

Review of Programs of Study for the Class of 2016

A Survey of Massachusetts High Schools



Purpose of this Research Project

The purpose of this study is to:

- ❖ Compare current high school graduation requirements statewide to those of MassCore requirements.
- ❖ Collect information concerning availability of Career Development Education (CDE) in MA high schools.



What are Graduation Requirements?

Outside of the Competency Determination (MCAS ELA, Math and STE), the Commonwealth is virtually silent on graduation requirements for high school graduation. As far as coursework, the state requires two pieces:

1. “Civics”: In all public elementary and high schools, American history and civics, including the constitution of the United States, the declaration of independence and the bill of rights, and in all public high schools, the constitution of the commonwealth and local history, government and a program relating to the flag of the United States of America shall be taught as required subjects for the purpose of promoting civic service.
2. Physical Education: [Mass General Law, Chapter 71: Section 3](#) requires that physical education be taught as a required subject in **all** grades.

All the rest is locally determined



What is MassCore?

MassCore	
English/Language Arts	4 Units*
Mathematics	4 Units Including the completion of Algebra II or completion of the Integrated Math equivalent. All students are recommended to take a math course during their senior year.
Science	3 Units of lab-based science Coursework taken in technology/engineering may count for MassCore science credit.
History/Social Science	3 Units Including US History and World History.
Foreign Language**	2 Units Of the same language.
Physical Education	As required by law State law (M.G.L. c. 71,s. 3) states: "Physical education shall be taught as a required subject in all grades for all students." Health can be integrated into Physical Education, science, or taught as a stand-alone course.
Art**	1 Unit
Additional Core Courses	5 Units Business Education, Career and Technical Education (CTE), Health, Technology (e.g. computer science, desktop publishing, multi-media and web design), or any of the subjects above. Note: Most students majoring in CTE will take more than 4 units.
	22 Units - Is a minimum that students should take in high school
Additional Learning Opportunities	Complete as many of the following as possible: Advanced Placement (AP); Capstone or Senior Project; Dual Enrollment courses taken for both high school and college credit; Online courses for high school or college credit; Service Learning; and Work-based Learning.



Research Notes from the Class of 2015

- ❖ Full graduation requirement data was collected for 344 Massachusetts high schools, representing 88.7 % of the high schools statewide. Data was not available for 44 high schools, mainly composed of alternative, special education, and charter schools with a small number of vocational and academic high schools. If data were not available for 2016 but for previous years, those records were used.
- ❖ For the purposes of this research, we calculated requirements in terms of year-long equivalents which count a full course as a one year course.
- ❖ ESE does not officially collect high school programs of study. Five times over the past 11 years, we have done unofficial collections. In this iteration, research was done using courses of study posted online by districts for the class of 2016. There is a trend for increasing graduation requirements for subsequent classes, particularly for the classes of 2016 and 2017.



