

Guidance & FAQs

Aviation-Based Course Credits

Introduction

Recent legislation ([70 O.S. § 11-103.6e](#)) tasked the Oklahoma State Board of Education to develop rules to determine if courses in aviation are eligible for non-elective academic credit toward meeting graduation requirements.

The Oklahoma State Department of Education (OSDE), in partnership with the Oklahoma State Regents of Higher Education (OSRH), has approved Aviation Technology (3580) to count as a core credit for Computer Technology for Oklahoma's Promise and college admissions.

Districts currently offering Aviation-based courses that include instruction in engineering and/or technology in aviation can utilize the new Aviation Technology (3580) course code for courses and count the courses as meeting computer technology requirements for both the College Preparatory/Work Ready and CORE Curriculum graduation requirements. Districts offering Aviation-based courses that include instruction in physical or earth and space science, taught by a certified science teacher, can utilize the course code for Aeronautics (5010). Please review the [Curriculum Checklists](#) for specific graduation requirements of each pathway.

In an effort to clarify information, the OSDE has compiled the following frequently asked questions and resources.

- [Frequently Asked Questions](#)
- [Linked Resources for Additional Guidance](#)
- [Contact OSDE](#)

Frequently Asked Questions

Q: For students enrolling in several aviation-based courses, how might they be counted for graduation credit requirements?


Aviation courses may be taken to meet graduation requirements through the following pathways if the courses meet the following requirements:

- Aviation Technology (3580) can meet graduation requirements for Computer Technology if the course provides instruction in flying or operating aircraft, the activities involved in mechanical flight and the aircraft industry, and practical applications of technology and engineering design processes to evaluate solutions to real world problems.
- Aeronautics (5010) may meet graduation requirements for a laboratory science if the course is taught by a science certified teacher, and provides instruction in the science, design, and manufacturing of flying vehicles, both within and out of the Earth's atmosphere, applications of the Physical Sciences and Earth and Space Science, and includes laboratory or investigative experiences that utilize science and engineering practices to solve real world problems.
- Aviation-based courses being taught at CareerTech or by a CareerTech teacher are to use the 8000 codes (e.g., 8875 Aviation II, 8876 Aviation III, 8886 Applied Sciences in Aircraft Maintenance, 8887 Basic Electricity) and meet the graduation requirements for Computer Technology.
- Aviation Technology (3580) and Aeronautics (5010) course codes may also be counted towards elective credit.

Please review the [Curriculum Checklists](#) for specific graduation requirements for both the College Preparatory/Work Ready and CORE Curriculum pathways. The [Oklahoma Science Graduation Requirements FAQ](#) may also help answer any questions about courses that count as laboratory science credit for high school graduation.

Q. What is the difference between the Aviation Technology (3580) course and Aeronautics (5010) course?

While both aviation and aeronautics deal with the study of aircraft, there is a difference between the two courses. Aviation Technology involves flying or operating aircraft, the activities involved in mechanical flight (e.g., control



systems involving machinery) and the aircraft industry (e.g., airlines, airports, and airline manufacturers, administration, operations), and practical applications of technology and engineering design processes to evaluate solutions to real-world problems.

Aeronautics involves the study of the science, design, and manufacturing of flying vehicles, both within and out of the earth's atmosphere, applications of the Physical Science and Earth and Space Sciences, and uses the science and engineering practices to design solutions for real-world problems.

Aviation-based CareerTech courses are taught at a Career Technology Center and/or by Career Technology certified educators following program guidelines as outlined by the Oklahoma Department of Career and Technology Education.

Q. Do students have to take an aviation-based course in order to graduate high school?

No, students are not required to take an aviation-based course to graduate.

Q: What are the certifications needed to teach aviation-based coursework?

Aviation-based courses earning computer technology credit can be taught with any teaching certificate. Educators teaching aeronautics courses earning laboratory science credit need teaching certifications in 6013 Physical Science or 6015 Physics.

Q. Does a teacher need to receive additional training or professional development to teach aviation-based courses?

No, although it is highly recommended that teachers providing instruction in Aviation participate in professional learning to strengthen the content knowledge and pedagogical practices associated with computer technology and engineering teaching.

Q. What materials are available to teach aviation-based courses?

Currently, no aviation-based instructional materials have been reviewed and/or approved by the Oklahoma State Textbook Committee so there will not be an

available list on the [OSDE High Quality Instructional Materials website](#). High-quality, free and [open educational resources](#) may be used.

Aviation-based CareerTech courses use the course materials as identified by the Oklahoma Department of Career and Technology Education.

Q. Can a student take two Aviation Technology (3580) courses to meet the two computer technology credits for the College Prep and Work Ready Graduation Pathway?

Yes. School districts can utilize the Aviation Technology (3580) course code when reporting the courses to the OSDE and transcript the courses at the local level as Aviation Technology I and Aviation Technology II. If the student takes two courses coded as Aviation Technology (3580) the graduation requirement for two units or sets of competencies of the same world or non-English language or two units of computer technology approved for college admission will be met.

Q. Do Aviation Technology (3580), Aeronautics (5010) and/or Aviation-based CareerTech courses support students wanting to earn a STEM Endorsement for their high school diploma?

The STEM Endorsement prepares students for careers in numerous fields that relate to science, technology, engineering, and mathematics (STEM). To earn a STEM Endorsement, students must complete 10 points from across the domains of engagement, as outlined in the [STEM Endorsement guide](#).

- Aeronautics (5010) does count towards the “Additional Science Course”
- Aviation Technology (3580) does count towards the “Industry Arts Course”
- Aviation-based CareerTech courses do count towards the “Career Technology Course” and/or “Career Technology Academy Programs”

Linked Resources for Additional Guidance:

Oklahoma State Law

- [Title 70 \(Schools\) Legislation](#)
- [Oklahoma Graduation Requirements](#)

Oklahoma Academic Standards, Subject Codes, and High School Graduation Resources

- [Oklahoma Academic Standards for Science](#)
- [Oklahoma Subject Codes](#)
- [High School Graduation Resources](#)

Additional Resources for Schools

- [OSDE Science Website](#): This website provides resources, guidance, and support for science instruction.
- [Oklahoma Science Curriculum Framework](#): This website provides example instructional strategies for implementing the Oklahoma Academic Standards for Science (OAS-S).
- [OSDE High Quality Instructional Materials Website](#): This website provides robust reviews, guidance, and support for district-level adoptions of high quality instructional materials.
- [OKSci Toolkit](#): This document provides a list of resources to support educators in implementing the OAS-S.
- [OSDE STEM Website](#): This website provides research and resources for implementing high-quality STEM programs.
- [Oklahoma Aeronautics Commission](#): This website provides resources for aviation education and connections with aviation and aerospace industries in Oklahoma.

Contact Us

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