

## Guidelines, Scenarios, and Resources for Offering Credit in Applied Academics

As the new Oregon diploma requirements are being phased in, many districts are considering alternatives to the traditional academic course work in math, science, and language arts. This document provides guidance on how to award credit that is consistent with all current Oregon and federal rules.

### Overview of Applied Academics

In 2007 the Oregon State Board of Education adopted a new set of requirements for the high school diploma that emphasize the importance of the three Rs; rigor, relevance, and relationships. The new diploma requirements are based on a set of principles that include:

- Be flexible and student-centered; the student education plan and profile should guide student choices.
- Award credits on the basis of proficiency rather than seat time.
- Encourage students to excel beyond minimum standards and support them in that endeavor.
- Continue work to align standards from grade to grade and from high school to post-secondary options.

Oregon's new diploma requirements specify the minimum number of credits a student must have in English, mathematics, science, social studies, physical education, health, and the combined area of second language/art/career and technical education in order to graduate. To enhance the relevance of education for students, the State Board broadened the definition of what could qualify as courses that meet math and science requirements. In a decision paper published in 2007 the State Board endorsed the concept of meeting math requirements through courses such as Integrated Math, Applied Math, Construction Math, and Business Math as long as they meet the content threshold of Algebra 1 and higher. Similar flexibility is encouraged in courses offered for science credit.

Career and technical education (CTE), integrated academic course sequences, project based learning and other examples of applied academics are alternative delivery models for academic content. Students may earn full or partial academic credit by successfully demonstrating they have met standards and expectations through applied academics. These approaches give students the opportunity to use academic content in real-world situations and demonstrate academic proficiency. Students who receive credit through integrated and applied courses still complete all of the high school credit requirements at the same level of performance as students following more traditional approaches. For example, a course in applied mathematics would need to have sufficient content at the level of Algebra 1 and higher in order to fulfill diploma requirements for students who were first enrolled in Grade 9 in 2010-11 (anticipated graduation in 2014).

The responsibility for planning and scheduling courses, delivering instruction, and awarding credit still resides with the local school district. The Oregon Content Standards help schools align curriculum and instruction to allow students to demonstrate that they have met rigorous expectations and can receive credit.

## **Guidelines for Assigning Credit in Applied Academic Courses**

Applied academics can occur in a variety of contexts that incorporate standards from one or more academic disciplines. It can be a course, long-term project, integrated instruction, or some combination of these. No matter the form applied academics assumes, there is some level of collaboration, curriculum planning, and assessment that should take place in order to assure that academic content is both relevant and rigorous. The steps listed below provide a guide for teachers and administrators who wish to make applied academic options available to their students.

1. Form a **work team** with teachers from all relevant subject areas. The team must include a teacher who has the proper academic subject license.
2. Using appropriate Oregon Content Standards, skill sets, or other state or nationally recognized standards, review the applied academic course and instructional materials to ensure they include substantial academic content.
3. As a team, determine the amount of academic credit that should be offered based on the academic standards explicitly addressed in the course content and any other standards that will have to be addressed using materials other than those currently used in the course.
4. Plan ways for students to meet all content expectations using supplemental materials if necessary. Additional methods could include online courses, tutorials, or projects.

5. Develop and document the curriculum for each course that will be credit-bearing and specify the assessments to be used to measure student progress toward proficiency in the academic standards. Assessments can be based on state tests or work samples, locally produced assessments, or assessments from other sources, as long as they are aligned with the content being taught.
6. Determine how the applied academic course will fit into a sequence of courses so that students have an opportunity to learn content related to all Oregon Content Standards. The Student Plan and Profile should include the guidance students need to assure they have taken the appropriate sequence of courses.
7. Determine the appropriate means of ensuring that both federal and State licensure requirements are being met by instructors. This may involve awarding standard academic credit, credit for proficiency, or credit for CTE related instruction.

## Teacher Licensure Considerations

In Oregon, all credit for core academic subjects, **including elective credits**, must be awarded by a highly qualified teacher as defined by the Teacher Standards and Practices Commission (TSPC) standards. However, in many cases, applied academic courses can be taught by teachers who are not licensed in the core content areas. A teacher licensed to teach agriculture can teach an agricultural science class that meets graduation requirements for science. That same teacher would not be qualified to teach a regular biology course. There is some additional federal non-regulatory guidance that applies to courses that are team taught. As Oregon works on implementation issues for the new diploma requirements, **this guidance may be modified**.

High school courses are assigned a code from the National Center for Education Statistics (NCES code) that is associated with a specific endorsement on a teaching license. The Teacher Standards and Practices Commission (TSPC) determines the association of NCES codes with endorsements, and individual districts determine which NCES code should be assigned to a course. The course content, NCES code, and endorsement need to be aligned to ensure that district is complying with licensure rules. This is true for all three of the credit options described below.

