

Georgia High School

Graduation Requirements:

Preparing Students for Success



**Georgia High School Graduation Requirements:
Preparing Students for Success
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Georgia High School Graduation Requirements: Preparing Students for Success

Part 1: Executive Summary

Successful preparation for both postsecondary education and employment requires learning the same rigorous English and mathematics content and skills. No longer do students planning to go to work after high school need a different and less rigorous curriculum than those planning to go to college. (Achieve, Inc., 2004)

On September 13, 2007 the State Board of Education adopted rigorous new graduation requirements effective with the incoming ninth grade class in 2008. A hallmark of the new rule is the elimination of tiered diploma options where students followed either College Preparatory or Technology/Career coursework. Under the new rule, all students are expected to complete a common set of requirements to earn a regular diploma. The new rule also specifies certain courses that all students must take – making rigorous content an expectation for all, not just some.

Under the new rule, all students will have an opportunity to choose both academic and career tech courses that may include Advanced Placement, dual enrollment, joint enrollment, industry certification and career pathways. More students should be able to take a variety of courses based on their areas of interest. Students who are actively involved in selecting courses they want are more likely to engage in courses that lead to graduation.

Requirements in the new graduation rule are aligned with the Georgia Performance Standards (GPS) for math, science, social studies and English language arts. Electives provide multiple opportunities for students to continue taking advanced coursework, academic support classes, or special interest courses, depending on the individual's needs and goals. More students with disabilities will have the opportunity to earn a regular education diploma, thus enabling them to be employed or go on to postsecondary education.

The new graduation requirements, along with new state curriculum standards and assessments, will help ensure that more students finish school ready to thrive in the new knowledge-based, high-skills economy.

Key Features of the New Requirements:

4 units of English, Mathematics, and Science; 3 units of Social Studies; 1 Health/PE required
23 total units required

7 elective units

4th Science unit can be used to meet career pathway requirements

Students who enrolled in 9th grade prior to 2008-09 will follow requirements in current rule IHF5

Georgia High School Graduation Requirements: Preparing Students for Success

Part 2: American Diploma Project

Georgia has joined with 29 other states in the American Diploma Project (ADP) Network, an effort led by Achieve, Inc. to raise expectations and achievement in American high schools so that virtually all students graduate with the knowledge and skills they need to be successful in college and the workplace and that many more students succeed in college once enrolled.

Section 2.1 Background

American high schools, including those in Georgia, are faced with a new challenge: At a time when experts predict that about two-thirds of the new jobs will require some education beyond high school (college, work, apprenticeships, or military), nearly a quarter of students drop out of high school without graduating. Furthermore, large numbers of those who do earn a diploma often find that they are not adequately prepared for the next step. Nearly one-third of high school graduates who go to college are immediately enrolled in remedial courses due to gaps in their preparation. Employers also report that a significant number of those they hire right out of high school have serious deficiencies in mathematics, reading and writing.

National averages show that for every 100 ninth grade students, only 68 graduate from high school on time, only 40 enroll immediately in college, only 27 are still enrolled in their sophomore year, and only 18 graduate from college on time. As Thomas Friedman (*The World is Flat*), Bill Gates, and many others have observed, nations such as China and India have recognized that educational excellence is the key to future economic prosperity and have organized accordingly.

Without significant improvements to American high schools, including the high schools in Georgia, the future well-being of our national and state economies, as well as that of our local communities, are at risk. Employers know it; they estimate that about half of high school graduates do not have the skills to advance beyond low-paying, entry-level jobs. College professors know it; they estimate that more than 4 in 10 entering freshmen are not prepared for college courses. The American public knows it; strong majorities favor sweeping improvements to high schools. And students know it; less than one-quarter say they were significantly challenged in high school, and more than two-thirds say they wished they had worked harder.

The following information can be found on Achieve, Inc.'s website at www.achieve.org.

Section 2.2 Case for Action

The new global economy is changing the nature of work and the kinds of jobs our young people will enter. Jobs that once required a high school degree and paid \$50,000 a year plus retirement and health benefits are disappearing, and new jobs are requiring more knowledge and skills. Today, roughly two-thirds of all new jobs require some form of postsecondary education. Experts say this percentage will increase in the future.

Employers and college leaders say that graduates from high school need to master higher-level mathematics and communications skills more than ever before. Research reveals that the ticket for student success in work or future learning is taking courses in math beyond Algebra II and advanced courses in English and Science. But few states expect students to take these courses.

As a result, many high school graduates enter postsecondary education and work unprepared for the demands of learning and earning. As many as 39 percent of recent graduates now enrolled in college and 46 percent in the workforce say there were significant gaps in their preparation. States, postsecondary institutions, and employers spend upward of \$17 billion each year on remedial classes just so students can gain the knowledge and skills that they should've acquired in high school.

Postsecondary remediation can't make up entirely for inadequate preparation in high school. Studies indicate that more than three-quarters (76 percent) of all students who take remedial courses in reading and nearly two-thirds (63 percent) of students who take one or two remedial courses in math fail to earn degrees, according to the [National Center for Education Statistics](#).

Young people tend to achieve what is expected of them. The problem is, we're just not asking enough. Students need to be challenged, and, in fact, they want to be. According to a recent poll, 88 percent of students said they would work harder if their school demanded more of them, set higher standards and raised expectations. An overwhelming majority of students who've entered college and the workforce say that, knowing what they know now, they would've worked harder and applied themselves more in high school. Most would take harder courses if they could go back.

We can raise our sights higher. We can do better. But ensuring that more young people graduate with the skills and knowledge they need requires relentless effort from all sectors, including government, K–12 and postsecondary education, business, and community organizations, as well as parents and young people themselves.

Section 2.3 Do All Students Need a College-Prep Curriculum?

A common concern in states and communities that are considering raising high school graduation requirements is that it is unfair to require all students to take a college-preparatory curriculum because not all students will go to college.

While it is true that some students will go directly to the workforce after high school, new research suggests that the skills needed to get and keep good jobs — both white collar and blue collar — are very similar to what colleges demand of incoming freshmen. In fact, most well-paying jobs today require an additional credential beyond a high school diploma.

The American Diploma Project interviewed college professors and employers from around the country and found that the skills needed to succeed in freshman level courses in two- and four-year colleges *are the same* as the skills needed for living-wage entry-level jobs and careers. To be successful, all high school graduates need advanced reading, writing, communications and mathematics skills. Their curriculum should consist of four years of grade-level or honors English and mathematics classes through at least Algebra II.

It is not only white-collar jobs that demand higher skills today. Due to advancements in technology, the level of education required to get blue-collar jobs is higher than ever before. What about service-sector jobs, such as cashiers and food service workers? It is true that high school graduates can get these jobs without taking a rigorous curriculum. But these jobs typically provide low pay, few benefits and little room for career advancement. Preparing students only for the lowest rung of the economic ladder is neither educationally sound nor socially responsible. It is our responsibility to give graduates more options.

The value of the high school diploma has declined dramatically over the past 50 years. In 1950, 60 percent of jobs were classified as unskilled, attainable by young people with high school diplomas and even high school dropouts. In 2005, only 14 percent of jobs were unskilled, while 86 percent were skilled or professional jobs requiring higher levels of education and training. More than two-thirds of new jobs created by 2010 require some education beyond high school, like technical training or an associate's or bachelor's degree.

The typical bachelor's degree recipient can expect to earn 73 percent more over a 40-year working life than a high school graduate; those with an associate's degree will earn 25 percent more.

The Bottom Line:

When students take challenging courses in high school, they have more options when they graduate. What used to be thought of as “college prep” curriculum is now the basic level of preparation all students need to be successful in college and the workplace.

Section 2.4 Do All Students Need Challenging Math in High School?

The research on this is clear, and it may come as a surprise to many adults who did not take higher-level math courses when they went to school. For most students, taking challenging mathematics in high school is the gatekeeper that either opens or shuts the doors to great opportunities.

In a pair of landmark federal studies that followed high school students through their postsecondary years, Clifford Adelman found that the highest level of math taken in high school has the most powerful relationship to earning a bachelor's degree. This is true regardless of student ethnicity, family income or parents' education levels. Students who complete Algebra II in high school *more than double* their chances of earning a four-year college degree. Those who do not take challenging math courses are much more likely to end up in remedial courses and are more likely to drop out.

It is not only the college bound who need more math. Increasingly, well-paying jobs that pay a living wage and allow for career advancement require strong mathematics, problem-solving and reasoning skills as well.

Due to advancements in technology, manufacturing companies need employees with strong math skills to operate the machinery on the factory floor. Eastman Chemical in Texas has an established company-run Operator Apprenticeship Program to train new machine operators. Apprentices are evaluated on their ability to perform tasks that require solving multiple-step math problems and presenting solutions in the appropriate unit of measure or dimension. In 2000, there were 1.6 million jobs for machine operators, paying median hourly wages from \$10.40 to \$16.07. Those in the construction trade also need higher math skills. According to the Associated General Contractors of America, electricians, pipe fitters, sheet metal workers, draftsmen and surveyors all need algebra, geometry, trigonometry and physics to be successful on the job.

If you think this sounds a lot like the math courses students need for college, you're right. A new study by ACT looked carefully at the skills needed for success in freshmen courses in college and compared them to skills needed for training programs in occupations that offer a salary sufficient to support a family of four. ACT concluded that those jobs require a comparable level of math skills in algebra, geometry, data analysis and statistics as colleges do.

In a national poll of recent high school graduates, more than two-thirds who took Algebra II in high school reported that they were well prepared for the demands they faced in college and the workplace. In contrast, of graduates who took less than Algebra II, only four out of 10 say they were well prepared. The statistics were similar whether graduates went to college or directly to the workplace. Eighty percent of graduates said they would work harder and apply themselves more if they could go back and do high school all over again — that answer was the same for those who went straight to the workforce and for those who went on to college. More than two-thirds of graduates would like to have taken harder courses in high school knowing what they know now about the demands of the workplace and college. When it comes to math, one-third of

college students and half of those who went straight to the workplace would have taken more rigorous high school courses.

The Bottom Line:

No matter what path they choose after they finish high school, students who have taken more demanding math courses are better prepared.

Section 2.5 Requiring Readiness: Can All Students Benefit?

As states and districts upgrade their standards to better prepare graduates for college and work, some worry that not all students will benefit. How can we raise graduation requirements, they ask, when so many teenagers already fail their classes and score poorly on statewide assessments? Can low-income and low-achieving students ever meet the standards? Won't such policies hurt more than help? Such concerns might seem like common sense, but a convincing body of research and experience proves they are profoundly misplaced.

Over the last 15 years, research has consistently shown that *all students learn more* when they are placed in more challenging courses.

What about classroom grades? Won't many students fail if asked to take more challenging courses? Again, recent research suggests otherwise. It turns out that **all students earn better grades** when they take rigorous courses. Tracking more than 3,000 students from middle school into high school, for example, the Southern Regional Education Board found that low achieving 8th graders were less likely to earn Ds and Fs when placed in college prep courses in high school. Nor will students necessarily drop out at higher rates either.

Clearly, the traditional practice of placing low achieving students into "easier" classes does not help them learn more or get better grades, but actually does more harm than good.

The Bottom Line:

Raising expectations is never easy; but concerns that higher standards will hurt students are unfounded. Students are far more likely to succeed when we expect them to do so, and more likely to fail when we do not.

Section 2.6 Will Raising High School Graduation Requirements Cause More Students To Drop Out?

Perhaps the biggest concern about raising graduation requirements is that such policies will cause more students to drop out of high school. Indeed, many people assume that high academic standards and high graduation rates simply are not compatible: The only way to raise graduation rates, they believe, is to lower academic standards. People are right to be concerned about high school dropout rates; they are alarmingly high, particularly in our inner cities. But dropout rates were a problem before states began raising academic standards, and there is no evidence that higher expectations for students increases their chances of dropping out. In fact, the opposite may be true. When students are challenged and supported, they rise to the occasion.

Dropouts Themselves Say Low Standards Are Part of the Problem

Surveys have consistently found that teenagers cite boredom — not demanding classes — as the biggest reason for dropping out of high school. In one recent survey, seven out of 10 dropouts said their schools did not motivate them to work hard, eight out of 10 said they did less than one hour of homework each night, and two-thirds said they would have worked harder if adults had expected more of them. A national survey of public school students found they most often considered dropping out because “school was boring” (76 percent) and “I wasn’t learning anything” (42 percent).

Other studies have shown that, everything else being equal, schools that push students to take tougher academic courses actually have lower dropout rates.

The Bottom Line:

Educators and others are right to be concerned about dropout rates. In today’s world, students who leave high school without a diploma face diminishing opportunities and a lifetime of financial struggle. But the answer is not to continue to expect little of teenagers and to enroll low-achieving students in “easy” classes that bore them and teach them little of value. We owe it to students to challenge and support them so they graduate with the knowledge and skills necessary to succeed.

Section 2.7 How are states closing the expectations gap?

Today, all students need a challenging academic course of study that provides the skills and knowledge required to succeed. But in many states today, students can graduate from high school without having what it takes to continue learning or to earn a living wage.

What's Causing the Expectations Gap?

Part of the challenge is that, until recently, state officials rarely worked with college and business leaders to define exactly what skills and information actually signify college and work readiness. As a result, there's no consistency among college and university admissions, course placement, and job-hiring policies. Young people don't know what courses to take to ensure they're ready. Parents, teachers, colleges and employers have no agreed-upon benchmark for what readiness entails, and they lack legitimacy when they try to communicate to young people that it pays to work hard in school.

Meanwhile, the courses students take in high school vary widely in their academic content and rigor. Students can go through high school and be exposed to content-rich and stimulating classes that build college- and work-ready skills. But many young people take a series of courses that offer remedial, non-academic and watered-down content, which does not build these skills and often leads students to become bored and disengaged and ultimately to drop out of school.

There are few benchmarks available to help students understand at various points in high school if they are on track for success or where they would be placed in college-level courses if they were to enroll. High school educators also lack crucial information that could help improve performance. They receive no data on how well their former students do in postsecondary education and, therefore, lack the opportunity to take stock of what they could do to improve their teaching and help more students succeed.

High schools and postsecondary institutions aren't being held accountable for college readiness and success. K–12 and postsecondary education need to be partners in ensuring that all young people are prepared for work and learning. Both have a role to play in ensuring that students who go on to postsecondary education stay in school and graduate.

What Do States Need To Do To Close the Gap?

To close the expectations gap and increase the odds for student success, states need to create better data management tools to track student performance over time, develop and communicate high school graduation and college-entrance requirements that meet the demands of the real world, and encourage shared accountability for student success. States need to commit to four policy actions:

- [Align high school standards and assessments with the knowledge and skills required for success after high school.](#)

- Require all high school graduates to take challenging courses that actually prepare them for life after high school.
- Streamline the assessment system so that the tests students take in high school also can serve as readiness tests for college and work.
- Hold high schools accountable for graduating students who are ready for college or careers, and holding postsecondary institutions accountable for students' success once enrolled.

Advancing this agenda is the only way we can be sure that a high school diploma is a passport to success in life for young people.

Georgia High School Graduation Requirements: *Preparing Students for Success*

Part 3: Research

Research says . . .

Section 3.1 Need for Change

- The skills and knowledge required in the workplace are no longer very different from those needed for success in college. (Somerville and Yi, 2002)
- While not every student plans to attend college after high school, many of the jobs now being created in a highly technology-based economy require abilities equivalent to those expected of the first-year college student. (Crisis at the Core: Preparing All Students for College and Work, ACT 2004)
- 70 percent of the 30 fastest-growing jobs will require an education beyond high school. 40 percent of all new jobs will require at least an associate's degree. (Somerville and Yi, 2002)
- ACT research (for Georgia) shows that too few members of the graduating class of 2005 are ready for college-level work - or for the workplace, where the same skills are now being expected of those who do not attend college. (College Readiness: 2005 State Report, ACT 2005)
 - 19% of ACT-tested Georgia high school graduates met ACT's College Readiness Benchmark in Science demonstrating their readiness for their first credit-bearing college course in Biology; 33% are ready for their first course in college Algebra; 44% are ready for entry-level social-science courses; 61% are ready for college course work in English Composition.
- More than 70% of graduates enter two-and four-year colleges, but at least 28% of those students immediately take remedial English or math courses. (The American Diploma Project, Ready or Not: Creating a High School Diploma That Counts, 2006)
- Transcripts show that during their college careers, 53% of students take, at least one, remedial English or math class. The percentages are much higher for poor and minority students. (The American Diploma Project, Ready or Not: Creating a High School Diploma That Counts, 2006)
- Studies indicate that more than three-quarters (76%) of all students who take remedial courses in reading and nearly two-thirds (63%) of students who take remedial courses in math fail to earn degrees. (National Center for Education Statistics)
- While a majority of high school graduates enter college, fewer than half leave with a degree. (The American Diploma Project, Ready or Not: Creating a High School Diploma That Counts, 2006)
- Significantly fewer blacks and Hispanics than whites attain bachelor's degrees. (The American Diploma Project, Ready or Not: Creating a High School Diploma That Counts, 2006)

- More than 60% of employers, rate graduates' skills in grammar, spelling, writing and basic math as only "fair" or "poor." (The American Diploma Project, Ready or Not: Creating a High School Diploma That Counts, 2006)
- One study estimated the cost of remedial training in reading, writing and mathematics to a single state's employers at nearly \$40 million a year. (The American Diploma Project, Ready or Not: Creating a High School Diploma That Counts, 2006)

Section 3.2 Impact on Graduation Rate/Dropout Rate

- San Jose Unified School District began requiring all students to complete the full set of courses required for admission to California's public colleges and universities. The percentage of San Jose students taking this rigorous curriculum and earning a C or better in all of the courses went from 37 percent to 65 percent between 2001 and 2004.
- In 1997, Chicago raised its graduation standards to well above what Illinois then required, asking all students to complete all of the courses necessary for entry to competitive state universities. Although many worried that the requirements would drive students to drop out, graduation rates actually improved over the next few years
- If we look at some of the states that have been the most aggressive about raising expectations in high school, we also find that more students rise to the challenge and dropout rates do not increase. In the 1990s, Texas and Indiana established honors diplomas based on rigorous college-prep curricula and encouraged more students to take those courses (they have since made them the graduation requirement). According to data from the Manhattan Institute, as the number of students enrolling in these courses climbed in these two states, the graduation rate held steady and, in some cases, improved. The same was true in Virginia after it instituted new end-of-course graduation tests. The percentage of students passing these tests went from 40 percent to 80 percent in the first five years, with no increase in the dropout rate.
- Other studies have shown that, everything else being equal, schools that push students to take tougher academic courses actually have lower dropout rates. Two University of Michigan researchers found that high schools that offer fewer low-level math classes below Algebra I reduce the odds of dropping out by 28 percent, and those that offer challenging classes like Calculus reduce the odds by 55 percent.
- Indiana established a more challenging roster of college- and work-preparatory courses in English, mathematics, science and social studies, which was ratified in 1994 as the Core 40 curriculum. To ensure that students are learning the content in those courses, the state administers end-of-course assessments in Algebra I and 11th grade English, and it is pilot-testing assessments in Algebra II, Biology I and U.S. history. Although participation in the Core 40 originally was voluntary, the state encouraged schools to offer the courses and students to take them. The percentage of students earning a Core 40 or more rigorous Academic Honors diploma rose from 13 percent in 1993–94 to 65 percent in 2003–04. Since the 1980s, when this work began, Indiana moved from 40th to 10th in the nation in the percentage of high school graduates going to college.

Section 3.3 Student Preparation

- The preparation students receive in high school is the greatest predictor of bachelor's degree attainment – more so than family income or race. (The American Diploma Project, Ready or Not: Creating a High School Diploma That Counts, 2006)
- Only 32% of students who enter 9th grade and graduate four years later have mastered basic literacy skills and have completed the course work necessary to succeed in a four-year college. (Achieve, Inc., The Expectations Gap: A 50-State Review of High School Graduation Requirements, 2004)
- Nearly 30% of college freshmen are immediately placed into remedial courses that cover material they should have learned in high school. (Achieve, Inc., The Expectations Gap: A 50-State Review of High School Graduation Requirements, 2004)
- Most states require high school students to take a certain number of courses in English and mathematics, but very few can ensure that the course content reflects the knowledge and skills that colleges and employers demand, such as Algebra I, Geometry and Algebra II. (The American Diploma Project, Ready or Not: Creating a High School Diploma That Counts, 2006)
- Almost half of dropouts polled (45%) said their previous schooling had not prepared them for high school. (The Silent Epidemic: Perspectives of High School Dropouts, Gates Foundation, 2006)
- Consistent with national data, absenteeism is the most common indicator of overall student engagement and a significant predictor of dropping out. (The Silent Epidemic: Perspectives of High School Dropouts, Gates Foundation, 2006)

Section 3.4 Course work

- San Jose Unified School District in California recently showed dramatic results after it required all students to take the A-G curriculum required for admission to the University of California system. Between 1998 and 2002, test scores of African American 11th graders increased nearly seven times as much as those of African American students across the state. The more rigorous requirements have not resulted in the increase in dropout rates that some had predicted. (Ed Trust-West, *The A-G Curriculum: College-Prep? Work Prep? Life-Prep. Understanding and Implementing a Rigorous Core Curriculum for All*, 2004)
- Research shows that the ability to comprehend complex texts is the clearest differential between students who are ready for college-level reading and those who are not. (College Readiness: 2005 State Report, ACT 2005)
- Certain specific courses – such as Biology, Chemistry, Physics, and upper-level mathematics courses beyond Algebra II, have a startling effect on student performance and college readiness. (College Readiness: 2005 State Report, ACT 2005)
- Taking a rigorous high school curriculum that includes math at least through Algebra II cuts the gap in college completion rates between white students and African American and Latino students in half. (Achieve, Inc., *The Expectations Gap: A 50-State Review of High School Graduation Requirements*, 2004)
- 47% (of dropout respondents) said a major reason for dropping out was that classes were not interesting. This group will need more supports to meet higher standards and to connect what they are learning in the classroom to the skills they will need in the workforce. (The Silent Epidemic: Perspectives of High School Dropouts, Gates Foundation, 2006)
- 81% of (dropout) survey respondents said that if schools provided opportunities for real-world learning (internships, service learning projects, and other opportunities), it would have improved the students' chances of graduating from high school. (The Silent Epidemic: Perspectives of High School Dropouts, Gates Foundation, 2006)

Section 3.5 Expectations

- Studies show that the expectations that teachers have for their students has an effect both on student performance and whether they drop out of school. (The Silent Epidemic: Perspectives of High School Dropouts, Gates Foundation, 2006)
- While a majority (of dropout respondents) said that their school's requirements for graduating were difficult, two-thirds (66%) said they would have worked harder if more had been demanded of them – higher academic standards and more studying and homework – to earn a diploma. (The Silent Epidemic: Perspectives of High School Dropouts, Gates Foundation, 2006)
- 72% of high school graduates who did not go to college responded that, knowing what they know today about the expectations of college/the work world, they would have taken more challenging courses in at least one area. (Rising to the Challenge: Are High School Graduates Prepared for College and Work?, Achieve, Inc., 2005)
- Dropping out of high school is not a sudden act, but a slow process of disengagement, often both academically and socially, and is often influenced by a student's perception of the high school's expectations of him or her and his or her early school experiences. (The Silent Epidemic: Perspectives of High School Dropouts, Gates Foundation, 2006)
- Participants in (dropout survey) focus groups recounted that some of their best days were when their teachers noticed them, got them involved in class, and told them they were doing well. (The Silent Epidemic: Perspectives of High School Dropouts, Gates Foundation, 2006)
- When minority students are required to take rigorous college-preparatory curricula, they rise to the challenge. (Achieve, Inc., The Expectations Gap: A 50-State Review of High School Graduation Requirements, 2004)

Section 3.6 National Trends

(Achieve, Inc., *The Expectations Gap: A 50-State Review of High School Graduation Requirements*, 2004)

Mathematics

- College professors and employers agree that to be successful beyond high school, graduates should have mastered the content typically taught in a rigorous four-year course sequence of Algebra I, Geometry and Algebra II, as well as data analysis and statistics.
- There is growing consensus that students should take math during their senior year in high school – preferably a course beyond Algebra II – to ensure that they continue to strengthen their knowledge and skills
- 29 states and the District of Columbia require students to complete three or more years of math
- 13 states require only two years of math
- 20 states and the District of Columbia specify not only the number of courses but also which ones students must take – in these states Algebra I is the most common requirement, although a growing number of states also are requiring Geometry
- For a general diploma 13 states require two, 24 states and the District of Columbia require three, and five states – Alabama, Arkansas, Mississippi, South Carolina and West Virginia (and now Georgia beginning in 2008) – require students to complete four math courses to graduate.

English

- To be successful in college and well-paying jobs, high school graduates must have strong oral and written communication skills
- College professors and employers agree that all graduates must have analytic and reasoning skills that have traditionally been associated with advanced or honors high school courses
- It is hard to tell how states' course requirements measure up due to the imprecise nature of the English curriculum
- There is not a sequential set of courses students traditionally take in high school and a common understanding of the content associated with each course
- There is no common understanding in the discipline of what should be taught at each grade level, nor is there agreement on a specific body of knowledge associated with specific English courses (e.g., English 10, American Literature)
- 32 states and the District of Columbia require all students to take 4 English courses to graduate with a general diploma; 6 require three courses and the four remaining states – Arkansas, Idaho, New Mexico and Texas – require more than four English courses, typically an additional course in speech
- 6 states – Alabama, Arkansas, Kentucky, North Carolina, Texas and West Virginia – require four years of grade-level English or a four-year sequence of courses (i.e., English I-IV)

Social Studies

- On average, states require three social studies courses, and all but seven states specify at least the equivalent of one full course that students must take.
- 34 states and the District of Columbia require students to study US history,
- 32 states and the District of Columbia require US government
- 7 states and the District of Columbia require state or local history or government
- 21 states and the District of Columbia require students to study world history or civilizations
- 19 states and the District of Columbia require world geography
- 19 states require students to study economics, whether economics is included among the social studies course requirements or listed as a separate area of study

Science

- All 42 states with general diplomas and the District of Columbia require students to take science courses to graduate.
- Most commonly, students are required to take two or three science courses
- Illinois requires only one science course while Alabama alone requires four.
- 20 states and the District of Columbia do not specify which science courses students must take. Of the states that do specify courses, 15 require Biology and either an integrated physical science course or separate Chemistry and physics courses; two simply a Biology course.
- 6 states require a course in earth, space or environmental science
- 4 states – Arkansas, Utah, Virginia and Washington – allow students to choose from a list of specified courses to satisfy the graduation course requirements in science.

Foreign Language

- The study of a foreign language is a more common requirement for college admissions than for high school graduation.
- Only 3 states and the District of Columbia require that all students take a foreign language in high school
- New Jersey and New York require only one year of a foreign language
- Texas and the District of Columbia require two years
- Michigan is phasing in a foreign language requirement

Online Course Information

- <http://nacol.org/docs/VSand21stCenturySkillsFINALPaper.pdf>
- http://www.educationsector.org/research/research_show.htm?doc_id=502307
- http://www.sloan-c.org/publications/survey/k-12_06.asp

Georgia High School Graduation Requirements: *Preparing Students for Success*

Part 4: Implementation

Section 4.1 Rule Information

A new set of graduation requirements will go into effect for incoming ninth grade students in the 2008-2009 school year. All students enrolling in ninth grade for the first time will be required to meet the course expectations in the new rule, IHF(6).

