

Pathway Certification Tool Worksheet: Curriculum and Instructions

To be successful, pathways must include high-quality curriculum and instruction for all students. Use this worksheet to examine the criteria and indicators of quality curriculum. Then record suggestions for the artifacts and measures that can be used to evaluate quality at your district and school site. An example is provided below.

Sample:

Element, Quality Criteria	Quality Indicators	Artifacts for Review	Measures of High Quality (What would "high quality" look like?)
<p>Engaged Learning 2.4 Instruction and Assessment</p> <p>Authentic assessment: To complement traditional or standardized student assessments, pathway teachers design assessments of student learning that include opportunities for students to demonstrate skills through authentic applications.</p>	<ul style="list-style-type: none"> • Teachers collaborate to design and conduct student assessments that are authentic (i.e., mirror the behavior of professionals) and address industry standards. • Assessments measure clear standards and performance goals and show levels of quality performance. • Industry professionals participate in the assessment process. • Students demonstrate their knowledge and skills by producing solutions to relevant and authentic problems. • Students may demonstrate learning through portfolios, exhibitions, displays, simulations, product development, and other projects. 	<ul style="list-style-type: none"> • Examples of authentic assessments used in the classroom. • Examples of student assessment products. • Evidence of industry professional and community involvement with assessment design and student evaluation. • Interviews with students about the assessment process. 	<ul style="list-style-type: none"> • All assessments measure clear standards and performance goals and show levels of quality performance. Students understand and can state the expected standards and goals to be met before the evaluation takes place. • When possible, assessments have multidisciplinary components to increase authenticity. • Each authentic assessment design includes input from at least one industry professional or outside community member to ensure relevance and authenticity. • The overall evaluation of students in each authentic assessment includes self-reflection and structured evaluations from peers, industry or community partners, and teachers. • During the course of the school year, students are given the opportunity to demonstrate their knowledge and skills through a variety of industry-appropriate methods of their choosing. These include oral, written, and other visual presentations; individual and team efforts; and computer and media-rich projects.

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<p>Engaged Learning 2.1 Academic Core</p> <p>2.1.1. Standards-aligned curriculum: The academic curriculum is aligned to state standards and designed to lead to student mastery on standardized tests as well as on more authentic assessment measures. (NCAC Criteria VII.a.)</p> <p>2.1.2. College-preparatory curriculum: A demanding pathway program of study prepares students for success—without remediation—in California's community colleges and universities, as well as in apprenticeships and other postsecondary programs. (NCAC Criteria VII.b.)</p>	<ul style="list-style-type: none"> • All pathway students are expected to master state standards and to demonstrate their mastery on standardized tests as well as through more authentic forms of assessment. • Curriculum is developmentally appropriate; inquiry-based; balances student-centered work with teacher-directed activities; and promotes authentic learning. • Academic pathway teachers promote the development of Habits of Mind/SCANS/21st-Century Skills by utilizing problem- and project-based instruction that requires students to demonstrate teamwork, communication skills, leadership, technology, resource management, project planning, etc. • Academic core curriculum prepares students for the full range of postsecondary options, without remediation. • By design, the pathway includes most, if not all, of the mathematics, science, English, social science, and foreign language courses that make students eligible for admission to the state's colleges and universities (a-g requirements). • Pathway students have access to advanced, honors, AP, IB, and other college-level courses. 		