SUCCESS AFTER HIGH SCHOOL



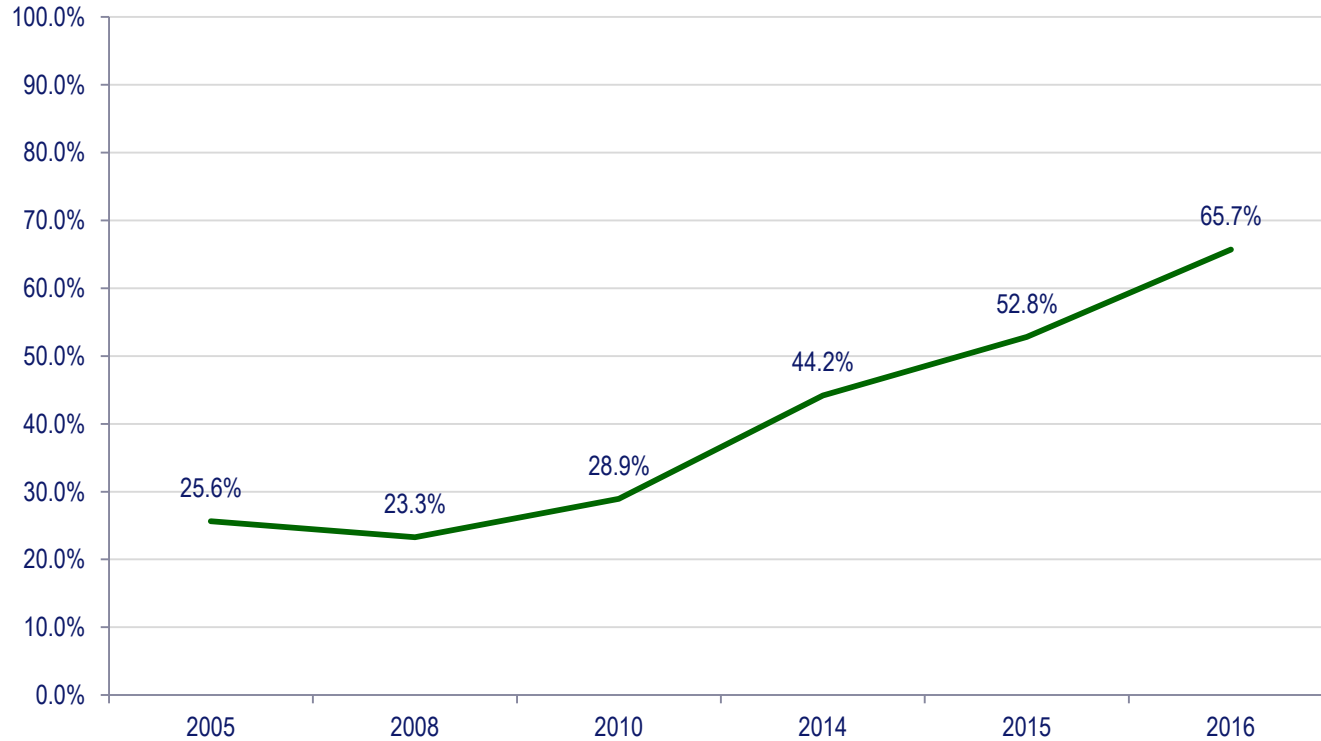
Top Findings for 2016 include:

- ❖ There is **significant** growth in mathematics requirements, particularly since 2010.
- ❖ Nearly all MA high schools require at least 4 years of English.
- ❖ Science requirements seemed to have increased slightly.
- ❖ Art and Foreign Language requirements tend to be lower, preventing many schools from reaching MassCore completion, but continue to rise incrementally .