Students who enrolled in the ninth grade prior to 2008-2009 will continue to follow the graduation requirements listed under Rule IHF(5). Two different sets of graduation requirements will be in effect for two different groups of high school students, depending on the year the student enrolled in ninth grade. New ninth graders in 2008 will follow the new requirements in IHF(6). All other students will follow the requirements in IHF(5).

Students who transfer to a Georgia high school will follow the graduation requirements that were in effect in the year the transfer student was a first-time ninth grader.

The requirements described in this document, *Georgia High School Graduation Requirements: Preparing Students for Success*, apply to the new rule only, IHF(6).

Name of the new Graduation Rule:

IHF(6): Rule 160-4-2-.48 High School Graduation Requirements for Students Enrolling in the Ninth Grade for the First Time in the 2008-2009 and Subsequent Years

Access Georgia Graduation Rules:

Go to the Georgia Department of Education web site at www.gadoe.org. Click on “State Board” at the top of the home page and select “Rules” in the drop-down menu. When the page opens, scroll down to IHF(6) and click to open the document.

Section 4.2 Implementation Ideas

Testing Requirements: To ensure that students are well prepared for meeting the Georgia High School Graduation Test requirements, some systems set local policies that include minimum course or unit requirements needed for promotion. For example, students must earn 11 units for junior status or students must complete Mathematics I and Mathematics II for junior status.

Scheduling: To ensure that students have the maximum opportunities to meet graduation requirements, some systems have adjusted the daily schedule to include block or 7-period configurations.

Georgia High School Graduation Requirements: *Preparing Students for Success*

Part 5: Definitions

Section 5.1 Graduation Rule Definitions

Career, Technical and Agricultural Education (CTAE) Pathways – Three elective units in a coherent sequence that includes rigorous content aligned with industry-related standards leading to college and work readiness in a focused area of student interest.

Core Courses – courses identified as “c” or “r” in Rule 160-4-2-.03 List of State-Funded K-8 Subjects and 9-12 Courses.

- IDA(2) Rule 160-4-2-.03 *List of State-Funded K-8 Subjects and 9-12 Courses* can be accessed on the Georgia Department of Education web site at www.doe.k12.ga.us. Click on “State Board” at the top of the home page and select “Rules” in the drop-down menu. When the page opens, scroll down to IDA(2) and click to open the document.

Credit Recovery – Credit recovery is an opportunity for a student to retake a course that he/she previously was not academically successful in earning credit towards graduation. Credit recovery options allow students that have completed seat time and calendar requirements to earn credit based on competency of the content standards. Credit recovery is NOT an individual contract between students and teachers to retake individual content items or strands of a course in which a student has not achieved mastery. Credit Recovery courses are complete courses containing all GPS content on which the student will demonstrate mastery before receiving a new grade. In general, credit recovery programs are intended for students who have been previously unsuccessful in a specific academic course and need additional review of the academic material in order to earn credit for the course.

Dual Enrollment – Articulation for secondary work that has been aligned with the technical college course standards (student must meet the technical college criteria to receive the credit). Dual Enrollment/Accel allows students the opportunity to take postsecondary courses that lead to a degree program in the academic core only. Dual Enrollment/HOPE allows students the opportunity to take postsecondary courses that lead to a diploma or technical certificate only.

Elective Courses – any courses identified as “e” in Rule 160-4-2-.03 List of State-Funded K-8 Subjects and 9-12 Courses that a student may select beyond the core requirements to fulfill the unit requirements for graduation.

Georgia Virtual School Program – the program authorized to provide online learning courses to eligible students in the State of Georgia

Required courses – specific courses identified as “r” in Rule 160-4-2-.03 List of State-Funded K-8 Subjects and 9-12 Courses that each student in a program of study shall pass to graduate from high school.

Secondary School Credential – a document awarded to students at the completion of the high school experience.

- **High School Diploma** – the document awarded to students certifying that they have satisfied attendance requirements, unit requirements and the state assessment requirements as referenced in Rule 160-3-1-.07 Testing Programs - Student Assessment.
- **High School Certificate** – the document awarded to pupils who do not complete all of the criteria for a diploma or who have not passed the state assessment requirements as referenced in Rule 160-3-1-.07 Testing Programs – Student Assessment, but who have earned 23 units and meet all local board requirements.
- **Special Education Diploma** – the document awarded to students with disabilities assigned to a special education program and who has not met the state assessment requirements referenced in Rule 160-3-1-.07 Testing Programs - Student Assessment or who have not completed all of the requirements for a high school diploma but who have nevertheless completed their Individualized Education Programs (IEP).

Significant Cognitive Disabilities – students with significant intellectual disabilities or intellectual disabilities concurrent with motor, sensory or emotional/behavioral disabilities who require substantial adaptations and support to access the general curriculum and require additional instruction focused on relevant life skills and participate in the Georgia Alternate Assessment (GAA).

Unit – one unit of credit awarded for a minimum of 150 clock hours of instruction or 135 hours of instruction in an approved block schedule.

Unit, Summer School – one unit of credit awarded for a minimum of 120 clock hours of instruction.

Section 5.2 Georgia Virtual School Definitions

Administrative Costs – expenses incurred by the local school systems for delivery of online learning courses via the Georgia Virtual School. Examples include: certain maintenance and operations expenses and facilitator stipends.

Approved Entity – local school system online learning program or private school online learning program that agrees to operate under the terms and conditions established by the State Board of Education

Eligible Student – student, age 21 years or younger, who attends a public or private school or is in a home study program in the state of Georgia.

Facilitator – full-time, part-time, contracted, and instructional or support staff from public, private or an Educational Technology Training Center (ETTC) who has been selected to act as the designated contact for the Georgia Virtual School Program and students in their school or district. ETTC staff shall act as facilitators for home study students.

Full Time Equivalent (FTE) – formula that divides high school students' regular school day into six reporting segments or their equivalent for funding purposes.

Georgia Virtual School – Georgia Department of Education instructional program offering students online learning courses in accordance with O.C.G.A. § 20-2-319 hereto referred to as the Georgia Virtual School Program.

Learning Management System – instructional technology used to teach online classes.

Online Learning Courses – State Board of Education-approved courses of instruction directly correlated to the state-approved curriculum that is delivered via the Internet or in any other electronic medium not involving on-site interaction with a teacher.

Regular School Day – schedule of courses taken as part of public school students' regular school day, which consists of six segments or its FTE equivalent. For private and home study students the regular school day is the equivalent of four and one half hours during 180 instructional days.

Seat – equivalent of one student enrolled in an online learning course for one-half unit credit.

Summer School – time period in excess of 180 instructional days.

Section 5.3 Special Education Definitions

Assistive technology – includes devices and services (evaluation, hardware and software) that are required by a student with a disability to increase, maintain or improve the academic and functional capabilities.

Augmentative Communication – Augmentative/alternative communication (AAC) is any device, system, or method of communication that can assist individuals with communication impairments to communicate more effectively.

Co-taught Class – A classroom where a special education teacher and a general education teacher share the teaching responsibilities. The class includes students with and without disabilities for the entire instructional segment. Both teachers are equally responsible for planning, the delivery of instruction, grading, IEP implementation, and classroom management for all students.

Collaborative instruction – A classroom situation where a special education teacher and a general education teacher share the teaching responsibilities for a class, which includes students with and without disabilities. The special education teacher is present for part of the instructional segment, but less than full time.

Individualized Education Program (IEP) – The written statement for a child with a disability that is developed, reviewed, and revised in accordance with the rules and regulations set forth under the Individuals with Disabilities Education Act. This written statement is reviewed at least annually and contains measurable annual goals, including all academic and functional goals designed to meet the child's needs to be involved in and make progress in the general curriculum. The IEP also addresses goals to meet each child's needs that result from the child's disability and identifies all the special education services and supports necessary for the child to make progress toward the attainment of those goals.

IEP Team – the group of individuals that is responsible for developing, reviewing, or revising an IEP for a child with a disability.

Significant Cognitive Disabilities – Students with significant intellectual disabilities or intellectual disabilities concurrent with motor, sensory or emotional/behavioral disabilities who require substantial adaptations and support to access the general curriculum and require additional instruction focused on relevant life skills and participate in the Georgia Alternate Assessment (GAA).

Special Education Diploma – The document awarded to students with disabilities assigned to a special education program who have not met the state assessment requirements referenced in Rule 160-3-1-.07 Testing Programs - Student Assessment or who have not completed all of the requirements for a high school diploma but who have nevertheless completed their Individualized Education Programs (IEP).

Transition Plan – The component of the IEP that is developed beginning not later than entry into ninth grade or by age 16, whichever comes first, or younger if determined appropriate by the IEP Team and updated annually. The IEP must include:

- (a) Appropriate measurable post-secondary goals based upon age appropriate transition assessments related to training, education, employment, and, where appropriate, independent living skills; and
- (b) The transition services (including courses of study) needed to assist the student in reaching those goals.

Section 5.4 Testing Definitions

Assessing Comprehension and Communication in English State to State for English Language Learners (ACCESS for ELLs) – an English language proficiency test administered annually to all English language learners (ELL) in Georgia for the purposes of determining the English language proficiency level of students; providing districts with information that will help them evaluate the effectiveness of their ESOL programs; providing information that enhances instruction and learning in programs for English language learners; assessing the annual English language proficiency gains using a standards-based assessment instrument; and providing data for meeting federal and state requirements with respect to student assessment.

Accommodation – an alteration in the administration of an assessment that allows students to participate and is clearly determined by a student’s Individualized Education Program (IEP) team, Section 504 Individual Accommodation Plan (IAP) Committee, or English Language Learner (ELL) Testing Participation Committee. An accommodation is provided to a student during assessment to ensure that the assessment measures what the student knows and is able to do. Accommodations shall be specified in the IEP, in the Section 504 IAP, or in the ELL Testing Participation Committee document. Accommodations must be part of the usual instructional practices. Accommodations will result in either a standard or conditional /non-standard administration. Specific information concerning the standard or conditional/non-standard nature of an accommodation is noted and published annually in the *Student Assessment Handbook* and the respective testing administration materials that accompany each assessment (e.g., Examiner’s Manual and Directions for Administration).

End of Course Tests (EOCT) – EOCT measure the statewide curriculum of State Board of Education specified high school courses in order to ensure that high-academic standards are being met in all Georgia high schools. These tests inform students, parents, educators, and the community about the achievement of Georgia students in the specified courses. Test scores are used as described in Rule 160-4-2-.13 Statewide Passing Score.

English Language Learner (ELL) Student – a student whose primary or home language is other than English (PHLOTE) and who is eligible for services based on the results of a language placement assessment and, if warranted, additional assessments specified in Rule 160-4-5-.02 Language Assistance: Programs for Limited English Proficient (LEP) Students.

Georgia Alternate Assessment (GAA) – a portfolio assessment designed for students with significant cognitive disabilities under the Individuals with Disabilities Education Act (IDEA) whose IEP team has determined they are unable to reasonably participate in the regular assessment program. The purpose of the GAA is to ensure all students, including students with significant cognitive disabilities, are provided access to the state curriculum and given the opportunity to demonstrate progress toward achievement of the state standards.

Georgia High School Graduation Tests (GHSGT) – a set of four curriculum-based assessments that students must pass in order to earn a regular Georgia high school diploma. The

tests are normally taken for the first time in spring of the 11th grade, and cover English/language arts, mathematics, science, and social studies.

Georgia High School Writing Test (GHSWT) – a performance-based writing assessment that is taken for the first time in fall of the 11th grade. Students must pass this test in order to earn a regular Georgia high school diploma.

Individualized Education Program (IEP) – a written statement of special education, related services, and, as appropriate, transition services, that meets the unique needs of the student with a disability. An IEP also includes any specific accommodations, needed modifications, and supports for the student with a disability. The IEP is developed, reviewed, and revised in a meeting by an appropriately staffed IEP team, including the student’s parent(s).

Student with Disabilities – a student who is classified as disabled according to Rule 160-4-7-.01 Definitions and/or according to Section 504 of the 1973 Rehabilitation Act [34 CFR 104.33 (a)]

Georgia High School Graduation Requirements: *Preparing Students for Success*

Part 6: Requirements for Graduation

Students must meet diploma requirements in three areas: assessments, courses, and credits.

- Assessments: students are required to post passing scores on the Georgia High School Graduation Test (GHS GT) and the Georgia High School Writing Test (GHS WT)
- Courses: students must complete specific course requirements as outlined by the graduation rule
- Credits: students must earn 23 units as a minimum state requirement for graduation. Additional requirements may be established by the local district.

Section 6.1 Assessment Requirements for Graduation

Georgia High School Graduation Tests

Students Assessed

All students who entered ninth grade after July 1, 1991 must take the Georgia High School Writing Test (GHS WT) and the Georgia High School Graduation Tests (GHS GT). The GHS WT is first administered to students at the main administration in the fall of their eleventh-grade year. The GHS GT is first administered to students at the main administration in the spring of their eleventh-grade year in the content areas of English/language arts, mathematics, science, and social studies.

Additionally, school systems must administer the GHS GT to the following students if they are enrolled in school or present themselves for testing:

- All students who are enrolled for the third year in high school (grades 9-12), have accumulated at least nine units of credit (or 12 units of credit if the school is operating a block schedule), and either have not achieved passing scores on the graduation assessments or present themselves as first-time test takers at the main administrations only.

Educators should work with students individually to determine the most appropriate time for their initial spring, eleventh-grade administration. For example, a third-year student may meet the minimal credit requirement, but may not be classified as an eleventh-grader and/or may lack courses important to be well-prepared for the GHS GT. It may be appropriate for this student to be counseled to take the test as an eleventh grader the following spring.

- Students transferring into a Georgia school system from private schools, home study programs, other states or countries.

- Students who have dropped out of school without having met all of the assessment and other graduation requirements and have returned without having been enrolled in any Georgia public school for one academic year or more. Such students shall meet the graduation assessment criteria for passing in effect for the class in which they re-enroll.

Diploma Eligibility Requirements

Students who graduated with a special education diploma or exited school with a certificate and who have met all graduation requirements except passing the graduation assessments must meet the passing criteria in effect at the time of their graduation or exit. All students who entered ninth grade after July 1, 1991, are required to post passing scores on the GHSWT and on the English/language arts and mathematics portions of the GHSGT as one requirement to be eligible to receive a high school diploma. Students who entered ninth grade after July 1, 1993, are also required to pass the social studies portion of the GHSGT as one requirement to be eligible to receive a high school diploma. Students who entered ninth grade after July 1, 1994, are also required to pass the science portion of the GHSGT as one requirement to be eligible to receive a high school diploma.

Re-tests

There is no limit to the number of times a student may retake the graduation assessments until he or she meets the passing criteria. Upon meeting these criteria, students who have met all other graduation requirements are eligible to receive a high school diploma.

End of Course Tests

Courses

There are eight courses designated by the State Board for assessment using the EOCT: Ninth Grade Literature and Composition, American Literature and Composition, Algebra, Geometry, U. S. History, Economics/Business/Free Enterprise, Biology I, and Physical Science.

Students who enter the ninth grade in or after the 2008-2009 academic year, will take Mathematics I or Accelerated Mathematics I and Mathematics II or Accelerated Mathematics II as opposed to Algebra and Geometry. A GPS-based EOCT will be created for each of these courses and will be required to earn course credit. For students who entered ninth grade prior to the 2008-2009 academic year and have not earned credit for Algebra and/or Geometry, the former QCC-based EOCT will remain available and will continue to be required for these courses.

Students Assessed

Any student enrolled in an EOCT course, regardless of grade level, must take the appropriate EOCT. This includes:

- Students enrolled in credit recovery, or “make-up” courses
- Students enrolled in alternative schools
- Students enrolling from non-accredited programs are required to take and pass the EOCT prior to receiving credit for the course.

- If middle school students are completing an EOCT course covering high school GPS/QCC, they should take the EOCT regardless of whether they are receiving high school credit.

Re-tests

If the student fails an EOCT course with a final grade below 70, no credit will be earned. When the student repeats a course to earn credit for graduation, he/she would participate in the EOCT at the end of the repeated course so that the final course grade can be calculated. EOCT scores may not be ‘banked.’

If a student passes an EOCT course, he/she may not retake the EOCT regardless of his/her performance on the first attempt.

Transfer Credit

If a *newly enrolled* student wishes to transfer credit in a course completed at an accredited institution, they do not have to complete the EOCT. However, if a student wishes to transfer credit in an EOCT course from a non-accredited setting, they must take and pass the EOCT in order to receive credit.

If a student completes an EOCT course *while they are enrolled* in a Georgia public high school, they must take the associated EOCT. This is true whether they complete the course at a Georgia public school or a private institution. If they are enrolled in a Georgia public school when the course is completed, regardless of the venue, they must complete the EOCT. If the institution is accredited, it will count as 15% of their grade; if it is non-accredited, students must also pass the EOCT in order to receive credit. Local policy may also specify additional criteria for acceptance of transfer credit for currently enrolled students.

Students who are dually enrolled in a course to earn both high school and college credit will be required to take the EOCT to earn credit at the high school level.

Course Grades

The EOCT is intended to be a final exam for the course. A student’s numeric Grade Conversion Score (GCS) on the EOCT must count for 15% of the student’s final grade.

If a school awards 1.0 credit upon completion of a yearlong course, the EOCT should be averaged in as 15% of that final grade. If the school awards 0.5 credit at the end of 1st semester, and 0.5 credit at the end of 2nd semester, the EOCT should be averaged in as 15% of the final 2nd semester course grade.

Student scores on the EOCT must be recorded on, in, or with the individual student report card.

The Georgia Alternate Assessment (GAA)

Students Assessed

When an IEP team determines that a student cannot participate in the GHSGT and GHSWT even with maximum accommodations and the student has a significant cognitive disability, the student

must be administered the Georgia Alternate Assessment (GAA). The GAA should only be administered to a small percentage (approximately 1%) of students.

Students with significant cognitive disabilities participating in the GAA must be provided access to the state-adopted curriculum. Educators may adjust the learning expectations for this group of unique students provided the instruction is based on and aligned to the grade-level curriculum standards. Instruction may reflect pre-requisite skills but must be sufficiently challenging for the individual student.

Diploma Eligibility Requirements

Students taking the GAA who have successfully completed all applicable graduation requirements, may be eligible to receive a regular high school diploma. Eligible students must have participated in the GAA during middle school and high school and must earn a proficient score (i.e. Established Progress or Extending Progress) on the high school GAA in all content areas: English/ language arts, mathematics, science, and social studies.

Students transferring from an accredited school, who consistently participated in alternate assessments based on alternate achievement standards from grade six until the time of enrollment, may take the GAA for diploma eligibility purposes. If the student was not continuously enrolled in an accredited school from grade six until the time of enrollment, the decision to allow the student to take the GAA for diploma eligibility purposes will be based on evidence that the student participated in an alternate assessment for those grades in which the student was enrolled in an accredited school.

Students transferring from non-accredited or home study programs with no previous history of enrollment in any accredited school from grade six until the time of enrollment, must be evaluated to determine if they have a significant cognitive disability that would prohibit participation in the GHSGT and GHSWT. If the system determines that the student qualifies, they may take the GAA for diploma eligibility purposes. Systems must retain documentation of evidence for making this determination.

Re-tests

Beginning in 2010-2011, students who take the high school GAA for the first time and who do not achieve a proficient score on one or more content areas, may retake the GAA the following academic year. Students may retake the GAA for the duration of their enrollment in a Georgia public school. All requirements for GAA retest administrations are the same as those set forth for students taking the GAA for the first time, including but not limited to, the number and type of entries and evidence required and the time requirements for evidence collection periods. A student may retest in only those areas for which he or she did not previously score proficient.

English Language Learners

Students who have been defined as English Language Learner (ELL) must participate in all applicable assessment programs. ELL students enrolling for the first time in a U.S. school may receive a one-time deferment from a content area assessment, other than mathematics or science, if their proficiency in English indicates that testing is not in the best educational interest of the

student. This one-time deferment may occur during the first twelve months of enrollment in a U.S. school. This deferment requires a documented meeting of the ELL Test Participation Committee. Any ELL student receiving a deferment must participate in the state adopted language proficiency assessment, ACCESS. No student may be deferred from any mathematics or science content area assessments, nor may any student be deferred from the End of Course Tests regardless of the length of time in a US school.

Additional Resources

Additional information about state assessment programs may be found on the GaDOE assessment web page and in the annual Student Assessment Handbook, available at the following link:

http://www.doe.k12.ga.us/ci_testing.aspx

Section 6.2 Required Courses: State-Approved List of 9-12 Courses

State policy requires that local boards of education shall not receive state funds for the following:

- Any course for which the course guide does not allocate a major portion of class time toward the development of one or more student competencies established by the Georgia Board of Education.
- Any course that requires participation in an extracurricular activity and for which enrollment is on a competitive basis.
- Any class-period in which the student serves as an assistant in a school office or in the media center, except when such placement is an approved work learning site of a recognized career or vocational program.
- Any study hall or other noncredit course.

Local boards of education receive state funds for the courses listed in IDA(2) Rule 160-4-2-.03 *List of State-Funded K-8 Subjects and 9-12 Courses*. The Rule can be accessed on the Georgia Department of Education web site at www.doe.k12.ga.us. Click on “State Board” at the top of the home page and select “Rules” in the drop-down menu. When the page opens, scroll down to IDA(2) and click to open the document.

State-approved courses and course numbers are listed in Rule IDA(2). Assigning correct numbers as students register for courses, ensures that accurate data is gathered by the Department. The Rule contains course-numbering information and three sections with course lists.

The course list also provides information regarding required (r), core (c), and elective (e) credit options. Refer to State Board of Education high school graduation rules for clarification regarding course requirements, core courses, and electives that apply to each student.

Section 6.3 Course Requirement Chart

Tiered diploma options are no longer included in the graduation requirements for students entering ninth grade in 2008-2009. All students are expected to complete a common set of requirements to earn a regular diploma. The following units are required under the new graduation rule.

(iii) AREAS OF STUDY.

| | <u>Units Required</u> |
|--|-----------------------|
| (I) English/Language Arts* | <u>4</u> |
| (II) Mathematics* | <u>4</u> |
| (III) Science* | <u>4</u> |
| The 4 th science unit may be used to meet both the science and elective requirement | |
| (IV) Social Studies* | <u>3</u> |
| (V) CTAE and/or Modern Language/Latin and/or Fine Arts | <u>3</u> |
| (VI) Health and Physical Education* | <u>1</u> |
| (VII) Electives | <u>4</u> |
| TOTAL UNITS (MINIMUM) | <u>23</u> |
| *Required Courses and/or Core Courses | |

Section 6.4 Advanced Course Work

Students may meet some graduation requirements by taking advanced-level courses. Advanced course work is available for students who show interest and/or meet prerequisite requirements. Advanced courses include the Accelerated Math sequence, Advanced Placement and International Baccalaureate classes, Dual Enrollment, Joint Enrollment, Early College and industry certification courses. Courses may vary depending on system needs. Online options may be available.

Section 6.5 Admissions Requirements for Post-secondary Institutions Technical Schools

Students may be admitted to any college within the Technical College System of Georgia under the following requirements. These apply to students in college credit programs.

- A GED or high school transcript will be required for admission to the Technical College or to a program as specified by the program's standards.
- High school diplomas must have been awarded by a secondary school that is regionally accredited.
- All applicants must submit scores from SAT, ACT, or an approved college placement test.

Some college credit programs have additional requirements that must be met before students may be admitted into those particular programs. These may include minimum scores on the admission placement test or other program-specific requirements. Contact the technical college offering your specific program to learn if any additional requirements apply to the programs in which you are interested.

For more information, go to <http://www.technicalcollegesystemofgeorgia.org/>

For a comprehensive web resource for students and all Georgia residents who want to research careers, choose a college, apply for college, and acquire financial aid go to www.GAcollge411.org

University System of Georgia Colleges and Universities

The Board of Regents serves as the governing board for the University System of Georgia's 35 colleges and universities. The institutions are divided into three sectors; research universities, comprehensive universities and access colleges. Admission to research and comprehensive institutions is competitive and students completing minimum requirements are not guaranteed admission.

| <i>Research Institutions</i> | <i>Access Institutions</i> |
|---------------------------------------|--------------------------------------|
| University of Georgia | Abraham Baldwin Agricultural College |
| Georgia Institute of Technology | Atlanta Metropolitan College |
| Georgia State University | Bainbridge College |
| Medical College of Georgia | Coastal Georgia Community College |
| | Dalton State College |
| | Darton College |
| Comprehensive Institutions | East Georgia College |
| Georgia Southern University | Gainesville State College |
| Valdosta State University | Georgia Gwinnett College |
| | Georgia Highlands College |
| | Georgia Perimeter College |
| Albany State University | Gordon College |
| Armstrong Atlantic State University | Macon State College |
| Augusta State University | Middle Georgia College |
| Clayton State College | South Georgia College |
| Columbus State College | Waycross College |
| Fort Valley State College | |
| Georgia College & State University | |
| Georgia Southwestern State University | |
| Kennesaw State College | |
| North Georgia & State College | |
| Savannah State University | |
| Southern Polytechnic State University | |
| University of West Georgia | |

The Board of Regents, in 2007, approved new high school curriculum (RHSC) requirements for students who will enter University System of Georgia (USG) institutions in 2012. All freshmen seeking admission to a USG college or university in 2012 or later must have earned high school credits in the following academic areas.

Required High School Curriculum (RHSC) for admission to a USG college or university

| Subject Area | RHSC Requirements for students graduating 2012 or later | RHSC Requirements for students graduating prior to 2012 |
|------------------------|---|---|
| English | 4 units in English which have an emphasis on grammar and usage, literature (American, English, World), and advanced composition skills | 4 credits, which have an emphasis on grammar and usage, literature (American, English, World), and advanced composition skills |
| Mathematics | 4 units in mathematics through Mathematics III. | 4 units in mathematics including Algebra I & II, Geometry. Students are encouraged take a higher-level mathematics course in the senior year. |
| Science | 4 units in natural science, two must have a laboratory component. At least one unit of biology; one unit of physical science or physic; one unit of chemistry, earth science, environmental science | 3 credits in natural science with at least one laboratory course from the life sciences and one laboratory course from the physical sciences. |
| Social Studies | 3 units of social science, with at least one course focusing on United States studies and one course focusing on world studies. | 3 units of social science, with at least one course focusing on United States studies and one course focusing on world studies; .5 unit of American Government or Civics and .5 unit of economics |
| Modern Language | 2 units in the same foreign language emphasizing speaking, listening, reading, and writing. 2 units of American Sign Language can be used to satisfy this requirement. | 2 units in the same foreign language emphasizing speaking, listening, reading, and writing. Hearing impaired students can American Sign Language to satisfy this requirement. |
| Total | 17 units | 16 units |

In addition to completing 17 units of the required high school curriculum students seeking admission to research or comprehensive universities must also meet the Freshman Index and submit SAT or ACT test scores.