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<p>2.1.3. Real-world relevance: Academic core courses deliver standards-based content through authentic, career-related applications.</p>	<ul style="list-style-type: none"> • Core academic teachers relate their content to the pathway's theme, when possible. • Teachers collaborate to develop multidisciplinary projects and lessons. • Pathway students can articulate the relationship between what they are learning in school and its application in the world outside of school. • Academic and technical curricula are integrated, in both directions, and course content is both rigorous and relevant. • In order to contextualize learning and engage students, content in all pathway courses reflects the pathway's theme. 		
<p>Engaged Learning 2.2 Technical Core</p> <p>2.2.1. Demanding technical component: A sequence or cluster of four or more technical courses delivers basic and advanced industry knowledge and skills. The focus is on preparing youth for high-skill, high-wage employment by emphasizing industry-related knowledge and skills, using authentic applications that bring learning to life.</p>	<ul style="list-style-type: none"> • The pathway includes at least one, but preferably several, well-developed sequences or clusters of four or more high-quality technical courses that provide students with options to pursue different strands or specializations within the pathway's theme/industry sector (e.g., a health pathway may offer medical professions, biotechnology, and mental health strands). • Students take at least one technical course each year. • Technical course sequences consist of foundation, intermediate, and advanced courses. • Advanced and capstone technical courses take advantage of ROP and/or community college course offerings and resources. • Technical course content has been developed in consultation with the pathway's industry advisory board. 		

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<p>2.2.2. Standards-aligned curriculum: A sequence or cluster of four or more technical courses is aligned to state CTE standards and/or industry standards. (NCAC Criteria VII.a.)</p> <p>2.2.3. Skill demonstration and certification: Pathway provides students with methods to demonstrate mastery of technical concepts, among them participation in CTE student organizations (e.g., FFA, DECA) and pursuit of industry or state certifications. (NCAC Criteria IX.c.)</p>	<ul style="list-style-type: none"> • Pathway teachers have aligned their curriculum with state CTE standards. • Where appropriate, technical courses meet UC "a-g" requirements. • Where applicable, technical course content meets industry and/or national standards. • Instructors of technical courses teach and/or reinforce core academic standards when those standards serve as basic knowledge for student mastery of CTE standards. • The pathway has, or seeks, national or state industry certification (e.g., NATEF), if available. • Pathway students have the opportunity to earn state or industry skills certification, if available. • Pathway hosts a local chapter of related national CTE student organization(s) and/or competition-based clubs and provides ample opportunity for students to participate fully. • When there is no national student organization associated to with the pathway theme, pathway staff and students may create their own site-based student organization(s). 		
<p>Engaged Learning 2.3 Integrated Curriculum</p> <p>2.3.1. Multidisciplinary integrated curriculum: Pathway students participate in multidisciplinary projects that integrate academic and technical course content.</p>	<ul style="list-style-type: none"> • Students participate in at least one well-designed, extended multidisciplinary, integrated project per semester. • Pathway teachers have a process in place by which they map standards and/or performance outcomes to design projects that intentionally address state academic and technical standards in multiple disciplines. • Students report that their coursework is both rigorous and relevant. 		

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<p>2.3.2. Horizontal alignment: All teachers of the same course in a pathway have common clearly defined learning outcomes. These outcomes are also shared with teachers of concurrent courses in other discipline areas so that multidisciplinary learning outcomes can be identified and reached.</p>	<ul style="list-style-type: none"> • Teachers of the same course meet to discuss and decide on common instructional approaches, expectations, syllabi, and major projects and assessments. • Teachers are not bound by strict daily pacing guides, but are expected to meet defined learning outcomes with their students during timeframes such as months, grading periods, quarters, or semesters. • Major concepts or skills taught across courses during the same year are identified by the teacher team and emphasized in each course to reinforce learning. • Basic reading, writing, computation, and problem-solving skills are explicitly emphasized in every course and students are taught common literacy and numeracy strategies across courses. 		
<p>2.3.3. Vertical alignment: The curricular sequence in all subject areas is designed so that content, instruction, and assessment from prior courses serve as the foundation upon which content, instruction, and assessment is built for later courses.</p>	<ul style="list-style-type: none"> • Teacher teams from each grade level meet to discuss the transition of each student and his or her specific learning needs through each grade level. • Teachers within a curricular sequence meet to discuss the transition between courses and to map when major concepts and skills are covered during the sequence. • Grading rubrics, expectations, and learning outcomes follow a logical progression through grade levels that is developmentally appropriate and prepares all students for college and career by graduation. 		
<p>2.3.4. Habits of Mind/SCANS/21st-Century skills: In both academic and technical courses, pathway explicitly teaches students the thinking skills and basic competencies that are necessary for success in the workplace and adult life.</p>	<ul style="list-style-type: none"> • All courses promote the development of Habits of Mind/SCANS/21st-Century skills by using problem- and project-based instruction that requires students to demonstrate skills such as independent learning, teamwork, communication, and leadership. • Students are able to identify the basic workplace and thinking skills they are applying to their coursework and can explain when those skills would be used outside of the school setting. • Technology is used appropriately in each course to enhance student learning and expose students to general workplace and industry-specific standards of technology. 		

