About Connecticut’s P-20 Council

On January 13, 2009, the P-20 Council was established through executive order. P-20 Councils nationally work to improve transitions from P, or preschool/early childhood, through 20, or college and career. Currently, the transition point Connecticut’s Council is primarily focusing on is from secondary to postsecondary education.

The P-20 Council will support collaboration among four systems—early childhood, K-12, higher education and workforce training—to create an effective education and career pathway that maximizes the number of skilled people in Connecticut with a postsecondary degree or other credential. The Council will achieve this goal by improving the state’s existing—or initiating new—policies and programs. Specifically, the Council will:

- Develop a public policy framework for state leaders that increases collaboration across the systems at their current and potential points of intersection.
- Explore how the systems can work together more effectively to deliver services.
- Realign existing activities and operations in a way that makes the education pathway more responsive to the diverse needs of students.

About the Educational Policy Improvement Center

EPIC’s mission is to improve educational policy and practice that will increase student success, particularly with students historically underserved by public schools. EPIC conducts a range of policy-related research studies and develops practical tools and techniques to support a dramatic improvement in college and career readiness for students. EPIC is distinguished by its pioneering use of state-of-the-art, criterion-based, standards-referenced methods of course and document analysis.

Support for creation of this toolkit and corresponding college and career readiness workshops was provided by the Nellie Mae Education Foundation and the College Access Challenge Grant program.
Dear Connecticut Educators,

Our state has a proud tradition of educational excellence. For decades, we have maintained one of the highest college-going rates in the country.

However, today key challenges to our educational leadership have emerged. Among young people, Connecticut now ranks 34th out of 50 states in the rate of increase in degree attainment. A majority of our high school graduates attending our community colleges and state university campuses must take remedial or developmental courses after they enroll. And while some indicators suggest disparities in K-12 education between privileged and disadvantaged students may be lessening, our educational achievement gap remains the largest in the country. In short, not enough of our students become ready for college and careers, and this gap between preparation and expectation threatens our ability to replenish our workforce at a time when increased global competition demands we expand the depth and breadth of talent and capability in the state.

The answer to these challenges lies in a new and unprecedented level of cooperation among educational sectors, coupled with innovation to promote student learning and creativity more effectively. To advance state efforts to improve college and workforce readiness, the Connecticut P-20 Council has authorized the Educational Policy Improvement Center to develop a Connecticut College and Career Readiness Toolkit. In conjunction with a series of College and Career Readiness Workshops in Fall 2011, this Toolkit is designed to inform educators, workforce representatives, parents, and other stakeholders on how to improve college and career readiness for all students.

At the heart of this work is increased collaboration, information sharing, and action planning throughout the state. These efforts will develop and disseminate meaningful data and research to all educators and employers to spark deeper conversations between schools, colleges, and businesses to drive what needs to be done together to improve student learning. These active partnerships will help students realize their aspirations and fulfill their life plans in whatever path they choose and make Connecticut the best state in the nation for ensuring readiness for college and career success.

It is incumbent upon us to reaffirm our commitment to advance our educational practices and policies to allow Connecticut students to be the best educated and best prepared in the world, particularly because they need to compete in a global economy. Thank you for your dedication to Connecticut students, and I look forward to partnering with you in preparing all students for college and career success.

Sincerely,

[Signature]

Dannel P. Malloy
Governor of Connecticut
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Introduction

The Connecticut College and Career Readiness Toolkit is a companion document to a series of three regional workshops held on October 26-28, 2011 where leaders from school districts and higher education institutions in Connecticut convened to discuss what it means to be college and career ready, the importance of joint conversations about readiness between districts and colleges, and to develop action plans for new and strengthened partnerships. The workshops were facilitated and the toolkit was developed by the Educational Policy Improvement Center (EPIC) at the request of Connecticut’s P-20 Council. Participants included superintendents, school board members, high school principals, math and English department leaders, college and university presidents, leaders in academic affairs, provosts, deans, and other faculty leaders responsible for college access and success.

The P-20 Council, which is a group of leaders in education from early childhood, K-12, higher education, business, philanthropy and community-based organizations, is working to develop better coordination along the continuum of education from preschool (P) into the workforce (20) in order to increase educational attainment. Each transition along the continuum from preschool to kindergarten through high school to college and career are crucial for student success – each lays the necessary foundation for the successful next steps in ones journey. While recognizing this, the intention of the workshops and this accompanying toolkit is to focus on the transition at the latter end of the continuum – high school into postsecondary.

What is this toolkit and how should it be used?

This toolkit provides information, data, and strategies that communities can use to improve the college and career readiness of their students. Specifically, the toolkit should be used:

- To raise awareness about key issues influencing college and career readiness
- To encourage data-driven decision making
- To build partnerships between secondary, postsecondary, and workforce professionals
- To support successful, comprehensive action planning to make measurable improvements in students’ college and career success

The P-20 Council authorized EPIC to provide these materials in support of statewide comprehensive planning efforts. For more information on the research upon which this toolkit was based, please see the references pages.
Principles to Guide Connecticut and Our Educational Systems

Connecticut leaders from across the educational spectrum, business, philanthropy, and community organizations have come together to build stronger educational pathways from preschool through K-12 schools and on to postsecondary education and careers. The success of Connecticut’s students is the responsibility of all involved – students and families; teachers and administrators; boards of education; community-based organizations; philanthropy; employers; state agencies; policymakers and the public at large – each with different responsibilities and contributions to this effort.

The P-20 Council has developed the following principles to guide Connecticut and our educational systems along the path toward systemic change and increased educational attainment.

1. Connecticut’s future economic and societal success depends on improving student success rates and increasing the education level of our state’s population.

2. All students can be ready for every transition along their educational pathway from pre-kindergarten programs through postsecondary education and careers.

3. Local schools, colleges and employers must actively work together to improve student readiness for continued education and careers.

4. Every school, out-of-school program, college, and educational system must understand the expectations of the educational system or employers to which their students go next.

5. Teacher training and educational leadership programs and local school districts must work together, and share responsibility, to increase student success in local schools.

6. Student success must be assessed along the entire educational pathway and not limited to outcomes at the end of a particular sequence (e.g., elementary school readiness, high school or college graduation).

7. Students have different learning styles; thus one style of teaching or one type of learning environment will not maximize student success rates.

8. Students are at different levels of readiness for their next step; thus initiatives to improve readiness must address these different levels.

9. Students’ “college-going and career aspirations” begin to crystallize in middle school but must become more concrete in each future year in order to motivate student behaviors that will increase their readiness for continued education and employment.
Why is improving college and career readiness important?

Key Issues and Challenges

By the year 2018, 65% of all jobs in Connecticut will require some postsecondary training beyond high school. However, between 2004 and 2010, only 41% of Connecticut public high school graduates went on to complete a postsecondary credential. For all students to remain competitive and for Connecticut to meet its future workforce needs, more students must graduate ready for postsecondary education.

- Historically, secondary and postsecondary educational systems have operated independently creating gaps and misalignment between the two systems.
- The proportion of students going on to postsecondary education has steadily increased over the past 100 years and is likely to continue to increase.
- Getting more students ready for college means succeeding with an increasingly challenging student population.
- Students in the US must negotiate the most complex system of admission to higher education in the world.
- Today’s young people will need to be better educated and prepared as the US continues to move toward a knowledge/information-based economic model.
- National educational policy is emphasizing college and career readiness in addition to basic skills instruction.
- Connecticut’s adoption of the Common Core State Standards provides a timely opportunity to implement data-driven college and career readiness initiatives.
- Despite recent improvements, there remains an achievement gap among students in Connecticut. In 2011, for example, 10% of white students were basic or below on the Connecticut Academic Performance Test (CAPT) in math, while 48% of African-American students scored in that lowest performance category. This achievement gap directly impacts college indicators, such as degree attainment; in 2007, 28% of African American adults in Connecticut held an Associate’s degree or higher, as compared to their white counterparts at 52%.

How can I use this information?

We are all in this challenge together. Everyone – students, educators, families, community leaders, employers and more – have a contribution to make in building successful educational pathways that span early childhood to adulthood. You can use these talking points to avoid the “blame game” that surfaces too often when communities discuss problems in school, college and career readiness. By moving away from fault-finding and instead emphasizing the need for shared responsibility, you can help shape constructive conversations that pave the way for student and community success.

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Key College and Career Readiness
Terms and Concepts

**Postsecondary:** In this toolkit, postsecondary refers to any formal setting an individual pursues for additional instruction beyond high school. These may include two- or four-year degree programs, certificate or licensure programs, apprenticeships, or military programs.

**Work Ready:** Individual meets basic expectations regarding workplace behavior and demeanor.

**Job Ready:** Individual possesses specific knowledge necessary to begin an entry-level position.

**Career Ready:** Individual possesses sufficient foundational knowledge, skills, and general learning strategies necessary to begin studies in a career pathway.

**College Ready:** Individual places into and passes, without remediation, a credit-bearing entry-level general education course.

**College Eligible:** Individual meets the admissions requirements for a two- or four-year college or university. This typically includes meeting high school graduation requirements, maintaining an acceptable grade point average in specified courses, and obtaining satisfactory SAT or ACT scores.

---

**Are college readiness and career readiness the same thing?**

Every distinct career pathway and college degree requires knowledge, skills, and abilities that are unique to that area. What is emerging from the research, however, is the identification of a foundational set of knowledge and skills that all high school graduates need to be prepared to succeed beyond high school regardless of the setting. In particular, the evidence suggests that graduates need not only a solid grounding in the content knowledge specified in college and career readiness standards, but also key thinking and learning skills and strategies that are critical for collegiate\(^5\) and workplace\(^6\) success. The goal is for high school graduates to be both college ready and career ready, enabling them to pursue any opportunity desired.

The intersection between college and career readiness is represented by the knowledge and skills necessary for success in both arenas: the ability to place into and succeed in an entry-level college general education course or a career preparation program without remediation. As explained by the Partnership for 21st Century Skills, “Employers, educators and policymakers agree that the skills necessary for entering postsecondary education today are virtually the same skills necessary for success in the modern workplace. The results that matter apply to all students” (2006).

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What is College and Career Readiness?

For this toolkit, college and career readiness is defined as students being prepared to succeed in credit-bearing entry-level general education courses or two-year certificate programs without needing remedial or developmental assistance. A crucial distinction is that college eligibility is not the same as college readiness. Historically, many high schools have emphasized getting students accepted into college, with a heavy focus on meeting criteria for admissions. Being ready for college and career preparation extends beyond eligibility, and emphasizes what students need to know and be able to do to persist and ultimately graduate from a postsecondary program. College and career readiness is a multi-faceted concept that includes factors both internal and external to the school environment.

Based on extensive research, David T. Conley and his colleagues at EPIC developed an operational definition of college and career readiness that went beyond course titles, grades, and test scores\(^7\). This model, termed the Four Keys of College and Career Readiness include: Key Content Knowledge, Key Cognitive Strategies, Key Learning Skills and Techniques, and Key Transition Knowledge and Skills. While there are certainly other factors that influence college and career readiness, these are the four that can be most directly affected by schools and for which schools can be reasonably expected to take primary responsibility\(^8\). The table below describes the Four Keys.