### *Standard Academic Credit*

A teacher may have a license with multiple endorsements that allow them to teach courses from multiple areas such as Algebra and Engineering or History and Writing. In these cases the NCES course code and the teaching license are aligned with federal standards for highly qualified teachers and TSPC rules.

### *Proficiency Credit Through Collaboration*

Proficiency-based credit involves collaboration between an academic teacher who is the teacher-of-record and a teacher who is delivering the instruction through applied academic content. This process would be necessary if additional academic credit is being offered in content areas covered under federal highly qualified teacher rules. For example, if a teacher who is only licensed to teach agriculture is teaching a class that will provide some related Biology credit, the district would need to follow the credit for proficiency guidelines in order to be compliant with highly qualified teacher requirements. The district should take the following steps if this collaborative method for providing proficiency credit is being used.

1. The school district should have a policy and set of procedures in place that addresses how credit for proficiency will be awarded.
2. District records need to show that the highly qualified teacher working with the instructor of the course is the teacher-of-record.
3. The teacher-of-record must work with the teacher delivering instruction in an applied manner to determine a student's level of proficiency using agreed upon methods of assessment.

### *Academic Credit Through CTE*

Most teachers with a CTE license are qualified to teach courses that include academic content related to their endorsement. Before offering credit through this route, district administration should consult the TSPC website to ensure that the CTE teacher has the appropriate license. The following steps should be taken if credit is being offered through this route.

1. Courses need to be identified using an NCES code for CTE related instruction. Courses such as Technical Math (code 02153), Applied English and Communications (code 01156), or Technical Science (code 03211) can be taught by most teachers with a CTE license or endorsement. Consult the TSPC website for other appropriate courses. (**NOTE:** The TSPC website is being updated during the 2010-2011 academic year with the new course codes. Please contact Tom Thompson at ODE if you have any questions about course codes related to CTE licenses and endorsements).
2. Course names need to reflect the related instruction. For example, an applied course may be called Agricultural Science or Construction Geometry. It should not be listed as Biology or Geometry.

## **Scenarios Related to Applied Academic Credit**

**1. Can our automotive instructor who has a Career and Technical Education (CTE) endorsement in Transportation Technology teach a class we call Automotive Science and can that class meet the science requirements under the rules for the new Oregon diploma?**

This would be fine as long as the class is identified as Automotive Science on the student transcript and the NCES code is identified as 03211, Technical Science or another appropriate code allowable under the teacher's license. The district may allow the credit to apply toward graduation requirements as long as the course meets Oregon's academic content standards and incorporates scientific inquiry.

**2. Our drafting teacher teaches a lot of geometry content over a period of two years. Can we offer 0.5 credits in Geometry if a student completes the two years of drafting?**

Assuming your drafting teacher is not licensed to teach mathematics, you would need to do this through the proficiency credit route since you are offering credit for a course you are calling Geometry. Review the information on credit for proficiency identified earlier as well as the online materials identified in the resources section. If the guidelines regarding highly qualified academic teachers are followed, the student can be awarded Geometry credit and that credit can be used to meet math graduation requirements. In this case the highly qualified math teacher is the teacher-of-record so the math teacher would need to have sufficient information to feel confident in their evaluation of student proficiency in the content standards related to geometry.

**3. When we started looking at the drafting curriculum we found out those students didn't have enough clock hours to qualify for 0.5 credits of geometry. Does that mean we can't offer that credit?**

Proficiency credit is not tied to clock hours. If the district and the teachers involved agree the content addressed is sufficient to award 0.5 credits when a student demonstrates proficiency, then the credit can be awarded. In some cases you may need to add components to the drafting curriculum so that sufficient geometry content is addressed. You may decide to require those additional components be completed by students who wish to receive the math credit. The highly qualified math teacher needs to make the final evaluation of student proficiency in the content standards related to geometry.

**4. We offer Algebra 1 and a course in Agricultural Math which is at the Algebra 1 level. The teachers in each course are properly licensed. Can a student take both classes and get 2 credits in math for graduation?**

No. Starting with students who were first enrolled in Grade 9 in 2010-11 (anticipated graduation in 2014), three credits in math at the Algebra 1 and above level are required to graduate. In this scenario, one of the classes can count toward graduation, but not both. For both classes to count toward graduation, the Agricultural Math class would have to be at a level that is above Algebra 1. If both classes are at the Algebra 1 level, the second course may be used as an elective. The Student Plan and Profile is a useful tool for helping the student identify the proper sequence of math courses that will prepare him or her to meet career and academic goals.

