allocation procedure varies, but **AFNR programs can often access between \$1,000 to several thousands of dollars per year** for innovative equipment, work-based learning opportunities, teacher recruitment efforts, career exploration, and local needs assessment.

Minnesota CTE Levy (Minn. §124D.4531). <https://education.mn.gov/MDE/dse/cte/pol/levy/>

- The CTE Levy is a permissive levy that allows for reimbursement from the state of up to 35% of a school district's CTE expenses. Schools submit estimated CTE expenditures for the coming school year to the MDE typically in summer or early fall. **The average reimbursement per School-Based AFNR program was \$25,000.**
 - Districts should report ALL eligible expenses, such as teacher salary (including extended contracts, but not benefits), travel, professional development, and operational supplies budget (not equipment).
 - Districts should report all CTE programs that have completed Program Approval.
 - Teacher must hold the appropriate CTE license to be eligible for Program Approval and CTE Levy.

Minnesota Agricultural Education Summer Grant. <https://education.mn.gov/MDE/dse/grants/>

- The MN legislature appropriates \$250,000.00 in state funding available to MDE for school districts, including charters, intermediates, and education districts with current MDE-approved agriculture programs. Schools may use grant funds to pay for licensed agricultural education teachers for an agriculture program during the summer to work with high school students in extended programs. **The average program received \$6,500.**
 - Schools must provide a one-to-one dollar match.
 - Grant funding supports one-half of up to three licensed agriculture teachers' salaries and benefits for up to 40 working days each for one summer program.
 - Priority is given to new programs, first time applicants, and schools serving populations of students who are historically marginalized or underserved within AFNR.
- Applications are due in November/December of each year. Search "Agricultural Education Summer Grant" on the Minnesota Department of Education's grant website.

MAELC Strategic Initiative Grants: http://mn.gov/maelc/grants/strategic_initiatives_grants.html

- MAELC's Strategic Initiative grants support programming for agriculture, food, and natural resources (AFNR) education at the primary, secondary, and post-secondary levels. Applications due April 15 and November 15. **Over the last five years, awards ranged from \$1,100-\$15,000, with an average award amount of \$7,000.**

A public charter may apply for Perkins funding (if they are a member of a consortium), the Summer Grant, and MAELC programs; they are typically are not eligible for CTE Levy as they do not have district to levy or tax. A private school is not eligible for Perkins, Levy, or the Summer Grant, but may apply for MAELC grants.

Courses Schools May Offer with an AFNR Combined Program (019901) AFNR 010100 & WBL 160000 Licenses

AFNR Introduction and Exploration

01. Principles of Ag., Food, and Natural Resources
02. Adv. Principles of Ag., Food, and Natural Resources
03. Principles of AFNR Biology (Science-Elective Credit)
04. Adv. Principles of AFNR Biology (Sci-Elective Credit)

Agribusiness Systems

05. Agribusiness and Farm Business Management
06. Adv. Agribusiness and Farm Business Management
07. Agricultural Economics
08. Ag. and Applied Economics (Economics Credit)
09. Agribusiness Finance and Accounting
10. Agribusiness Sales
11. Agribusiness Marketing
12. Agricultural Communications and Journalism
13. Agricultural Education, Research, and Development
14. Specialty and Emerging Agribusiness Systems Topics

Animal Systems

15. Animal Science and Small Animal Care
16. Advanced Animal Science and Large Animal Care
17. Animal Biology (Science-Elective Credit)
18. Advanced Animal Biology (Science-Elective Credit)
19. Equine Science
20. Livestock and Poultry Production
21. Livestock, Poultry, & Equine Ops. (WBL: School Farm)
22. Aquaculture Operations (WBL: School Farm)
23. Aquacultural Chem. (Sci. Credit; WBL: School Farm)
24. Veterinary Science
25. Advanced Veterinary Science
26. Veterinary Biology (Science-Elective Credit)
27. Adv. Veterinary Biology (Science-Elective Credit)
28. Small Animal Care Ops. (WBL: School Business)
29. Specialty and Emerging Animal Systems Topics