### Four Keys To College And Career Readiness

<table>
<thead>
<tr>
<th>Key Content Knowledge</th>
<th>Key Cognitive Strategies</th>
<th>Key Learning Skills &amp; Techniques</th>
<th>Key Transition Knowledge &amp; Skills</th>
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</thead>
<tbody>
<tr>
<td>- Key terms and terminology</td>
<td>- Hypothesize</td>
<td>- Time management</td>
<td>+ Admissions requirements</td>
</tr>
<tr>
<td>- Factual information</td>
<td>- Strategy</td>
<td>- Study skills</td>
<td>+ College types and missions</td>
</tr>
<tr>
<td>- Linking ideas</td>
<td>- Goal setting</td>
<td>- Self-awareness</td>
<td>- Career pathways</td>
</tr>
<tr>
<td>- Organizing ideas</td>
<td>- Persistence</td>
<td>- Collaborative learning</td>
<td>- Affording college</td>
</tr>
<tr>
<td>- Common Core State Standards (in English/literacy and mathematics only)</td>
<td>- + Collaborative learning</td>
<td>- Student ownership of learning</td>
<td>+ College culture</td>
</tr>
<tr>
<td>- Standards for Success in Science, Social Sciences, Second Languages, the Arts</td>
<td>- + Student ownership of learning</td>
<td>- Retention of factual information</td>
<td>+ Relations with professors</td>
</tr>
</tbody>
</table>

**How can I use this information?**

Share this definition with both secondary and postsecondary colleagues. Use the Four Keys as a framework to discuss and guide conversations. Sharing common language and a framework are critical to effective, comprehensive planning. Without a comprehensive approach, efforts to prepare students for their postsecondary experiences may be fragmented, duplicative, or otherwise insufficient.

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The Common Core State Standards

Overview

In June 2010, the National Governors Association Center for Best Practices (NGA Center) and the Council of Chief State School Officers (CCSSO) released the Common Core State Standards® (the Standards). The stated aim of the Standards is to define the knowledge and skills students should achieve in order to graduate from high school ready to succeed in entry-level, credit-bearing academic college courses and in workforce training programs.

The Common Core State Standards gave states an opportunity to voluntarily adopt common expectations in English language arts and literacy, and mathematics. With common standards in place, states could more easily and efficiently share best practices in curriculum and assessments, while still retaining flexibility on how best to teach these subjects locally. The Connecticut State Board of Education adopted the Common Core State Standards on July 7, 2010.

Organization of the Standards

English Language Arts (ELA) standards are:

- Listed by grade level in K-8
- Listed in two year bands to allow flexibility in course design in grades 9-12
- Benchmarked to College and Career Readiness Anchor Standards
- Separated into four strands: Reading, Writing, Speaking and Listening, Language
- Specified in grades 6-12 with Standards for Literacy in History/Social Studies, and Science and Technical Subjects
- Elaborated by text exemplars and sample performance tasks by grade level bands in appendices

Mathematics standards are organized into two areas:

Standards for Mathematical Practice

- Carry across all grade levels
- Describe habits of mind to prepare students to think and reason mathematically, and apply mathematics to novel situations as college students and employees regularly do

Standards for Mathematical Content

- K-8 standards presented by grade level
- Organized into domains that progress over several grades
- Grade introductions give 2–4 focal points at each grade level
- High school standards presented by conceptual theme (Number & Quantity, Algebra, Functions, Modeling, Geometry, Statistics & Probability)

EPIC recently completed a study on the Common Core State Standards. We asked a national sample of postsecondary instructors who teach entry-level courses to rate the applicability of each Common Core State Standard to their courses. If the standard was applicable, we asked them to rate its importance.

Respondents included ELA, math, social sciences, and science instructors in entry-level courses from two- and four-year institutions. They also included instructors in business management, computer technology, and healthcare CTE courses.

Key findings suggest:

- Overall applicability across both subjects is high.
- Nearly 96% of respondents said standards are sufficiently challenging cognitively.
- Variations exist among content areas and across different strands.
- The Speaking and Listening and Language strands are rated applicable across essentially all subjects.

To view the report, Reaching the Goal: The Applicability and Importance of the Common Core State Standards to College and Career Readiness, visit: https://www.epiconline.org/standardsvaliditystudy
The Standards are:
- Aligned with college and work expectations
- Focused and coherent
- Include rigorous content and application of knowledge through high-order skills
- Build upon strengths and lessons of current state standards
- Internationally benchmarked so that all students are prepared to succeed in our global economy and society
- Based on evidence and research

The Standards do not define:
- How teachers should teach
- All that can or should be taught
- The nature of advanced work beyond the core
- The interventions needed for students well below grade level
- The full range of support for English language learners and students with special needs
- All knowledge and skills needed to be college and career ready

Implications for Higher Education:
- Aligning key policies
- Graduation requirements
- Admission requirements
- Placement requirements
- Aligning curricula and instructional materials
- Secondary/postsecondary alignment
- Adult/developmental/general education alignment
- Aligning teacher preparation and in-service teacher professional development
- Developing avenues at state and local levels for collaboration

Next Steps for the Common Core State Standards in Connecticut
District Dissemination Guide

- Created governance structure and established Technical Advisory Committee and 10 Work Groups
- Created governance structure and established Technical Advisory Committee and 10 Work Groups
- Created governance structure and established Technical Advisory Committee and 10 Work Groups
- Created governance structure and established Technical Advisory Committee and 10 Work Groups

- Fall 2010
  - Crosswalks illustrate correlation among Connecticut standards, CCSS, CMT, and CAPT
- Winter & Spring 2011
  - Curriculum frames provide districts a foundation to design K-12 Mathematics and English Language Arts curriculum based on Rigorous Curriculum Design model
- Summer 2011
  - K-12 district curriculum revisions begin and continue throughout school year
- School year 2011-2012
  - Districts begin to implement CCSS-based curriculum for selected levels and courses
- K-12 district curriculum revisions continue throughout school year
- Districts continue CCSS-based curriculum implementation for selected levels and courses
- K-12 district curricula based on CCSS fully implemented

2014-2015 Grades 3-8 and 11 CCSS-based summative administered

Helping students attain the Standards and getting all students ready for college, workforce training, and life will require far-reaching changes in the way high schools and colleges operate and collaborate.

For more information about the work related to the Standards in Connecticut, please visit www.sde.ct.gov
Examples of what a college and career ready student can do:

- Communicate effectively and professionally with supervisors or professors
- Read with understanding a range of non-fiction publications, textbooks, and technical materials
- Incorporate feedback effectively
- Produce written products that are consistently free of errors and reflect proper writing conventions
- Collect and analyze data precisely and accurately
- Interpret conflicting explanations of an event or phenomenon
- Write a three- to five-page research paper structured around a cogent, coherent line of reasoning
- Arrive punctually to class or work
- Attend a study group outside of class
- Create and maintain a personal schedule that includes a prioritized “to do” list
- Complete successfully an assignment that requires two weeks of independent work and extensive research
- Utilize technological tools including appropriate online and desktop applications
- Locate websites containing information on career requirements, colleges, admissions, and financial aid
- Balance short- and long-term goals

How can I use this information?

Secondary instructors can use these examples to adjust their assignments and classroom practices to align more closely with college and career readiness expectations. Postsecondary instructors can use these examples to inform contributions to alignment efforts. Sharing example assignments, assessments, student work, and other student performance examples makes college and career readiness and performance more concrete.
Seven Principles of College and Career Readiness

In 2007, EPIC was awarded a grant to study the programs and practices of high schools that demonstrate greater-than-expected success in preparing students for college and careers. Researchers conducted extensive site visits, including interviews, observations, and document collection at a sample of 38 schools nationally. From the data and effective practices collected, EPIC synthesized seven principles that describe what educators and administrators do in schools that have success in preparing their students for college and career readiness.

How can I use this information?

Faculty members, counselors, and administrators can use each principle to begin conversations about improving school performance. Postsecondary institutions should take particular note of Principle 7 and consider how they can contribute to such partnerships.

Principle 1. Create and maintain a college- and career-readiness culture in the school.

Principle 2. Create a core academic program aligned with and leading to college readiness by the end of twelfth grade.

Principle 3. Teach key self-management skills and academic behaviors and expect students to use them.

Principle 4. Make college and careers real by helping students manage the complexity of preparing for and applying to postsecondary education.

Principle 5. Create assignments and grading policies that more closely approximate college and career expectations each successive year of high school.

Principle 6. Make the senior year meaningful and appropriately challenging.

Principle 7. Build partnerships with and connections to postsecondary programs and institutions.

Principles in Practice: Hobbs High School

Spotlight on Counselors

Principle 4. Make college and careers real by helping students manage the complexity of preparing for and applying to postsecondary education.

Students at Hobbs High School in Hobbs, New Mexico get to know their counselors well. Unlike practice at many high schools, counselors at Hobbs stay with the same students throughout their high school careers. Each year has its own particular counseling focus, and by 12th grade, students and counselors focus most earnestly on college preparation.

Counselors at Hobbs understand that the complexities of applying for college and securing financial aid can hinder a student’s desire to attend college. For this reason, they work closely with students and families to make information more transparent and readily available. Counselors put together a “Counselor’s Corner” newsletter, which also appears in the local newspaper, that gives information regarding upcoming testing, scholarship opportunities, and local college programs. They also provide a “Scholarship Request Form” to help expedite the scholarship application process.

In addition to the newsletter, counselors provide seniors with a monthly task list to keep them on track and informed about the application process. The task list is especially helpful for first-generation college attendees who have never been exposed to the complexities of the FAFSA or other related application tasks. Counselors also provide every senior with a user-friendly calendar with a monthly guide to events, pertinent websites, and task information so that students can organize their year with as much information ahead of time as possible.

The Partner section of this toolkit contains Action Planning Worksheets, documents designed to guide your community through comprehensive action planning. Each worksheet represents a step in the planning process. These templates can be used to establish goals with new partners or to expand on previous planning efforts. Using a template that is mapped to the Four Keys of College and Career Readiness will generate a comprehensive, evidence-based action plan.

Taking action to improve the college and career readiness of students can be exciting but challenging. Without a clear, comprehensive framework to guide the work, the action planning process can lack focus and coordination. The result is a piecemeal approach to college and career readiness, one that unintentionally leaves out sub-groups of students and overlooks critical needs.

To avoid this scenario, EPIC recommends a systemic approach to college and career readiness action planning. This approach prompts educators and stakeholders to address three elements that have emerged from our research: analyze, align, and partner. There are other elements that inform effective planning, but a plan that incorporates these three is likely to address many of the areas in which systems most often fall short in preparing students.

This section will show you how to take a deep, data-driven look guided by the Four Keys of College and Career Readiness. Working with data allows for more informed and targeted decision-making, and provides a baseline against which progress can be measured.

**ANALYZE**

Analyzing the current state of education and identifying areas for improvement is crucial. This involves collecting and examining data to understand the strengths and weaknesses of the system.

**ALIGN**

Aligning curriculum and instruction to build logically and continuously toward college and career readiness is also important. This includes evaluating opportunities for all students to learn necessary content and skills regardless of which instructors they are assigned.