Years of Math Required

Figure 1: High schools requiring 4 years of mathematics

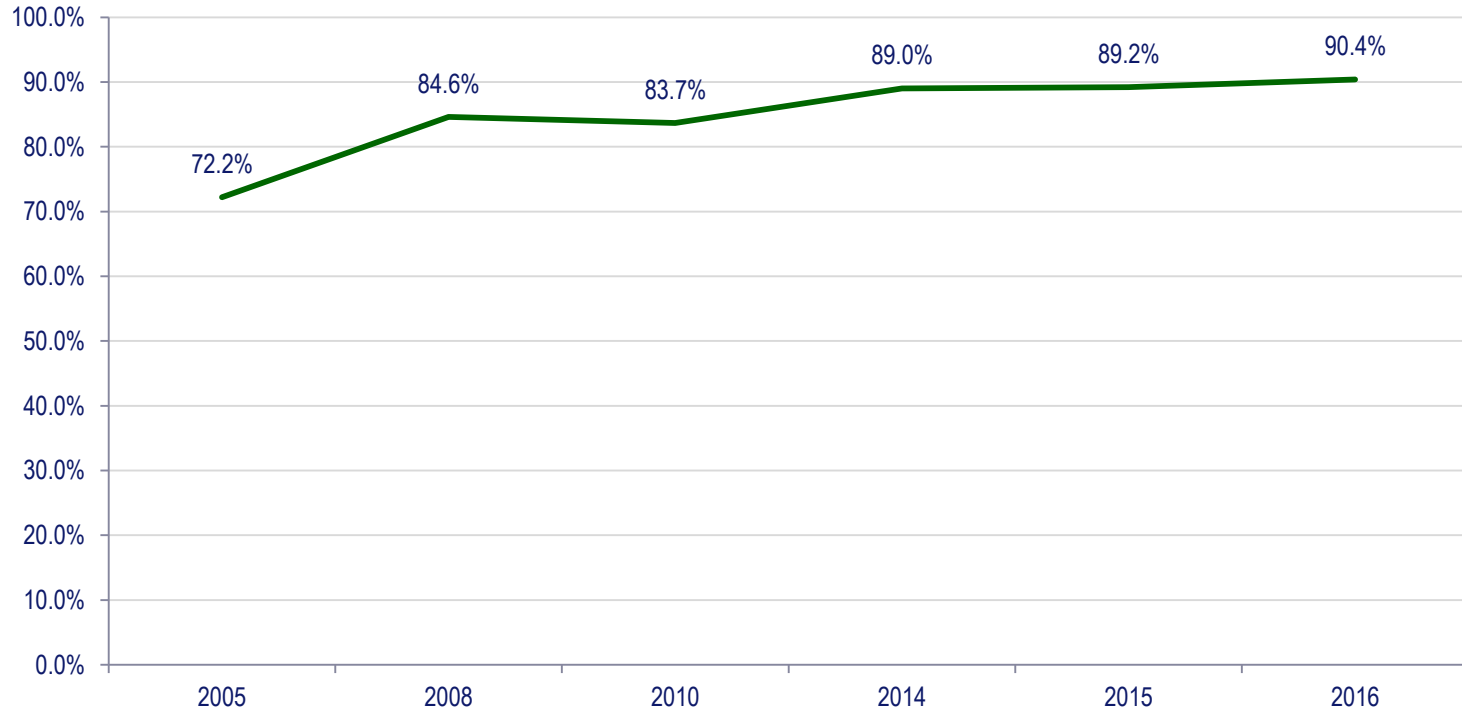


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Years of Science Required

Figure 2: High schools requiring 3 or more years of Science

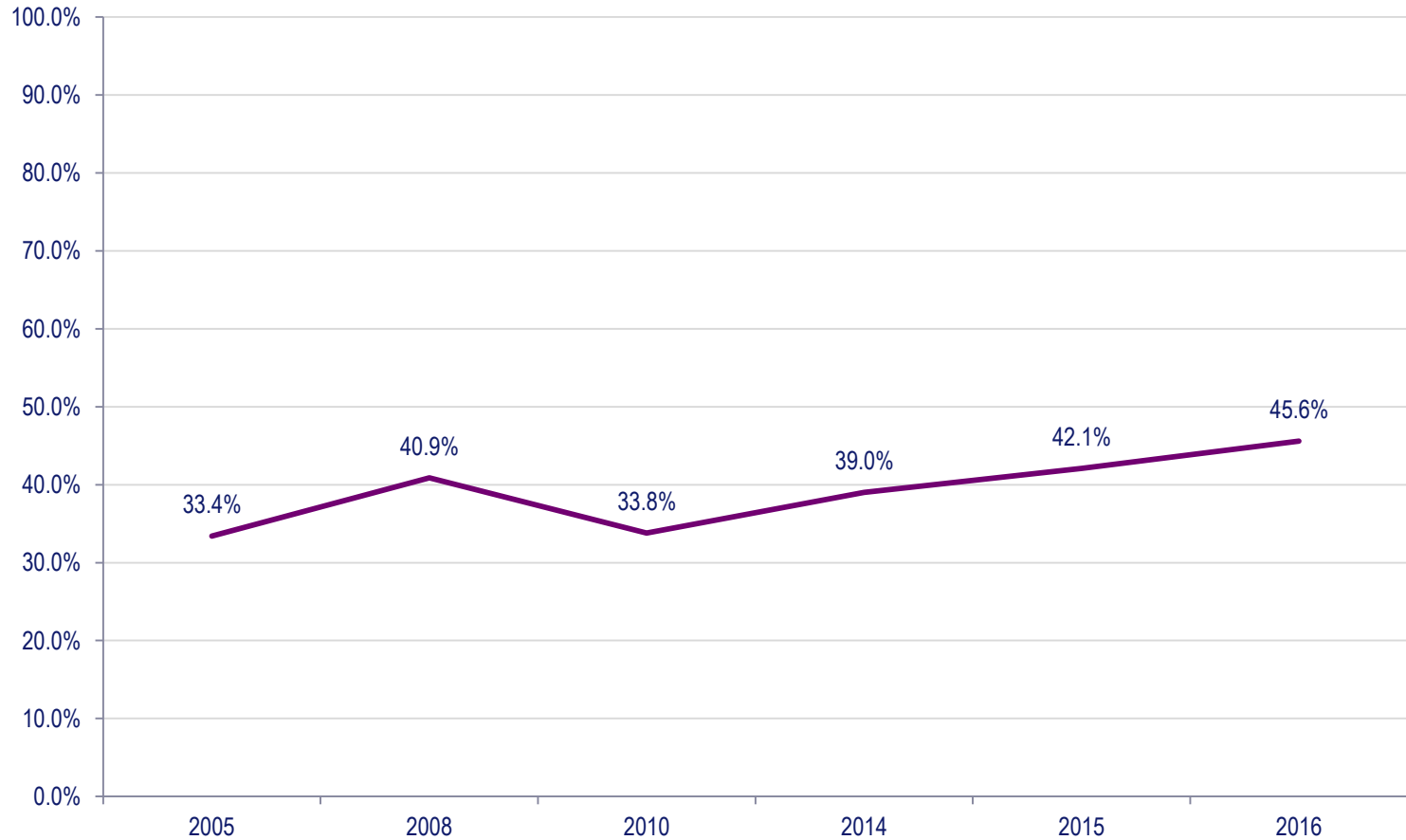