Plant Systems

30. Plant Science and Horticulture
31. Advanced Plant Science and Horticulture
32. Plant Biology (Science-Elective Credit)
33. Advanced Plant Biology (Science-Elective Credit)
34. Soil Chemistry (Chemistry Credit)
35. Crop Production and Agronomy
36. Garden & Crop Operations (WBL: School Farm)
37. Pest Management, Entomology, and Plant Pathology
38. Floriculture and Ornamental Horticulture
39. Floral Design (Art Credit)
40. Greenhouse & Nursery Ops. (WBL: School Farm)
41. Turf, Landscape, and Parks Management
42. Landscape Design (Art Credit)
43. Floral & Landscaping Ops. (WBL: School Business)
44. Specialty and Emerging Plant Systems Topics

Natural Resources, Energy, and Environmental Service Systems

45. Energy and Natural Resources Science
46. Advanced Energy and Natural Resources Science
47. Energy & Nat. Resources Ecology (Sci-Elective Credit)
48. Adv. Energy & Nat. Res. Ecology (Sci-Elective Credit)
49. Wildlife, Fisheries, and Ecology Management
50. Adv. Wildlife, Fisheries, and Ecology Management
51. Water Treatment and Environmental Services
52. Forestry Science and Management
53. Forestry Operations (WBL: School Farm)
54. Biofuels, Renewable Resources, and Alt. Energy
55. Minerals, Mining, and Fuels
56. Energy and Environmental Engineering
57. Outdoor Education and Recreation Management
58. Environmental Science Issues and Policy
59. Specialty & Emerging Nat. Resource Systems Topics

Power, Structural, and Technical Systems

60. Agricultural Power Systems Technology
61. Agricultural Physics (Physics or Math Credit)
62. Agricultural Manufacturing
63. Advanced Agricultural Manufacturing
64. Agricultural Construction
65. Advanced Agricultural Construction
66. Agricultural Electricity and Plumbing
67. Agricultural Transportation and Operations
68. Adv. Agricultural Transportation and Operations
69. Agricultural Small Engines
70. Agricultural Engineering
71. Ag. Engineering and Physics (Physics or Math Credit)
72. Creative Power Systems Design (Art Credit)
73. Ag. Fabrication & Repair Oper. (WBL: School Bus.)
74. Specialty and Emerging Power Systems Topics

Courses Schools May Offer with an AFNR Combined Program (019901), Continued

Food Products and Processing Systems

- 75. Food Science
- 76. Advanced Food Science
- 77. Food Chemistry (Science Credit)
- 78. Advanced Food Chemistry (Science Credit)
- 79. Food Nutrition
- 80. Advanced Food Nutrition
- 81. Food Technology and Safety
- 82. Food Processing and Preparation
- 83. Food Processing Operations (WBL: School Business)
- 84. Specialty and Emerging Food Systems Topics

Biotechnology Systems

- 85. Animal and Plant Biotechnology
- 86. Advanced Animal and Plant Biotechnology
- 87. Ag. Biotech. and Biology (Science-Elective Credit)
- 88. Adv. Ag. Biotech. & Biology (Sci.-Elective Credit)
- 89. Biofuels, Bioproducts, and Bioengineering
- 90. Specialty and Emerging Biotech. Systems Topics

AFNR WBL/SAE and FFA Extended and Summer Program (Requires the 160000 WBL License)

- 93. Extended or Summer AFNR Work-Based Learning (SAE) and Leadership (FFA)

AFNR Leadership Development (Advanced FFA)

- 94. AFNR Leadership Development

Teacher-Coordinator of AFNR Work-Based Learning (Advanced SAE; Requires the 160000 WBL License)

- 95. Agricultural Career Seminar
- 96. Advanced Agricultural Career Seminar
- 97. Agricultural Work Experience: Immersion SAE
(Adv. Internship/Placement, Entrepreneurship, Research)

Note: Specific AFNR courses may fulfill science, mathematics, art, or social studies economics credit toward graduation.

Courses Schools May Offer with an AFNR Youth Apprenticeship Program (019095)

Teacher-Coordinator of AFNR WBL: Youth Apprenticeship (019095 Program; Requires the 160000 WBL License)

- 98. AFNR Career Seminar I and II
- 99. AFNR Work Experience

A list of MDE-approved AFNR courses, titles, and codes is online at: <https://education.mn.gov/MDE/dse/cte/progApp/>.
More information on CASE (i.e., the sister program to PLTW) is online at: <https://www.case4learning.org>.