**PARTNER**

Partnering with educational professionals at all levels is essential for comprehensive action planning. Collaboration is key to improving high school–college connections and ensuring that students are prepared for postsecondary expectations.
Techniques and Strategies: Analyze
Important Considerations for Analyzing College and Career Readiness

This section includes important state-level data currently available to help analyze the level of college and career readiness in your community. The purpose is to surface issues, use data to prioritize next steps for taking action, and measure progress towards meeting your community’s goals.

Data currently available, particularly at the high school level, do not provide a comprehensive picture of college and career readiness.

The high school indicators included in this toolkit primarily measure the second key of the four-part model of college and career readiness, Key Content Knowledge. The indicators included in this toolkit only serve as proxy measures for the other three dimensions.

As you conduct your action planning, it is important to think about how to more accurately assess students and schools in terms of the other three keys, Key Cognitive Strategies, Key Learning Skills and Techniques, and Key Transition Knowledge and Skills. Common Assessments for the Common Core State Standards will reportedly measure more complex thinking skills in addition to content. For examples of how to measure these other three keys, EPIC has developed two tools. They are:

- The CollegeCareerReady™ School Diagnostic: an online tool generates a school profile analyzing college and career readiness across the four keys; and

- The College-readiness Performance Assessment System (C-PAS): a grade 6-12 formative assessment system, aligned to the Common Core State Standards, measuring the development of the five Key Cognitive Strategies.

For more information about the CollegeCareerReady School Diagnostic and the College-readiness Performance Assessment, please visit www.collegecareerready.org
High School Performance Indicators

Guiding Questions:

- How does local district data compare to state and national data?

- Do the data suggest an achievement gap between any groups of students?

- Which key indicators should be the focus of improvement?
Connecticut Academic Performance Test (CAPT) Scores

State test data is an important gauge of a student’s key content knowledge and skills. The CAPT is an achievement test given to all public school students enrolled in 10th grade.

Math

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Reading

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Science

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<tr>
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<tr>
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<tr>
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</table>

Writing

<table>
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<tr>
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<th>100%</th>
</tr>
</thead>
<tbody>
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<td>31.6</td>
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<tr>
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<tr>
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<tr>
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<td>46.4</td>
<td>36.3</td>
<td>17.3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Numbers may not add to 100% because of rounding.

Graduation Rates

In general, students will not have access to college or most middle- and high-level skill jobs without a high school diploma or equivalent.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>76.6%</td>
<td>84.2%</td>
<td>86.8%</td>
</tr>
<tr>
<td>Black</td>
<td>53.7%</td>
<td>62.0%</td>
<td>66.2%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>55.5%</td>
<td>52.6%</td>
<td>58.1%</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>80.7%</td>
<td>80.2%</td>
<td>82.4%</td>
</tr>
<tr>
<td>Native American</td>
<td>50.7%</td>
<td>36.3%</td>
<td>73.8%</td>
</tr>
<tr>
<td>Male</td>
<td>66.0%</td>
<td>74.3%</td>
<td>75.9%</td>
</tr>
<tr>
<td>Female</td>
<td>72.9%</td>
<td>80.3%</td>
<td>82.9%</td>
</tr>
<tr>
<td>Free and Reduced Lunch</td>
<td>N/A</td>
<td>N/A</td>
<td>59.9%</td>
</tr>
<tr>
<td>Total</td>
<td>68.8%</td>
<td>77.7%</td>
<td>79.3%</td>
</tr>
</tbody>
</table>

Note: Due to differing methodologies in calculating graduation rates, figures may vary; in 2007, some independent research found that 13% more youth dropped out during high school than reported by the state. In an effort to more accurately measure high school completion, Connecticut recently adopted the NGA Graduation Counts Compact Formula to calculate graduation rates. The Connecticut-reported rate for 2009-2010 (rightmost column) uses this formula. Forty-eight states have agreed to use the same formula beginning with the 2010-2011 school year, thus providing a more consistent view of state and national graduation rates.

Dual Credit Program Participation

Students who graduate from high school with some college credits have a higher probability of pursuing and obtaining postsecondary degrees or certificates. Courses articulated with postsecondary institutions may provide the content and rigor of college courses. In Connecticut, these may include Advanced Placement (AP), International Baccalaureate (IB), UConn Early College Experience (ECE), College Career Pathways, and High School Partnership courses.

No data are readily available for participation in dual credit courses, except for AP.

Advanced Placement Participation

<table>
<thead>
<tr>
<th></th>
<th>National</th>
<th>Connecticut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of Seniors who took an AP exam in high school</td>
<td>28.3%</td>
<td>32.2%</td>
</tr>
<tr>
<td>Percentage of Seniors who scored 3+ on an AP exam in high school</td>
<td>16.9%</td>
<td>23.2%</td>
</tr>
</tbody>
</table>
SAT Exam Scores

The Scholastic Aptitude Test (SAT) is intended to assess a student’s readiness for college. Colleges and universities use scores for admission and scholarship purposes. Some also use SAT scores to place students in developmental or remedial education courses.

Connecticut Students Taking SAT Exams\textsuperscript{16}

Connecticut Average SAT Scores\textsuperscript{17}

Conversation point:
Colleges often use SAT scores as a way to place students into remedial or developmental courses. Connecticut community colleges and the Connecticut state universities use a math cutoff score of 550. Community colleges use an English cutoff score of 450, though this number varies for state universities.

\textsuperscript{17} Connecticut State Department of Education. (2010). Bureau of Research, Evaluation, and Assessment.
High School and College Course Indicators

Guiding Questions:

- Are students maintaining a rigorous course load throughout high school?

- What proportion of students are taking the classes needed for college admission and are percentages different among subgroups of students?

- How do high school grades in core academic courses compare to first-year college grades in subsequent courses?
## Course Taking Patterns

A rigorous course load, including the senior year, helps prepare students for the demands of college and career preparation. Additionally, most colleges have curricular requirements for admission.

### The Connecticut Plan Recommended Course and Credit Requirements--Total 25 Credits

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Courses</th>
<th>Total Credits Required</th>
</tr>
</thead>
</table>
| Science, Technology, Engineering and Mathematics (STEM) | Math--4 Credits (Algebra I, Geometry, Algebra II or Statistics & Probability, other mathematics)  
Science--3 Credits (Biological/Life Science, Chemistry/Physical Science, other science)  
STEM Elective--1 Credit (Science, Mathematics, Engineering, or Technology) | 8                      |
| Humanities                                   | English--4 Credits (English I, English II, Literature and Composition--American, World, or British Literature, or other English course or courses)  
Social Studies—3 Credits (American History, International/World Studies, ½ Credit Civics, ½ Credit Social Studies Elective)  
Fine Arts—1 Credit (Art, Music, Theatre, Dance)  
Humanities Elective—1 Credit (English, Social Science, Fine Arts, or other Humanities courses) | 11                     |
| Career and Life Skills                      | Comprehensive Health Education—1/2 Credit  
Physical Education—1 Credit  
Career & Life Skills Electives—2 Credits (Career and Technical Education, World Languages, English as a Second Language, community service; or other career & life skills courses such as Personal Finance, Public Speaking, and Nutrition & Physical Activity) | 3.5                    |
| Open Electives                              |                                                                         | 1.5                    |
| Capstone Experience*                        |                                                                         | 1                      |

* For more information about the Capstone Experience, see page 41.

### Conversation point:

In 2010, the state legislature passed secondary school reform that included more rigorous graduation requirements. However, these requirements have not taken effect in the majority of Connecticut high schools, and in 2011, the state legislature allowed implementation to be delayed two years and begin with the graduating class of 2020. The Connecticut State Department of Education recommends the above course requirements, including culminating examinations in five required courses and capstone projects for every student.

Are there partnership opportunities that can begin to address these recommendations now?

---

Grade Comparison

Exploring the differences in high school course grades with entry-level college course grades is another indicator of alignment, particularly for exploring student preparation and faculty expectations of student performance.

Exit-level Grades:

High school GPAs and exit-level grades are an indicator used by colleges for admission. Better grades will offer more postsecondary opportunities for students.

Entry-level College Grades:

Ideally, exit-level high school grades and entry-level college grades should remain fairly consistent. A drop in grades between high school and college indicates a gap in college readiness and a misalignment of expectations.

College Performance Indicators

Guiding Questions:

- How do local district data compare to the state in terms of college enrollment, retention and completion?

- What percent of students place into remedial-level courses or show other indicators of not being college ready?

- Is the rate of placement into remedial-level courses different across subgroups of students?

Conversation Point:
What are the typical reasons students place into remedial or developmental courses?
College Enrollment, Retention, and Completion

The scaled figure below displays the different routes taken by graduates from high school from the fall immediately following graduation in 2004 to six years later, August 31, 2010. This six-year timeframe for measuring graduation rates was selected because it is parallel to the timeframe used by the National Center for Educational Statistics to measure cohort-based graduation rates for baccalaureate programs. These data, however, depict the completion of students’ first credential earned, whether an undergraduate certificate, associate’s degree, or bachelor’s degree. Policy or programmatic changes made in high school since 2004 may affect student outcomes in subsequent years.

High School Graduates
Class of 2004
(35,671 students)

Enrollments First Fall After Graduation***

<table>
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<tr>
<th></th>
<th>In Connecticut</th>
<th>Out of State</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Public</td>
<td>Private</td>
</tr>
<tr>
<td>CT</td>
<td>2 yr</td>
<td>4 yr</td>
</tr>
<tr>
<td></td>
<td>13%</td>
<td>17%</td>
</tr>
</tbody>
</table>

Completions in 6 Years (Percent in high school graduating class)***

<table>
<thead>
<tr>
<th></th>
<th>In Connecticut</th>
<th>Out of State</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Public</td>
<td>Private</td>
</tr>
<tr>
<td>CT</td>
<td>2 yr</td>
<td>4 yr</td>
</tr>
<tr>
<td></td>
<td>4%</td>
<td>13%</td>
</tr>
</tbody>
</table>

The National Student Clearinghouse (NSC) database includes 93% of all postsecondary institutions and does not include non-degree granting institutions. Data from the NSC were matched to a data file of seniors who were enrolled in January of 2004 from the Connecticut Department of Education. Percentages may not total 100% due to rounding.

* Students who enrolled but did not complete a credential may have dropped out of higher education or they may still be enrolled.

** There was no match for these students in NSC’s file. Students may have entered into the workforce or military, or in some limited instances, postsecondary institutions not covered by the NSC.

*** All percentages are calculated using the number of high school seniors enrolled in January of 2004.

Students who need to take even one developmental or remedial course are less likely to earn a degree than their counterparts who do not need remediation.

Note: These data show the percentage of Connecticut Community College students who were recommended for developmental coursework. The recommendation for developmental coursework is determined primarily by the students’ scores on the Accuplacer Placement Exam.

Figures represent only those students who attended a Connecticut Community College or State University immediately following graduation from high school in spring 2010. No students attending a private high school or a high school out of state are included.

Defining Remedial & Developmental:
In the Community Colleges, “developmental” is used to describe courses that carry no college credit and are designed to improve students’ basic skills so that they can be successful in courses that carry college credit.

In the state universities, “remedial” courses carry no college credit and are designed to improve students’ basic skills. “Developmental” courses carry college credit only as elective courses; they do not count toward general education in any major and serve as prerequisites that students must complete prior to starting general education requirements in math or English. Students in remedial courses have a higher degree of need for skill improvement than do students in developmental courses.