In 2004, the Board of Regents voted to waive test scores for admission to access institutions (two year colleges and state colleges) for a period of three years. At the end of the three years the Board will review the results of the pilot to determine if the waiver of test scores should become a permanent policy. The Board will notify GaDOE when a decision is made. Until such time, students seeking admission to an access institution are encouraged, but not required to submit SAT and/or ACT scores.

| Admission Requirements | Students graduating from high school 2012 or later |
|--|--|
| <p>Freshman Index (FI) Is based on a combination of a SAT (or ACT) scores and the high school grade point average.</p> <p>$500 \times (\text{HSGPA}) + \text{SAT verbal/critical reading} + \text{SAT math}$ <i>or</i></p> <p>$500 \times (\text{HSGPA}) + (\text{ACT composite} \times 42) + 88$</p> | <p>Minimum Freshman Index Requirements by Institution Type</p> <p>Research Institutions – 2500</p> <p>Regional institutions – 2040</p> <p>Comprehensive institutions – 1940</p> |
| <p>High School Grade Point Average</p> | <p>The high school grade point average is calculated from the 17 courses in the required high school curriculum.</p> |
| <p>Test Scores</p> | <p>Minimum Scores required for Research, Regional and Comprehensive Institutions</p> <p>SAT verbal/critical reading -- 430 SAT mathematics – 400</p> <p><i>or</i></p> <p>ACT English – 17 ACT Mathematics - 17</p> <p>(Although tests scores are not required for admission to access institutions, students are encouraged to take the SAT and/or ACT which will be used for placement.)</p> |
| <p>Additional Courses</p> | <p>Students are encouraged to select courses from their area of focused interest or by selecting from the five areas of the core and/or courses from the fine arts.</p> |

Questions & Answers

1. *Q: What is the difference between the current curriculum requirements and the new requirements that go into effect in 2008?*

A: Prior to the adoption of the new graduation rule, the University System of Georgia required students seeking regular admission to complete a college preparatory curriculum of 16 units. Students who did not complete the required courses were not eligible for admission as freshman at the System’s comprehensive and research institutions. Starting with the freshman class 2012, any student who seeks admission to a USG college or university must be able to show completion of 17 units, in five academic areas.

2. ***Q: When does this change in curriculum go into effect?***

A: Students graduating from a Georgia Public High School in 2012 will be required to meet the new required high school curriculum (RHSC) requirements.

3. ***Q: Will students who complete the new graduation requirements be guaranteed admission to any USG institution?***

A: No, completing the required 17 units will not guarantee admission to a USG college or university. Colleges and universities are allowed to set admission requirements higher than the System minimum. Students are encouraged to contact the Admissions Office directly or go to Gacollege411.org for institution specific information.

4. ***Q: Modern language is not required for high school graduation; are students required to have 2 years of foreign language to be admitted to a USG college or university?***

A: Students seeking admission to a USG comprehensive or research university must present 2 years of a single foreign language or 2 years of American Sign Language to be considered for admission.

Students who do not meet the modern language requirement can be admitted to an access institution but they will be required to make up the deficiency in college.

5. ***Q: Can a student whose native language is not English be considered as having satisfied the modern language requirement in lieu of 2 units of credit?***

A: If the high school will certify that the student is proficient in his or her native language the University System of Georgia will accept the recommendation in lieu of 2 units of high school language credit.

6. ***Q: Can a student use one year of American Sign Language and one year of a single foreign language to satisfy the required high school curriculum foreign language requirement?***

A: No, to satisfy the RHSC foreign language requirement a student must complete 2 units of a single foreign language or 2 units of American Sign Language.

7. ***Q: What elective courses should students seeking admission to a USG institution be encouraged to take?***

A: Students should be encouraged to take courses in the core academic areas, fine arts and/or courses from the career, technical, and agricultural education pathways.

8. ***Q: Can AP or IB courses be used to meet the RHGC requirements?***

A: Students should be encouraged to take AP or IB courses as core or as electives.

9. ***Q: Does the USG use the weight added to grades earned in AP or IB courses in calculating the admission grade point average.***

A: Unlike the calculation used to determine HOPE eligibility, the USG does not add or remove weights added to individual courses. The grade, as it appears on the final high school transcript is used to calculate the admission grade point average.

10. ***Q: Can students with cognitive disabilities be admitted to a USG institution?***

A: Students who complete all graduation requirements, including passing all graduation tests can be considered for admission. Students are expected to have completed four units in Mathematics. Mathematics I, II, and III, in conjunction with a math support course cannot be substituted for four units of mathematics.

Students interested in achieving admission to a selective university such as Harvard must take responsibility for checking with that college for admission requirements. Harvard Admissions recommends the following high school preparation for students seeking admission:

There is no single academic path we expect all students to follow, but the strongest applicants take the most rigorous secondary school curricula available to them. An ideal four-year preparatory program includes four years of English, with extensive practice in writing; four years of math; four years of science: biology, chemistry, physics, and an advanced course in one of these subjects; three years of history, including American and European history; and four years of one foreign language.

Source: Harvard College Admissions:

http://www.admissions.college.harvard.edu/utilities/faq/admissions/high_school/index.html

Stanford University suggests the following for high school preparation:

Our experience has suggested that students who excel in a curriculum like the one below are well suited for the demands of college academics:

English: four years, with significant emphasis on writing and literature.

Mathematics: four years, with significant emphasis on fundamental mathematical skills (algebra; trigonometry; plane, solid, and analytic geometry).

History/Social Studies: three or more years. Such courses should include the writing of essays.

Science: three or more years of laboratory science.

Foreign Language: three or more years of the same foreign language. Your study of a foreign language ought to include the development of four basic skills: reading, writing, speaking, and listening comprehension.

Source: Stanford Undergraduate Admission

http://www.stanford.edu/dept/uga/applying/1_2a1_acaprep.html

Agnes Scott College publishes this advice to potential applicants:

You need to have a solid base in the five major academic categories: math, science, English, social studies and foreign language. It is also advisable that you take at least a few college-level courses, whether they be AP/IB classes or a dual-enrollment course at a local college. Other than these general guidelines, there are no specific courses that the admission committee expects.

Source: Agnes Scott College Undergraduate Admissions FAQs:

<http://www.agnesscott.edu/admission/undergraduate/faqs.aspx>

Section 6.6 Dual Enrollment

Purpose

The purpose of the Dual Enrollment Program is to offer additional educational opportunities for secondary students and to allow them to earn dual course credit from both GaDOE secondary schools and the GDTAE technical colleges while the students are still enrolled in high school.

Explanation

Secondary students who enroll as dual Enrollment at a USG college or university must meet the institution's dual enrollment admission requirements. Students who enroll as Dual Enrollment at a GTCS technical college must meet the admission requirements for the selected program of study.

- Dual Enrollment/Accel allows students the opportunity to take postsecondary courses that lead to a degree program in the academic core only. For a list of approved courses and more information, go to www.gsfc.org.
- Dual Enrollment/HOPE allows students the opportunity to take postsecondary courses that lead to a diploma or technical certificate only. For more information go to http://www.gadoe.org/ci_cta.aspx?PageReq=CICTASeam.

Section 6.7 Transcripts

Some students with disabilities will require a support course listed on the transcript for Math I and II in order to be eligible for the regular diploma.

Regardless of secondary school credential earned by a student, in most circumstances the transcript will be reviewed in order to support eligibility and qualifications for entry into a post-secondary educational program, the military or employment.

Systems should be aware of the importance of not entering an exit code in the Student Information System if the student with a disability is accepting a special education diploma for the purposes of participating in graduation exercises, but will be returning to continue work on the high school diploma. These students should not be reported as or considered exonerated until such time as they leave the school system with the final credential. This is important for the accurate determination of AYP.

Section 6.8 Middle School Credit

Unit credit may be awarded for courses offered in the middle grades that meet 9-12 GPS requirements. Credit courses must follow GPS requirements as well as any associated End Of Course Test requirements.

Unit credit shall be awarded only for courses that include concepts and skills based on the Georgia Performance Standards (GPS) for grades 9-12 or those approved by the State Board of Education. The Individualized Education Program (IEP) shall specify whether core courses taken as part of an IEP shall receive core unit credit.

No course credit may be awarded for courses in which instruction is based on the GPS for grades K-8.

Georgia High School Graduation Requirements:
Preparing Students for Success

Part 7: Procedures for Awarding Credit

Section 7.1 Seat Time

One unit of credit is awarded for a minimum of 150 clock hours of instruction or 135 hours of instruction in an approved block schedule.

One unit of credit is awarded for a minimum of 120 clock hours of instruction for summer school courses.

Section 7.2 Middle School Credit

Unit credit may be awarded for courses offered in the middle grades that meet 9-12 GPS requirements. Credit courses must follow GPS requirements as well as any associated End Of Course Test (EOCT) requirements.

Unit credit shall be awarded only for courses that include concepts and skills based on the Georgia Performance Standards (GPS) for grades 9-12 or those approved by the State Board of Education. The Individualized Education Program (IEP) shall specify whether core courses taken, as part of an IEP, shall receive core unit credit.

High School unit credit is not awarded for courses that include concepts and skills for grades K-8.

Section 7.3 Georgia Virtual School

A Georgia Virtual School or approved online provider course shall satisfy graduation requirement regardless of content area of course.

All public high schools who earn FTE funding in the State of Georgia will have no limit stipulated by Georgia Virtual School in the number of units they may enroll students.

Not every student is a good candidate for online learning, but the decision to approve students to enroll in either FTE-funded or tuition-funded online learning classes with GAVS is determined by the local school facilitator. The following outlines the typical qualities of successful online learners:

- Self-motivated
- Independent learners
- Computer literate (not necessarily “high tech”) individuals
- Successful time managers
- Effective written communicators
- Risk takers
- Committed workers
- Open communicators (i.e. willing to ask for help, share problems, and/or concerns)
- Interested online learners
- Flexible workers (i.e. ability to work with a pre-set schedule of due dates that may not coincide with the schedule of their regular school day)

The Georgia Virtual School Program is authorized to provide online learning courses to eligible students in the State of Georgia. In accordance with O.C.G.A. §20-2-319, priority shall be given to public school students enrolled in Georgia public schools and services shall be provided to private and home study students through a procedure established by the State Board of Education and implemented by the Department.

Funding and Tuition

For public school students funding is allocated in the amount that the participating students would have earned if they had been in equivalent FTE general education programs in a local school system for that portion of the instructional day in which the students were enrolled in Georgia Virtual School Program courses.

Funds may be appropriated for online learning courses taken by students in Georgia Virtual School Program courses who meet the following criteria for course enrollments of no more than one unit per semester during the regular school day:

- Public school student who is taking a course(s) as a part of their regular five and one half hours instructional day or its time equivalent pursuant to State Board of Education Rule 160-5-1.02 School Day for Students.

Local school systems cannot claim FTE segment credit for class periods in which its students take an online course through the Georgia Virtual School Program.

Based on appropriations, local school systems shall be reimbursed for a portion of administrative costs for students enrolled in courses through the Georgia Virtual School Program.

Local school boards with students enrolled in approved entities online learning programs for courses during the regular school day shall be funded in the amount that the participating students would have earned if those students had been in an equivalent FTE general education programs in a local school for that portion of the instructional day in which the students were enrolled in an approved entity online learning course.

Tuition shall be collected by the Georgia Virtual School Program staff for public school, private school, and home study students:

- Who are enrolled outside of the regular school day, as defined by the Department
- Who are enrolled in a summer school term as defined in this rule.

Registration

Priority in registration shall be given to public school students. A student shall register for Georgia Virtual School Program courses through an online registration system developed in accordance with program guidelines. Students registered in a Georgia public school, private school or home study program shall receive written approval from a facilitator prior to being enrolled in a Georgia Virtual School Program online learning course. Students enrolled in a Georgia Virtual School Program online learning course shall be assigned a Georgia Testing Identifier (GTID) as set forth in State Board of Education Rule 160-5-1-.07 Student Data Collection.

The Georgia Virtual School Program and approved entities shall limit participation per student to a maximum of one Carnegie unit per semester during the regular school year for FTE credit. The Department and approved entities shall establish a petition process for medically homebound students wishing to exceed the one Carnegie unit limit. The Georgia Virtual School Program and approved entities shall authorize limits for student enrollment based on program resources for classes taken outside the regular school day.

Student Expectations

Students must agree to abide by the Georgia Virtual School Program guidelines, procedures, and policies as outlined in the *Georgia Virtual School Program Student Handbook*.

Grades

A student enrolled in the Georgia Virtual School Program and any approved entity shall earn a final numeric grade at the end of every course attempted unless the student withdraws from the course according to the guidelines in the *Georgia Virtual School Program Student Handbook* or approved entity handbook. Grades earned, including final grades, final exams and End of Course Tests shall comply with State Board of Education Rule 160-4-2-.13 Statewide Passing Score. Local school systems and private schools that approve student course enrollment(s) shall

accurately transcribe a student's Georgia Virtual School Program final grade to the student's permanent record/transcript.

Instruction Process

The Georgia Virtual School Program and approved entities shall provide access to students through a learning management system that adequately teaches and assesses courses through the online medium. The Georgia Virtual School Program and approved entities shall provide all instructional materials necessary for all participating students and teachers. Approved entities or local school systems with online programs shall provide the instructional materials through their programs. The Georgia Virtual School Program and all approved entities shall maintain records of students' participation in online learning courses pursuant to applicable records retention policies.

4. The Georgia Virtual School Program and approved entities shall authorize the administration and abide by rules of all tests as required by the Department for completion of a course(s).

The Georgia Virtual School Program and approved entities shall limit participation per student to a maximum of one Carnegie unit per semester during the regular school year for FTE credit. The Department and approved entities shall establish a petition process for medically homebound students wishing to exceed the one Carnegie unit limit. The Georgia Virtual School Program and approved entities shall authorize limits for student enrollment based on program resources for classes taken outside the regular school day.

Curriculum and Course Quality

The Georgia Virtual School Program and approved entities shall adhere to course standards as set forth in State Board of Education Rule 160-4-2-.03 List of State-Funded K-8 Subjects and 9-12 Courses.

Section 7.4 Other Online Credit and Credit Recovery Policies

Credit Recovery

Credit recovery is an opportunity for a student to retake a course that he/she previously was not academically successful in earning credit towards graduation. Credit recovery options allow students that have completed seat time and calendar requirements to earn credit based on competency of the content standards. Credit recovery is NOT an individual contract between students and teachers to retake individual content items or strands of a course in which a student has not achieved mastery. Credit Recovery courses are complete courses containing all GPS content on which the student will demonstrate mastery before receiving a new grade. In general, credit recovery programs are intended for students who have been previously unsuccessful in a specific academic course and need additional review of the academic material in order to earn credit for the course.

A variety of options can be used for credit recovery, including Georgia Virtual School and other online vendors and through programs such as Compass learning, NovaNet and Plato.

Section 7.5 Dual Enrollment Credit

Schools are expected to provide students information concerning the opportunity of dual and joint enrollment programs as part of the development of their plan of study. By April 1 of each school year or prior to enrollment in an eligible institution, school systems shall provide general information about lottery-funded program dual and joint enrollment programs to all eligible students.

Dual Enrollment is a process through which high school students take courses at or from a state public or private post-secondary institution, while still enrolled as a high school student and receive credit both at the high school and at the post-secondary institution. Lottery-funded Dual Enrollment Programs are provided to eligible high school students who are taking courses at state public or private post-secondary institutions paid for through lottery funds. These include the ACCEL program for college level course work and HOPE Grant program for certificate or diploma course work.

A student is eligible for dual enrollment, if they are accepted by a state public or private post-secondary institution and the Georgia Student Finance Commission (GSFC) as meeting the requirements for participation in the lottery-funded joint or dual enrollment program.

Students who participate in this dual enrollment program shall adhere to the ACCEL guidelines as developed by the GSFC. Courses shall be chosen by eligible students from the list approved by the Georgia Department of Education developed with consideration of input from the Georgia Board of Regents.

Joint Enrollment is a process through which high school students take courses at a state public or private post-secondary institution, while still enrolled as a high school student and receive credit only at the post-secondary institution. GSFC only provides funding for joint enrollment diploma or certificate courses taken at public post-secondary institutions through a Hope Grant.

Students who are not accepted by GSFC for participation in lottery-funded dual or joint enrollment programs but who have been accepted by a state public or private post-secondary institution are eligible to take the same courses identified for lottery-funded programs. The student or the student's parent/guardian is responsible for all costs related to participation in a non-lottery-funded dual or joint enrollment program.

Local school systems shall accept toward state and local high school graduation requirements and subject area requirements of the State Board of Education the post-secondary credit of a student who successfully completes an approved course at an eligible institution and shall apply the provisions of Rule 160-5-1-.18 COMPETITIVE INTERSCHOLASTIC ACTIVITIES IN GRADES 9-12: NO PASS/NO PARTICIPATE to students enrolled in this program.

The grades and amount of credit for each approved course for students who participate in approved dual enrollment programs shall be placed on high school transcripts and shall be used in computing grade point averages.

- Semester hour credit shall be converted to high school unit credit at a five to one ratio: 5 semester hours = 1 unit; 4 semester hours = .8 unit; 3 semester hours = .6 unit; 2 semester hours = .4 unit; 1 semester hour = .2 unit.
- Quarter hour credit shall be converted to high school unit credit at a 7.5 to one ratio: 8 quarter hours = 1.06 units; 7 quarter hours = .92 unit; 6 quarter hours = .79 unit; 5 quarter hours = .66 unit; 4 quarter hours = .53 unit; 3 quarter hours = .4 unit; 2 quarter hours = .26 unit; 1 quarter hour = .13 unit.

Schools are expected to provide students information concerning the opportunity of dual and joint enrollment programs as part of the development of their plan of study. By April 1 of each school year or prior to enrollment in an eligible institution, school systems shall provide general information about lottery-funded program dual and joint enrollment programs to all eligible students.

For more information, go to www.doe.k12.ga.us and click on “State Board” at the top. When the page opens, scroll down to Rule IDCH, 160-4-2-.34 DUAL AND JOINT ENROLLMENT PROGRAMS.

Section 7.6 Transfer Credit

According to State Board Rule 160-5-1-.15 ACCEPTANCE OF TRANSFER CREDIT AND/OR GRADES, local boards of education shall:

- accept student course credit earned in an accredited school.
- adopt a policy for validating credit for courses taken at a non-accredited elementary or secondary school or home study program.

Local districts should have procedures for placing transfer students at the appropriate level and for granting Carnegie unit credit for high school students. The procedures shall include at least one of the following criteria.

- Probationary placement based on records of prior schools(s) and/or home-study programs and satisfactory performance of the student for one or more grading periods.
- Tests and acceptable scores - these tests may be standardized or locally developed and should focus on group placement, subject area and/or grade level.
- Procedures for determining whether or not transfer courses meet the required minimum core curriculum.

Georgia High School Graduation Requirements: *Preparing Students for Success*

Part 8: Areas of Study: Mathematics

Section 8.1 Requirements

Four units of credit in mathematics shall be required of all students, including

- Mathematics I or its equivalent,
- Mathematics II or its equivalent, and
- Mathematics III or its equivalent.

Additional units needed to complete four credits in mathematics must be chosen from the list of GPS/AP/IB designated courses.

Accelerated Mathematics I and Accelerated Mathematics II include the standards of Mathematics I, Mathematics II, and Mathematics III. At the present time, these are the only equivalent courses for Mathematics I, 2, or 3.

Students with disabilities who take and pass Mathematics I in conjunction with a mathematics support class and Mathematics II in conjunction with a mathematics support class, upon determination through the Individualized Education Plan process may meet diploma requirements by completing Mathematics III or its equivalent for a total of 3 math credits. Completion of 3 units of math may not meet mathematics admission requirements for entrance into a University System of Georgia institution or other post-secondary institution without additional course work.

Section 8.2 Middle School Credit: QCC and GPS Courses

Unit credit may be awarded for courses offered in the middle grades that meet 9-12 GPS requirements. Credit courses must follow GPS requirements as well as any associated End Of Course Test requirements.

Unit credit shall be awarded only for courses that include concepts and skills based on the Georgia Performance Standards (GPS) for grades 9-12 or those approved by the State Board of Education. The Individualized Education Program (IEP) shall specify whether core courses taken as part of an IEP shall receive core unit credit.

High School unit credit is not awarded for courses that include concepts and skills for grades K-8.

In August 2008, when the new graduation rule goes into effect for entering freshmen, QCC mathematics courses (Algebra I, Geometry, etc.) will be replaced by GPS courses (Mathematics I and Accelerated Mathematics I, etc.). The new courses will also be available to middle schools that offer high school courses for advanced students.

Students who completed QCC mathematics courses in middle school may continue the QCC sequence of courses when they enter high school in 2008. Students who completed Algebra I and Geometry, for example, can enroll in Algebra II since QCC courses will continue to be available for upper class men until the courses phase out. Decisions concerning placement into QCC courses should be made at the local level. All students entering high school in 2008 will be required to pass the Georgia High School Graduation Test which will be based on the GPS.

Section 8.3 Course Sequence Information: Flowchart

| Georgia Performance Standards (GPS) | | | | |
|--|--|--|---|---|
| | Option 1 | Option 2 | Option 3 | Option 4 |
| Grade | | | Advanced | Accelerated |
| 6th | 6 th Grade GPS | 6 th Grade GPS | 6 th Grade Advanced GPS | 6 th , 7 th , and 8 th grade GPS |
| 7th | 7 th Grade GPS | 7 th Grade GPS | 7 th Grade Advanced GPS | |
| 8th | 8 th Grade GPS | 8 th Grade GPS | 8 th Grade Advanced GPS | Accelerated Mathematics I |
| 9th | Mathematics I | Accelerated Mathematics I | Accelerated Mathematics I | Accelerated Mathematics II |
| 10th | Mathematics II | Accelerated Mathematics II | Accelerated Mathematics II | Accelerated Mathematics III |
| 11th | Mathematics III | Accelerated Mathematics III | Accelerated Mathematics III | AP Statistics*; AP Calculus AB/BC; Joint Enrollment; IB courses |
| 12th | Mathematics IV; AP Statistics*; Discrete Math | AP Calculus AB/BC; AP Statistics*; Discrete Math; Joint Enrollment IB courses | AP Calculus AB/BC; AP Statistics*; Discrete Math; Joint Enrollment; IB courses | AP Statistics*; AP Calculus AB/BC; Joint Enrollment; IB courses |

8.4 Course Descriptions

Mathematics

The Georgia Mathematics Curriculum focuses on actively engaging students in the development of mathematical understanding by using manipulatives and a variety of representations (e.g., concrete, symbolic, verbal, graphical), working independently and cooperatively to solve problems, estimating and computing efficiently, and conducting investigations and recording findings. There is a shift towards applying mathematical concepts and skills in the context of authentic problems and understanding concepts rather than merely following a sequence of procedures. In mathematics classrooms, students will learn to think critically in a mathematical way with an understanding that there are many different ways to a solution and sometimes more than one right answer in applied mathematics. Mathematics is the economy of information. It is the reasoned, logical connections that make mathematics manageable. Each mathematics course integrates concepts from algebra, geometry, and data analysis and probability in order to emphasize the natural connection among mathematical topics. As a result, implementation of the Georgia Performance Standards places a greater emphasis on the process standards from the National Council of Teachers of Mathematics: problem solving, reasoning, representation, connections, and communication.

Mathematics I: Algebra/Geometry/Statistics

This is the first in a sequence of mathematics courses designed to ensure that students are college and work ready. It requires students to:

- explore the characteristics of basic functions utilizing tables, graphs, and simple algebraic techniques;
- operate with radical, polynomial, and rational expressions;
- solve a variety of equations, including quadratic equations with leading coefficient of one, radical equations, and rational equations;
- investigate properties of geometric figures in the coordinate plane;
- use the language of mathematical argument and justification;
- discover, prove, and apply properties of polygons;
- utilize counting techniques and determine probability;
- use summary statistics to compare samples to populations; and
- explore the variability of data.

Mathematics II: Geometry/Algebra II/Statistics

This is the second in a sequence of mathematics courses designed to ensure that students are college and work ready. It requires students to:

- represent and operate with complex numbers;
- use numerical, graphical, and algebraic techniques to explore quadratic, exponential, and piecewise functions and to solve quadratic, exponential and absolute value equations and inequalities;
- use algebraic models to represent and explore real phenomena;
- explore inverses of functions;
- use right triangle trigonometry to formulate and solve problems;

- discover, justify, and use properties of circles and spheres;
- use sample data to make informal inferences about population means and standard deviations; and
- fit curves to data and examine the issues related to curve fitting.

(Prerequisite: Successful completion of Mathematics I)

Mathematics III: Advanced Algebra/Statistics

This is the third in a sequence of mathematics courses designed to ensure that students are college and work ready. It requires students to:

- analyze polynomial functions of higher degree;
- explore logarithmic functions as inverses of exponential functions;
- solve a variety of equations and inequalities numerically, algebraically, and graphically;
- use matrices and linear programming to represent and solve problems;
- use matrices to represent and solve problems involving vertex-edge graphs
- investigate the relationships between lines and circles;
- recognize, analyze, and graph the equations of conic sections;
- investigate planes and spheres;
- solve problems by interpreting a normal distribution as a probability distribution; and
- design and conduct experimental and observational studies.

Mathematics IV: Pre-Calculus-Trigonometry/Statistics

This is a fourth year mathematics course designed to prepare students for calculus and other college level mathematics courses. It requires students to:

- investigate and use rational functions;
- analyze and use trigonometric functions, their graphs, and their inverses;
- use trigonometric identities to solve problems and verify equivalence statements;
- solve trigonometric equations analytically and with technology;
- find areas of triangles using trigonometric relationships;
- use sequences and series;
- understand and use vectors;
- investigate the Central Limit theorem; and
- use margins of error and confidence intervals to make inferences.

Accelerated Mathematics I: Geometry/Algebra II/Statistics

This is the first in a sequence of mathematics courses designed to ensure that students are prepared to take higher-level mathematics courses during their high school career, including Advanced Placement Calculus AB, Advanced Placement Calculus BC, and Advanced Placement Statistics. It requires students to:

- represent and operate with complex numbers;
- explore the characteristics of basic functions utilizing tables, graphs, and simple algebraic techniques;
- operate with radical, polynomial, and rational expressions;
- solve equations, including quadratic, radical, and rational equations;

- investigate properties of geometric figures in the coordinate plane;
- use the language of mathematical argument and justification;
- discover, prove, and apply properties of polygons, circles and spheres;
- utilize counting techniques and determine probability;
- use summary statistics to compare sample data distributions and to relate sample statistics to corresponding population parameters;
- explore variability of data; and
- fit curves to data and examine the issues related to curve fitting.

Accelerated Mathematics II: Advanced Algebra/Geometry/Statistics

This is the second in a sequence of mathematics courses designed to ensure that students are prepared to take higher-level mathematics courses during their high school career, including Advanced Placement Calculus AB, Advanced Placement Calculus BC, and Advanced Placement Statistics. It requires students to:

- explore the characteristics of exponential, logarithmic, and higher degree polynomial functions using tables, graphs, and algebraic techniques;
- explore inverses of functions;
- use algebraic models to represent and explore real phenomena;
- solve a variety of equations and inequalities using numerical, graphical, and algebraic techniques with appropriate technology;
- use matrices to formulate and solve problems;
- use linear programming to solve problems;
- use matrices to represent and solve problems involving vertex-edge;
- use right triangle trigonometry to formulate and solve problems;
- investigate the relationships between lines and circles;
- recognize, analyze, and graph the equations of conic sections;
- investigate planes and spheres;
- use sample data to make informal inferences about population means and standard deviations;
- solve problems by interpreting a normal distribution as a probability distribution; and
- design and conduct experimental and observational studies.