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Years of the Arts

Figure 4: High schools requiring one or more years of the arts

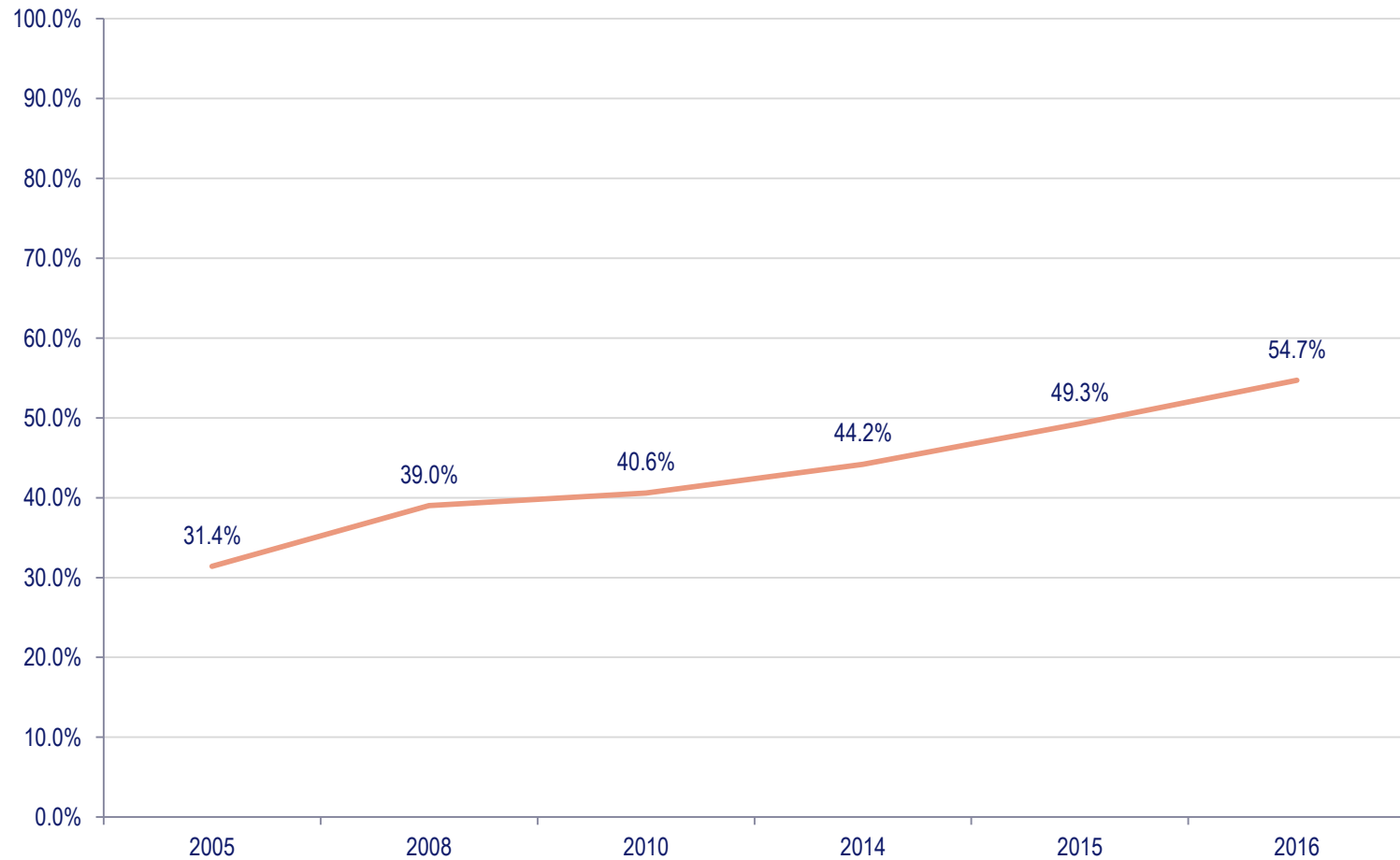


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Years of Foreign Language