Connecticut Community Colleges
Developmental Education Placement

Figures represent only those students who attended a Connecticut Community College or State University immediately following graduation from high school in spring 2010. No students attending a private high school or a high school out of state are included.

Connecticut State Universities
Remedial and Developmental Education Enrollment


Career Indicators

Guiding Questions:

- Which sectors of the Connecticut economy are growing?

- Are students aware of workforce opportunities or career pathways in Connecticut that are consistent with their skills and interests?

- Does my institution collaborate with public and private sector employers to increase student awareness of career pathways and opportunities?
Employment by Education Level

On average, people with college degrees are employed at higher rates than those without.

Median Income by Education Level

In general, people with college degrees earn higher wages than those without.

---

### Top 5 Occupations with the Most Number of Projected Annual Openings in CT by Level of Educational Attainment

<table>
<thead>
<tr>
<th>Level of Educational Attainment</th>
<th>Annual number of openings</th>
<th>Entry-level annual salary</th>
<th>Median annual salary</th>
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<tbody>
<tr>
<td><strong>Master's, Doctorate or Professional Degree</strong></td>
<td></td>
<td></td>
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<tr>
<td>Elementary School Teachers, Except Special Education</td>
<td>691</td>
<td>$47,548</td>
<td>$67,920</td>
</tr>
<tr>
<td>Secondary School Teachers, Except Special and Vocational Education</td>
<td>562</td>
<td>$45,493</td>
<td>$67,110</td>
</tr>
<tr>
<td>Middle School Teachers, Except Special and Vocational Education</td>
<td>393</td>
<td>$49,026</td>
<td>$68,639</td>
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<tr>
<td>Lawyers</td>
<td>186</td>
<td>$67,890</td>
<td>$115,934</td>
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<td>Special Education Teachers, Preschool, Kindergarten, and Elementary School</td>
<td>127</td>
<td>$49,573</td>
<td>$69,824</td>
</tr>
<tr>
<td><strong>Bachelor's Degree</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Registered Nurses</td>
<td>1174</td>
<td>$56,013</td>
<td>$71,889</td>
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<tr>
<td>General and Operations Managers</td>
<td>902</td>
<td>$60,833</td>
<td>$113,192</td>
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<tr>
<td>Accountants and Auditors</td>
<td>485</td>
<td>$46,224</td>
<td>$66,131</td>
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<tr>
<td>Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products</td>
<td>437</td>
<td>$37,733</td>
<td>$62,768</td>
</tr>
<tr>
<td>Computer Software Engineers, Applications</td>
<td>300</td>
<td>$64,963</td>
<td>$87,310</td>
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<tr>
<td><strong>Associate's Degree</strong></td>
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<td></td>
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<tr>
<td>Dental Hygienists</td>
<td>118</td>
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<td>Radiologic Technologists and Technicians</td>
<td>83</td>
<td>$46,981</td>
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<td>Mechanical Drafters</td>
<td>45</td>
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<td>$57,390</td>
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<td>Respiratory Therapists</td>
<td>40</td>
<td>$52,995</td>
<td>$62,463</td>
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<tr>
<td>Diagnostic Medical Sonographers</td>
<td>30</td>
<td>$55,061</td>
<td>$75,332</td>
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<td><strong>Some College</strong></td>
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<td>Customer Service Representatives</td>
<td>1237</td>
<td>$25,713</td>
<td>$36,800</td>
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<td>First-Line Supervisors/Managers of Office and Administrative Support Workers</td>
<td>621</td>
<td>$37,439</td>
<td>$51,881</td>
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<tr>
<td>Secretaries, Except Legal, Medical, and Executive</td>
<td>382</td>
<td>$26,544</td>
<td>$37,074</td>
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<tr>
<td>Executive Secretaries and Administrative Assistants</td>
<td>370</td>
<td>$34,672</td>
<td>$49,236</td>
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<tr>
<td>Bookkeeping, Accounting, and Auditing Clerks</td>
<td>343</td>
<td>$27,750</td>
<td>$39,375</td>
</tr>
<tr>
<td><strong>High School Diploma</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Cashiers</td>
<td>1947</td>
<td>$18,474</td>
<td>$19,723</td>
</tr>
<tr>
<td>Retail Salespersons</td>
<td>1784</td>
<td>$18,567</td>
<td>$22,632</td>
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<tr>
<td>Waiters and Waitresses</td>
<td>1639</td>
<td>$17,260</td>
<td>$19,287</td>
</tr>
<tr>
<td>Teacher Assistants</td>
<td>829</td>
<td>$20,605</td>
<td>$27,571</td>
</tr>
<tr>
<td>Counter Attendants, Cafeteria, Food Concession, and Coffee Shop</td>
<td>795</td>
<td>$18,476</td>
<td>$19,358</td>
</tr>
</tbody>
</table>

---

Where Connecticut Jobs Will Be in 2018, By Occupation and Education Level (in thousands of jobs)

<table>
<thead>
<tr>
<th>OCCUPATIONS</th>
<th>High School Dropouts</th>
<th>High School Graduates</th>
<th>Some College</th>
<th>Associate's Degree</th>
<th>Bachelor's Degree</th>
<th>Graduate Degree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managerial and Professional Office</td>
<td>Management</td>
<td>2</td>
<td>18</td>
<td>19</td>
<td>9</td>
<td>48</td>
<td>129</td>
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<td></td>
<td>Business operations specialty</td>
<td>1</td>
<td>7</td>
<td>9</td>
<td>5</td>
<td>20</td>
<td>51</td>
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<tr>
<td></td>
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<td>28</td>
<td>54</td>
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<td></td>
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<td>1</td>
<td>1</td>
<td>2</td>
<td>16</td>
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*Zero does not necessarily mean zero jobs. Because jobs are rounded to the nearest thousand, zero means less than 500 jobs.

Techniques and Strategies: Align
One of the most challenging and yet powerful places to begin to improve the connections between high school and college is to align course content and student performance expectations. Tackling the fundamental disconnect between secondary and postsecondary systems requires rethinking relationships and assumptions about the content of courses and how the senior year of high school and entry-level college courses are connected.

“Rarely, if ever, do college instructional faculty and program designers sit down with or include their secondary peers in any consideration of the content and structure of entry-level college courses. College instructors rely largely on their own experiences with freshman as the reference point for the expectations that accompany their entry-level courses. None of this is communicated to high school educators in any systematic fashion.”

-Dr. David T. Conley from College and Career Ready

**Vertical alignment**
Vertical alignment refers to curriculum design that builds logically upon the performance expectation and content covered in each course and moves students along a college and career readiness trajectory.

**Horizontal alignment**
Horizontal alignment refers to curriculum design efforts to bring consistency to the performance expectation and content covered across similar course titles.
Guiding Questions

For secondary:
1. Does my school have a process in place to ensure that students taking the similarly-titled courses have the opportunity to learn equivalent content and skills?

2. Does my school have a process in place to ensure that the content standards students learn each successive year are increasingly challenging cognitively and not just new material?

3. Does my school have a process in place to ensure that the content students learn culminates at the college and career ready level?

4. Do teachers at my school share or compare classroom policies and grading expectations with each other?

For postsecondary:
1. Does my institution share information with high schools in our feeder pattern regarding the content and challenge level of entry-level courses?

2. Do faculty within my institution share or compare classroom policies and grading expectations with each other?

3. Does my institution share information with high schools in our feeder pattern regarding classroom policies and grading expectations in entry-level courses?
Tools and Strategies for Increasing Alignment

One of the most useful tools available to schools addressing alignment issues is the course syllabus. When properly developed and maintained, a syllabus communicates to students, families, administrators, and other teachers course information that can be used to improve both horizontal and vertical alignment of content knowledge and student expectations.

One way to do this is to use a common format, which makes the process of comparing syllabi and mapping course content to college and career readiness standards significantly easier. A common format should include the following features:

- assessments planned for each unit and their weight relative to course grade
- classroom policies
- course objectives
- course schedule
- grading policies
- homework and assignments assigned for each unit and its weight relative to course grade
- prerequisite knowledge and skills necessary for success
- required texts
- standards covered in each unit
- teaching methods employed
- unit descriptions broken down by topic

For many high schools, a feasible place to begin is asking teachers to work independently to develop more robust and detailed syllabi using a common format, and then use these syllabi to calibrate expectations within the school and, eventually, with postsecondary institutions.

Horizontal Alignment
To align courses to college and career readiness, course developers must work in relation to a common set of standards and expectations. The adoption of the Common Core State Standards provides an excellent opportunity for schools to begin using syllabi to document which standards are addressed within a course and to detail how and at what level they are being taught.

Ultimately all syllabi for existing courses can be analyzed and commonalities among the courses can be synthesized into a “master” syllabus that is explicitly aligned to a college and career ready trajectory. Developers can then identify student work and other support artifacts that illustrate what college and career readiness looks like in practice. Once this process is complete, teachers and instructors can align their courses with the master syllabus while still having the flexibility to maintain individual preferences. The result is more transparent course development and an established system that allows for ongoing review and improvement.\textsuperscript{vi}

Another way to use syllabi is for secondary school faculty and entry-level college faculty to work together in its development. This allows for greater insight by high school faculty into the content, pacing, rigor, and expectations of higher education faculty, and allowing higher education faculty insight into the realities and challenges at the secondary level. If available, accompanying documents such as student work samples and grading rubrics help illustrate the contents of postsecondary syllabi.
Creative Writing Syllabus

**Required Supplies:**
Please bring the following items with you EVERYDAY
1. pen / pencil
2. journal
3. book

**Grading Policy:**
Grades will be based on 70% writing portfolio and 30% free write journal/participation

Late Work: ALL LATE WORK will receive an immediate 30 point deduction.
No Late work will be accepted after the 3rd class from the time when it was due.
Absent work that is not turned in within time allowed for absenteeism will be treated as late work.

Absenteeism Work: If you are absent it is your responsibility to obtain all work from the teacher. Please see me before, after, or during passing periods to obtain missed assignments. All absent work is due no later than the number of days you missed plus 1.

Quality of Work: You will be required and expected to turn work in that is of a high quality and neat in appearance. This includes clean paper, legible writing, a full title, and a heading on EVERYTHING turned in. Any work submitted that is not neat and/or does not include a title and heading will be deducted 10 points.

A — 94-100 points
B — 85-93 points
C — 75-84 points
D — 65-74 points
F — 0-64 points

**Writing Portfolio:** Every student is required to create and keep a writing portfolio using original work from each unit, which demonstrates your growth as a creative writer. Each piece will also include a self- and peer-evaluation.

**Behavior and Discipline**
All school rules outlined in the handbook will be strictly followed and enforced. In addition to this you will be held accountable for coming to class prepared with your required supplies (pen, book, journal). You may feel free to use supplies provided to you on the student resource desk. No food or drink is allowed in the classroom. A seating chart will be provided and will be enforced at all times. Off-topic chatter or speaking while someone else has the floor will not be tolerated. Students are expected to always be respectful towards others and their writing.