Accelerated Mathematics III: Pre-Calculus-Trigonometry/Statistics

This is the third in a sequence of mathematics courses designed to ensure that students are prepared to take higher-level mathematics courses during their high school career, including Advanced Placement Calculus AB, Advanced Placement Calculus BC, and Advanced Placement Statistics. It requires students to:

- investigate and use rational functions;
- analyze and use trigonometric functions, their graphs, and their inverses;
- find areas of triangles using trigonometric relationships;
- use trigonometric identities to solve problems and verify equivalence statements;
- solve trigonometric equations analytically and with technology;
- use complex numbers in trigonometric form;

- understand and use vectors;
- use sequences and series;
- explore parametric representations of plane curves;
- explore polar equations;
- investigate the Central Limit theorem; and
- use margins of error and confidence intervals to make inferences.

Section 8.5 Placement Information

Placement of students from 8th Grade Mathematics to Mathematics I or Accelerated Mathematics I

Students at risk for failing Mathematics I should be placed in both Mathematics I and a Mathematics Support class. Local guidelines for identification of at risk students should consider such factors as success in the 8th grade mathematics course, score on the Criterion-referenced Competency Test, teacher recommendation, and scores on other standardized tests (ITBS, CogAT, etc.).

Students who successfully complete the Georgia Performance Standards in Mathematics for grades 6-8 have mastered the content necessary to be successful in Mathematics I or Accelerated Mathematics I. Determination of course placement should depend on the student's interest in mathematics and/or related fields of study and on the student's achievement in mathematics. As the pace, and in some cases the rigor, of Accelerated Mathematics is significantly more challenging than that of the Mathematics sequence, students placed in Accelerated Mathematics should have strong mathematical skills and an interest in pursuing Advanced Placement or other higher-level mathematics courses while still in high school.

Schools should consider equity and access for all when assigning students to accelerated mathematics courses. The GPS curriculum provides an opportunity for students with an interest and desire to study mathematics to challenge themselves by taking more rigorous courses. Given the alignment of the standards, students who have difficulty in the Accelerated mathematics sequence will be able to transition easily to the Mathematics sequence.

The local school or system should determine the criteria, and measurement of the criteria, in placing students in the appropriate mathematics course.

Placement of students transferring into Georgia from out-of-state schools

Existing math credits granted by out-of-state schools should be transferred as math credit. Appropriate placement of students entering Georgia schools from other states or countries should be determined by careful examination of the students' transcripts and by individual student assessments. For those students entering 9th grade, the assessment and modules contained in the Georgia Virtual School High School Transition Course may be used to assess and remediate topics contained in the middle grades GPS courses. Students needing extensive remediation on middle grades topics should be placed in a Math Support Class and Mathematics I.

Because the content of courses with similar names (algebra 1, geometry, algebra 2) can vary significantly, it is crucial that the transcripts of students entering Georgia high schools with existing credit in high school mathematics courses be examined and that those students be assessed.

This chart provides some guidance for placing students entering with traditional course credit. In every case students' transcripts should be carefully evaluated and assessments should be given. Students' interest and levels of achievement (grades) should also be considered in making a final decision.

| | | |
|------------------------------------|--|---|
| Entering with credit for: | Placement under GPS | Possible remediation needed |
| Algebra 1 | Mathematics I, possibly with Math Support | Standards in geometry and data analysis and probability (Grades 6-8) |
| Algebra 1 and Geometry | Mathematics II or Accelerated Mathematics II | Standards in data analysis and probability (Grades 6-8 and Mathematics I) |
| Algebra 1, Geometry, and Algebra 2 | Mathematics III, Accelerated Mathematics III or Mathematics IV | Standards in data analysis and probability (Grades 6-8, Mathematics I and Mathematics II) |

Placement of students transferring out of Georgia schools

Thorough content descriptions of all GPS mathematics courses will accompany students transferring out of Georgia schools.

The following chart shows **possible** placement from GPS Mathematics courses into traditional courses similar to those that existed under the Quality Core Curriculum.

| Completed GPS Courses | Possible Traditional Placement |
|--------------------------------|---|
| GPS 8 th Grade Math | Algebra 1 |
| Mathematics I | Algebra 2 |
| Accelerated Mathematics I | Honors Algebra 2 or Precalculus |
| Mathematics II | Algebra 2 or Advanced Algebra and Trigonometry |
| Accelerated Mathematics II | Precalculus, Advanced Algebra and Trigonometry, AP statistics |
| Mathematics III | Advanced Algebra and Trigonometry, Precalculus, AP Statistics, Discrete Mathematics |
| Accelerated Mathematics III | AP Calculus AB, AP Calculus BC, AP Statistics, Discrete Mathematics |

Section 8.6 Math Support Class Guidance

Purpose: The purpose of the Math Support class is to address the needs of students who have traditionally struggled in mathematics by providing the additional time and attention they need in order to successfully complete their regular grade-level math course without failing. Math Support is an elective class that should be taught concurrently with a student's regular math class.

Who should teach this course? The course should be taught by a certified mathematics teacher, preferably one with experience in differentiating instruction to meet the needs of struggling students. If English Language Learners are being served by a Math Support class it is recommended that the teacher also hold the ESOL endorsement. The Math Support teacher should work closely with the teacher(s) in the regular academic math class to align content, instruction, and assessments.

What credit is earned for the Math Support class? One unit of elective credit is earned for this course.

What components should be a part of the Math Support Class?

- All students in a particular Math Support class should be enrolled in the same regular math course (Algebra I, for example).
- The Math Support class should focus on mastery of the standards being taught in the regular grade-level math class, not the content from elementary or middle school.
- Grading practices should emphasize mastery of standards through the frequent use of aligned quizzes and tests.
- Continual progress monitoring should be used to assess and diagnose each student's strengths and weaknesses, based on grade-level math standards, and to provide appropriate interventions.
- Opportunities should be provided for students to review content with a focus on standards not previously mastered.
- Opportunities should be provided for students to preview math concepts to be addressed in the regular math class, including prerequisite skills necessary for those concepts, vocabulary, and definitions.
- The academic language of math should be explicitly taught as concepts are introduced and reinforced.
- Proven strategies for success in mathematics should be utilized on a daily basis. Students should be engaged in *doing* mathematics, explaining their thinking, and justifying their work. Multiple representations of concepts (tables, charts, graphs, verbal descriptions) should be used as often as possible.
- There should be strong emphasis on building a positive disposition toward learning mathematics.
- Although there is no class size requirement for the Math Support course, a reduced class size is recommended.

How important is collaboration among teachers to the success of students in the Math Support Class? (Teachers of the Math Support courses, the regular math courses and, as

appropriate, the ESOL teachers and special education teachers share responsibility for students' mathematical achievement.) All teachers who instruct Math Support students should communicate in an ongoing manner about the following:

- individual student progress, including grades, strengths and weaknesses based on standards, mathematical disposition, and work habits;
- curriculum expectations, including specific standards to be addressed based on a timeline, prerequisite skills, vocabulary, and potential misconceptions;
- instructional strategies, including specific strategies for teaching math concepts that are being used in both classrooms to provide consistency and understanding for teachers and students; and
- differentiation of instruction, including tasks based on the *ACCESS* for *ELLs* Composite Proficiency Levels of *ELLs* and the WIDA standards for English Language Learners; and
- assessments, including content and formats that are being used to evaluate students for specific standards.

How will students be evaluated in the Math Support class? The goal of Math Support is to help students successfully complete their regular grade-level math course without failing. Assignments, quizzes and tests should be aligned to the standards being taught. Individuals should be given multiple opportunities to show mastery of the content, including opportunities to re-test on the material covered in the regular math class. Math Support provides the time some students need for additional practice or re-testing. The value of formative assessment and feedback cannot be overstated. Continuous progress monitoring with both feedback and commentary is essential in this course. Students should not feel pressure to “make grades” in this class as much as they should be motivated and encouraged to master standards. Documented continuous communication with students on an individual basis is the most appropriate way to maintain records of progress. REP assessment processes may be appropriate models.

How is this course different from REP? The focus of the Math Support course is to support students specifically in the high school math course in which they are currently enrolled. The Remedial Education Program is an instructional program designed for students in grades 6-12 who have identified deficiencies in reading, writing, and math. REP funding can be used for the math support class, following REP guidelines for eligibility, scheduling, class size.

If our school is on a block schedule, does this mean that students may have math for two blocks during the school day? It is important that this course be taught concurrently with the regular math course. Scheduling options that keep struggling students engaged in mathematics throughout the school year are preferable.

How should students be selected to be in a Math Support class? Students should be placed in a Math Support class based on local system criteria for identifying students who are at risk for failing mathematics. Students who are *placed* in high school and have not passed the 8th grade math CRCT should certainly be in the support class. Other criteria might include teacher recommendation based on student performance in the previous or current math class, prior retention, failure of a math course, and/or low scores on the math portion of the CRCT, math EOCT, or other instruments used by the system to predict success.

Section 8.7 ADP College and Work-Ready Benchmarks

The ADP Benchmarks for Mathematics can be found at www.achieve.org

**Georgia High School Graduation Requirements:
*Preparing Students for Success***

Part 9: Areas of Study: English Language Arts

Section 9.1 Requirements

Four units of credit in English Language Arts shall be required of all students. A full unit of credit in American Literature/Composition and a full unit of credit in Ninth-Grade Literature and Composition shall be required. All courses that may satisfy the remaining units of credit are identified with a “c.”

Advanced Placement, International Baccalaureate and Joint Enrollment courses can be used to meet course requirements, as stated in IDA(2) Rule 160-4-2-.03 *List of State-Funded K-8 Subjects and 9-12 Courses*.

Section 9.2 Course Sequence Information

The Writing, Conventions, and Listening, Speaking, and Viewing strands of the Georgia Performance Standards (GPS) shall be taught in sequence in grades 9-12.

Literature modules may be taught in any sequence in grades 10-12.

Section 9.3 ADP College and Work-Ready Benchmarks

Georgia is a member of the American Diploma Project (ADP) Network, a consortium of 30 states dedicated to making sure every high school graduate is prepared for college or work. The ADP Benchmarks for English describe the specific content and skills that graduates must have mastered by the time they leave high school if they expect to succeed in post-secondary education or in high-performance, high growth jobs. ADP recently completed a Quality Review of the Georgia Performance Standards for ELA and Mathematics (our college and work-readiness standards). The ADP Benchmarks to which the Georgia standards were compared represent the knowledge and skills required for successful entry into credit-bearing college courses and quality jobs. A secondary purpose of the review was to ensure that the Georgia standards meet the criteria of high quality, including rigor, focus, coherence, specificity, clarity and measurability. The ADP report stated:

“The Georgia College and Work Readiness Standards in English and Mathematics present student learning expectations that are intellectually demanding and well aligned with the ADP Benchmarks. If Georgia students meet the state standards, they will likely be well prepared for both workplace and college success.”

The ADP Benchmarks for English (below) can be found at www.achieve.org

A. Language

The high school graduate can:

- A1. Demonstrate control of standard English through the correct use of grammar, punctuation, capitalization and spelling. (Associated Workplace Tasks: #2, 3, 4, 5 and 6) (Associated Postsecondary Assignments: #4, 5 and 6)
- A2. Use general and specialized dictionaries, thesauruses and glossaries (print and electronic) to determine the definition, pronunciation, etymology, spelling and usage of words. (Associated Postsecondary Assignment: #4)
- A3. Use roots, affixes and cognates to determine the meaning of unfamiliar words.
- A4. Use context to determine the meaning of unfamiliar words.
- A5. Identify the meaning of common idioms, as well as literary, classical and biblical allusions; use them in oral and written communication.
- A6. Recognize nuances in the meanings of words; choose words precisely to enhance communication. (Associated Workplace Tasks: #2, 3, 4, 5 and 6) (Associated Postsecondary Assignments: #4, 5 and 6)
- A7. Comprehend and communicate quantitative, technical and mathematical information. (Associated Workplace Tasks: #1 and 2) (Associated Postsecondary Assignments: #2 and 3)

B. Communication

The high school graduate can:

- B1. Give and follow spoken instructions to perform specific tasks, to answer questions or to solve problems. (Associated Workplace Tasks: #1 and 2)
- B2. Summarize information presented orally by others.

- B3. Paraphrase information presented orally by others.
- B4. Identify the thesis of a speech and determine the essential elements that elaborate it.
- B5. Analyze the ways in which the style and structure of a speech support or confound its meaning or purpose.
- B6. Make oral presentations that:
- exhibit a logical structure appropriate to the audience, context and purpose;
 - group related ideas and maintain a consistent focus;
 - include smooth transitions;
 - support judgments with sound evidence and well-chosen details;
 - make skillful use of rhetorical devices;
 - provide a coherent conclusion; and
 - employ proper eye contact, speaking rate, volume, enunciation, inflection and gestures to communicate ideas effectively.

See Workplace Task #3: [Actuary](#)

- B7. Participate productively in self-directed work teams for a particular purpose (for example, to interpret literature, write or critique a proposal, solve a problem, make a decision), including:
- posing relevant questions;
 - listening with civility to the ideas of others;
 - extracting essential information from others' input;
 - building on the ideas of others and contributing relevant information or ideas in group discussions;
 - consulting texts as a source of ideas;
 - gaining the floor in respectful ways;
 - defining individuals' roles and responsibilities and setting clear goals;
 - acknowledging the ideas and contributions of individuals in the group;
 - understanding the purpose of the team project and the ground rules for decision-making;
 - maintaining independence of judgment, offering dissent courteously, ensuring a hearing for the range of positions on an issue and avoiding premature consensus;
 - tolerating ambiguity and a lack of consensus; and
 - selecting leader/spokesperson when necessary.

C. Writing

The high school graduate can:

- C1. Plan writing by taking notes, writing informal outlines and researching.
- See Workplace Task #4: [Wafer Fabrication Technician and Manufacturing Technician](#)
- See Workplace Task #5: [Events Manager](#)
- See Workplace Task #6: [Loan Officer](#)
- See Postsecondary Assignments #4: [Wafer Fabrication Technician and Manufacturing Technician](#)
- See Postsecondary Assignments #5: [Wafer Fabrication Technician and Manufacturing Technician](#)
- See Postsecondary Assignments #6: [Wafer Fabrication Technician and Manufacturing Technician](#)
- C2. Select and use formal, informal, literary or technical language appropriate for the purpose, audience and context of the communication.
- See Workplace Task #4: [Wafer Fabrication Technician and Manufacturing Technician](#)
- See Workplace Task #5: [Events Manager](#)
- See Workplace Task #6: [Loan Officer](#)
- See Postsecondary Assignments #4: [Wafer Fabrication Technician and Manufacturing Technician](#)
- See Postsecondary Assignments #5: [Wafer Fabrication Technician and Manufacturing Technician](#)

See Postsecondary Assignments #6: [Wafer Fabrication Technician and Manufacturing Technician](#)
 C3. Organize ideas in writing with a thesis statement in the introduction, well-constructed paragraphs, a conclusion and transition sentences that connect paragraphs into a coherent whole.

See Workplace Task #4: [Wafer Fabrication Technician and Manufacturing Technician](#)

See Workplace Task #5: [Events Manager](#)

See Workplace Task #6: [Loan Officer](#)

See Postsecondary Assignments #4: [Wafer Fabrication Technician and Manufacturing Technician](#)

See Postsecondary Assignments #5: [Wafer Fabrication Technician and Manufacturing Technician](#)

See Postsecondary Assignments #6: [Wafer Fabrication Technician and Manufacturing Technician](#)

C4. Drawing on readers' comments on working drafts, revise documents to develop or support ideas more clearly, address potential objections, ensure effective transitions between paragraphs and correct errors in logic.

See Workplace Task #4: [Wafer Fabrication Technician and Manufacturing Technician](#)

See Workplace Task #5: [Events Manager](#)

See Workplace Task #6: [Loan Officer](#)

See Postsecondary Assignments #4: [Wafer Fabrication Technician and Manufacturing Technician](#)

See Postsecondary Assignments #5: [Wafer Fabrication Technician and Manufacturing Technician](#)

See Postsecondary Assignments #6: [Wafer Fabrication Technician and Manufacturing Technician](#)

C5. Edit both one's own and others' work for grammar, style and tone appropriate to audience, purpose and context.

See Workplace Task #4: [Wafer Fabrication Technician and Manufacturing Technician](#)

See Workplace Task #5: [Events Manager](#)

See Workplace Task #6: [Loan Officer](#)

See Postsecondary Assignments #4: [Wafer Fabrication Technician and Manufacturing Technician](#)

See Postsecondary Assignments #5: [Wafer Fabrication Technician and Manufacturing Technician](#)

See Postsecondary Assignments #6: [Wafer Fabrication Technician and Manufacturing Technician](#)

C6. Cite print or electronic sources properly when paraphrasing or summarizing information, quoting, or using graphics.

C7. Determine how, when and whether to employ technologies (such as computer software, photographs and video) in lieu of, or in addition to, written communication.

C8. Present written material using basic software programs (such as Word, Excel and PowerPoint) and graphics (such as charts, ratios and tables) to present information and ideas best understood visually.

C9. Write an academic essay (for example, a summary, an explanation, a description, a literary analysis essay) that:

- develops a thesis;
- creates an organizing structure appropriate to purpose, audience and context;
- includes relevant information and excludes extraneous information;
- makes valid inferences;
- supports judgments with relevant and substantial evidence and well-chosen details; and
- provides a coherent conclusion.

For more information:

See Postsecondary Assignments #4: [Wafer Fabrication Technician and Manufacturing Technician](#)

See Postsecondary Assignments #5: [Wafer Fabrication Technician and Manufacturing Technician](#)

See Postsecondary Assignments #6: [Wafer Fabrication Technician and Manufacturing Technician](#)

C10. Produce work-related texts (for example, memos, e-mails, correspondence, project plans, work orders, proposals, bios) that:

- address audience needs, stated purpose and context;
- translate technical language into non-technical English;
- include relevant information and exclude extraneous information;
- use appropriate strategies, such as providing facts and details, describing or analyzing the subject, explaining benefits or limitations, comparing or contrasting, and providing a scenario to illustrate;
- anticipate potential problems, mistakes and misunderstandings that might arise for the reader;
- create predictable structures through the use of headings, white space and graphics, as appropriate; and
- adopt a customary format, including proper salutation, closing and signature, when appropriate.

For more information:

See Workplace Task #4: [Wafer Fabrication Technician and Manufacturing Technician](#)

See Workplace Task #5: [Events Manager](#)

See Workplace Task #6: [Loan Officer](#)

D. Research

The high school graduate can:

D1. Define and narrow a problem or research topic.

(Associated Workplace Tasks: #4 and 6)

D2. Gather relevant information from a variety of print and electronic sources, as well as from direct observation, interviews and surveys

(Associated Workplace Tasks: #3, 4, 5 and 6)

(Associated Postsecondary Assignment: #4)

D3. Make distinctions about the credibility, reliability, consistency, strengths and limitations of resources, including information gathered from Web sites.

(Associated Workplace Task: #5)

D4. Report findings within prescribed time and/or length requirements, as appropriate.

(Associated Workplace Tasks: #4, 5 and 6)

D5. Write an extended research essay (approximately six to 10 pages), building on primary and secondary sources, that:

- marshals evidence in support of a clear thesis statement and related claims;
- paraphrases and summarizes with accuracy and fidelity the range of arguments and evidence supporting or refuting the thesis, as appropriate; and
- cites sources correctly and documents quotations, paraphrases and other information using a standard format.

(Associated Workplace Task: #4)

E. Logic

The high school graduate can:

E1. Distinguish among facts and opinions, evidence and inferences.

(Associated Postsecondary Assignment: #5)

E2. Identify false premises in an argument.

(Associated Postsecondary Assignment: #5)

E3. Describe the structure of a given argument; identify its claims and evidence; and evaluate connections among evidence, inferences and claims. (Associated Postsecondary Assignment: #5)

- E4. Evaluate the range and quality of evidence used to support or oppose an argument.
(Associated Workplace Task: #6)
- E5. Recognize common logical fallacies, such as the appeal to pity (argumentum ad misericordiam), the personal attack (argumentum ad hominem), the appeal to common opinion (argumentum ad populum) and the false dilemma (assuming only two options when there are more options available); understand why these fallacies do not prove the point being argued.
- E6. Analyze written or oral communications for false assumptions, errors, loaded terms, caricature, sarcasm, leading questions and faulty reasoning.
- E7. Understand the distinction between a deductive argument (where, if the premises are all true and the argument's form is valid, the conclusion is inescapably true) and inductive reasoning (in which the conclusion provides the best or most probable explanation of the truth of the premises, but is not necessarily true).
(Associated Workplace Task: #4)
- E8. Analyze two or more texts addressing the same topic to determine how authors reach similar or different conclusions.
- E9. Construct arguments (both orally and in writing) that:
- develop a thesis that demonstrates clear and knowledgeable judgment;
 - structure ideas in a sustained and logical fashion;
 - use a range of strategies to elaborate and persuade, such as descriptions, anecdotes, case studies, analogies and illustrations;
 - clarify and defend positions with precise and relevant evidence, including facts, expert opinions, quotations and/or expressions of commonly accepted beliefs and logical reasoning;
 - anticipate and address the reader's concerns and counterclaims; and
- provide clear and effective conclusions.
- (Associated Postsecondary Assignments: #5 and 6)

F. Informational Text

The high school graduate can:

- F1. Follow instructions in informational or technical texts to perform specific tasks, answer questions or solve problems.
- F2. Identify the main ideas of informational text and determine the essential elements that elaborate them.
- F3. Summarize informational and technical texts and explain the visual components that support them. (Associated Workplace Tasks: #3 and 6)
- F4. Distinguish between a summary and a critique.
- F5. Interpret and use information in maps, charts, graphs, time lines, tables and diagrams.
(Associated Workplace Tasks: #3 and 4)
(Associated Postsecondary Assignments: #2 and 3)
- F6. Identify interrelationships between and among ideas and concepts within a text, such as cause-and-effect relationships.
- F7. Synthesize information from multiple informational and technical sources. (Associated Workplace Tasks: #4, 5 and 6)

F8. Draw conclusions based on evidence from informational and technical texts.

F9. Analyze the ways in which a text’s organizational structure supports or confounds its meaning or purpose.

(Associated Workplace Tasks: #5 and 6)

F10. Recognize the use or abuse of ambiguity, contradiction, paradox, irony, incongruities, overstatement and understatement in text and explain their effect on the reader.

F11. Evaluate informational and technical texts for their clarity, simplicity and coherence and for the appropriateness of their graphics and visual appeal.

G. Media

The high school graduate can:

G1. Evaluate the aural, visual and written images and other special effects used in television, radio, film and the Internet for their ability to inform, persuade and entertain (for example, anecdote, expert witness, vivid detail, tearful testimony and humor).

G2. Examine the intersections and conflicts between the visual (such as media images, painting, film and graphic arts) and the verbal.

(Associated Postsecondary Assignment: #4)

G3. Recognize how visual and sound techniques or design (such as special effects, camera angles and music) carry or influence messages in various media.

(Associated Postsecondary Assignment: #4)

G4. Apply and adapt the principles of written composition to create coherent media productions using effective images, text, graphics, music and/or sound effects — if possible — and present a distinctive point of view on a topic (for example, PowerPoint presentations, videos).

H. Literature

The high school graduate can:

H1. Demonstrate knowledge of 18th and 19th century foundational works of American literature.

(Associated Postsecondary Assignment: #6)

H2. Analyze foundational U.S. documents for their historical and literary significance (for example, The Declaration of Independence, the Preamble to the U.S. Constitution, Abraham Lincoln’s “Gettysburg Address,” Martin Luther King’s “Letter from Birmingham Jail”).

H3. Interpret significant works from various forms of literature: poetry, novel, biography, short story, essay and dramatic literature; use understanding of genre characteristics to make deeper and subtler interpretations of the meaning of the text. (Associated Postsecondary Assignments: #5 and 6)

H4. Analyze the setting, plot, theme, characterization and narration of classic and contemporary short stories and novels. (Associated Postsecondary Assignment: #6)

H5. Demonstrate knowledge of metrics, rhyme scheme, rhythm, alliteration and other conventions of verse in poetry.

(Associated Postsecondary Assignments: #4 and 6)

H6. Identify how elements of dramatic literature (for example, dramatic irony, soliloquy, stage direction and dialogue) articulate a playwright’s vision.

H7. Analyze works of literature for what they suggest about the historical period in which they were written. (Associated Postsecondary Assignment: #5)

H8. Analyze the moral dilemmas in works of literature, as revealed by characters' motivation and behavior.

H9. Identify and explain the themes found in a single literary work; analyze the ways in which similar themes and ideas are developed in more than one literary work.

Georgia High School Graduation Requirements:
Preparing Students for Success

Part 10: Areas of Study: Science

Section 10.1 Requirements

Beginning in the 2008-2009 school year, all first-time ninth grade students will be required to successfully complete four units of science.

Four units of credit in science shall be required of all students, including one full unit of Biology; one unit of either Physical Science or Physics; one unit either Chemistry, Earth Systems, Environmental Science or an AP/IB course; and one additional science unit. The fourth science unit may be used to meet both the science and elective requirements, as described below. Any AP/IB science course may be substituted for the appropriate courses listed above.

Section 10.2 Course Sequence Information

Under the new graduation rule, all students will be required to successfully meet four science requirements. They are:

1. Biology (26.012)
2. Physical Science (40.011) or Physics (40.081)
3. Chemistry (40.051), Earth Systems (40.062), Environmental Science (26.061), or an AP/IB course.
4. A science requirement that may be met using identified courses from the academic sciences or elective areas as designated in the List of State Funded K-8 Subjects and 9-12 Courses (rules 160-4-2-.03 or 160-4-2-.20).

The sequence of courses is not dictated by the rule. The order in which these courses should be taken is a local decision.

The fourth science course does not necessarily need to be taken in the student's fourth, or senior, year. It may be appropriate for the course to be taken in the student's sophomore or junior year if the course is part of the student's focused area of interest, program concentration or career pathway. Courses that are intended to be the final course in a pathway sequence are not recommended for students who have not taken the prerequisite courses.

- For example, students interested in a career in flight operations might be interested in taking Aviation Meteorology as an elective in their sophomore year. This course includes science inquiry, physical science, earth and space science, and is part of the Flight Operations Career Pathway.
- As another example, students working on a Plant Science/Horticulture Career Pathway (Agriculture Concentration) might want to take Botany or Ecology as academic science electives that enhance their career plans.

Section 10.3 Guidance for Fourth Science Requirement – REVISED 01/06/10

General Information about the Fourth Science

Under the new graduation rule, students who enter ninth grade in 2008-2009 and thereafter are required to complete four units of science. It is important to remember:

- **The fourth science course does not necessarily need to be taken in the student's fourth, or senior, year.**
- **The student's postsecondary plans should be discussed before fourth science courses are selected.**
- **Fourth science courses will count in the student's Hope Scholarship GPA calculation.**

Students have some flexibility in meeting the fourth science requirement for high school graduation. Courses can be selected from academic science courses or from approved career technology courses that meet science standards, listed below. Students focused on completion of a career pathway may use the approved courses to meet both the pathway AND the fourth science requirement.