**5. We have been making credit for proficiency decisions using a committee rather than a single teacher. Can we continue that practice?**

You should continue that practice as long as one or more highly qualified teachers is included on the committee. Also, the teacher-of-record for a course still needs to be a highly qualified teacher.

**6. We need to add one more section of Biology to our schedule. Can our certified agriculture teacher teach that section of Biology if we use proficiency credit?**

No. Proficiency credit is an alternative to seat time which does not seem to be the purpose of this example. In addition, the guidelines included in this document are designed to address applied academic options. An applied science class taught by an agriculture teacher should have a substantial agriculture context. In this case the Biology class would have to be taught by a highly qualified biology teacher. If the agriculture teacher is also a licensed biology teacher, they would be highly qualified and could teach the class without use of proficiency credit.

**7. The National Collegiate Athletic Association (NCAA) informed us that our agriculture class does not meet their core-course requirements even though we give science credit for the course. What are our options?**

First, you may want to look at the true impact the NCAA decision has on your students. Not all students need to meet the NCAA core-course requirements. As another option, you may want to explore ways of demonstrating the science content of your agriculture course to NCAA. At least one district in Oregon received approval for two agriculture courses by submitting documentation on how the agriculture course met the Oregon science standards. They also demonstrated that the same standards were being addressed in the traditional biology course. There is a link to the NCAA website in the web resources section of this document.

**8. We would like to offer math credit through a more traditional approach on some Algebra 1 standards taught by a math teacher and combine that with Algebra 1 standards taught through an applied approach by our CTE licensed agriculture teacher. Can we use this hybrid approach?**

Yes. There are examples of mathematics standards that do not have an immediate application beyond preparing for more advanced levels of mathematics. It would be inappropriate to teach those standards in a setting where they do not apply. You can offer separate math credit (that will apply towards the diploma requirements) for each class as long as one class does not simply offer a different context or different approach to teaching, while repeating the same content standards. For example, the math and agriculture teachers have discovered they have many of the same students. They also met and found that about half of the Algebra 1 level curriculum can be taught in an agricultural context over a period of a year. The two teachers have worked closely to develop curriculum and assessment strategies that help students learn the mathematics content in each class and earn 1 credit in mathematics at the Algebra 1 level. Half of the credit will be earned in the Algebra 1 class and half will be learned in the agriculture class. Note that this is a conjunctive model. Neither class offers a full mathematics credit for Algebra 1.

Another approach that may accomplish the same goal of providing math instruction relevant to a student's interests and needs would be to offer multiple options for students to demonstrate proficiency. In this case, the entire mathematics credit is awarded by the Algebra 1 teacher but the teacher has worked with other teachers to identify projects where students are learning and applying mathematics appropriate to the Algebra 1 class. Students could use those identified projects as another way to demonstrate proficiency in mathematics. This second approach may require significant advance coordination between teachers, but it would help students understand how math is truly an essential skill that crosses all disciplines.

## **Additional Questions**

For additional questions or information please contact:

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## Related Web Resources

[New Diploma Requirements](http://www.ode.state.or.us/search/results/?id=368) <http://www.ode.state.or.us/search/results/?id=368>

[TSPC Information](http://www.tspc.state.or.us/new/core/licensure.asp?op=10&id=0) <http://www.tspc.state.or.us/new/core/licensure.asp?op=10&id=0>

[Oregon Content Standards](http://www.ode.state.or.us/search/results/?id=53) <http://www.ode.state.or.us/search/results/?id=53>

[NCES codes](https://district.ode.state.or.us/apps/info/docs/nces-descriptions.pdf) <https://district.ode.state.or.us/apps/info/docs/nces-descriptions.pdf>

[Credit for Proficiency](http://www.ode.state.or.us/search/results/?id=35) <http://www.ode.state.or.us/search/results/?id=35>

[OR University Requirements](http://www.ous.edu/stucoun/counres/prep.php) <http://www.ous.edu/stucoun/counres/prep.php>

[NCAA Requirements](https://web1.ncaa.org/eligibilitycenter/hs/index_hs.html) [https://web1.ncaa.org/eligibilitycenter/hs/index\\_hs.html](https://web1.ncaa.org/eligibilitycenter/hs/index_hs.html)

[CTE Teacher Licensure](http://www.ode.state.or.us/search/page/?id=3169) <http://www.ode.state.or.us/search/page/?id=3169>

## Related Oregon Administrative Rules

Current Oregon Administrative Rules related to the diploma, credit, and curriculum can be found at [http://arcweb.sos.state.or.us/rules/OARS\\_500/OAR\\_581/581\\_022.html](http://arcweb.sos.state.or.us/rules/OARS_500/OAR_581/581_022.html).

- Diploma Requirements (OAR581-022-1130)
- Credit Options (OAR581-022-1131)
- District Curriculum (OAR581-022-1210)