**Class Schedule:**
*Sept 7-18*  Ch. 1-2: Beginning Points of Inspiration; Voice, Tone and Style
*Sept 21-Oct 9*  Ch. 3-6: Perspective and Point of View; Detail, Image and Symbol; Figurative Language; Diction
*Oct 12-Nov 6*  Ch. 7-10: Setting; Plot and Tension, Rhythm, Character and Speaker
*Nov 9-20*  Ch. 11-13: Dialogue, Conversations Between Texts, Revision (short essay)
*Nov 23-Dec 18*  Ch. 14-16: Nonfiction, Fiction, Poetry (short essay)

---

**Example Syllabus A**
This syllabus conveys basic information but is short on the type of detail and content that would make expectations transparent.

**Example Syllabus B**
This example syllabus clearly communicates expectations to students and contains enough detail to be used effectively in both vertical and horizontal alignment efforts.

---

For an example of how states are working to align syllabi, please visit [https://epiconline.org/maine](https://epiconline.org/maine).

The Maine Course Pathways project is a joint effort between the Maine Department of Education and EPIC to help schools validate curriculum and its alignment to state standards, and now the Common Core State Standards. To accomplish this goal, teachers use the SyllabusMaker software to create and submit course syllabi. Once submitted, trained experts from each content area review syllabi for evidence of standards and performance indicators identified by the teacher. A subsequent pathways analysis can then determine if a given combination of courses provides the opportunity for students to learn all the standards. Through this process, schools are better able to identify gaps in standards coverage.
2. College and Career Readiness Assignments

College and Career Readiness Assignments represent an exit-level alignment strategy, and one similar to a type of assignment many schools already require: culminating or capstone projects. These types of rich, performance-based tasks require students to demonstrate independence, organization, and persistence as well as engage content knowledge at a more sophisticated level than typical homework assignments. When aligned to college and career readiness standards and expectations, these assignments can both assess and reinforce the knowledge and skills necessary to succeed in college and careers. Below are important features of college and career readiness assignments.

Assignments are explicitly mapped to college and career readiness standards.

By tying student performance to an agreed-upon set of criteria, college readiness assignments help to support alignment efforts, inform student self-assessment, and build a culture of college-going and postsecondary success.

Work products reflect the type of work students would be expected to complete in college and careers.

This means that students are expected to engage Key Cognitive Strategies, work independently, synthesize information, and communicate ideas effectively.

Work products are scored according to grading criteria aligned to the criteria the student will face in college and careers.

The work must be original, complete, organized, well-documented, sufficiently challenging, relatively free of errors, and appropriate to the discipline and career area. Students not performing at the college and career ready level will have an opportunity to receive this feedback in a scaffolded environment while they still have time to address and practice necessary skills.

The more college and career readiness assignments student have the opportunity to complete during their secondary careers, the more opportunities they have to practice skills they will need to succeed in college and careers.

Connecticut’s Capstone Projects:

The capstone experience is a culminating activity that provides a way for students to demonstrate the knowledge and skills they acquired during their secondary school years of education. It engages students in a project/experience that focuses on an interest, career path or academic pursuit that synthesizes classroom study and real world perspective. High school students are asked to demonstrate their ability to apply key knowledge and skills by planning, completing and presenting a culminating project linked to one or more areas of personal interest and the individual’s Student Success Plan.

The capstone experience may include an in-depth project, reflective portfolio, community service and/or internship. As part of the experience, the student will demonstrate research, communication and technology skills including additional relevant 21st century skills.

Work on the capstone projects may begin as early as 9th grade. Successful completion of the capstone project will earn the student one credit toward high school graduation.

For more information, please visit: http://www.sde.ct.gov/sde/cwp/view.asp?a=2702&Q=322264
3. Senior Seminars

The development of senior or “college ready” seminars is a curriculum-based strategy schools can use to better align their exit year to college and career readiness. These seminars are specially designed courses that seek to challenge students in ways that begin to approximate what they will face soon in college. Seminars emphasize deeper understandings of content knowledge previously taught and an emerging awareness of the structure of knowledge in core academic subject areas. By engaging Key Cognitive Strategies, students learn to think about central questions of the disciplines, to consider emerging explanations and theories, and to develop an awareness of how experts in a discipline think about knowledge and understanding.

Ideally, seminars are integrative in nature, helping students make connections among things they have learned and developing insight into why these things are important to know and understand. In the process, they become better at formulating and solving problems; considering multiple, competing and conflicting explanations of the same phenomenon; and accepting that not everything they have been taught to date will be forever and always true. This type of intellectual maturity helps students prepare for college learning environments.

The following are a set of suggested features that distinguish senior seminars from regular high school classes:

Faster pacing
Where students may be accustomed to reading two, or at most three pieces, of literature in an English course, a senior seminar may expect them to read eight to ten novels. This requires students to develop their self-management skills, including tracking and managing due dates and the attendant time management required to do so.

Fewer, more substantial assignments

Seminars should rely much less on daily homework assignments that are collected and graded by teachers. Students are expected to complete homework, but the homework largely relates to the larger assignments, and it is not checked because the effect of not doing the homework is clear when the assignment is turned in. Students need to manage their time to complete assigned tasks by deadlines.

Required editing and redrafting

Students may be expected to complete essays at three-week intervals. Producing quality products on such a regular timeline requires almost continuous drafting and editing.
Independent research requirement

Seminars should require research and analysis papers that approximate the types of assignments given in entry-level college classes. This means they cannot be completed through expressive writing, nor can students simply make claims that are not supported or documented. Success requires well-developed research skills, including the ability to locate a range of relevant sources, to make determinations about the credibility and relevance of sources, to know how and when to cite, to paraphrase, and to quote.

Grading criteria tied to college readiness skills

This includes no extra credit, no allowances for late work, and strict penalties for plagiarism of any type.

Third-party evaluation of student work

Bringing a critical perspective from outside the school provides a scale against which student work can be judged in ways that match more closely with how their work would be evaluated in college. Ideally, the person providing the evaluation is a college-level instructor or someone with previous experience teaching entry-level college courses. However, other subject matter experts from the community can also serve in this role.

4. Paired Courses

Paired Courses consist of exit-level high school and entry-level college courses co-developed with an emphasis on continuity and coordination in grading practices and content coverage. This model is based on partnerships between a high school (or group of high schools) and one or more postsecondary institutions. Teams of secondary and postsecondary developers work together to develop course outlines and syllabi that align in specific areas such as: topics covered, prior student knowledge and skill, assignment types, grading criteria, workload, and materials. The teams pay close attention to ensure that the high school course reaches a pace at which the college course can begin so students won’t be overwhelmed by more rapid content coverage. Instructional methods used more frequently at the college level are introduced in the exit level course. Other critical elements include the development of student knowledge of how to interact with a college professor and self-manage foreseeable challenges.
Designing paired courses is a rewarding and time-consuming process; most efficiently, such courses are developed at a system level for local adaptation. However, this is a powerful alignment strategy that can be undertaken at the local level within an established secondary and postsecondary partnership with coordinated and effective leadership. The following is a list of suggested steps for developing paired courses at a system level:

1. High school and college faculty share syllabi and course documents. Participating faculty conduct a self-evaluation indicating college and career readiness standards taught and expected in their entry-level college courses and exit-level high school courses.

2. Faculty raters view submitted documents, rate the presence or absence of college readiness standards within each curriculum document, and determine where the alignment exists or is absent.

3. Results are integrated into a detailed discrepancy report containing an analysis of redundancies and gaps in the curriculum as measured by the degree of alignment with the college and career readiness standards.

4. Design committees are established to guide pilot course development. Participating schools identify faculty and administrators to serve as members of aligned course design teams. Concurrently, high school and college pilot sites are identified.

5. Faculty pilot paired courses in secondary and public institutions of higher education. High schools and colleges not actively participating in initial development can remain informed with the goal of participating eventually after the pilot is concluded.

6. Moderation panels are developed to provide feedback to the course design teams, identifying any areas of concern regarding consistency and accuracy of college and career readiness preparation as presented by the developed course materials. The result of the moderation panel efforts will be a final set of exemplar documents for the paired courses, identifying benchmark documents for meeting college and career readiness expectations for statewide dissemination.

To watch a video on one example of course alignment, please visit https://www.epiconline.org/south_carolina/?q=south_carolina
Techniques and Strategies:
Partner
Guiding Questions

For secondary:

1. What local colleges do the largest number of students from my school typically attend?

2. What relationships has my school already established with these institutions?

3. What information do I wish I had about my students’ performances in postsecondary settings?

For postsecondary:

1. Which local high schools typically send students to my institution?

2. What relationships has my institution already established with these schools?

3. In which specific knowledge and skill areas do I see entry-level students at my institution consistently struggle?
Partnership Planning Overview

Throughout the previous sections, you have seen examples of diagnostic and alignment strategies that rely on secondary-postsecondary partnerships. These partnerships benefit instructors at both levels, and, mostly importantly, they benefit students by creating a deeper understanding of what each institution expects and how each is gauging academic performance. As expectations become more aligned, the more students will meet success in postsecondary.

The key question facing educators who want to partner is “where do we start?”

1. FIND A POINT OF CONTACT. Educators at both the secondary and postsecondary levels have initiated successful partnerships. A good point of contact might be the head of a particular department at a college or the dean of curriculum and instruction at a high school.

2. START SMALL. Initial partnership activities might start with small events that are relatively easy to organize such as:
   - Joint scoring sessions
   - Quarterly breakfast/dinner meetings
   - Classroom visits and tours
   - Data sharing

While these do not take the place of comprehensive action planning, they can provide a forum for partners to establish relationships and begin to assess priorities.

3. ESTABLISH LEADERSHIP. Successful partnerships and connections must lead to more substantive and deeper relationships. These can be difficult to establish; due to the historical separation between secondary and postsecondary, there can be a tendency for participants to point fingers about lack of student readiness. A skilled college and career readiness partnership leader (or leadership team) can help navigate these conversations and move beyond them to focus productively on the priorities and experiences educators have in common.

The following templates are designed to assist in the process of comprehensive action planning. These steps can be used to conduct and document action planning at any scale.

4. ENGAGE IN COMPREHENSIVE ACTION PLANNING

**Analyze:** Review state and district level data to determine areas in need of improvement, and to establish a baseline to measure improvement.

**Prioritize:** Select and prioritize college and career readiness goals in your area.

**Map:** Identify potential partnership activities to address your goals. Map these activities to the four dimension of college and career readiness. Doing so will allow you to create an action plan that reflects a comprehensive and evidence-based approach to improving college readiness.

**Plan:** After mapping your list of partnership activities, complete the Plan worksheet, which asks you to look in details at the dynamics and resources surrounding each activity. Add a timeline for each next step and be sure to collect the contact information for each team member.
Planning Steps
Maximizing Partnerships for the Future

1. Analyze.
   Review state and district level data to determine areas in need of improvement, and to establish a baseline to measure improvement.

2. Prioritize.
   Select and prioritize college and career readiness goals. Take into consideration the most pressing needs in your region or institutional cluster.

   Identify potential partnership activities to address your goals. Map these activities to the Four Keys to College and Career Readiness. Doing so will allow you to create an action plan that reflects a comprehensive and evidence-based approach to improving college and career readiness.

4. Plan.
   After mapping your list of partnership activities, complete the Plan worksheet. Add a timeline for each next step and be sure to collect the contact information for each team member.
Analyze.