In some cases, courses selected for the fourth science unit may be used to meet both the science and elective requirements, as illustrated in the examples below. Courses can be used to meet both science and elective requirements but they DO NOT earn two credits. Students cannot earn two credits for one course.

Board of Regents Information

The Board of Regents made changes in undergraduate admissions to require four units of science, rather than three, for students who graduate from Georgia high schools in 2012 or later.

The Board of Regents is in the process of identifying DOE courses that meet their admissions requirements for science. Students should consult their college for details about admissions. It is important that the student's postsecondary plans be discussed before a fourth science course is selected to assure that the student will meet the necessary admission requirements to the postsecondary institution of choice.

Some courses that meet BOR admission requirements are indicated with an asterisk (*) on the list below. Additional courses will be added by the BOR on subsequent updates.

Fourth Science Course List

The list below includes academic and CTAE courses that meet the fourth science requirement for graduation. Additional courses may be included on subsequent updates.

FOURTH SCIENCE COURSE OPTIONS

The following courses count towards satisfying the fourth science requirement and a CTAE pathway completion requirement and **have been approved** by the Board of Regents as a fourth science.

| Course Number | Course Name | CTAE Pathway |
|---------------|---|--|
| 01.46100 | General Horticulture and Plant Science | Plant Science/Horticulture |
| 02.42100 | Animal Science Technology/Biotechnology | Agriscience |
| 02.42200 | Equine Science | Other GPS Agriculture Courses (9-12) |
| 02.44100 | Plant Science and Biotechnology | Agriscience |
| 20.41710 | Food & Nutrition Through the Lifespan | Nutrition & Food Science |
| 20.41810 | Food Science | Nutrition & Food Science |
| 21.45100 | Energy and Power Technology | Energy Systems |
| 21.45700 | Appropriate and Alternative Energy Technologies | Energy Systems |
| 25.56800 | Introduction to Biotechnology | Biotechnology Research and Development |

The following courses count towards satisfying the fourth science requirement and a CTAE pathway completion requirement but **are not** recognized as a fourth science by Board of Regents.

| Course Number | Course Name | CTAE Pathway |
|---------------|-------------------------------------|---|
| 02.42400 | Veterinary Science | Veterinary Science |
| 02.47500 | Biotechnology | Other GPS Agriculture Courses (9-12) |
| 03.41100 | Natural Resources Management | Other GPS Agriculture Courses (9-12) |
| 03.45100 | Forest Science | Forestry/Natural Resources |
| 03.45300 | Wildlife Management | |
| 21.45200 | Foundations of Electronics | Electronics |
| 21.45300 | Advanced AC and DC Circuits | Electronics |
| 21.45400 | Digital Electronics | Electronics |
| 21.47200 | Engineering Applications | Engineering |
| 25.52100 | Introduction to Healthcare Science | Diagnostic Services |
| 25.52200 | Application of Therapeutic Services | Therapeutic Services-Medical Services |
| 25.56200 | Concept of Emergency Medicine | Therapeutic Services-Emergency Services |
| 25.56400 | Emergency and Disaster Preparedness | Therapeutic Services-Emergency Services |
| 25.58000 | Principles of Physical Medicine | Physical Medicine |
| 25.58100 | Concepts of Physical Medicine | Physical Medicine |
| 25.58200 | Rehabilitation in Physical Medicine | Physical Medicine |
| 47.46600 | Aviation Meteorology | Flight Operations |

The following courses count towards satisfying the fourth science requirement.

| Course Number | Course Name |
|----------------------|---|
| 26.01300 | Biology II |
| 26.01400 | Advanced Placement Biology |
| 26.01500 | Genetics |
| 26.01800 | International Baccalaureate Biology SL |
| 26.01900 | International Baccalaureate Biology HL |
| 26.03100 | Botany |
| 26.05100 | Microbiology |
| 26.06100 | Ecology |
| 26.06110 | Environmental Science |
| 26.06200 | Advance Placement Environmental Science |
| 26.06400 | Advance Genetics/DNA Research |
| 26.07100 | Zoology |
| 26.07200 | Entomology |
| 26.07300 | Human Anatomy and Physiology |
| 26.06500 | Epidemiology |
| 40.02100 | Astronomy |
| 40.04100 | Meteorology |
| 40.05100 | Chemistry I |
| 40.05200 | Chemistry II |
| 40.05300 | Advance Placement Chemistry |
| 40.05500 | International Baccalaureate Chemistry SL |
| 40.05600 | International Baccalaureate Chemistry HL |
| 40.06300 | Geology |
| 40.06400 | Earth Systems |
| 40.07100 | Oceanography |
| 40.08100 | Physics I |
| 40.08200 | Physics II |
| 40.08300 | Advanced Placement Physics B |
| 40.08410 | Advanced Placement Physics C: Mechanics |
| 40.08420 | Advanced Placement Physics C: Electricity and Magnetism |
| 40.08500 | International Baccalaureate Physics SL |
| 40.08600 | International Baccalaureate Physics HL |
| 40.08900 | Advanced Physics Principles/Robotics |
| 40.09100 | Advanced Scientific Internship |
| 40.09210 * | Scientific Research I |
| 40.09220 * | Scientific Research II |
| 40.09230 | Scientific Research III |
| 40.09240 | Scientific Research IV |
| 40.09300 | Forensic Science |
| 40.09400 | Chemical & Material Science Engineering |
| 40.09500 | International Baccalaureate Design Technology SL |
| 40.09600 | International Baccalaureate Design Technology HL |
| 11.01600 | Advanced Placement Computer Science A |

* Indicates the course has not been approved as a four science by the Board of Regents.

Below are three scenarios to model how students can gain credit and meet requirements.

Student A takes the following courses in the areas of science and CTAE. Student A is taking the Engineering Career Pathway.

| Science Requirement | Science Course | Requirement Met | Credit Awarded | CTAE Course | Requirement Met | Credit Awarded |
|---------------------|---------------------------------|-----------------|----------------|---|-----------------|----------------|
| 1st Requirement | Biology | X | 1 | Foundations of Engineering and Technology | X | 1 |
| 2nd Requirement | Physics | X | 1 | Engineering Concepts | X | 1 |
| 3rd Requirement | Chemistry | X | 1 | <i>Engineering Applications</i> | X | 0 |
| 4th Requirement | <i>Engineering Applications</i> | X | 1 | Research, Design, and Project Management | X | 1 |
| Totals | | 4 | 4 | | 4 | 3 |

Student A has met the requirements for all four sciences and for the Engineering and Technology pathway utilizing *Engineering Applications*. This course met the requirements in both areas; however, only one credit was awarded to the student – in the area of science. No credit was awarded for Engineering Applications in the career pathway.

Note: The *Engineering Applications* course meets the high school fourth science graduation requirements for students enrolling in ninth grade for the first time in 2008-09 or later, but it does not meet Board of Regents science admission requirements for students who graduate from high school in 2012 or later.

Student B takes the following courses in the areas of science and CTAE. Student B is taking the Therapeutic Nursing Essentials Career Pathway.

| Science Requirement | Science Course | Requirement Met | Credit Awarded | CTAE Course | Requirement Met | Credit Awarded |
|---------------------|---------------------------------------|-----------------|----------------|---------------------------------------|---------------------------|----------------|
| 1st Requirement | Biology | X | 1 | Introduction to Health Science | X | 1 |
| 2nd Requirement | Physical Science | X | 1 | Application of Therapeutic Services | X | 1 |
| 3rd Requirement | Chemistry | X | 1 | Nursing Essentials | X | 1 |
| 4th Requirement | <i>Human Anatomy & Physiology</i> | X | 1 | <i>Human Anatomy & Physiology</i> | Supports Area of Interest | 0 |
| Totals | | 4 | 4 | | 3 | 3 |

Student B has met the requirements for all four sciences and for the Therapeutic Nursing Essentials Career Pathway. *Human Anatomy & Physiology* relates to the career pathway selected by the student.

Note: The *Human Anatomy & Physiology* course meets the high school fourth science graduation requirements for students enrolling in ninth grade for the first time in 2008-09 or later and also meets Board of Regents science admission requirements for students who graduate from high school in 2012 or later.

Student C takes the following courses in the areas of science and CTAE. Student C is taking the Agriscience Career Pathway.

| Science Requirement | Science Course | Requirement Met | Credit Awarded | CTAE Course | Requirement Met | Credit Awarded |
|---------------------|--|-----------------|----------------|---|-----------------|----------------|
| 1st Requirement | Biology | X | 1 | Animal Science Technology/ Biotechnology | X | 1 |
| 2nd Requirement | Physics | X | 1 | <i>Plant Science and Biotechnology</i> | X | 0 |
| 3rd Requirement | Earth Systems | X | 1 | Basic Agricultural Science and Technology | X | 1 |
| 4th Requirement | <i>Plant Science and Biotechnology</i> | X | 1 | | | |
| Totals | | 4 | 4 | 3 | | 2 |

Student C has met the requirements for all four sciences and for the Agriscience Career Pathway utilizing *Plant Science and Biotechnology*. This course met the requirements in both areas; however, only one credit was awarded to the student – in the area of science. No credit was awarded in the career pathway. The student will now need one additional elective in their program of study in order to meet the 23 total credits needed for graduation.

OR

Student C takes the following courses in the areas of science and CTAE. Student C is taking the Agriscience Career Pathway.

| Science Requirement | Science Course | Requirement Met | Credit Awarded | CTAE Course | Requirement Met | Credit Awarded |
|---------------------|-----------------------|-----------------|----------------|---|---------------------------|----------------|
| 1st Requirement | Biology | X | 1 | Animal Science Technology/Biot echnology | X | 1 |
| 2nd Requirement | Physics | X | 1 | Plant Science and Biotechnology | X | 1 |
| 3rd Requirement | Environmental Science | X | 1 | Basic Agricultural Science and Technology | X | 1 |
| 4th Requirement | <i>Botany</i> | X | 1 | <i>Botany</i> | Supports Area of Interest | 0 |
| Totals | | 4 | 4 | | 3 | 3 |

Student C has met the requirements for all four sciences and for the Agriscience Career Pathway. Botany relates to the career pathway selected by the student.

Note: Both the *Plant Science and Biotechnology* and *Botany* courses meet the high school fourth science graduation requirements for students enrolling in ninth grade for the first time in 2008-09 or later and also meet Board of Regents science admission requirements for students who graduate from high school in 2012 or later.

Student D is not in a CTAE Pathway. Student D has chosen to take two years of Modern Language.

| Science Requirement | Science Course | Requirement Met | Credit Awarded | Elective Course | Requirement Met | Credit Awarded |
|---------------------|---------------------------------|-----------------|----------------|---------------------------------|-----------------|----------------|
| 1st Requirement | Biology | X | 1 | French I | X | 1 |
| 2nd Requirement | Physics | X | 1 | French II | X | 1 |
| 3rd Requirement | Environmental Science | X | 1 | <i>Engineering Applications</i> | X | 0 |
| 4th Requirement | <i>Engineering Applications</i> | X | 1 | | | |
| Totals | | 4 | 4 | | 3 | 2 |

Student D has met the requirements for all four sciences and for the CTAE/Fine Arts/Modern Language category. *Engineering Applications* met the requirements in both areas; however, only one credit was awarded to the student in the area of science. No credit was awarded in the CTAE/Fine Arts/Modern Language category. The student will now need one additional elective in their program of study in order to meet the 23 total credits needed for graduation.

Note: The *Engineering Applications* course meets the high school fourth science graduation requirements for students enrolling in ninth grade for the first time in 2008-09 or later, but it does not meet Board of Regents science admission requirements for students who graduate from high school in 2012 or later.

In some cases, additional coursework in science may be required for admission at some postsecondary institutions. **The student's postsecondary plans should be discussed before fourth science courses are selected. Consult with the postsecondary institution regarding their specific requirements for admission.**

Student E takes the following courses in the areas of science and CTAE. Student E is taking the Agriscience Career Pathway and plans to attend a university upon graduation.

| Science Requirement | Science Course | AREAS OF STUDY (III) Science Requirement Met | (III) Science Credits Awarded/ Required | Courses for AREAS OF STUDY (V) and/or (VII) | AREAS OF STUDY (V) and/or (VII) Requirement Met | AREAS OF STUDY (V) and/or (VII) Credit Awarded/ Required |
|---------------------|--|--|---|---|---|--|
| 1st Requirement | Biology | X | 1 | <i>Animal Science Technology/ Biotech.*</i> | X | 0 |
| 2nd Requirement | Physics | X | 1 | Plant Science and Biotechnology* | X | 1 |
| 3rd Requirement | Environmental Science | X | 1 | Basic Agricultural Science and Technology* | X | 1 |
| 4th Requirement | <i>Animal Science Tech./ Biotech.*</i> | X | 1 | French I | X | 1 |
| | | | | French II | X | 1 |
| | | | | Math Support I | X | 1 |
| | | | | Music Appreciation I | X | 1 |
| | | | | Botany | | 1 |
| Totals | | 4 of 4 | 4 of 4 | | 7 of 7 | 7 of 7 |

Student E has met the requirements for all four sciences and for the Agriscience Career Pathway utilizing *Animal Science Technology/ Biotechnology*. This course met the requirements in both areas; however, only one credit was awarded to the student. The student fulfilled requirements for both Areas of Study (V) and (VII) in their individual Education and Career Plan in order to meet the 23 total credits needed for graduation and university admission.

Note: The *Animal Science Technology/ Biotechnology* course meets the high school fourth science graduation requirements for students enrolling in ninth grade for the first time in 2008-09 or later and also meets Board of Regents science admission requirements for students who graduate from high school in 2012 or later.

Section 10.4 Frequently Asked Questions - Science

1. *Does a student taking a GaDOE identified CTAE pathway science course receive two credits?*

Students may receive credit for a course only once. Students may meet the requirements of two different areas in their program of study by taking courses identified in Appendix B. Students receive a science credit for courses used to meet the multiple requirement.

2. *Are science courses listed in a mandated sequence?*

No, science courses may be placed in a sequence by the LEAs to best meet the need of their students.

3. *Do students have to take Physics and Chemistry to get into college?*

No, colleges and universities typically require “a” physical science. Both courses are considered physical sciences. Some universities do have a requirement for one of the two, so it is in the best interest of the student to take at least one.

4. *Do all students have to take Physical Science since it is on the Georgia High School Graduation Test?*

No, the Georgia High School Graduation Test (GHSGT) will be altered to represent Biology and the physics portion of Physical Science. However, students not taking the Physical Science course must take the Physics course to be prepared for the GHSGT.

5. *Will the chemistry portion of Physical Science remain on the Georgia High School Graduation Test if everyone is not required to take it?*

No, physics concepts will be identified as critical for all students.

6. *Can students take courses from the first three requirements as their fourth year (i.e. courses not taken through the first three)?*

Yes, students wishing to focus in the area of science may take sequences such as, 1) Biology, Physical Science, Chemistry, and Physics; 2) Biology, Physics, Chemistry, and Environmental Science; or 3) Biology, Physics, Earth Systems, and Environmental Science.

7. *Are Earth Systems and Environmental Science courses for students not strong in science?*

No, all science courses are developed and defined by the Georgia Performance Standards as rigorous, high level courses. These courses are not to be used to “track” students in science.

Georgia High School Graduation Requirements:
Preparing Students for Success

Part 11: Areas of Study: Social Studies

Section 11.1 Requirements

Three units of credit shall be required in social studies. One unit of credit shall be required in United States History. One unit of credit shall be required in World History. One-half unit of American Government/Civics shall be required. One-half unit of Economics shall be required.

Section 11.2 Course Sequence Information

The order in which students take social studies courses is decided at the local level. The following courses are required.

| | |
|----------------------------|--------|
| World History | 1 unit |
| United States History | 1 unit |
| American Government/Civics | ½ unit |
| Economics | ½ unit |

The 1/2 unit requirement for Economics and for American Government/Civics does not prohibit local systems from offering one or both of these courses for one (1) unit of credit. That decision is up to the local school system. The state sets the minimum requirements; districts can go above and beyond the state requirements.

Districts choosing to offer one full credit for either of these courses would increase the local systems graduation requirements by either 1/2 or 1 credit depending on whether one or both courses are taught for one unit of credit.

For example, systems might pair the ½ unit American Government/Civics course with any other ½ unit course, such as Constitutional Theory, or World Geography, for the remaining ½ unit of credit. Half-unit courses listed on IDA(2) *List of State Funded Courses* may be taught for up to one (1) credit.

Georgia High School Graduation Requirements:
Preparing Students for Success

Part 12: Areas of Study: Modern Languages/Latin

Section 12.1 Requirements

CTAE/Modern Language/Latin/Fine Arts: A total of three units of credit shall be required from the following areas: CTAE and/or Modern Language/Latin and/or Fine Arts. Students are encouraged to select courses in a focused area of interest.

All students are encouraged to earn two units of credit in the same modern language/Latin.

Students whose native language is not English may be considered to have met the foreign language expectation by exercising the credit in lieu of enrollment option if they are proficient in their native language. A formal examination is not necessary if other evidence of proficiency is available.

Section 12.2 Guidance on Post-secondary Requirements

To avoid potential problems due to lack of planning and preparation, middle and high school counselors, graduation coaches, advisors and administrators should inform all students, parents and guardians of the foreign language requirement for post-secondary institutions.

Students planning to enter or transfer into a University System of Georgia institution or other post-secondary institution must take two units of the same modern language/Latin. Georgia Department of Technical and Adult Education (DTAE) institutions (Technical College System of Georgia) do not require modern language/Latin for admissions.

The ultimate goal of studying a second language is to become a proficient user of that language and to be able to communicate with and understand the culture of those who speak that language. It is hard to imagine any career in which proficiency in a second language is not a competitive advantage, especially when one considers the increasingly global nature of the marketplace and the fact that all other developed nations, and many developing nations, require students to become proficient in a second language as part of their secondary program of study.

In order to accomplish become proficient in a second language, students must participate in an extended sequence of language instruction. Students who take only two years of a Modern Language or Latin will only reach the Novice-Mid to Novice-High level of proficiency on the proficiency scale of the American Council on the Teaching of Languages. In order to reach an Intermediate-Mid level of proficiency, which would provide a solid basis for continuing study at college or for using the language in the work place, students need to take a six-eight year sequence. Students who intend to work in any field in which fluency in a second language is a basic requirement, such as international business, diplomacy, or military leadership, should complete level I of a second language prior to entering high school. They will then be positioned to take levels II –AP in high school and can potentially reach up to an Intermediate-High level of proficiency, with motivated study including seeking opportunities to utilize the language outside the classroom.

The following chart provides an overview of Proficiency Levels needed in the workplace and the amount of study necessary to achieve those levels:

| <i>Proficiency Level</i> | Functions | Corresponding Jobs/Professions | Who has this level of proficiency? |
|---------------------------------|--|---|--|
| Superior | <i>Discuss topics extensively, support opinions and hypothesize. Deal with a linguistically unfamiliar situation</i> | Interpreter, Accountant Executive, Lawyer, Judge, Financial Advisor | Educated native speakers; students from abroad after a number of years working in a professional environment |

Section 12.3 American Sign Language

American Sign Language may be taken to fulfill the modern language requirements.

Section 12.4 Middle School Credit

Unit credit may be awarded for courses offered in the middle grades that meet 9-12 GPS requirements. Credit courses must follow GPS requirements as well as any associated End Of Course Test requirements.

Unit credit shall be awarded only for courses that include concepts and skills based on the Georgia Performance Standards (GPS) for grades 9-12 or those approved by the State Board of Education. The Individualized Education Program (IEP) shall specify whether core courses taken as part of an IEP shall receive core unit credit.

No course credit may be awarded for courses in which instruction is based on the GPS for grades K-8.

Section 12.5 Credit in Lieu of Enrollment

The Georgia Department of Education provides an opportunity for an exemption from the high school graduation requirements for two units of foreign language for students whose native language is not English. Included in the state graduation policy, Rule 160-4-2-.48 in the foreign language section, is the following statement:

Students whose native language is not English may be considered to have met the foreign language expectation by exercising the credit in lieu of enrollment option if they are proficient in their native language. A formal examination is not necessary if other evidence of proficiency is available.

One may access the full text of these rules, as well as all current rules that have been adopted by the State Board at the following URL:

http://www.doe.k12.ga.us/pea_board.aspx?PageReq=PEABoardRules

The Department recommends that the Native Language (Not English) course number: 65.01000 be used to give credit to native speakers. That course may be found on the list of State-approved Courses, Rule Number 160-4-2-.03, code IDA (2) at the URL listed above. The Native Language (Not English) course is listed under section 65 of that document. Students who are simply given an exemption may have problems either being accepted to college or qualifying for the HOPE Scholarship; therefore, granting an exemption without awarding credit is not recommended.

Page 6 of Rule 160-4-2-.03 makes the following provision for giving credit in lieu of enrollment:

“A 3 as the 5th Numerical digit to the right of the decimal indicates that students receive credit for courses in which they are not enrolled. Such instances require a local policy which must be met in order for the student to receive credit without enrolling in the course.”

Rule 160-4-2-.13, which governs Statewide Passing Scores, specifies that numerical grades must be assigned if credit is given. Therefore, these students must receive a grade, and the language for which credit is given should be indicated on the transcript. The grade may be based on a variety of criteria, including but not limited to:

- the student’s performance on a proficiency examination,
- a project that the student has completed,
- community service in the community that speaks the language in question,
- student presentations that inform the wider school community about the language and culture,
- a mini-unit on the language and culture developed and taught to other students

How the grade is assigned will differ depending on the individual, the native language, the method of evaluation chosen, and any associated local policy. The grade should reflect the level

of proficiency in the language. Due consideration should be given to the fact that GPS for Modern Languages set Novice-Mid as the expected minimum level of proficiency students attain after two years of instruction in the same language.

Establishing a consistent and fair local policy is critical.

Georgia High School Graduation Requirements:
Preparing Students for Success

Part 13: Areas of Study: Health/Physical Education

Section 13.1 Requirements

All students are required to complete one unit of credit in health and physical education for graduation.

Students shall combine one-half or one-third units of credit of Health (17.011), Health and Personal Fitness (36.051), or Advanced Personal Fitness (36.061) to satisfy this requirement depending on the type of scheduling used by the school. Schools on the traditional schedule will typically award one-half credit for Health after one semester and one-half credit for Personal Fitness or Advanced Personal fitness after a second semester. Schools on block schedule will typically award one full credit for one semester of Health/Personal Fitness.

Section 13.2 ROTC Option

Under the new graduation rule, three (3) units of credit in JROTC (Junior Reserve Officer Training Corps) may be used to satisfy this requirement under the following conditions:

1. JROTC courses must include Comprehensive Health and Physical Education Rule requirements in rule 160-4-2-.12 and
2. the local Board of Education must approve the use of ROTC courses to satisfy the one required unit in health and physical education.

Key components of the Comprehensive Health and Physical Education Rule are

- 1. Alcohol and other drug use***
2. Disease prevention
3. Environmental health
4. Nutrition
5. Personal health
- 6. Sex education/AIDS education***
7. Safety
8. Mental health
9. Growth and development
10. Consumer health
11. Community health
12. Health careers
13. Family living
14. Motor skills
15. Physical fitness

16. Lifetime sports
17. Outdoor education

***Represents topics that must be included in the Comprehensive Health/Physical Education plans for all systems.**

Georgia High School Graduation Requirements:
Preparing Students for Success

**Part 14: Areas of Study: Career, Technical and Agricultural Education
(CTAE)**

Section 14.1 Career, Technical and Agricultural Education (CTAE)

CTAE represents the part of the Georgia curriculum that enhances the middle school and secondary educational experience by providing career-related course work. CTAE offers all students access to rigorous curriculum, leadership opportunities, work-based learning and industry-validated assessments.

The economic development of Georgia depends on a well-educated workforce. All educators play a vital role in meeting the workforce needs of business and industry in Georgia, the nation, and ultimately the world. A well-educated and competitive workforce is the responsibility of all educators. This includes not only career, technical and agricultural instructors but math and language arts instructors, other academic content teachers, counselors, graduation coaches and media center coordinators also.

Section 14.2 Career Development

Career Development is a lifelong process by which individuals define and re-define career-related choices and outcomes. It is education with a purpose. When coupled with educational planning, it becomes a plan for the future that takes the student through graduation and beyond. Career Development represents the relevance in education and provides the critical link between work and education.

Today's work requires a higher level of knowledge and skill. The result is a need for more education beyond high school but not necessarily a 4-year degree. Although professional occupations are growing at a faster than average rate, less than 25% of occupations still require a 4-year degree. In addition, the educational experience prepares students for occupations that have not been conceived because of advances in technology. Life-long learning requires continued education as the world and work changes. Planning has become more and more critical to a student's success in the job market. It is estimated that people will change jobs 7 to 10 times in a career; therefore, an understanding of the process becomes more important. According to the L.S. Johnson study (2000), "The Relevance of School to Career: A Study in Student Awareness", students as early as middle school should be gathering career-related information in order to make an informed decision about the course work they will take at the secondary level. To assist local systems, students and their families, Georgia has simplified the process into three questions:

- Who Am I? - Students will discover their interests, abilities, values, and work preferences through career assessments and teachers-as-advisors activities. In an effort to assist students with this task, Georgia has identified nine program concentrations aligned with approximately 51 pathways and related occupations. Students, armed with the self-knowledge learned from formal and informal assessments and career related activities, can identify the pathway and eventually the occupation that best "fits" them. This part of the process enables students and their families to better select course work and programs at the secondary level that prepares the student for the next level.
- Where Am I Going? – After taking assessments, students will explore career and educational pathway options. Opportunities for investigation exist from printed materials located in the school career center or media center, web-based career information systems; and, from career-related activities.
- How Am I Going to Get There? – Students will create a 6-year educational and career plan (Peach State Pathway: Education and Career Planning Tool) beginning in the 6th grade with career related information maintained in an organized electronic portfolio.

The National Career Development Guidelines (www.acrnetwork.org) and the American School Counselors National Standards (<http://www.schoolcounselor.org/files/NationalStandards.pdf>) provide the framework for the knowledge, skills and workplace attitudes young people need to be successful in the world-of-work. Career and educational guidance should be systematic and developmental beginning in elementary school and continuing through high school. In general terms guidance includes:

- The recognition of the value of “work” in a democratic society and the idea that all students will work and that all educators are career developers
- The opportunities for students to learn about themselves, investigate the world of work and create a plan to reach their goal
- The use of concentrations as an organizational tool for educational and career planning
- The identification of pathways and the specific occupations aligned with that pathway especially high-demand, high-skilled, high-wage occupations as well as new and emerging occupations (www.occsupplydemand.org)
- The identification of specific secondary and post-secondary academic and technical course work for each pathway
- The strengthening of the education and career plan to be “career focused”, not “meeting graduation requirements” focused
- The transition activities, including post-secondary credit opportunities available at the high school, that connect middle school to high school to post-secondary education and the world of work

Georgia recommends a teachers-as-advisors program to deliver a program both systematically and developmentally in grades 6-12. (See Part 17, Advisement)

Section 14.3 Career Concentrations

Career Concentrations represent the current eleven (11) broad groupings of occupations and industries organized around common elements aligned with the Federal 16 Career Clusters (www.careerclusters.org). These concentrations also provide a way for schools to organize instruction and student experiences around categories that encompass virtually all occupations from entry through professional levels.