Figure 3: High schools requiring 2 or more years of foreign language

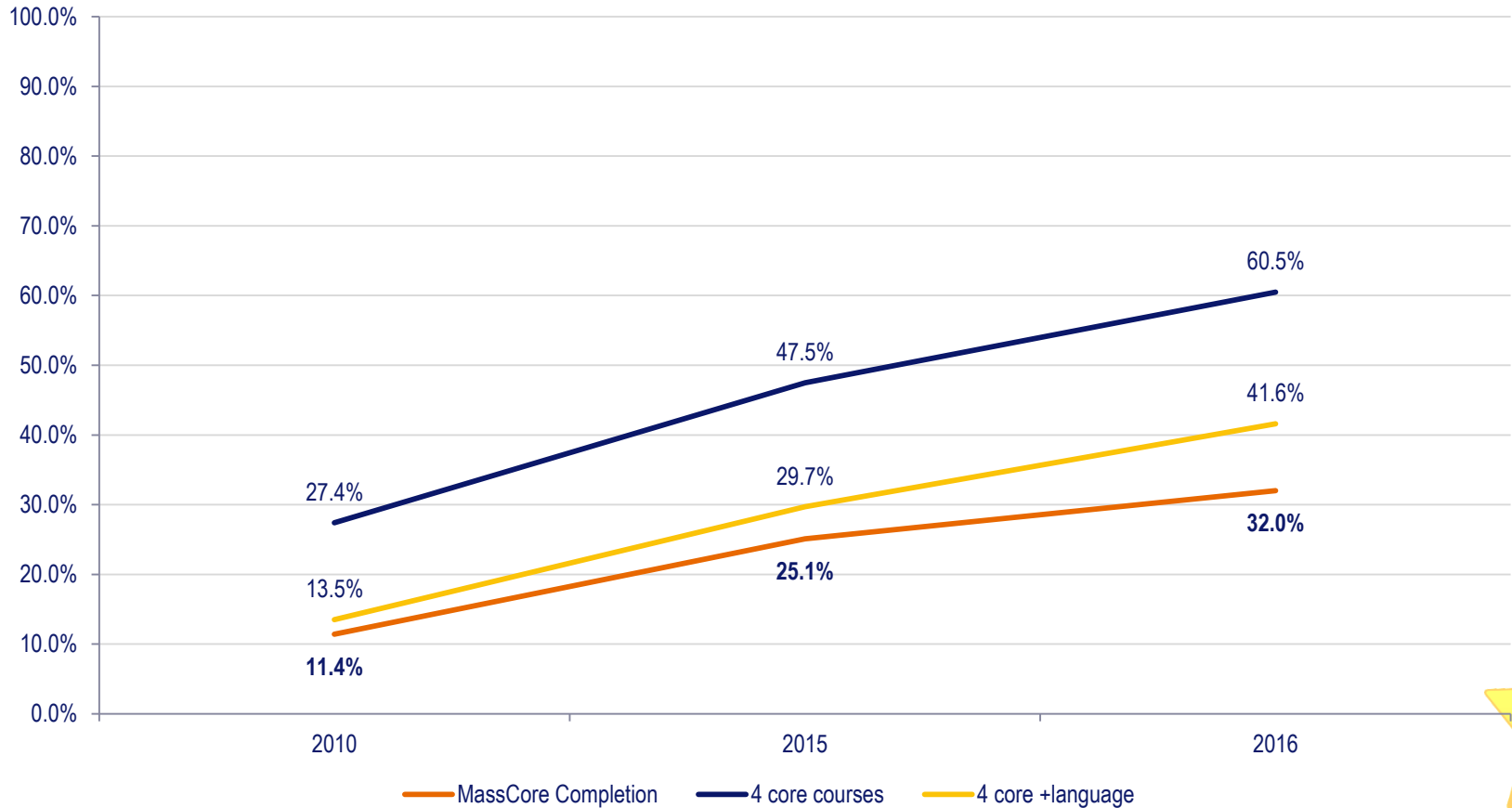


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A Rigorous Course of Study

Figure 5: Schools requiring a rigorous course of study

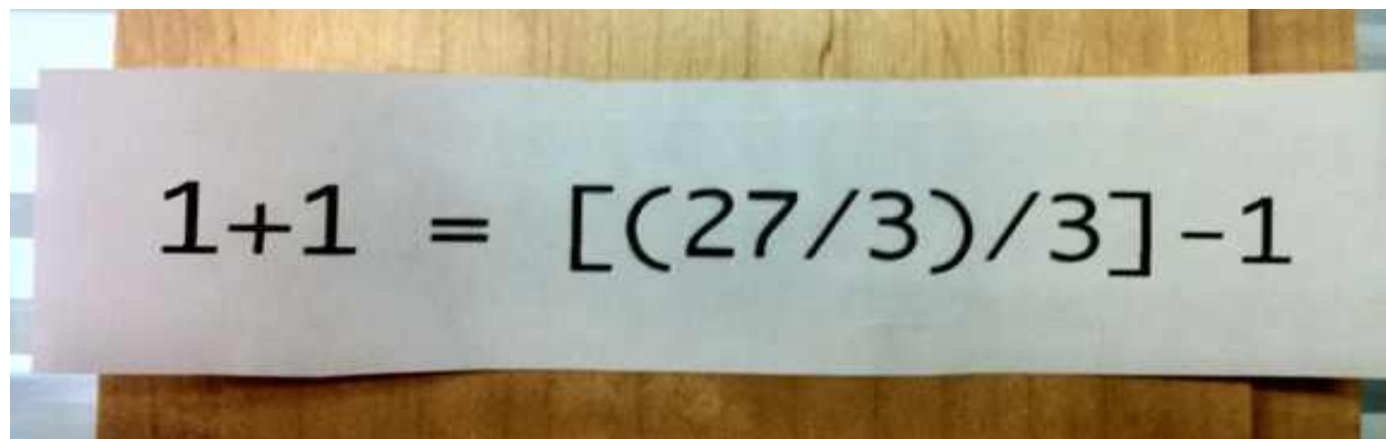


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Looking at Year Long Equivalents

A year long equivalent can also be a combination of semesters, trimesters, quarters, etc. In many cases, it is most easily calculated looking at the number of credits required over a 4 year period.


$$1+1 = [(27/3)/3] - 1$$