Review state and district level data to determine areas in need of improvement, and to establish a baseline to measure improvement.

Prioritize.

Prioritize the college and career readiness goals that are most pressing in your region.

Example: Increase the number of students placing into credit-bearing general education courses.
Map.
Identify new or existing partnership activities to address your goals. Map them to the Four Keys to College and Career Readiness in the table below.

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<th>Key Content Knowledge</th>
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<td>Example: CollegeCareerReady™ School Diagnostic</td>
<td>Example: Compare syllabi</td>
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<th>Key Learning Skills and Techniques</th>
<th>Key Transition Knowledge and Skills</th>
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<td>Example: Monitor student use of day planners</td>
<td>Example: Invite high school alumni to speak to current students about college experiences</td>
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## Comprehensive Partnership Plan

<table>
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<th>Goals/Evidence of Success</th>
<th>Available Resources</th>
<th>Barriers/Resources Needed</th>
<th>Next Steps/Who’s Responsible</th>
<th>Timeline</th>
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## Contacts

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Partnerships in Action: Manchester Community College, Machachester High School, and East Hartford High School

The State of Connecticut Board of Regents for Higher Education, Manchester Community College and its two largest feeder schools, Manchester High School (MHS) and East Hartford High School (EHHS) have partnered to improve college readiness of MHS and EHHS graduates. Funded by a College Access Challenge Grant, the project is aimed at: (1) aligning MHS and EHHS curricula and assessments with Common Core and college-ready standards (2) increasing college readiness of MHS and EHHS graduates in math, English, and college attitudes and behaviors, and (3) creating a sustainable model of high school-college collaboration that can be replicated at other community colleges in the state.

With administrative support, department chairs, teacher leaders, and guidance/career leaders from each of the high schools were selected to work with college faculty and staff. The consortium met several times as a large group and more frequently in discipline-specific groups to develop a 9th grade curriculum to address the knowledge, skills, and behaviors students should possess to be college and career ready; and 12th grade math and English curricula to address deficiencies that would most likely result in students placing into a remedial course at college immediately following graduation from high school. Each group developed a proposal for a scalable and sustainable pilot program for the 2011-2012 school year as well as a program assessment plan.

In English, each participating school identified reading and writing assignments designed to mirror the reading and writing expectations of top tier developmental English (English 093) at the state’s community colleges while meeting the requirements of the new Common Core State Standards. Department chairs, teacher leaders and college faculty developed common outcomes and assessment tools and will meet throughout the year to standardize their interpretation and use of the rubrics for writing assignments. Pre- and post-assessments of students will be collected using a common writing assignment and the Accuplacer exam.

In math, both participating schools have adopted the curricula and strategies used at the community college for teaching developmental math and facilitated by use of the ALEKS software program to provide interventions tailored for each student’s needs. EHHS is piloting a new year-long Integrated Math course which is offered to 12th grade students. MHS will incorporate the program into courses that are currently serving juniors and seniors that are mid-level or under-performing students. Pre- and post-assessments will be conducted with embedded assessments in ALEKS as well as the Accuplacer exam.

The basis of the school counseling/career component of the grant is to pilot a college and career ready curriculum, CollegeEd ® and the supporting program elements in the 2011/2012 school year with ninth grade students. Instruments used in evaluation will be student assessments and student, teacher, and counselor surveys.

For more information, please contact: the Educational Partnerships Center at 860-512-2900 or email engage@mcc.commnet.edu.

http://www.mcc.commnet.edu/engage/educational-partnership.php
In 2004-2005, Western Connecticut State University partnered with two local high schools (Danbury and Bethel) to launch the “Building a Bridge to Improve Student Success” project. The goals were simple: decrease the number of students needing remediation in college by (a) providing high school students with a clearer idea of college expectations, and (b) building relationships between the Writing and Mathematics faculty in the university and high schools so that good communication regarding standards and expectations could occur.

To achieve the goals of improved college readiness for all youth, the project developed a recurring three-phase strategy. In the first phase, high school juniors take WCSU’s placement exams in Writing and Mathematics and learn where they would place if they were to attend WCSU that semester. This information helps the juniors to (a) get a better sense of their current skills in terms of college-readiness and (b) to make decisions about which courses in Mathematics and Writing to take during their senior years to address any deficiencies or to build upon strengths that would allow them to begin taking courses in their first semester of college that fulfill the General Education requirement. During the second phase, university and high school faculty meet in the summers to plan curricular changes for the high school students’ senior year with a focus on helping at-risk students become college-ready. The third phase of the project consists of retesting the high school students in the spring of their senior year to measure progress. Simultaneously, juniors are tested for the next cohort of students in the project.

The project is being highly successful in decreasing the need for remediation in Mathematics and Writing at the university and has become a model program throughout the State of Connecticut. In 2007-2008, the “Bridge” project expanded into the Sciences with the goal of encouraging more students to consider pursuing STEM careers and to better understand college expectations for Science majors.

In 2010, the project took its first steps toward expanding the program into middle schools in Danbury and Bethel. In April, it offered enrichment days for at-risk students in Danbury’s Rogers Park Middle School and will host Bethel Middle School students for enrichment days in November. In addition, it offered Camp College, a two-day program for at-risk students in Danbury Rogers Park Middle School and Bethel Middle School. During this event, approximately 45 students from Danbury’s Rogers Park Middle School STEM Academy and 100 students from Bethel enjoyed fun workshops in chemistry, biology, math, and writing, all led by WCSU faculty. They were also treated to a fascinating rocketry workshop presented by one of NASA’s education specialists. In order to get students excited about the idea of attending college, they let them eat in the WCSU cafeteria and gave them tours of the campus. WCSU students served as counselors and strong role models for the middle school students. The feedback from students, their parents and the middle school administration was overwhelmingly positive.

Other new middle school related efforts in 2010 involved hiring students from WCSU’s honors program to tutor Bethel Middle school students in Math and Writing. Also new is a Weather Center program for eighth graders in Danbury’s middle schools and Bethel Middle School. These students are working with WCSU’s meteorology majors at the university’s Weather Center to learn how to predict the weather and how to produce professional-quality videotaped weather forecasts.

For more information, please contact the Office of University Relations at (203) 837-8486 or e-mail bridgeprogram@wcsu.edu. http://www.wcsu.edu/bridges
The Carl D. Perkins Career and Technical Education Improvement Act (Perkins IV), signed into law August 2006, increased the focus on academic achievement of Career and Technical Education (CTE). With its reauthorization in 2010, schools receive grant money to fund the College Career Pathway (CCP) program, an articulated program between high schools and community colleges with the focus on equipping students with the knowledge and skills necessary for postsecondary education and high-skill, high-wage, high-demand career opportunities.

Connecticut’s College Career Pathways are organized around consortia consisting of a community college, local comprehensive high schools, regional vocational technical schools and business and industry. As partners in the consortia, business and industry plays a key role in providing work-based learning experiences for students and teachers on both the secondary and post secondary levels.

Each College Career Pathway program has a planned program of study that includes four components to include articulated courses in the areas of math, science, communications and a career pathway area of concentration. These courses must meet the college requirements and the state’s career and technical education program standards for the determined area of concentration.

The academic and career and technical education courses are given either college credit or are designed as prerequisites to ensure that students matriculate without a need for remediation. Students are enrolled in a complete and articulated program that will lead to their chosen career pathway.

Grants focus on improving CTE as well as providing in service professional development components for both teachers and guidance and career counselors at the high schools and colleges. Additionally, the development of articulated curricula involves secondary and post secondary academic and technical instructors has been a joint learning venture.

Through CCP programs, students gain academic and technical skills preparing them for employment and continuing education. They develop the competence and confidence to cope with a rapidly changing society and workplace. Students and their parents benefit by saving time and money in college programs. Time saved with College Career Pathways credits allow students to concentrate on a lighter load of classes, to take more advanced classes that will enhance their employability, or to work part time while pursuing their degree.

College Career Pathways also provide benefits across the community. High schools encourage students to graduate with clearer goals. Teachers and counselors witness higher morale, better attitudes, and improved student performance when students find satisfaction in and see the relevance of their high school classes to future plans. Participating Colleges receive prepared, focused students and spend less time and money on remedial courses. Finally, employers benefit by obtaining a better-educated worker as well as through the opportunity to provide input and influence curriculum in the schools.

For more information, please visit http://www.sde.ct.gov/sde/cwp/view.asp?a=2626&q=320802#pathways
District/Higher Education Partnerships

The following is a list of programs currently operating between school districts and higher education institutions in Connecticut. This is not a comprehensive list. The intent is to provide examples of partnerships and links for more information.

Concurrent Enrollment in Connecticut

1. UCONN Early Experience
   http://www.ece.uconn.edu/
2. Manchester Community College - Great Path Academy (GPA)
   http://www.mcc.commnet.edu/students/current/programsGPA.php
3. Capitol Community College, Capitol Preparatory Magnet School
   http://www.capitalprep.org/
4. Quinebaug Valley Community College (QVCC) and Eastern Connecticut State University (ESCU) – Quinebaug Valley Middle College High School (QVMCHS)
   http://www.eastconn.org/QVMCHS/index.htm
5. University of Hartford – University High School of Science and Technology
   http://www.choiceeducation.org/university-high-school-of-science-and-engineering-9-12
6. Connecticut Community Colleges Dual Enrollment Partnership Program
   http://www.commnet.edu/planning/research/DualEnrollment/DualEnrollmentv1.asp

Summer Transition Programs with Public Four-Year Universities

1. Central Connecticut State University (CCSU) Educational Opportunity Program (EOP)
   http://www.ccsu.edu/page.cfm?p=2062
2. Eastern Connecticut State University (ECSU) Summer Transition at Eastern Program/Contract Admission Program (STEP/CAP)
   http://www.easternct.edu/asc/stepcap/
3. Southern Connecticut State University (SCSU) Summer Educational Opportunity Program (SEOP)
   http://www.southernct.edu/SEOP/
4. Western Connecticut State University (WCSU) Educational Achievement and Access Program (EAP)
   http://www.wcsu.edu/pcaap/eap/program.asp
5. University of Connecticut (UCONN) Student Support Services (SSS)
   http://admissions.uconn.edu/programs/sss.php
   - Summer Transition Program for students with borderline academic records due to SAT falling slightly below minimum and/or noted weak academic GPA granted conditional acceptance
   - 5 week program
   - Provided tutoring and mentoring throughout college

Partnerships with Community Colleges in Connecticut

- **Asnuntuck** - Connections and College in Manufacturing Technologies offer two ways for earning college credit while in high school.
  www.acc.commnet.edu/ManufacturingTechnologyCenter/CollegeConnections.htm

- **Capital** - Met Life Academy, a year-long, tuition-free college preparatory program, offers student success and career exploration courses for college credit. A 6-week summer bridge program, Connecticut Access and Success, provides academic, transfer and financial aid counseling, and referral and mentoring services to students starting Capital in the fall.
  www.ccc.commnet.edu/conncas.htm
Partnerships with Community Colleges in Connecticut (continued)

- **Gateway** - Summer Transitions is for high school students preparing for college, and a Taste of College is available to seniors during the summer with 6 college credits awarded for completion. A College Corner, offered at three area high schools, provides developmental courses and placement testing. For more information, call Wendy Samberg at (203)285-2108 or Kristine DeForge at (203)285-2279.