Georgia's concentrations are directly linked to the Governor's *Strategic Industries*. The eleven categories coupled with rigorous pathway curriculum and assessment ensures all students, based on their career goals and interest, have the opportunities to learn the knowledge, skills and attitudes needed in a selected career pathway.

Georgia's eleven career concentrations are:

- Agriculture
- Architecture, Construction, Communications & Transportation
- Arts & Humanities
- Business & Computer Science
- Culinary Arts Education
- Engineering & Technology
- Family & Consumer Sciences
- Government & Public Safety
- Healthcare Science
- Marketing, Sales & Services

For more information go to http://www.gadoe.org/ci_cta.aspx and scroll down to CTAE Publications and select Career Concentrations 2009 (See appendix for current matrix).

Section 14.4 Career Pathways

Career pathways are state-approved career enhancement programs defined as a coherent, articulated sequence of rigorous academic and career related courses usually commencing in the ninth grade and leading to an associate degree, and/or an industry-recognized certificate or licensure, and/or a baccalaureate degree and beyond. Career, Technical and Agricultural Education (CTAE) provides all Georgia students with the opportunity to select at least three sequenced electives in a career pathway, along with recommended academic course work, to prepare them to continue their education at any level or enter the world of work. Selection of a pathway will be based on self- awareness and the investigation of occupations plus related educational levels aligned with the pathway. Most high-demand, high-skilled, high-wage occupations in all concentrations still do require education beyond high school.

Implementation of career pathways is a collaborative effort between the local system, the Technical College System of Georgia and the University System of Georgia. The following chart shows the current 9 concentrations and aligned pathways:

| Agriculture | Architecture, Construction, Communications, & Transportation | Arts & Humanities | Business & Computer Sciences | Engineering & Technology | Family & Consumer Sciences | Government & Public Safety | Healthcare Science | Marketing, Sales & Services |
|------------------------------|--|-------------------|------------------------------------|-------------------------------|--------------------------------------|----------------------------|---|---------------------------------------|
| Agriscience | Transportation Logistical Operations | TBA | Small Business Development | Engineering | | JR ROTC | Therapeutic Services-Nursing | Marketing & Management |
| Forestry & Natural Resources | Transportation Logistical Support | | Computing | Energy Systems | | Public Safety | Therapeutic Services-Emergencies Services | Fashion Marketing |
| Plant Science/Horticulture | Flight Operations | | Financial Management-Accounting | Manufacturing | | | Therapeutic Services-Medical Services | Marketing, Communications & Promotion |
| Animal Science | Aircraft Support | | Financial Management-Services | Electronics | Nutrition & Food Science | | Health Informatics | Travel Marketing & Lodging Management |
| Agricultural Mechanics | Architectural, Drawing, & Design | | Interactive Media | Engineering Graphics & Design | Consumer Services | | Biotechnical Research & Development | Sports & Events Marketing |
| Agribusiness Management | Construction | | Administrative Information Support | | | | Diagnostic Services | |
| Veterinary Science | Climate Control Systems Technology (HVACR) | | Computer Networking | | Interior Design | | Personal Care Services-Cosmetology | |
| | Metals Technology | | Computer Systems & Support | | Family Community & Global Leadership | | | |
| | Graphic Communications | | | | | | | |

| | | | | | | | | |
|--|--------------------------------|--|--|--|--|--|--|--|
| | Broadcast/ Video Production | | | | | | | |
| | Graphic Design | | | | | | | |
| | Collision Repair | | | | | | | |
| | Marine Engine Technology | | | | | | | |

Hyperlinks indicate Phase I curriculum revision and current pathway education and career plans.

Instrumental in the implementation are the newly created **Education and Career Partnerships (ECP)**. These ECP represent thirty-seven statewide partnerships providing leadership for effective curriculum and instructional linkages between secondary and post-secondary education to support the career pathway, and local, regional, and statewide workforce development. To round out the role and responsibilities, ECP incorporate career development strategies and professional learning activities in each service area to enhance the selected pathway(s).

List of ECP and consortium map

Section 14.5 Program of Study

Program of study is the terminology assigned by federal legislation (Perkins IV) to describe a “state approved program, which may be adopted by local education agencies and post-secondary institutions to be offered as an option to students when planning for and completing future course work, for career and technical content areas.” (Hull, Dan, *Career Pathways Education with a purpose*, CORD Communications, pg. 4, Ap. 2006) According to Perkins, a program of study:

- will incorporate and align secondary and post-secondary education;
- will include academic and CTAE content in a coordinated, non-duplicative progression of courses;
- may include the opportunity for secondary students to acquire post-secondary credits;
- will lead to an industry-recognized credential or certificate at the post-secondary level, or an associate or baccalaureate degree;
- will identify and address current or emerging occupational opportunities.

Section 14.6 Career Related Education

Career Related Education (CRE) is a structured series of age appropriate opportunities to assist students in making the school to career transition beginning in middle school and continuing into high school. The categories of CRE activities are: career awareness such as career day, and guest speakers, career exploration such as job shadowing CTSO projects, instructional related activities such as school based enterprises clinical experiences, connecting activities such as arranging dual enrollment and creating business partners, and work-based learning such as internships and Youth Apprenticeship. The CRE activities are infused into the Career Technical and Agricultural Education high school curriculum beginning in the ninth grade and varying strategies are utilized to teach employability skills. The work-based learning placement opportunities represent the pinnacle of the CRE process, as a culmination experience for juniors and seniors. Students enrolled in a work-based learning course receive credit toward the completion of the pathway for which the job placement is related. For more information, go to the Georgia Career Related Activities Manual at http://www.gadoe.org/ci_cta.aspx.

Section 14.7 Post-secondary Credit Opportunities

Post-secondary options are programs in which students can earn both high school and post-secondary credit simultaneously while still in high school. These programs include Advanced Placement (AP), Dual Enrollment HOPE for certificate and diploma programs/Dual Enrollment Accel for academic programs, and Articulated Credit for secondary technical programs. These opportunities have a “stay-in-school” effect on those students who participate.

Dual Credit Opportunities:

- Advanced Placement is a College Board sponsored program where students have the opportunity to earn credit or advanced standing at most of the nation’s colleges and universities. Currently CTAE offers Computer Science A and Computer Science, AB as advanced placement courses (www.collegeboard.org.)
- Dual Enrollment/Accel allows students the opportunity to take postsecondary courses that lead to a degree program in the academic core only. For a list of approved courses and more information, go to www.gsfc.org.
- Dual Enrollment/HOPE allows students the opportunity to take postsecondary courses that lead to a diploma or technical certificate only. For more information go to http://www.gadoe.org/ci_cta.aspx?PageReq=CICTASeam.
- Articulated Credit allows students the opportunity to transfer credit for identified high school course work to technical colleges in Georgia. For more information go to http://www.gadoe.org/ci_cta.aspx?PageReq=CICTASeam .

Joint Enrollment Opportunities allow high school students the opportunity to take post-secondary course work for post-secondary credit only.

Post-secondary Options is a term that refers to educational opportunities after high school. These options are usually determined by career choices and/or individual circumstances. This link to post-secondary education and/or training will assist students with their selection of secondary course work. The most common options are list below:

- 4-year public and private colleges and universities such as University of Georgia and Emory University (www.GACollege411.org)
- 2-year public and private colleges such as Gordon College and Bauder College (www.GACollege411.org)
- Technical Colleges such as Albany Technical College and Lanier Technical College (www.GACollege411.org)
- Special Purpose Schools such as Gupton-Jones College of Funeral Services and the Institute of Allied Medical Professions
- State Registered Apprenticeships such as the Atlanta Electrical JACT and Mechanical Trades Institute
- Military: Coast Guard, Army, Air Force, Navy, Marines
- On-the-Job Training (OJT) such as the training major airlines provide for flight attendants

Section 14.8 Student Industry Credentialing Opportunities

Students who complete the three designated courses in a Career, Technical and Agricultural Education (CTAE) pathway will have an opportunity to earn an industry recognized credential through their participation in end-of-pathway assessment activities. Earning such credentials indicate that students have acquired the necessary skills and knowledge needed to be competitive in a global workforce.

Most credentialing opportunities will be national in scope (for pathways for which such national exam exists) with several state licensures being offered as well. All exams, whether national or state specific in scope, will contain industry-validated standards, related to specific occupations. Examples of national (and state) credentials include: Certified Nursing Assistant (CNA); Certified Internet Webmaster (Internet & Computing Core Certification - IC3); Certified Junior Culinarian; State Licensed Cosmetologist; First Responder; Certified Mechanical Drafter; etc.

Section 14.9 Career Technical Student Organizations (CTSO)

Career Technical Students Organizations (CTSO) are an integral part of a successful CTAE program. There are eight CTSOs in Georgia. Seven of these are affiliated with a national organization. Each CTSO is the link between the curriculum standards taught in the classroom and real world application. CTSO members have the opportunity to apply learned skills in a competitive environment. The focus of CTSO activities is to develop leadership skills and enhance skill development. Activities also support problem solving skills and work place skills. CTSO activities provide connection with industry and business for work base learning experiences. CTSOs in Georgia are:

- Future Business Leaders of America (FBLA)
- Family, Career and Community Leaders of America (FCCLA)
- Georgia SkillsUSA
- Georgia Technology Student Association (GA TSA)
- Career Technical Instruction (GA CTI)
- Georgia Career Student Association (GA CSA)
- Health Occupation Students of America (HOSA)
- Agricultural Education (FFA)
- Marketing, Sales & Services (DECA)

For more information, go to http://www.gadoe.org/ci_cta.aspx?PageReq=CICTAStudent.

Section 14.10 Peach State Pathways: Program of Study

The Peach State Pathway Education and Career Planning Tool is a one-page document that represents Georgia's visual interpretation of a Program of Study organized around Georgia's 9 program concentrations and aligned career pathways. These documents are prepared as curriculum is revised. The document "begins with an end in mind." In some cases this can be a tool for conversation with parents and students. This document provides specific information for students and parents, and when coupled with developmental education and career planning, provides guidance at the middle and secondary levels and leads to post-secondary education and ultimately employment. The major elements of the document include:

- Student Information: Name, Address, Teacher-as-Advisor, Parent Signature, Grade Level
- Identification of the Program Concentration i.e. Healthcare Science
- Identification of the Career Pathway i.e. Therapeutic Services-Nursing
- Identification of the pathway-related Career and Technical Student Organization provided as value added information and to promote CTSO.
- Grades 9-12 recommended pathway-related course work including academic recommendations based on current graduation requirements for freshmen entering the 9th grade 2008-2009
- Linkages to post-secondary programs to promote related post-secondary education at:
 - Technical College System of Georgia institutions
 - University System of Georgia institutions
- Career-Related Activities listed as value added information and to promote work-based learning (see definition)
- Post-secondary Credit Opportunities to promote dual enrollment programs including articulated credit (see definition)
- Post-secondary Options listed as value added educational and career-related information (see definition)
- Current Graduation Rule to provide clarification for the 9-12 course work recommendations
- 4-5 samples of high-demand, high-skilled, and high-wage occupations to emphasize the importance of labor market information in the career planning process, to provide example of occupations in the pathway, and provide a link to the "Occupation Supply and Demand"(www.occsupplydemand.org) web site for more information
- Pertinent career pathway information including labor market trends, secondary and post-secondary credentialing/licensures and related websites
- Provide link to GACollege411 for additional information

Section 14.11 Available Resources

Resources on the GaDOE Web Page

- Career Concentrations Booklet http://www.gadoe.org/ci_cta.aspx?ViewMode=1&obj=1354
- Phase I Peach State Pathway: Education and Career Planning Tool
http://www.gadoe.org/ci_cta.aspx?PageReq=CICTACareer
- Career-Related Activities Manual
<http://www.ctaenr.org/wbl/manual/default.asp?SysId=601&PLD=11&profile=11>
- Seamless Education Implementation Guidelines (CTAE dual enrollment and articulated credit) http://www.gadoe.org/ci_cta.aspx?PageReq=CICTASeam

Georgia web sites for Career and Technical Student Organizations (CTSO)

- www.gafbla.org
- www.georgiacti.org
- www.gafccla.com
- www.georgiacsa.net
- www.gadeca.org
- www.georgiahosa.org
- www.skillsusageorgia.org
- www.gatsa.org
- www.georgiaffa.org

Additional Related Links:

Professional Organizations

- Association for Career and Technical Education (ACTE) <http://www.acteonline.org/>
- Georgia Association for Career/Technology Educators <http://www.gacte.org/>
- National Career Development Association <http://www.ncda.org/>
- America's Career Resource Network Association <http://www.acrnetwork.org> offers a plethora of career and educational information
- American School Counselor Association <http://www.schoolcounselor.org>
- Georgia School Counselors Association <http://www.gaschoolcounselor.com> offers information about membership, resources, and conference.
- Georgia Association for Career Educators (GACE) a professional organization that sponsors two career-related workshops annually through CTAE Resource Network contact Barbara.Mackessy@BARTOW.k12.ga.us to be added to their list for information)

General Career Related Websites:

- U. S. Department of Labor www.dol.gov
- U.S. Bureau of Labor Statistics www.bls.gov
- U.S. Department of Education www.ed.gov
- Occupation Supply and Demand www.occsupplydemand.org
- GACollege411 www.GACollege411.org
- Georgia Career Information System www.gcic.peachnet.edu
- Georgia Career Resource Network www.georgiacrn.org

Georgia High School Graduation Requirements:
Preparing Students for Success

Part 15: Areas of Study: Fine Arts

Section 15.1 Requirements

A total of three units of credit shall be required from the following areas: CTAE and/or Modern Language/Latin and/or Fine Arts. A total of seven electives are required for all students under the new graduation rule.

Students are encouraged to select courses in a focused area of interest, including visual and performing arts electives.

Section 15.2 Course Information

Electives may be selected from courses in Fine Arts. A complete listing of courses available in Fine Arts can be found in IDA (2) Rule 160-4-2-.03 *List of State-Funded K-8 Subjects and 9-12 Courses*. The Rule can be accessed on the Georgia Department of Education web site at www.doe.k12.ga.us.

Georgia High School Graduation Requirements: *Preparing Students for Success*

Part 16: Special Education

Section 16.1 Students with Disabilities

Most students with disabilities, when provided with special education support and accommodations, are able to meet all high school graduation requirements and earn the diploma just as students without disabilities. However, the high school graduation rule recognizes that a small number of students with disabilities will need special considerations while maintaining rigor as they work toward the high school diploma.

The high school rule provides the structure for meeting the requirements of the high school diploma and also sets out the requirements for the special education diploma. It is very important that students and their families have a clear understanding of the different exit credentials, the requirements for each and the post-secondary options available to them with each secondary credential.

A high school diploma is usually required for post-secondary education such as colleges, universities and most technical colleges in Georgia. Many employment opportunities, as well as the military, also require a high school diploma.

While the special education diploma is accepted for access to post-secondary supports through other state agencies (such as the Georgia Department of Labor including Vocational Rehabilitation or the Department of Human Resources, Division for Mental Health, Developmental Disabilities and Addictive Diseases) and entry level employment, it may limit opportunities for advancement. Based on desired post-secondary outcomes, students and their families should be encouraged to work toward the high school diploma in most circumstances.

Since not all students may be able to complete all the requirements for a high school diploma within the traditional four year time frame, it is important that they receive accurate and clear information regarding the new graduation rule from both IEP teams and school counselors. Students and their families should be informed that they are eligible for services until they either graduate with a high school diploma or reach their 22nd birthday. This time allows students the opportunity to continue to work toward the high school diploma.

Regardless of secondary school credential earned by a student, in most circumstances the transcript will be reviewed in order to support eligibility and qualifications for entry into a postsecondary educational program, the military or employment.

Section 16.2 The role of the IEP including the Transition Plan

The IEP team, which includes the parent and the student, plays a critical role in identifying desired post-secondary outcomes and then defining the course of study and supports the student will need to reach those outcomes. Students are required to have a transition plan as part of their IEP prior to entry to 9th grade or age 16, whichever comes first. This plan should be the “guide to graduation” and should clearly begin to delineate the path and the supports necessary to assist the student to achieve graduation.

The identification of what the student wants to do once he/she graduates from high school is critical to the choice of course of study. For example, to attend a college/university, the student will need two units of credit in a foreign language even though foreign language is an elective and not required for the high school diploma. Careful consideration must be given to the desired post-secondary outcomes and what the requirements are to achieve those outcomes.

Parents and students must have a clear understanding of the requirements to achieve a high school diploma so that the IEP team can plan with the student how she or he will meet those requirements. Some students may need to consider that earning a high school diploma will take longer than four years. Students may need to take support classes, plan a schedule so that the courses are balanced and extremely challenging coursework is not taken all at one time. The team along with the student and his or her parents must determine what credential is desired and what likely path they will take.

Many students resist the idea of staying in high school more than four years even if it means achieving a high school diploma. Some school systems allow students to participate in commencement exercises with their peers after four years of high school, based on achieving a special education diploma (or a certificate) even though they plan to continue receiving some educational services until their 22nd birthday or they earn the high school diploma. Transition planning should proactively discuss various options with the families and the student.

Systems should be aware of the importance of not entering an exit code in the Student Information System if the student with a disability is accepting a special education diploma for the purposes of participating in graduation exercises, but will be returning to continue work on the high school diploma. These students should not be reported as or considered excused until such time as they leave the school system with the final credential. This is important for the accurate determination of AYP.

Students who are working toward the high school diploma and participate in the Georgia Alternate Assessment (GAA) will usually stay in school completing their course of study beyond the four years considered traditional. In fact, they may stay until their 22nd birthday. The IEP team will have a course of study planned to prepare the student to maximize independent living and employment as well as participation in the community.

Section 16.3 Mathematics Requirement and Students with Disabilities

The IEP team should anticipate that every entering freshman will earn the four units of mathematics specified in the graduation rule and design the student's program toward this goal. There are students with disabilities who do not need special education support in mathematics and those for whom the co-taught or collaborative environment will provide appropriate support to accrue four units of mathematics.

There are also some students whose IEP team will acknowledge that mathematics is particularly difficult for the student. Prior to entry into high school, the IEP team will examine the CRCT scores from middle school and the level of support needed in middle school to achieve success in mathematics classes, and determine what levels of support will be needed.

In the case of students with disabilities who have consistently struggled in mathematics even with good instruction along with special education support, the IEP team will recommend the student take mathematics support classes as well as the regular mathematics class to meet the requirements of Mathematics I and II. These support classes will provide review, practice and preview that will enable students to master the Mathematics standards. The math support classes should be taught by a certified mathematics teacher, preferably one with experience in differentiating instruction to meet the needs of struggling students. The math support teachers should work closely with the teacher(s) in the regular academic math class to align content, instruction, and assessment. More information on the math support class can be found in Section 6: Math Support Class Guidance of this document.

The graduation rule allows students with disabilities to graduate with a high school diploma after accumulating three mathematics credits (instead of 4) *if* they have taken Mathematics I with a support class (two units of credit, one core and 1 elective) and Mathematics II with a support class (another 2 units of credit, 1 core and 1 elective) and then either Mathematics III or its equivalent. It is anticipated that the core mathematics units will most likely be in a co-taught or collaborative setting and that the support class will also provide co-taught or collaborative support. The IEP team must be sure that all students are held to high expectations, even when reducing the mathematics requirements to earn the high school diploma.

Students who require this much support in mathematics may take more than four years to complete the requirements for graduation. Students who attend schools on a block schedule have more opportunity to meet their unit requirements within a four year time period when they need to take their mathematics units along with mathematics support classes.

Students who elect to meet their mathematics requirement as outlined above must also meet the testing/assessment requirements as set out in the Testing rule. In high school, they must participate in and pass the Georgia High School Graduation Tests in five content areas: Writing, Language Arts, Science, Mathematics and Social Studies. The majority of students will meet the testing requirements just as students without disabilities do. Based on recent federal guidance related to testing, some students will have the availability of participating in an assessment based on modified academic achievement standards as a way to meet this requirement.

Those students who decide with their IEP team, to limit their Math coursework to Mathematics III or its equivalent as the most advanced mathematics course, will have had the opportunity to learn the skills and be exposed to the standards that are essential to passing the GHS GT in Mathematics. Although passing Mathematics III or its equivalent will not ensure a passing score, it should not hinder a student's ability to do so.

Section 16.4 Other requirements and electives

Support classes or services may also be needed for other content areas, whether electives or required courses to assist students to meet the high school diploma requirements. Supports may be individualized or may be other classes or resources available to all students. The IEP team will assist in the determination of needed support.

Some supports will be in the form of actual classes; other students may need less structured situations, such as before or after school tutoring or preview sessions. Still others will need instruction in utilizing good learning/studying strategies to enhance content mastery. The IEP team should utilize progress monitoring data to drive the decision-making process regarding necessary supports for a student with a disability.

As stated earlier, the need for support classes may extend the time it takes a student with a disability (or any student) to obtain all credits needed or desired for the high school diploma. Students with disabilities should also be encouraged to consider at least a three course sequence related to career development. Focus should be based on the student's preferences and interests, and coursework intended to develop additional skills in these areas should be strongly suggested. IEP teams for students, including those who elect to limit their mathematics to Mathematics III or its equivalent as the most advanced course, should carefully review the student's transition plan to be sure that there is a cohesive path selected for the student that will provide the necessary skills for the desired post-secondary outcome. Since selecting some options (such as the Mathematics III or a special education diploma) will limit some postsecondary opportunities, additional emphasis on developing career-related skills is critical. In addition to the suggested three-course career pathway sequence, the team may wish to explore the desirability of additional career-related experience while in high school such as Community-Based Vocational Instruction, apprenticeships and other experience based coursework.

Additional information regarding Career, Technical and Agricultural Education (CTAE) options and career development opportunities available in high school may be found in this document in Part 14.

Even though many students would like to complete all the requirements within the traditional four year period, specific transition planning should address the requirements for the high school diploma and the possibility that additional time (or summer coursework) may be necessary to prepare students to meet the requirements to be college and work ready. Even if students do not plan to seek post-secondary education, it is important that high school provide them with the skills to meet the increased demands of the workplace and the community.

Students must meet the testing requirements of the state testing rule. Those who are working toward the high school diploma must participate in and pass all sections of the high school graduation tests. The State is exploring options for an alternate assessment based on modified academic achievement standards. These are the students who are capable of mastering the grade level content, but have unique assessment needs in order to show they know and are able to do. This alternate assessment based on modified academic achievement standards should be

available by the time students for whom this rule applies (the students who are in the 8th grade during the 2007-2008 school year) reach 11th grade. Additional information regarding state testing can be found at www.gadoe.org/ci.

Section 16.5 Students with the Most Significant Cognitive Disabilities

The provision for students with the most significant cognitive disabilities provides a diploma path for a very small number of students with disabilities. They are those students who access the Georgia Performance Standards at an entry or prerequisite level and for whom that access is often provided through augmented communication, assistive technology and significant personnel supports. In all but the most unusual circumstances, the presence of the cognitive, motor and sensory disabilities is known at the time the student enters school.

Students with significant cognitive disabilities who participate in the GAA no later than the 8th grade may follow a rigorous course of study that can lead to a high school diploma. This course of study is only for those with significant cognitive disabilities and they must be participating in the GAA by 8th grade. These students will participate in an integrated curriculum to earn 23 units (minimum). The units earned will align with and provide these students access to the content in language arts, mathematics, science and social studies that all children study. Students will also have IEP goals that include self-determination, independent living and other skills needed to maximize independence. GaDOE is identifying courses that will align with the standards and meet the requirements for the high school diploma.

In addition, students must meet the testing requirements by being proficient on the GAA. Students will have multiple opportunities to participate in the GAA beginning in 11th grade and retake following years as necessary. Since students will remain in school until they are 22, there is plenty of time for retakes. The state will assume the cost of the scoring, just as it does for the GHSGTs and the GHSWT. The Divisions for Special Education Services and Supports will work with Testing on the specifics.

The students on this course of study will have transition goals identified that will include outcome goals that may require the support of other public or private agencies once the students are no longer in high school. Systems will work with the family and the various businesses, agencies and other organizations to transition the student to the desired outcome and support agency by the 22nd birthday or earlier, as appropriate. Students must either remain in school until their 22nd birthday or transition with the desired supports in place prior to age 22 as well as meet the other requirements to earn the high school diploma.

Additional information regarding transition planning and available resources can be found at www.gadoe.org/ci exceptional students.

Section 16.6 Special Education Diploma

The special education diploma is an option for students with disabilities. However, IEP teams should be very cautious when selecting this option. The student and parent who select this option prior to the student reaching the 22nd birthday should be offered an IEP that offers a program specifically planned to provide the instruction and support to allow the student to meet requirements for the regular high school diploma, even if the student plans to receive a special education diploma that will allow him or her to participate in graduation ceremonies at the end of four years. Furthermore, the student and parent should be made aware that the special education diploma, in most circumstances, does not meet requirements for many types of employment, entry into the military, or admission to post-secondary educational institutions.

The special education diploma does not meet the federal criteria to be counted as a high school diploma when calculating the graduation rate for AYP. Only those high school diplomas which are tied to a rigorous curriculum meet the requirements for inclusion in the graduation rate for AYP. The special education diploma, the high school certificate as well as students who drop out are not counted as receiving a high school diploma when calculating graduation rate.

There are some students with disabilities who will earn all necessary units of credit for the high school diploma, but are unable to pass the GHSGTs and/or the GHSWT, but yet are not appropriate for the GAA. Federal Regulations, released in April, 2007, gave states the option of developing an alternate assessment based upon modified achievement standards for use with students with disabilities (up to 2% of the population of a grade level) who, even with appropriate instruction in grade-level standards, and with special education and related services, would not meet the grade-level expectations within the time covered by the student's current Individualized Education Program (IEP). Student participation in this assessment, as with the others in the state-wide assessment program, would be determined by the student's IEP team, based upon certain criteria. Federal Regulations also state that participation in the alternate assessment based upon modified achievement standards may not preclude a student from pursuing a high school diploma. Georgia is currently studying this option for assessing students with disabilities.

Section 16.7 Frequently Asked Questions

Why must students with the most significant cognitive disabilities be assessed using the GAA during middle school, as well as Grade 11 in high school? Why can't this decision be made later?

The provision for students with the most significant cognitive disabilities was intended to provide a high school diploma path for a very small portion of the students with disabilities. They are those students who access the Georgia Performance Standards at an entry or prerequisite level and for whom that access is often provided through augmented communication, assistive technology and significant personnel supports. In all but the most unusual circumstances, the presence of the cognitive, motor and sensory disabilities is known at the time the student enters school. Leaving the option open until middle school, was intended to provide a wide opportunity so that ONLY appropriate students are included.

What allowances will be made for arranging re-takes of the GAA if the student is not proficient in all areas during the first administration in 11th grade?

Students will be able to participate in re-administrations of the GAA. The state will assume the cost of the scoring, just as it does for the GHS GTs and the GHS WT. The Divisions for Special Education Services and Supports will work with Testing on the specifics.

Is the special education diploma still an option? The special education diploma is still part of the graduation rule as an option for students with disabilities. However, IEP teams should be very cautious when selecting this option. The student and parent who select this option prior to the student reaching the 22nd birthday should be offered an IEP that offers a program specifically planned to provide the instruction and support to allow the student to meet requirements for the high school diploma, even if the student plans to accept a special education diploma that will allow him or her to participate in graduation ceremonies at the end of four years. Furthermore, the student and parent should be made aware that the special education diploma, in most circumstances, does not meet requirements for many types of employment, entry into the military, or admission to post-secondary educational institutions.