- **Housatonic** - the Middle College High School offers math courses for college credit for Bridgeport High School students during their senior year at no cost. For more information, call the High School Outreach Coordinator, at (203)332-5066.
  
  - Housatonic's Bridges is a 4-course, college-preparatory series for local high school students and parents. Workshops focus on orientation to college, career planning, financial aid and college placement testing. Students who complete all four components are eligible for scholarships. For more information, call the Bridges Program Coordinator, at (203)332-5066.

- **Manchester** - Project Lead the Way is a summer credit program for high school students considering careers in manufacturing and engineering. Project Lead the Way is hosted by the College of Technology, a curriculum pathway available at all 12 community colleges that offers guaranteed admission to the University of Connecticut, Central Connecticut State University, and several independent universities upon completion of a community college associate degree program in engineering and technology. www.pltw.org/schoollist-new.asp?toSelect=CT

- **Middlesex** - Steps to Success is a free 20-hour course to help students prepare for college. For more information, contact Irod Lee at (860)343-5715 or ilee@mxcc.commnet.edu.
  
  - Middlesex's Bridge is an intensive, free 6-week college preparatory program held in Meriden which focuses on strengthening reading, English and study skills. For more information, contact Irod Lee at (860)343-5715 or ilee@mxcc.commnet.edu.

- **Norwalk** - the College Pathway Initiative allows students to create individual life success plans incorporating challenging high school courses, college-ready academic skills, college credit courses, intensive career exploration, service learning and financial aid coaching. CPI students who work extra hard can enter college with a full semester of college-level courses already completed. For more information, call Lisa Morgan at (203)857-6821, Carol Ball at (203)857-3308, or Gail Stevens at (203)857-7186.
  
  - Norwalk's HEIGHT (Help-Education-Industry-Gain-High-Technology) program enables Greenwich High School students taking courses in business technologies to earn up to 12 NCC credits. www.ncc.commnet.edu/default.asp?page=dept/business/BOTHheight.htm
  
  - Norwalk's ConnCAP is a 6-week summer program for freshmen and sophomores at Norwalk High School, Brien McMahon High School, J.M. Wright Technical High School and the Academy of Information Technology and Engineering. Students receive tutoring during the school year. www.ncc.commnet.edu/pdf/cpi.pdf

- **Quinebaug Valley** - Opportunity for Success provides eligible students aged 17-21 extra support in navigating the college process. For more information, contact Robert Kozlowski at (860)412-7224. www.qvctc.commnet.edu/catalog/cat_admission.asp

- **Three Rivers** - the Technical Learning Community offers recent high school graduates interested in engineering technology a 3-week summer program to strengthen their English and math skills before starting the fall semester. Project TLC offers math, English and technology credit courses. For more information, call Jodi Calvert, Project TLC Recruiter/Advisor, at (860)885-2611.
  
  - Three Rivers' Partnership with Grasso Technical High School and the Electric Boat Division of General Dynamics provides a pathway for students to earn a Three Rivers degree and transfer to Central Connecticut State University. For more information, call Anthony Benoit at (860)885-2386.
  
  - Three Rivers’ High Jump offers college credit to eligible high school seniors. For more information, contact Diba Khan-Bureau at (860)885-2383 or dkhan-bureau@trcc.commnet.edu; or Matt Liscum at (860)383-5240 or mliscum@trcc.commnet.edu.

- **Tunxis**- offers a year-long CNA course in collaboration with Bristol Hospital for students attending Bristol Eastern and Bristol Central High Schools. Students may earn a CNA license upon completion. For more information, call Cheryl Conaty at (860)255-3670.
Resources

Adolescent Literacy


AdLit is a national multimedia project that offers a wide breadth of resources for parents and educators of struggling readers in grades four through twelve. The site includes teaching strategies, graphic organizers, suggested reading lists, and research articles about a variety of topics related to adolescent literacy.


This document, developed by the Center on Instruction, provides recommendations for literacy instruction for students in grades four through twelve across content areas, particularly for those below reading grade level and English Language Learners. The report includes comments from experts about adolescent literacy and examples of effective methods being used in California, Florida, Rhode Island, and Washington.


Commissioned by the Carnegie Corporation of New York and published by the Alliance for Excellent Education, this report explores research-based techniques that can improve adolescent writing skills. The eleven techniques described include writing strategies, summarization, collaborative writing, specific product goals, word processing, sentence combining, prewriting, inquiry activities, process writing approach, study of models, and writing for content learning.


This report from the Carnegie Corporation and published by the Alliance for Excellent Education discusses the link between reading and writing and describes the utility of writing in the classroom to improve reading skills and content area learning. Recommendations for writing practices include having students respond in writing to what they read, teaching the writing process and skills, and increasing the amount students write.

Assessment


This book provides strategies and protocols for teachers and administrators who are engaging in a collaborative review process of student learning.

Proper use of formative assessments can provide teachers with the information they need to increase student achievement. This article describes the key aspects of formative assessments and the knowledge and skills teachers need to effectively integrate and implement those assessments in their classrooms.


A student’s attitudes, interests, and values can have a profound impact on his or her postsecondary life. This article describes the role of student affect in education and how teachers can assess and measure it.


This issue of Educational Leadership focuses on promoting students’ love of learning and resilience when confronted with challenges through meaningful work. Article topics include project-based learning, literature circles, peer-to-peer teaching, student internships, and empowerment through educational choices.


Though focused on mathematical tasks and their enactment, this book can foster insights in teachers of all subjects. Using the authors’ Mathematical Tasks Framework, drawn from research of nearly 500 lessons, readers learn to analyze the level of cognitive demand of a task as well as ways the cognitive demand may change as a result of the instructional decisions made.


This article highlights findings that suggest allowing students to struggle with challenging mathematical concepts can lead to increased motivation, engagement, and ultimately achievement as long as the students feel supported. Rutgers University researchers grouped students and had them explain the way they arrived at their answers, with other students critiquing their strategies. Teachers in low performing schools who applied Rutgers techniques saw increased math scores on state tests in addition to noticeable boosts in student confidence in math.

Career Readiness and Planning

Connecticut Department of Labor: Pathways to the World of Work for Young Adults. www.ctdol.state.ct.us/youth/assessment.htm

Pathways to the World of Work for Young Adults provides career self-assessment tools for students skills, values, and interests. The website includes information for career exploration, job training beyond high school, and tips for creating resumes, cover letters, job applications, and networking.


A comprehensive site providing links to self-assessment tools, occupational information, educational resources and job search services.

Major Resource Kits link academic majors to career alternatives by providing information on career paths, sample job titles, and a short bibliography of Career Resource Center materials available to students in a particular major.


The Bureau of Labor Statistics website provides information on career industries including occupations in the industry, training, earnings, expected job prospects and working conditions. Site also provides career exploration for students.

College Readiness and Planning

ACT®: College Planning. www.actstudent.org/college/index.html

ACT College Planning provides information and guidance on academic preparation, applying to colleges, choosing a college, and a year-by-year college planning checklist for high school students.

College Board. www.collegeboard.com

The College Board website provides links to information on the SAT test, Advanced Placement tests, a college search engine, and college planning information for students and their families.


KnowHow2GoConnecticut provides targeted information on the importance of college, how to get ready for college, how to find help, and interest exploration tips to middle school students and freshman, sophomore, junior, and seniors in high school.

NUMBER2.com. www.number2.com

This Website provides online test preparation courses for the SAT and ACT tests that include user-friendly tutorials, vocabulary building, and practices sessions adapted to each student’s ability level.

Common Application. www.commonapp.org

The Common Application provides a common, standardized college application form for more than 400 higher education institutions across the US including public and private, large and small, highly selective and modestly selective colleges.

Peterson’s. www.petersons.com

A Website with a comprehensive guide to college information including a college search, application tips, test preparation and scholarship information.


This Website gives overview of a range of state-funded projects that provide middle and high school students with a glimpse of college expectations and resources for college planning.

Outlines steps that students need to take in each grade for future success. Here you can explore careers, prepare for college (help with selecting a school and applying for admission), pay for college (financial aid), and manage your money (student loans and more).

Differentiation


This article describes five broad strategies for assessment that teachers use to support student learning and adapt instruction to meet diverse student needs. Strategies include clarifying and sharing learning intentions and criteria for success; engineering effective classroom discussions, questions, and learning tasks; providing feedback that moves learners forward; activating students as the owners of their own learning; and activating students as instructional resources for one another.


On this website, guides for specific types of difficulties and impairments describe assistive technology products and links to tutorials for accessibility features. An additional guide, specifically for educators, focuses on understanding how accessibility affects the classroom and how to choose technology solutions.


Research indicates that group work is a useful strategy for helping students reach complex academic goals, yet many teachers are reluctant to engage in this practice. In this book, case studies of 16 teachers describe the use of group work in their classrooms, detailing both the successes and failures. This book can serve as a professional development tool to help teachers build effective techniques for implementing group work in their classes.

English Learners


Response to Intervention (RTI) is a system designed to provide early assistance to children who are having difficulty making academic progress. This report outlines how RTI can be adapted and used as a strategy for teaching English learners, including assessment methods and instructional practices.


The author of this article contends that in order to succeed in school, English language learners (ELLs) need a strong grasp of the reading process. In the study, ELLs used three reading intervention strategies (T-charts, sticky notes, and keywords) to aid in understanding the reading process. T-charts helped students organize their thoughts and the use of sticky notes allowed them to actively engage with the text.
The authors of this article discuss key research on the vocabulary development of English learners (ELs) and the implications on classroom instruction. They offer six guidelines for vocabulary instruction of ELs, including consistent, well-articulated, and intensive vocabulary instruction throughout the grades; explicit instruction of relatively basic, highly frequent English vocabulary; a balance between instruction of basic and higher-level English vocabulary; teaching strategies for inferring word meaning; adding techniques such as adjusted delivery and the use of real objects, visual images, graphic organizers, and drama to enhance meaning; and weaving in vocabulary-oriented activities throughout the curriculum.


A resource particularly useful for English language learners (ELLs), WordSift helps students engage with vocabulary and academic language through interactive word maps. The maps show the relation of words to one another, allowing students to visualize and explore language more deeply. WordSift also offers an audio feature so students can hear the way the words sound in speech.

Financial Aid


Financial aid webpage describing state and federal programs for grants, scholarships, loans, and work study.


CHESLA is an alternative source of student loan funds for students in Connecticut.

Free Application for Federal Student Aid. www.fafsa.ed.gov

Federal Student Aid, an office of the U.S. Department of Education, ensures that all eligible individuals can benefit from federally funded financial assistance for education beyond high school.


FAFSA4caster is the U.S. Department of Education’s tool for students and parents to estimate a student’s eligibility for federal financial aid.


This website provides a link to a downloadable PDF that covers what you should consider when you’re planning on borrowing money to pay for your education; such as, what types of federal student loans are available, how much to borrow, the difference between private and federal student loans, and other helpful hints on how to manage your debt.

FastWeb: Paying for School Just Got Easier. www.fastweb.com

A searchable scholarship database with tips for applying and financial management tools.
New England Board of Higher Education.  www.nebhe.org/programs-overview/rsp-tuition-break/overview
Tuition savings for New England residents studying in other New England states.

College savings resources and calculators.

Key Cognitive Strategies


This book proposes seven learning principles for effective teaching based on research on how postsecondary students learn. For each principle, the book has a discussion of the research and suggested teaching strategies.


The articles in this issue of Educational Leadership offer varied perspectives about what it means to teach in intellectually challenging ways. Topics include disciplinary thinking, helping students tackle large questions, the importance of observation in thinking, and the need for frequent, deliberate practice in learning to think.


This book describes the Teaching for Understanding process developed by Harvard Project Zero. Classroom examples, practical tips, and worksheets help clarify the process. See specifically the strategies for improving student performance through continual feedback.


Based on more than 20 years of research into learning disciplines and how novices and experts learn, the DSRP method, described in this book as a new approach to teaching thinking skills, identifies four universal patterns that structure knowledge: making Distinctions between identity and other, organizing Systems into parts and wholes, recognizing Relationships of cause and effect, and taking Perspectives of point and view. Video case studies of a range of subjects and grades provide examples.


The Habits of Mind series was written to help students, adults, and organizations cultivate the habits of mind that will help them solve problems in schools and other areas of life.


In this book, the author argues for a view of intelligence that moves beyond knowledge and ability to focus on intellectual character—a set of cognitive dispositions that include open-mindedness, curiosity, metacognition, truth-seeking, strategic thinking, and skepticism. The author explores the foundations of intellectual character and describes how teachers can create classroom environments that support productive patterns of thinking in their students.
SpringBoard. http://professionals.collegeboard.com/k-12/prepare/springboard

The College Board’s SpringBoard program is a comprehensive instructional program in English/language arts and mathematics that reflects powerful research-based understanding about how people learn.

**Key Content Knowledge**

**Key Content Knowledge: General**


The ACT College Readiness Standards cover English, mathematics, reading, and science are designed for use with EXPLORE, PLAN, and ACT student test scores.


The American Diploma Project’s K-12 benchmarks articulate the skills students need to have acquired by the end of high school in order to succeed in college and careers.


These content standards are for middle school and high school English, math, and statistics, leading to preparation for Advanced Placement or college-level work.


These standards describe the best instructional practice and should be used in conjunction with state and local standards.

Texas College and Career Readiness Standards. http://www.thecb.state.tx.us/collegereadiness/TCRS.cfm

The College and Career Readiness Standards in English/language arts, mathematics, science, and social studies were developed by subject matter experts and are designed to prepare high school students for entry-level college course work.

**Key Content Knowledge: English/Language Arts**


In this book, the author describes the way reciprocal teaching can increase the reading comprehension of all students. The book offers scaffolded lessons, reproducible teaching materials, and reflection questions for professional development.
The Online Writing Lab (OWL) at Purdue University offers a range of writing and instructional material at no cost. This site provides general writing resources for the writing process, academic writing, mechanics, grammar, punctuation, and rhetorical devices as well as resources for subject specific writing. Additionally, teachers and tutors can find guides for developing writing curriculum.


TeacherVision is a collection of more than 20,000 resources for teachers, including lesson plans, quizzes, graphic organizers, games, and other printable materials. Users can search for resources by grade level, subject, or theme. TeacherVision is a subscription-based site but offers a free trial.

The Literacy Web. http://www.literacy.uconn.edu

Designed by the University of Connecticut, The Literacy Web is an online tool to assist teachers in literacy instruction. It links teachers to resources that support best practices and ideas for integrating literacy strategies in the classroom. The website also provides links to current literacy research and professional development resources.


This interactive online tool allows students to input a word and the Visual Thesaurus will create a visual wordmap. The tool aids understanding and encourages students to view and explore vocabulary in unique and novel ways.

Key Content Knowledge: Mathematics


The guidance on active learning techniques, student presentations, and classroom management in this award-winning book is ready to use and applicable to more than the teaching of linear relationships. Based on research of the adolescent brain, the practices described come to life in the authentic classroom experiences included.


A great resource for encouraging students to take risks and persevere as problem solvers, this book by two award-winning teachers lives up to their goal of taking students on a mathematical excursion that combines rigorous thought with “fun and games.” Students are introduced to the most important and interesting ideas in mathematics while grappling with problems and digesting a running commentary of encouragement and tips.


This suite of resources, designed for a wide audience, includes classroom episodes (in two CD-ROMs) and a monograph that illustrate the power of taking seriously the development of the practices of modeling, generalization, and justification in mathematics and science classes. The publication provides discussion questions, additional resources and extended clips of classroom instruction.

Core-Plus Mathematics is a four-year math curriculum from the National Science Foundation that features interwoven strands of math subjects and focuses on habits of mind and connections between subjects.


This short handout provides teacher questions to facilitate student work on rich tasks. Facets of problem solving addressed include figuring out a solution path, explaining a solution, asking questions when stuck, and reflecting to improve and extend solutions. Also briefly described are typical learning and writing stages and tips for responding to students’ reluctance to write out solutions.


Part of the website for Making Mathematics, a 10-year research project, the Teacher Handbook is a valuable resource for teachers using open-ended research projects with students. The website provides information on helping students during research and about what a research sequence might look like. Also provided are introductory explorations that highlight the stages of performing research and help students gradually build up their persistence.

Principles and Standards for School Mathematics http://www.nctm.org/standards/

The Principles and Standards were designed by a commission appointed by the National Council for Teachers of Mathematics to provide guidance for educational decision makers and describe the mathematical understanding, knowledge, and skills that students should acquire from prekindergarten through the twelfth grade.


Cognitively challenging tasks can be difficult to implement. In this highly useful book, the authors focus on mathematical tasks and their enactments, using cases of mathematics instruction drawn from their research of nearly 500 lessons. Using the authors’ Mathematical Tasks Framework, readers learn to analyze the level of cognitive demand of a task as well as ways the cognitive demand may change as a result of the instructional decisions made.

Key Content Knowledge: Science


This suite of resources, designed for a wide audience, includes a monograph and classroom episodes (in two CD-ROMs) that provide insight into the power of taking seriously the development of the practices of modeling, generalization, and justification in mathematics and science classes. The publication provides discussion questions, additional resources and extended clips of classroom instruction.

Following a format of reflecting on a presented teaching scenario and refining the teaching practice it to engage students more deeply as thinkers, this book looks at important facets of science classrooms— inquiry, big ideas, workshop, assessment, and culture—and engages teachers in exploring strategies for improving labs, demonstrations, lectures, discussion, reading, projects, activities, and fieldwork. Planning questions, models of implementation, and sample rubrics are provided.


These standards are designed to foster scientific inquiry and literacy in students and outline the knowledge and skills students should develop at each grade level.


This book makes recommendations for developing the essential skills and thought processes needed to be science literate. The section on habits of mind discusses values and attitudes, computation and estimation, manipulation and observation, communication skills, and critical-response skills.

Key Content Knowledge: Social Studies


This book addresses basic principles of learning and provides practical, research-based approaches that can be applied in history, science, and math classrooms at any level. Educators offer their expertise on developing successful curricula and employing effective teaching strategies.


ProCon.org is a 501(c)(3) nonprofit public charity that exists to provide resources for critical thinking and to educate without bias. Considered a resource that provides quality, sourced information, ProCon.org might be a reference tool for educators and students engaged in breaking down controversial issues.

Key Learning Skills and Techniques

Cornell Study Skills Resources. http://lsc.sas.cornell.edu/

Cornell’s Learning Strategies Center has several study skills resources available for download, including a template and directions for using the Cornell note-taking system. Also included are resources related to time management, reading and learning from lecture, studying and taking exams, and stress management.
Study Guides and Strategies. http://www.studygs.net/

A Website with extensive study skills resources, also available for copying, adaptation, and distribution in print format (in non-commercial settings).

Learning and Study Strategy Inventory (LASSI). http://www.hhpublishing.com/_assessments/LASSI/

An assessment to measure students’ awareness about and use of learning and study strategies related to skill, will, and self-regulation components of strategic learning.

Key Transitional Knowledge and Skills


These standards for school counseling programs encompass academic, career, and social goals for students.


A Website produced by the US Department of Education that provides high school students information about going to college, including why to go to college, how to select a school and apply, and how to pay for college.

KnowHow2Go. http://www.knowhow2goct.org/

A college planning Website provided by the American Council on Education and Lumina Foundation for Education for middle and high school students and mentors in Connecticut.


A searchable directory of college access programs for students, parents, counselors, and researchers.

Research


Intended for teachers working on their own or in teams, this document provides support for developing inquiry skills such as library search strategies, reflection on process, evaluating sources and information, and planning a presentation. Appendices offer useful handouts.


Part of the website for Making Mathematics, a 10-year research project, the Teacher Handbook is a valuable resource for teachers using open-ended research projects with students. The website gives information about helping students during research and about what a research sequence might look like. Also provided are introductory explorations that highlight the stages of performing research and help students gradually build up their persistence.
The Online Writing Lab (OWL) at Purdue University offers a range of writing and instructional material at no cost. In addition to writing resources, OWL provides research resources such as guides for conducting, synthesizing, and citing research.


Research 101, a tool from the University of Washington (but available to everyone), serves as an interactive, online tutorial for students who need to improve their researching skills. The tutorial covers topics such as how to select a topic, develop research questions, and search for, select, and evaluate information sources.

Technology


In this book, examples from educators in many countries accompany a wealth of information about proven strategies for using technology tools for inquiry, collaboration, and connection. The authors guide teachers through planning and implementing the integration of technology. The book includes a wealth of resources, many online.


This article examines the skills and abilities needed to interact with text on the Internet and argues that the Internet forces us to expand our understanding of reading comprehension by considering new aspects that are clearly related to traditional comprehension areas, but also require fundamentally new thought processes. The author considers implications of a broader definition of reading comprehension for instruction, assessment, and professional development.


This brief article poses four challenges students face as they use Internet technologies: searching for, navigating, critically evaluating, and synthesizing information. For each challenge, the author suggests an activity that models effective strategies to help students learn to use online texts meaningfully.


Kajder is a nationally recognized expert on technology and literacy. In this book, she offers practical tips for integrating digital tools into writing instruction and connecting students’ everyday reading and writing with the literacy practices required by classroom curricula. The author provides examples from extensive interviews and classroom experiences.


On this website, guides for specific types of difficulties and impairments describe assistive technology products and links to tutorials for accessibility features. An additional guide, specifically for educators, focuses on understanding how accessibility affects the classroom and how to choose technology solutions.
Other Resources

Advancement Via Individual Determination (AVID). http://www.avidonline.org/

AVID is a college readiness program currently offered in more than fifteen hundred middle and high schools. Research indicates that it can raise student achievement by creating a culture of high expectations and support for students to meet those expectations.


A comprehensive reform model from the Center for Social Organization of Schools targeted at large high schools. It outlines organizational and management changes, curricular and instructional innovations, and methods for enhancing parent and community involvement.


A college and career planning resource offering validated personality assessments and suggested careers and majors, tips for postsecondary success, and other resources for college and career planning.


Naviance specializes in K-12 educational resource products designed to support students in planning and preparing for graduation, college, and career. The Naviance suite includes test preparation, learning inventories, community surveys, and data management tools, among other applications.
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