Can the special education diploma be counted for AYP? The special education diploma does not meet the federal criteria to be counted as a high school diploma when calculating the graduation rate for AYP. Only those high school diplomas which are tied to a rigorous curriculum meet the requirements for graduation rate. The special education diploma, the high school certificate as well as students who drop out are not counted as receiving a high school diploma when calculating graduation rate.

Won't the students who take longer than the traditional four years to graduate count against our AYP calculation?

By the time the students impacted by this rule are completing four years of high school; Georgia will have revised the process for calculating graduation rate. NCLB allows for students to count positively toward graduation when they complete high school in the standard number of years. Georgia is exploring various ways to define the standard number of years. However, systems

should be aware that the special education diploma does not count toward AYP under the current graduation rule, nor will it count toward AYP under the new graduation rule.

Some school systems allow students to participate in graduation ceremonies with their peers after four years of high school based on achieving a special education diploma even though they plan to continue some educational services. If these students are not reported as EXITED at the time they receive a special education diploma, they will not be included in the calculation until such time as they do actually exit with the high school diploma.

What options will there be for special education students who can pass all the general education courses, but can't pass the GHSGT because they have unique assessment needs to demonstrate what they know and are able to do?

Federal Regulations, released in April, 2007, gave states the option of developing an alternate assessment based upon modified achievement standards for use with students with disabilities (up to 2% of the population of a grade level) who, even with appropriate instruction in grade-level standards, and with special education and related services, would not meet the grade-level expectations within the time covered by the student's current Individualized Education Program (IEP). Student participation in this assessment, as with the others in the state-wide assessment program, would be determined by the student's IEP team, based upon certain criteria. Federal Regulations also state that participation in the alternate assessment based upon modified achievement standards may not preclude a student from pursuing a high school diploma. Georgia is currently studying this option for assessing students with disabilities.

Please explain the provision for the mathematics requirement and students with disabilities in more detail. What are the specifics of the core course and the support class?

The graduation rule allows for students with disabilities to graduate with a high school diploma after accumulating three mathematics credits (instead of 4) if they have taken Mathematics I with a support class (two units of credit, one core and 1 elective) and Mathematics II with a support class (another 2 units of credit, 1 core and 1 elective) and then either Mathematics III or another mathematics unit. It is anticipated that the core mathematics units will most likely be in a co-taught or collaborative setting and that the support class will also provide co-taught or collaborative support.

However, there will certainly be students with disabilities who do not need special education support in mathematics as well as those for whom the co-taught or collaborative environment without the need for the support class will be more appropriate. These students will need four units of math to graduate.

Why is there not a provision for a support class in all subject areas?

Support classes can and should be offered in any subject area in which a student with a disability has a need. The only requirement in the new graduation rule is that a student **MUST** take the support class for Mathematics I and Mathematics II if he/she plans to utilize the three units of mathematics option under the rule.

What provisions are there for the students who entered the 9th grade during the 2007-2008 school years? Isn't it unfair that their IEP teams didn't have the option of determining they were best assessed by the GAA?

The new graduation rule goes into effect with entering freshman in the fall of 2008. This is the same for students with and without disabilities. In most cases, students who are eligible for the high school diploma because they are students with the most significant cognitive disabilities have been assessed by the GAA since entering school. Since students eligible for the high school diploma as a student with the most significant cognitive disabilities must have been assessed using the GAA for 6th, 7th and 8th grades; this is not a "decision" that would be made in preparation for entering high school.

Students who have been assessed through participation in the CRCT may be more appropriate for the modified alternate assessment that is in the process of being developed, but it is highly unlikely that those students truly would be appropriate for the GAA.

Isn't it unfair that students will have to take so many support classes to be sure they pass mathematics? Isn't this limiting their high school experience?

The need for support classes may extend the time it takes a student with a disability (or any student) to obtain all credits needed or desired for the high school diploma. Although many students would like to complete all the requirements within the traditional four year period, specific transition planning should now be better able to address the requirements for the high school diploma and the possibility that additional time (or summer coursework) may be necessary to prepare students to meet the requirements to be college and work ready. Even if students do not plan to seek to post-secondary education, it is important that high school provide them with the skills to meet the increased demands of the workplace.

Georgia High School Graduation Requirements:
Preparing Students for Success

Part 17: English Language Learners (ELLs)

Introduction: Under Title III: Language Instruction for Limited English Proficient and Immigrant Students of the No Child Left Behind Act and under Georgia State Education rule 160-4-5-.02 Language Assistance: Program for English Language Learners, school districts are required to do the following:

- A. Identify English language learners
- B. Serve ELLs, using appropriate delivery models of language instruction
- C. Assess ELLs annually for English language proficiency using the *ACCESS for ELLS*

Section 17.1 Identifying English Language Learners

Upon entry into a Georgia school, all students must be administered a Home Language Survey to determine if a language other than English is their native language, primary home language, or first language. All students whose native, home, or primary first language is other than English must be assessed for language proficiency using the state-adopted English proficiency screening instrument, the *WIDA-ACCESS Placement Test (W-APT)*. The *W-APT*, a screening instrument aligned with *ACCESS for ELLs*, the state annual proficiency measure, is administered to students by WIDA-trained school personnel and scored as the students respond. (Training information and materials regarding the *W-APT* are available on the GaDOE Title III ESOL website at http://www.gadoe.org/ci_iap_esol.aspx.)

A proficiency level score is available immediately at the end of the *W-APT* administration and indicates the student's English proficiency level on a scale of 1 to 6. (See section 17.3 for a description of each proficiency level.) **If a student score indicates a proficiency level of less than 5.0, the student is determined to be Limited English Proficient (LEP), is eligible for language assistance services, and may be served through the English for Speakers of Other Languages (ESOL) program.**

A proficiency score under 5.0 indicates that everyday instruction in all subjects must be differentiated to accommodate the level of English proficiency of the student. Regular classroom teachers of the students, usually referred to as English Language Learners (ELLs), will need to have immediate access to the *W-APT* score, and will need to be familiar with how to use the WIDA standards to differentiate instruction effectively for ELLs. The WIDA Standards may be accessed at <http://www.wida.us/standards/elp.aspx> and are found on page RG 10 of the document titled *Understanding the WIDA English Language Proficiency Standards: A Resource Guide*. Further information regarding differentiation for the student's proficiency levels may be found in the **CAN DO Descriptors for WIDA's Level of English Language Proficiency** document at the same website.

Section 17.2 Assessing English Language Learners

Title III requires students to be assessed annually to determine their growth in English language proficiency. Understanding and using this assessment data to provide appropriate instruction for ELLs is of critical importance to counselors and to every teacher of ELL students.

Assessing Comprehension and Communication in English State to State for English Language Learners (ACCESS for ELLs) is the English language proficiency test administered annually to all English language learners (ELLs) in Georgia. *ACCESS* provides districts with data to assist their evaluation of the effectiveness of their ESOL programs; provides information that enhances instruction and learning in programs for English language learners; assesses the annual English language proficiency gains using a standards-based assessment instrument; and provides data for meeting federal **Title III Annual Measurable Achievement Objectives (AMAO)** requirements with respect to student assessment.

The *ACCESS for ELLs* assessment assigns ELLs an English Composite Proficiency Level (CPL) based on the assessment results. The Composite Proficiency Level scale ranges from 1 to 5.

Level 1: Entering

A student at this level is able to use words, phrases, or chunks of language in response to one step directions or commands. Content language usage is primarily limited to graphic representations of the language.

Level 2: Beginning

A student at this level is able to speak in phrases or short sentences, although errors will often impede meaning and may be able to use general language related to the content areas.

Level 3: Developing

A student at this level is able to use expanded sentences in oral interaction and write paragraphs. The student has a grasp of general content area language and begins to develop some specific content area language proficiency.

Level 4: Expanding

A student at this level is able to communicate in a variety of sentence lengths with varying linguistic complexity, orally and in a multiple paragraph format. The student has specific content area language and some degree of related technical language.

Level 5: Bridging

A student at this level is deemed to be approaching proficiency comparable with English proficient peers in grade level content area classes. The student is able to use extended oral and written discourse with variations of linguistic complexity and sentence lengths. **Generally, a student who scores Level 5 on Tier C of the ACCESS for ELLs assessment is deemed ready to exit language assistance services.**

Level 6: Reaching

Like a student at Level 5, a student at this level is deemed to be approaching oral and written proficiency comparable with English proficient peers. Additionally, the student is able to use specialized or technical language reflective of content areas at grade level. Generally, a student who scores Level 6 on ACCESS for ELLs is deemed proficient with his or her peers. Students who score at level 6 are ineligible for language assistance services.

The following performance bands outline the rate of progress toward English Proficiency for ELLs defined in Georgia's Title III Annual Measurable Achievement Objective for Progress in English Language Acquisition. Schools and school districts should strive for ELLs to move in a positive direction from one cohort performance band to another annually as measured by ACCESS for ELLs.

| Performance Band | ACCESS-Composite Score | Performance Point Range |
|-------------------------|-------------------------------|--------------------------------|
| I | 1.0-2.2 | 1.3 |
| II | 2.3-3.3 | 1.1 |
| III | 3.4-3.9 | 0.6 |
| IV | 4.0-4.3 | 0.4 |
| V | 4.4-4.6 | 0.3 |
| VI | 4.7-4.9 | 0.3 |
| VII | 5.0+ | NA |

Section 17.3 Serving English Language Learners

Per Georgia State Education rule 160-4-5-.02 Language Assistance: Program for English Language, there are six approved delivery models for providing language assistance services to ELLs:

1. Pull-out model outside the academic block – students are taken out of a non-academic class for the purpose of receiving small group language instruction.
2. Push-in model within the academic block – students remain in their general education class where they receive content instruction from their content area teacher and language assistance from the ESOL teacher.
3. A cluster center to which students are transported for instruction – students from two or more schools are grouped in a center designed to provide intensive language assistance.
4. A resource center / laboratory – students receive language assistance in a group setting supplemented by multi-media materials.
5. A scheduled class period – students at the middle and high school levels receive language assistance and /or content instruction in a class composed of ELLs only.
6. An alternative approved in advance by the Department of Education through a process described in Guidance accompanying this rule.

The Push-in model is clearly defined by the Language Assistance rule (160-4-5-.02) and should not be interpreted to be the same as the co-teaching model of instruction implemented by special education. In the Push-in model, the ESOL teacher and the content teacher are co-equals in the classroom, but each has a distinct role. The ESOL teacher is responsible for language support, while the content teacher is responsible for delivery of academic content. Research indicates that strong teaching partnerships occur when teachers know each other's curriculum, share responsibilities, plan together, share strategies, and share teaching equally. When students break into groups, the ESOL teacher should work with ELLs, while the content teacher focuses on mainstream students.

The ESOL Push-in delivery model allows the teachers to collaborate in order to facilitate meaningful language instruction within the content classroom and to appropriately plan differentiated instruction and tasks to meet the various proficiency levels of the ELLs. The GaDOE encourages school districts to explore this model.

English language learners face unique challenges in the classroom as they strive to learn academic content while their English language skills are still developing. When provided with language support and accommodations, most ELLs will be able to meet all high school

graduation requirements and earn the diploma just as students whose native language is English. However, it is important that local school systems fully understand and evaluate all of the factors that may influence the academic performance of the ELLs in their schools.

Many ELLs have a history of interrupted or limited formal schooling; therefore they may not have had the opportunity to develop literacy skills and content knowledge in their primary or home language. This factor, in addition to the lack of English language proficiency, requires local schools to give special consideration to instructional design and delivery, developing an individual graduation plan for each student, so that under-schooled ELLs pursue a realistic plan for earning their high school diploma. ELLs will need support in the content areas. Support can be offered by means of interventions, accommodations, elective courses, or differentiated instruction in required courses by a classroom teacher who has been trained in sheltered instruction, holds the ESOL endorsement, and has been trained to understand English proficiency levels and utilize the WIDA standards to differentiate instruction for ELLs.

Support may be individualized or may be classes or resources available to all students. The ESOL teacher, in collaboration with the content teachers, guidance counselor and appropriate administrators, can and should assist in determining and designing supports for ELLs. Working in collaboration, these professionals serve the educational interests of the ELLs and can function as the student's Language Assessment Conference (LAC) team to ensure that ELLs are provided appropriate services and supports and exits ESOL when he or she is fully prepared to be successful in the mainstream classroom.

While some support will be in the form of actual classes, other students will be well-served through less structured situations, such as before or after school tutoring or preview sessions. However, in designing before and after school programs, care must be given to ensure that ELLs are not prevented from taking part due to lack of transportation.

Most ELLs will need instruction in study skills, time management, and organization to enhance their academic performance. The LAC team should meet regularly, review progress monitoring data, and make timely decisions so that interventions needed for each ELLs to make rapid progress in acquiring English language proficiency and developing the required academic knowledge and skills are implemented. As with all students, it is of critical importance that interventions are timely and appropriate.

Like all students, ELLs have wide-ranging preferences and interests and must be provided with all options. The guidance counselor should carefully review the student's planned high school course of study and collaborate with the student, the parents/guardians, and with the ESOL teacher to be sure that the planned course of study provides a cohesive path for the student to develop the necessary skills for the desired post-secondary outcome.

The need for support classes may extend the time it takes an ELL to obtain the credits needed for the high school diploma. Although many students would like to complete all the requirements within the traditional four year period, specific transition planning should address the requirements for the high school diploma and the possibility that additional time (or summer

coursework) will be necessary to prepare students to meet the graduation requirements to be college and work ready. Even if students do not plan to seek post-secondary education, it is important that high school provide them with the skills and credentials to meet the increased demands of the workplace and the community.

Many ELLs will be in a position to exercise the “credit in lieu of enrollment” option for earning two units of credit in a Modern Language or Latin (see Part 12 of this document for more information). The Spanish for Native Speakers I and II and Native Language Reading and Literacy I and II courses, which may be used for languages other than Spanish, are provided to support local school districts in making language instruction available to ELLs {SBOE Rule 160-4-2-.03, List of State-Funded K-8 Subjects and 9-12 Courses (IDA 2) (IDA 3)}.

ELLs may be provided with instruction in their native or home language in a regular language class. However, placement in a level I or II level course is only rarely appropriate. If placement is in a level I course, this will require the teacher to treat it as a multi-level class. In most cases, placement in a level III or IV course is a much better match for the speaking and listening skills of the vast majority of ELLs. Factors such as the student’s literacy level in the first language (L1), including reading and writing skills, and how the method of instruction for the course will support the linguistic and literacy needs of the student should be major considerations when determining proper placement of the student in any L1 course, as well as the designated target proficiency for the Modern Language course (see course description in GPS document for Modern Languages).

All ELLs must meet the testing requirements of the state testing rule. Those who are working toward the high school diploma must participate in and pass all sections of the high school graduation tests, as well as any required End of Course Tests (EOCT).

Section 17.4 English Language Acquisition Courses and English Language Arts Courses for ELLs

ELLs should be enrolled in English Language Acquisition and/or English Language Arts courses that best meet their language acquisition needs. *Course placement should be based on the proficiency level of the individual ELLs, not on the title of the course.* For example, a newly-arrived ELLs placed in the ninth grade with a Composite Proficiency Level of 1.5 on the ACCESS should not be placed in Ninth Grade Literature and Composition, as a much higher proficiency level is required in order for a student to have a strong probability of success in this course.

English Language Acquisition Courses

State Education Rules 160-4-2-.03, List of State funded K-8 Subjects and 9-12 Courses, http://www.gadoe.org/_documents/doe/legalservices/160-4-2-.03.pdf and 160-4-2-.20, List of State funded K-8 Subjects and 9-12 Courses, http://www.gadoe.org/_documents/doe/legalservices/160-4-2-.20.pdf, both list eleven ESOL Language Acquisition courses for grades 9-12. These are elective-only courses, coded with the 55 course numbering prefix, designed to allow ELLs to develop proficiency in using academic language needed for success in all academic disciplines. They may be taught by teachers with appropriate grade level certification in any subject or content area and the ESOL Endorsement, or teachers who hold certification in ESOL. The focus of these courses is on the development of sound, academic language and terminology necessary to ensure academic success in content courses. The courses need not be taken as an entire sequence or in any prescribed order, although basic courses should certainly precede more advanced ones. Again, the proficiency level of the individual ELLs is of paramount importance in determining appropriate course placement.

The course descriptions for these courses provide basic overview as well as the Composite Proficiency Level (CPL) suggested as appropriate for placement in each course. Local school districts should certainly consider the proficiency level of each individual ELLs in reading, writing, speaking, and listening in addition to the composite proficiency level when determining course placement. For example, the suggested CPL for Reading and Listening in the Content Areas is 1-2. However, an ELLs with a CPL of 3.0 but a weaker reading proficiency level might be well-served in this course.

| Number and Name | Course Description |
|---|--|
| 55.02100 Communication Skills I | This course will focus on the acquisition of social and instructional language across the four language domains as prescribed in WIDA Standard 1. The suggested Composite Proficiency Level (CPL) of the student is CPL 1-2. |
| 55.02200 Communication Skills II | This course is an expansion of Communication Skills I with the inclusion of some content language, particularly the discipline of English language arts. The five WIDA standards serve as its basis with emphasis upon proficiency in Standard 2 regarding the communication of information, ideas, and concepts necessary for academic success in the content area of language arts. The suggested Composite Proficiency Level of the student is CPL 1-2. |
| 55.02300 Reading and Listening in the Content Areas | This course supports and enhances literacy and listening skills necessary for success in the content areas. Guiding the course are the five basic WIDA Standards with particular emphasis on reading and listening skills in language arts, science, social studies, and mathematics. The suggested Composite Proficiency Level is CPL 1-2. |
| 55.02400 Oral Communications in the Content Areas | This course supports and enhances listening and speaking skills in the content areas and references the five basic WIDA standards with emphasis on the listening and speaking skills in the content areas. The suggested Composite Proficiency Level of the student is CPL 2-3. |
| 55.02500 Writing in the Content Areas | This course focuses on writing across the standards of English language arts, science, mathematics, and social studies. The domains of reading, listening, and speaking are integral to the writing process, both actively and critically. The content addresses all five WIDA Standards. The suggested Composite Proficiency Level is CPL 2-3. |
| 55.02110 Communication Skills in Math | This course supports and enhances literacy and listening skills necessary for success in the mathematics content areas. Guiding the course are the five basic WIDA Standards with particular emphasis on vocabulary, speaking, listening, and reading skills in mathematics. This course is appropriate for students at CPL levels 2-3. |
| 55.02120 Communication Skills in Science | This course supports and enhances literacy and listening skills necessary for success in the content area of science. Guiding the course are the five basic WIDA Standards with particular emphasis on vocabulary, speaking, listening, and reading skills in science. This course is appropriate for students at CPL levels 2-3. |

| | |
|--|---|
| 55.02130 Communication Skills in Social Studies | This course supports and enhances literacy and listening skills necessary for success in the content areas. Guiding the course are the five basic WIDA Standards with particular emphasis on vocabulary, speaking, listening, and reading skills in social studies. This course is appropriate for students at CPL levels 2-3. |
| 55.02600 Reading and Writing in Science | This course supports and enhances reading and writing skills in Science and provides students with strategies for reading and comprehending scientific texts. This course is appropriate for students at CPL levels 3-4. |
| 55.02610 Reading and Writing in the Social Studies | This course focuses on reading and writing in social studies and provides students with interrupted or limited formal schooling the basic skills and background preparation to enable them to successfully complete required social studies content courses. The domains of reading and writing are integral to academic success in the social studies content courses and students must learn to develop both active and critical inferential skills to ensure academic success in the social studies content courses. This course is appropriate for students at CPL levels 2-3. |
| 55.02700 Academic Language of Science and Math | This course focuses on teaching students with interrupted or limited formal schooling to decode the specialized vocabulary, symbols and text in science and mathematics. Reading comprehension of texts, listening and comprehending lectures and speaking with correct scientific and mathematical terminology are integral to academic success in the mathematics and science content areas. The content addresses all five WIDA Standards. This course is appropriate for students at CPL levels 2-3. |

English Language Arts Courses

A special report, “Predicting English Language Learner Success in High School English Literature Courses” produced by the Georgia Department of Education Assessment and Accountability Division shows that English Language Learners (ELLs) are likely to experience success on the End-of-Course-Tests for Ninth Grade Literature and Composition and American Literature and Composition if they have an ACCESS for ELLS Composite Proficiency Level (CPL) of 4.3 – 4.8 combined with a strong Reading proficiency score. Some ELLs could possibly be successful in these courses before reaching the CPL of 4.3 – 4.8, but it is probable that they will have difficulty passing the EOCT for these ELA courses.

Any of the core ELA courses may be taught in a sheltered class model. The class must be composed solely of ELLs and must be taught by a teacher who holds English Language Arts certification as well as either the ESOL Endorsement or ESOL (P-12) certification.

Class size should be limited to the maximum class size for ELL classes, which is 18 students for high school (see part 17.5 of this document for further information).

A Composite Proficiency Level of 4.3 – 4.8, linked to a strong proficiency score in Reading, is suggested for each of the following ELA courses:

23.05100 American Literature and Composition (required)
 23.05200 English Literature and Composition
 23.06100 Ninth Grade Literature and Composition (required)
 23.06200 Tenth Grade Literature and Composition
 23.06300 World Literature and Composition
 23.06700 Multicultural Literature and Composition

The following two courses listed below also have a suggested Composite Proficiency Level of 4.3 – 4.8, linked to a strong proficiency score in Reading, but will only meet core credit requirements for students who entered ninth grade for the first time prior to the 2008-09 school year. These two courses are available only for elective credit for students entering ninth grade for the first time in 2008-09.

23.06400 Literary Types
 23.06600 Contemporary Literature

ESOL I-IV Courses

Four ESOL I-IV courses are listed as part of the English Language Arts (ELA) curriculum offerings for grades 9-12 in State Education Rules 160-4-2-.03, List of State funded K-8 Subjects and 9-12 Courses, [http://www.gadoe.org/ documents/doe/legalservices/160-4-2-.03.pdf](http://www.gadoe.org/documents/doe/legalservices/160-4-2-.03.pdf) and 160-4-2-.20, List of State funded K-8 Subjects and 9-12 Courses, [http://www.gadoe.org/ documents/doe/legalservices/160-4-2-.20.pdf](http://www.gadoe.org/documents/doe/legalservices/160-4-2-.20.pdf).

These courses are coded with the 23 ELA course prefix and must be taught by a teacher who holds English Language Arts certification as well as either the ESOL Endorsement or ESOL (P-12) certification. These courses will incorporate both the WIDA English Language Proficiency Standards and the Georgia Performance Standards (GPS) for English Language Arts (ELA).

These courses are:

23.09100 English ESOL I
 23.09200 English ESOL II
 23.09300 English ESOL III
 23.09400 English ESOL IV

Districts have the option of using these courses as either elective or core English Language Arts (ELA) courses. Regardless, each course offered must be aligned with the Georgia Performance Standards. **In order to fulfill the graduation requirements as a core ELA course, the ESOL course must be aligned with the specific ELA course and must follow the same GPS as the designated ELA course. If the ELA course has a required End of Course Test, students**

who wish to replace the core ELA course with an ESOL course must take the EOCT as a requirement of the ESOL course.

ESOL I-IV courses may not be substituted as core credit for the American Literature and Composition, course number 23.05100, which is a required course. Students entering ninth grade for the first time in 2008-09 and thereafter may not substitute one of the ESOL courses for core credit for Ninth Grade Literature and Composition, course number 23.06100, which is a required course for these students.

The local district has the flexibility to determine the assignment of the ESOL courses matched to specific ELA courses for core credit or to determine that the ESOL courses will be designated only as elective courses for support of language arts curriculum. **In order to maintain an accurate record of the core ELA courses tied to the specific ESOL I-IV courses, it is recommended that the name of the ELA course be incorporated as part of the course title represented on the transcript.** An example of this might be 23.09200 English ESOL II (World Literature and Composition). In the case of transfer students, this will enable LEAs to determine exactly which ELA courses students have completed.

The ESOL I-IV courses may be utilized as elective support courses, taught in conjunction with ELA core courses and aligned with the same GPS as the ELA course in which ELLs are concurrently enrolled. If a student is concurrently enrolled in an ELA core course and an ESOL 23 coded support course, the required EOCT would be administered as part of the regular ELA course only.

Section 17.5 Sheltered Courses for ELLs in Other Content Areas

Local school districts may choose to offer sheltered sections of any core content course for ELLs. Sheltered classes are composed solely of ELLs and are taught by a teacher with appropriate content area certification and the ESOL Endorsement or ESOL Certification (P-12). Class size should be limited to the maximum class size for ELL classes, 18 for high school. The teacher must hold certification in the content area and either the ESOL Endorsement or ESOL P-12 certification.

The curriculum follows the GPS of the general education content course but integrates the WIDA Standards and differentiates instruction and tasks to accommodate second language learners. The course numbers utilized in sheltered courses are those of the actual content course. Examples of possible sheltered courses and course numbers include Economics 45.06100; American Government/Civics 45.05700; Physical Science 40.01100; Biology I 26.01200; Physics I 40.08100; Mathematics I 27.08100; Mathematics III 27.08300; Discrete Mathematics 27.06900; American Literature and Composition 23.05100; and Multicultural Literature and Composition 23.06700.

The local school district may choose to designate a particular section number to reflect the sheltered status of the course. Sheltered courses may be offered to fulfill core curriculum requirements; however, the GPS must be followed and any accompanying EOCT must be administered to fulfill course requirements.

Part 18: Student Advisement

Section 18.1 Expectations

Due to the significant changes in the new graduation rule, it is critical that schools provide on-going student advisement that is focused on:

- Academic progress monitoring
- College and work-ready awareness, exploration and planning
- Personal and social skills development

Counselors, in collaboration with graduation coaches, teachers and administrators, should provide leadership in the development of school-wide programs that promote student understanding and achievement in these areas.

The absence of effective leadership in the area of advisement can result in student failure to reach academic and personal goals related to high school graduation and postsecondary success.

Due to the elimination of tiered diploma requirements, students have more flexibility in their choices of electives and, consequently, have a need for more advisement on the courses that will prepare them for further education and work. Course selection should not be left to chance.

- Taking seven electives in Physical Education may sound appealing but it probably would not be in the student's best interests in terms of preparation for life after high school.
- Similarly, the failure to properly advise students about postsecondary foreign language requirements may lead to problems when the student decides to apply to a college or university.
- All students should be made aware of, and encouraged to participate in, opportunities to earn credentials and credits while in high school, including pathway certification, industry certification, dual and joint enrollment, and Advanced Placement or International Baccalaureate coursework.

Schools are expected to provide students information concerning the opportunity of dual and joint enrollment programs as part of the development of their plan of study. According to State Board Policy, by April 1 of each school year or prior to enrollment in an eligible institution, school systems shall provide general information about lottery-funded program dual and joint enrollment programs to all eligible students.

Effective guidance, counseling and advisement will contribute positively toward an increased graduation rate and decreased dropout rate.

Section 18.2 Information Resources

- Career, Technical and Agricultural Education (CTAE) programs:
Contact James Woodard at jwoodard@doe.k12.ga.us.
- Advanced Placement (AP) and International Baccalaureate (IB) programs:
Contact Becky Chambers at bechambe@doe.k12.ga.us.
- Special Education programs:
Contact Nancy O'Hara at nohara@doe.k12.ga.us.
- Counseling programs:
Contact Phil Hulst at 404.657.2950.
- Graduation Coaches:
Contact Rodney Green.
- Dual Enrollment or HOPE scholarships:
Go to Georgia Student Finance Commission at <http://www.gsfc.org>.
- ESOL programs:
Contact Chris Scott at clscott@doe.k12.ga.us.
- Teachers As Advisors program:
Contact Vivian Snyder at vsnyder@doe.k12.ga.us.
- Teachers As Advisors program:
Contact Karen Faircloth at kfaircloth@doe.k12.ga.us or
Southern Regional Education Board (SREB) web site

Section 18.3 Teachers As Advisors (TAA) Program Information

In order to achieve a true integrity-of-implementation of the new Georgia graduation requirements, the state's middle and high schools (grades 6-12) should develop, implement, monitor and evaluate an effective Teachers-As-Advisors (TAA) program.

The processes of TAA- development through evaluation- are best planned collaboratively at the local education agency (LEA) level by an LEA-level focus team. The LEA focus team should include representation from district administration, school-level administration, teacher-advisors, counselors, graduation coaches and other stakeholders (including students, parents, and representatives from business and industry). A cohesive Teachers-As-Advisors initiative helps to ensure equitable advisory experiences for students, allows for collaborative experiences for teacher-advisors, and serves as the conduit to create and enhance seamless transitions from grade-level to grade-level, and from school to school.

The following points outline the operational highlights of a systemic and systematic TAA program:

- Small groups of students (recommended size: 12-18) are assigned to a trained, caring teacher-advisor and each, individual student remains with that advisor throughout their tenure in that building; in other words, advisors “loop” with their students. This strengthens the relationships between advisors and students and their families. As students exit middle school, the sending middle school advisor, receiving high school advisor, students and their parent(s) meet for the explicit purpose of identifying an area or areas of interest for high school study and creating a six-year individual educational and career plan (to be reviewed and revised, at least, annually).
- Advisement sessions (recommended minimum: two (2) sessions per month) are based on the Georgia Teachers-As-Advisors Framework, across three areas:
 - Career Management: Awareness, Exploration, and Planning,
 - Academic Achievement, Educational Attainment and Lifelong Learning: Thinking and Learning Skills, and
 - Life Skills: Personal and Social Development.

The student experiences and outcomes outlined in the Georgia TAA Framework were developed by GaDOE staff, middle and high school practitioners, representatives from postsecondary education and business, and students and parents.

- Interest and skills assessments are administered during the middle grades and again in high school to generate information that will help teachers advise and guide students into focused areas of study. This, of course, will assist in making wise course choices at both the high school and postsecondary levels. Students will maintain a portfolio of educational and career planning information during their grades 6-12 school years.

A set of DVD learning modules has been developed and is available from the Georgia Department of Education to aid LEAs/schools in the establishment of a local TAA program. This video tool takes focus group participants through a Ten-Step Model (below) for operating Teachers-As-Advisors within a school district.

- Establishing Need and Gaining Awareness of Data
- The Educational and Career Planning Process
- Articulating a Statement of Purpose
- Strategic Planning for Parent/Family Involvement
- Achieving Consensus on Organization and Logistics
- Designing Framework-Based Content for Delivery
- Understanding and Fully Utilizing Student Assessment Results
- Determining the Leader Involvement and Support and Addressing Barriers
- Professional Learning and Continuous Support

**Georgia High School Graduation Requirements:
Preparing Students for Success**

Part 19: Appendices

Section 19.1 Pathways Examples

Peach State Pathways: Education and Career Planning Tool
Agriculture



Learner Name _____
Learner Signature _____
Parent/Guardian Signature _____

Date _____
Advisor/Counselor Signature _____

This plan of study should serve as a guide, along with other career planning materials, as you continue your education. Courses listed within this plan are only recommended coursework and should be individualized to meet each learner's educational and career goals.

All plans will meet minimum high school graduation requirements as well as minimum college entrance requirements.

Applicants to Board of Regents institutions should be advised that meeting minimum requirements will not guarantee admission at any institution. Institutions may set additional and/or higher requirements.

AGRISCIENCE

| High School Education and Career Plan | | English Language Arts (4 units) | Mathematics (4 units) | Science (4 units) | Social Studies (3 units) | Physical Education & Health (1 unit) | Required Electives (3 units) and Other Electives (4 units) |
|---------------------------------------|--|---|---|--|---|--|--|
| Career Enhancement Opportunities | Graduation Rules for 9 th grade/2008-2009 | English 9 English 10 English 11 English 12 AP Lit and Comp AP Lang and Comp IB English SL (Am Lit) IB English HL (World Lit) | Mathematics I Mathematics II Mathematics III Mathematics IV OR Accelerated Mathematics I Accelerated Mathematics II Accelerated Mathematics III | Biology Physical Science Physics Chemistry AP Biology AP Physics AP Chemistry IB Biology SL IB Biology HL IB Biochemistry IB Chemistry SL/HL | Am Gov/Civics (1/2 unit) World History US History Economics (1/2 unit) AP World History AP US History AP Government AP Microeconomics AP Macroeconomics IB Economics SL IB History of the Americas (SL) | PE (1/2 unit) Health (1/2 unit) SAMPLE PE & Health Electives: | <p>*AGRISCIENCE Career Pathway Sequence of Courses: (3 units) 02.47100 Basic Agricultural Science and Technology 02.42100 Animal Science Technology/Biotechnology 02.44100 Plant Science and Biotechnology CAREER PATHWAY RELATED COURSES: 02.47500 Biotechnology in Agriculture 03.41100 Natural Resources Conservation 03.42200 Environmental Science and Stewardship * Students must complete the sequence of courses to take end of pathway assessment.</p> <p align="center">Foreign Language 2 units required for admissions to Georgia University System Colleges/Universities For a listing of Foreign Language courses offered at your high school, please check with your advisor, counselor or curriculum handbook.</p> <p align="center">Fine Arts • Visual Arts • Performing Arts • Dramatic Arts For a listing of Fine Arts courses offered at your high school, please check with your advisor, counselor or curriculum handbook.</p> <p align="center">Other Electives (4 units) For a listing of other elective courses offered at your high school, please check with your advisor, counselor, or curriculum handbook.</p> |
| | | SAMPLE Eng Electives: Literary Types/Composition Oral/Written Communication | AP Statistics Calculus AP Calculus AM AP Calculus BC IB Math Methods IB Math Studies SL IB Math SL IB Math HL SAMPLE Math Electives: TBA | SAMPLE 4th Science Electives: Botany Genetics Microbiology Environmental Science AP Environmental Sci Entomology Geology Astrophysics | SAMPLE Social Studies Electives: Current Issues The Humanities Technology and Society Sociology AP Macroeconomics AP Microeconomics World Geography | | |
| | Career-Related Education Activities <input type="checkbox"/> Career Awareness <input type="checkbox"/> Career Exploration <input type="checkbox"/> Instructional Related <input type="checkbox"/> Connecting • Employability Skill Dev. • Cooperative Education • Youth Apprenticeship | <input type="checkbox"/> Work-Based Learning • Internship • Clinicals | Postsecondary Options: <ul style="list-style-type: none"> • 4-Year Universities/Colleges • 2-Year Colleges • Technical Colleges • State Registered Apprenticeships • Special Purpose Schools • On-the-Job Training • Military | Sample Postsecondary Credit Opportunities: <ul style="list-style-type: none"> <input type="checkbox"/> Advanced Placement <input type="checkbox"/> Articulated Credit <input type="checkbox"/> Dual Enrollment/HOPE <input type="checkbox"/> Dual Enrollment/Accel <input type="checkbox"/> Joint Enrollment | | | |

Go to GACollege411 and Career Planning at www.GACollege411.org for more information about your education and career planning including valuable financial information (grants and scholarships including HOPE Program, loans, FAFSA and CSS forms).

| Current GEORGIA Graduation Rule for student entering the 9 th grade in fall of 2008-2009 Areas of Study: | Units | Postsecondary Programs of Study Technical College 13 th and 14 th years | Postsecondary Programs of Study University of Georgia System 13 th and 14 th years |
|--|-----------|---|---|
| English/Language Arts | 4 | *Associate of Applied Science in Biotechnology | <ul style="list-style-type: none"> • Essential Skills (English Composition and Mathematics) /9 hrs • Institutional Options/4-5 hrs • Humanities/Fine Arts/4-5 hrs • Science, Mathematics & Technology (recommended courses include general biology, general chemistry, calculus, organic chemistry and physical science/10-11 hrs • Social Studies/12 hrs • Major Science courses related to the major such as botany, chemistry, physics, animal science, applied economics, food science, poultry science, horticulture, crop science, genetics, engineering, geology, environment health science, statistics, computer science/18 hours TOTAL/60 hrs |
| Math | 4 | | |
| *Science | 4 | | |
| Social Studies | 3 | | |
| PE | ½ | | |
| Health | ½ | | |
| **Required Electives (3 units): Career, Technical and Agricultural Education, and/or Modern Language/Latin, and/or Fine Arts | 3 | | |
| Electives (4 units) | 4 | | |
| TOTAL UNITS | 23 | | |
| * 4 th Science may be used to meet both the science and elective require **Student <u>must</u> complete 3 units in a pathway to complete CTAE pathway; Student <u>must</u> complete 2 years of the same foreign language for admissions to Georgia Board of Regents colleges/universities. | | | The following link will list Board of Regents institutions offering degrees in "Agriculture." Further research will be required for specific programs of study that align with the pathway. http://www.gacollege411.org/Select/MatchAsst/default.asp |

| The sample AGRISCIENCE occupations listed below meet two out of three of GaDOE definitions for high-demand, high-wage and high-skilled. www.occsupplydemand.org | | | |
|---|-------------------------------|----------------|--------------------------------------|
| Occupation Specialties | Level of Education Needed | Average Salary | Number of Annual Openings in Georgia |
| Postsecondary Biological Science Teacher | Doctoral Degree | \$79,338 | 150 |
| Environmental Engineering Technicians | Associate's Degree | \$34,112 | 40 |
| Environmental Engineer | Bachelor's Degree | \$65,749 | 50 |
| Environmental Compliance Inspectors | Long-term-on-the-job-training | \$51,667 | 150 |

AGRISCIENCE PATHWAY

Agriscience is the combination of two fields, agriculture and science, where scientific knowledge is required to carry out the necessary functions in agriculture. The work agricultural scientists do plays an important part in maintaining and increasing the nation's agricultural productivity. The job opportunities in agriscience are many and varied, from developing ways to improve the quantity and quality of farm crops and animals to researching methods of converting raw agricultural commodities into attractive and healthy food products for consumers.

According to a U.S. Department of Agriculture study, there are not enough graduates in the field of agriculture to fill the number of jobs available. The demand for skilled people in the agricultural field has never been greater. The need for educated workers will continue to grow as the agricultural industry seeks new and better products and improved delivery and safety of those products. Job opportunities in agriscience are promising; agriscience and related occupations are expected to see increased growth.

For more information: www.agday.org, www.GACollege411.org, www.dol.state.ga.us

Section 19.2 Frequently-Asked Questions

Georgia Graduation Rule Revision Frequently Asked Questions

Why is the graduation rule being changed now?

The rule is being revised in conjunction with the implementation of the new Georgia Performance Standards in English, Mathematics, Science, Social Studies and in other electives. The new curriculum and the new graduation requirements will help students graduate from high school with the knowledge and skills they need to be successful in college and the workplace.

When will the changes go into effect?

The new requirements will go into effect for students enrolling in the ninth grade for the first time in the 2008-2009 school year and subsequent years.

What are the major changes in the new rule?

Georgia's "tiered" diploma system is being eliminated. Currently, there are four tiers, each with different requirements: College Preparatory (CP), College Preparatory with Distinction (CP+), Technology/Career (TC) and Technology/Career with Distinction (TC+). The new rule has one common set of requirements for all students with various options for meeting those requirements, including advanced courses such as Advanced Placement, International Baccalaureate, post-secondary options and career-oriented courses offered under our Career, Technical and Agricultural Education (CTAE) programs. It is important that all students – regardless of their post-secondary plans – have a rigorous core of classes.

How will these changes affect students who are currently in high school?

The new rule will not affect students who enrolled in the ninth grade before 2008. They will remain under the current graduation rule requirements.

How are the new graduation requirements different from Georgia's current set of graduation requirements?

All students will be required to complete a total of 23 units for graduation, an increase of 1 unit for most students under the current rule. All students will take:

- 4 units of English (no change)
- 4 units of Science (an increase of 1 unit)
- 4 units of Mathematics (an increase for students on a career track)
- 3 units of Social Studies (no change)
- At least 3 units of Career/Technical/Agricultural and/or Foreign Language and/or Fine Arts courses (up from at least 1 unit)
- At least 4 additional electives
- 1 health/physical education course

Under the new rule, will local school districts be allowed to make decisions regarding graduation requirements?

Yes. The State Board of Education establishes minimum requirements for graduation. Local districts can establish additional graduation requirements beyond those set by the State Board of Education.

Will the new rule force high schools to change their daily class schedule?

No. The new rule allows flexibility in developing a schedule that meets the needs of the local district and school.

Will the new Graduation Rule reduce the number of electives students may take?

No. Under the new rule, students will be required to take 7 electives. Students are encouraged to choose electives that support their future academic and career goals. A wide range of courses are available, including academic, career tech, fine arts, foreign language, advanced placement, and post-secondary options.

Will these new requirements cause more students to struggle?

For students who need more time and attention in order to master course standards and meet graduation requirements, schools are offering support classes, after-school tutorial programs and other instructional opportunities outside the regular class period.

Will Fine Arts, Foreign Language and CTAE courses be required in the new rule?

A total of 3 units are required from CTAE and/or Foreign Language and/or Fine Arts for all students. Students planning to enter or transfer into a University System of Georgia institution or other post-secondary institution must take two units of the same foreign language.

Can students take high school courses in middle school for credit?

Unit credit may be awarded for courses offered in the middle grades that meet 9-12 Georgia Performance Standards requirements. The local Board of Education must approve the awarding of this credit.

What about students who receive special education services?

Students with Disabilities will be eligible to earn a regular diploma by meeting the requirements outlined in the rule and in their Individual Education Plan.

How will these new graduation requirements affect advanced learners?

Advanced classes will continue to be offered to students, including Advanced Placement, International Baccalaureate, dual enrollment, and industry certification courses.

Will students be required to take two years of foreign language?

All students are encouraged to earn two units of credit in the same foreign language. Students planning to enter or transfer into a University System of Georgia institution or other post-secondary institution must take two units of the same foreign language.

Why are the high school math courses changing?

Georgia is implementing a new mathematics curriculum, the Georgia Performance Standards (GPS). The GPS were approved for all core content areas several years ago, along with a phase-in plan for implementation. The new Georgia Performance Standards for mathematics courses integrate algebra, geometry and statistics at all levels. Since the new Standards do not match the content in our current math courses, course titles such as Algebra I, Geometry, Algebra II, etc. will be replaced by Mathematics I/Accelerated Mathematics I, etc. Beginning in 2008, two math sequences will be available: Mathematics I, II, III, IV and Accelerated Mathematics I, II, III with multiple fourth-year options.

Does a student taking a GaDOE-identified CTAE pathway science course receive two credits?

Students may receive credit for a course only once. Certain courses may be used to meet the requirements for both science and a CTAE pathway, but only one credit will be awarded and that credit must be for science.

Are science courses listed in a mandated sequence?

No, science courses may be placed in a sequence by the LEAs to best meet the need of their students.

Do students have to take Physics and Chemistry to get into college?

No, colleges and universities typically require “a” physical science. Both courses are considered physical sciences. Some universities do have a requirement for one of the two, so it is in the best interest of the student to take at least one.

Do all students have to take Physical Science since it is on the Georgia High School Graduation Test?

No, the Georgia High School Graduation Test (GHS GT) will be altered to represent Biology and the physics portion of Physical Science. However, students not taking the Physical Science course must take the Physics course to be prepared for the GHS GT.

Why must students with the most significant cognitive disabilities be assessed using the GAA during middle school, as well as Grade 11 in high school? Why can't this decision be made later?

The provision for students with the most significant cognitive disabilities was intended to provide a high school diploma path for a very small portion of the students with disabilities. They are those students who access the Georgia Performance Standards at an entry or prerequisite level and for whom that access is often provided through augmented communication, assistive technology and significant personnel supports. In all but the most unusual circumstances, the presence of the cognitive, motor and sensory disabilities is known at the time the student enters school. Leaving the option open until middle school, was intended to provide a wide opportunity so that ONLY appropriate students are included.

What allowances will be made for arranging re-takes of the GAA if the student is not proficient in all areas during the first administration in 11th grade?

Students will be able to participate in re-administrations of the GAA. The state will assume the cost of the scoring, just as it does for the GHSGTs and the GHSWT. The Divisions for Special Education Services and Supports will work with Testing on the specifics.

Is the special education diploma still an option? The special education diploma is still part of the graduation rule as an option for students with disabilities. However, IEP teams should be very cautious when selecting this option. The student and parent who select this option prior to the student reaching the 22nd birthday should be offered an IEP that offers a program specifically planned to provide the instruction and support to allow the student to meet requirements for the high school diploma, even if the student plans to accept a special education diploma that will allow him or her to participate in graduation ceremonies at the end of four years. Furthermore, the student and parent should be made aware that the special education diploma, in most circumstances, does not meet requirements for many types of employment, entry into the military, or admission to post-secondary educational institutions.

Can the special education diploma be counted for AYP? The special education diploma does not meet the federal criteria to be counted as a high school diploma when calculating the graduation rate for AYP. Only those high school diplomas which are tied to a rigorous curriculum meet the requirements for graduation rate. The special education diploma, the high school certificate as well as students who drop out are not counted as receiving a high school diploma when calculating graduation rate.

Won't the students who take longer than the traditional four years to graduate count against our AYP calculation?

By the time the students impacted by this rule are completing four years of high school; Georgia will have revised the process for calculating graduation rate. NCLB allows for students to count positively toward graduation when they complete high school in the standard number of years. Georgia is exploring various ways to define the standard number of years. However, systems should be aware that the special education diploma does not count toward AYP under the current graduation rule, nor will it count toward AYP under the new graduation rule.

Some school systems allow students to participate in graduation ceremonies with their peers after four years of high school based on achieving a special education diploma even though they plan to continue some educational services. If these students are not reported as EXITED at the time they receive a special education diploma, they will not be included in the calculation until such time as they do actually exit with the high school diploma.

What options will there be for special education students who can pass all the general education courses, but can't pass the GHSGT because they have unique assessment needs to demonstrate what they know and are able to do?

Federal Regulations, released in April, 2007, gave states the option of developing an alternate assessment based upon modified achievement standards for use with students with disabilities (up to 2% of the population of a grade level) who, even with appropriate instruction in grade-level standards, and with special education and related services, would not meet the grade-level expectations within the time covered by the student's current Individualized Education Program

(IEP). Student participation in this assessment, as with the others in the state-wide assessment program, would be determined by the student's IEP team, based upon certain criteria. Federal Regulations also state that participation in the alternate assessment based upon modified achievement standards may not preclude a student from pursuing a high school diploma. Georgia is currently studying this option for assessing students with disabilities.

Please explain the provision for the mathematics requirement and students with disabilities in more detail. What are the specifics of the core course and the support class?

The graduation rule allows for students with disabilities to graduate with a high school diploma after accumulating three mathematics credits (instead of 4) if they have taken Mathematics I with a support class (two units of credit, one core and 1 elective) and Mathematics II with a support class (another 2 units of credit, 1 core and 1 elective) and then either Mathematics III or another mathematics unit. It is anticipated that the core mathematics units will most likely be in a co-taught or collaborative setting and that the support class will also provide co-taught or collaborative support.

However, there will certainly be students with disabilities who do not need special education support in mathematics as well as those for whom the co-taught or collaborative environment without the need for the support class will be more appropriate. These students will need four units of math to graduate.

Isn't it unfair that special education students will have to take so many support classes to be sure they pass mathematics? Isn't this limiting their high school experience?

The need for support classes may extend the time it takes a student with a disability (or any student) to obtain all credits needed or desired for the high school diploma. Although many students would like to complete all the requirements within the traditional four year period, specific transition planning should now be better able to address the requirements for the high school diploma and the possibility that additional time (or summer coursework) may be necessary to prepare students to meet the requirements to be college and work ready. Even if students do not plan to seek to post-secondary education, it is important that high school provide them with the skills to meet the increased demands of the workplace.

Section 19.3 List of Fourth Science Course Options

Fourth Science Requirement

The following chart shows courses that can be used to meet the fourth science requirement in the new graduation rule. Additional courses may be included on subsequent updates. Some courses on the list below may meet pathway requirements. Students focused on completion of a career pathway may use these courses to meet both the pathway AND the fourth science requirement.

The following courses count towards satisfying the fourth science requirement and a CTAE pathway completion requirement and **have been approved** by the Board of Regents as a fourth science.

| Course Number | Course Name | CTAE Pathway |
|---------------|---|--|
| 01.46100 | General Horticulture and Plant Science | Plant Science/Horticulture |
| 02.42100 | Animal Science Technology/Biotechnology | Agriscience |
| 02.42200 | Equine Science | Other GPS Agriculture Courses (9-12) |
| 02.44100 | Plant Science and Biotechnology | Agriscience |
| 20.41710 | Food & Nutrition Through the Lifespan | Nutrition & Food Science |
| 20.41810 | Food Science | Nutrition & Food Science |
| 21.45100 | Energy and Power Technology | Energy Systems |
| 21.45700 | Appropriate and Alternative Energy Technologies | Energy Systems |
| 25.56800 | Introduction to Biotechnology | Biotechnology Research and Development |

The following courses count towards satisfying the fourth science requirement and a CTAE pathway completion requirement but **are not** recognized as a fourth science by Board of Regents.

| Course Number | Course Name | CTAE Pathway |
|---------------|-------------------------------------|---|
| 02.42400 | Veterinary Science | Veterinary Science |
| 02.47500 | Biotechnology | Other GPS Agriculture Courses (9-12) |
| 03.41100 | Natural Resources Management | Other GPS Agriculture Courses (9-12) |
| 03.45100 | Forest Science | Forestry/Natural Resources |
| 03.45300 | Wildlife Management | |
| 21.45200 | Foundations of Electronics | Electronics |
| 21.45300 | Advanced AC and DC Circuits | Electronics |
| 21.45400 | Digital Electronics | Electronics |
| 21.47200 | Engineering Applications | Engineering |
| 25.52100 | Introduction to Healthcare Science | Diagnostic Services |
| 25.52200 | Application of Therapeutic Services | Therapeutic Services-Medical Services |
| 25.56200 | Concept of Emergency Medicine | Therapeutic Services-Emergency Services |
| 25.56400 | Emergency and Disaster Preparedness | Therapeutic Services-Emergency Services |
| 25.58000 | Principles of Physical Medicine | Physical Medicine |
| 25.58100 | Concepts of Physical Medicine | Physical Medicine |
| 25.58200 | Rehabilitation in Physical Medicine | Physical Medicine |
| 47.46600 | Aviation Meteorology | Flight Operations |

The following courses count towards satisfying the fourth science requirement.

| Course Number | Course Name |
|---------------|---|
| 26.01300 | Biology II |
| 26.01400 | Advanced Placement Biology |
| 26.01500 | Genetics |
| 26.01800 | International Baccalaureate Biology SL |
| 26.01900 | International Baccalaureate Biology HL |
| 26.03100 | Botany |
| 26.05100 | Microbiology |
| 26.06100 | Ecology |
| 26.06110 | Environmental Science |
| 26.06200 | Advance Placement Environmental Science |
| 26.06400 | Advance Genetics/DNA Research |
| 26.07100 | Zoology |
| 26.07200 | Entomology |
| 26.07300 | Human Anatomy and Physiology |
| 26.06500 | Epidemiology |
| 40.02100 | Astronomy |
| 40.04100 | Meteorology |
| 40.05100 | Chemistry I |
| 40.05200 | Chemistry II |
| 40.05300 | Advance Placement Chemistry |
| 40.05500 | International Baccalaureate Chemistry SL |
| 40.05600 | International Baccalaureate Chemistry HL |
| 40.06300 | Geology |
| 40.06400 | Earth Systems |
| 40.07100 | Oceanography |
| 40.08100 | Physics I |
| 40.08200 | Physics II |
| 40.08300 | Advanced Placement Physics B |
| 40.08410 | Advanced Placement Physics C: Mechanics |
| 40.08420 | Advanced Placement Physics C: Electricity and Magnetism |
| 40.08500 | International Baccalaureate Physics SL |
| 40.08600 | International Baccalaureate Physics HL |
| 40.08900 | Advanced Physics Principles/Robotics |
| 40.09100 | Advanced Scientific Internship |
| 40.09210 * | Scientific Research I |
| 40.09220 * | Scientific Research II |
| 40.09230 | Scientific Research III |
| 40.09240 | Scientific Research IV |
| 40.09300 | Forensic Science |
| 40.09400 | Chemical & Material Science Engineering |
| 40.09500 | International Baccalaureate Design Technology SL |
| 40.09600 | International Baccalaureate Design Technology HL |
| 11.01600 | Advanced Placement Computer Science A |

Courses can be used to meet both science and elective requirements but they **DO NOT** earn two credits. Students cannot earn two credits for one course.

The fourth science course does not necessarily need to be taken in the student's fourth or senior year.

Section 19.4 Graduation Rule Side-By-Side

Georgia Graduation Rule Revision Comparison of Current and New Requirements

| Current Rule | New Rule (enrolling 9 th graders in 2008-09) |
|--|--|
| 4 tiers, each with different requirements: College Preparatory (CP) and College Preparatory with Distinction (CP+), Technology/Career (TC) and Technology/Career with Distinction (TC+) | 1 common set of requirements for all students |
| 22 total units required for CP and TC 24 total units required for CP+ and TC+ | 23 total units required for all students |
| 4 units of English Language Arts required for all students | 4 units of English Language Arts required for all students |
| 4 units of Mathematics required for CP and CP+; 3 units required for TC and TC+ | 4 units of Mathematics required for all students |
| 3 units of Science required for all students | 4 units of Science required for all students (the 4 th science unit may be used to meet both the science and elective requirements) |
| 3 units of Social Studies required for all students | 3 units of Social Studies required for all students, all courses are specifically identified |
| 1 unit of Health and Physical Education required for all students | 1 unit of Health and Physical Education required for all students; 3 units of JROTC may be used to meet the requirement |
| 1 unit of Computer Technology and/or Fine Arts and/or Technology Career Preparatory and/or Foreign Language required for all students | A total of 3 units required from: CTAE and/or Foreign Language and/or Fine Arts for all students (<i>students planning to enter or transfer into a University System of Georgia institution or other post-secondary institution must take two units of the same foreign language</i>). |
| 2 units of Foreign Language required for CP and CP+ students | |
| 5 – 6 additional elective units depending on tier (CP, CP+, TC, TC+) | 4 additional elective units for all students |