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<p>2.3.5. Citizenship: The pathway fosters a culture of respect for others and encourages student contributions as citizens. (NCAC Criteria VIII.c.)</p>	<ul style="list-style-type: none"> • Students participate in and/or organize community or school-based volunteer activities. • Teachers incorporate service learning into project-based delivery of curriculum. • Pathway teachers participate in workshops related to promoting good citizenship. 		
<p>Engaged Learning 2.4 Instruction and Assessment</p> <p>2.4.1. Project-based approach: Inquiry-based instruction enables students to experience authentic theme-based situations that require integrating knowledge and skills from several disciplines. This approach fosters communication and teamwork skills, among other habits of mind, SCANS, and 21st-Century Skills.</p> <p>2.4.2. Authentic assessment: To complement traditional or standardized student assessments, pathway teachers design assessments of student learning that include opportunities for students to demonstrate skills through authentic applications.</p>	<ul style="list-style-type: none"> • On a regular basis, pathway teachers deliver challenging academic and technical content through problem- and project-based assignments, combining these approaches with traditional teaching methods. • Several times a year students are engaged in extended, multidisciplinary projects that relate to the theme that is the focus of the pathway. • Students learn not only from classroom teachers, but also from experts in business and industry. • Teachers collaborate to deliver multidisciplinary projects and lessons. • Industry professionals participate in and/or provide advice on project design. <ul style="list-style-type: none"> • Teachers collaborate to design and conduct student assessments that are authentic (i.e., mirror the behavior of professionals) and to address industry standards. • Assessments measure clear standards and performance goals and show levels of quality performance. • Industry professionals participate in the assessment process. • Students demonstrate their knowledge and skills by producing solutions to relevant and authentic problems. • Students may demonstrate learning through portfolios, exhibitions, displays, simulations, product development, among other projects. 		

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<p>2.4.3. Balanced student assessment: Pathway teachers use a variety of assessments to gain an accurate understanding of student learning and use that understanding to make adjustments for future instruction.</p>	<ul style="list-style-type: none"> • Grade-level cohort teams use both formative and summative assessments of student work to guide student learning and revision of student work and to inform instructional practice. • Grade-level cohort teams use multiple measures of student achievement, including standardized tests, traditional teacher-developed tests, and performance-based assessments of student work (e.g., portfolios, projects, exhibitions), to obtain a complete and accurate understanding of student learning. • Teachers can cite examples of how they have used results of student assessments to inform and adjust future instruction. 		
<p>Engaged Learning 2.5 Work-Based Learning</p> <p>2.5.2. Connected to academic and technical coursework: Work-based learning (WBL) experiences do not occur in a vacuum; they are connected to and reinforce classroom learning.</p>	<ul style="list-style-type: none"> • Work-based learning experiences are designed to support, contextualize, and apply what students are learning in their core academic and technical classes. • The WBL coordinator works with worksite supervisors to design and assign student projects that contextualize and reinforce academic and technical course content. • The pathway, school, and/or district has established structures and processes for classroom teachers and workplace supervisors to consult with each other and align student instruction. 		

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<p>Engaged Learning 2.5 Support Services and Personalization</p> <p>2.6.5. Differentiated instruction: Daily instruction is designed with the knowledge that students vary in their preferred method of gaining information and understanding ideas. Teachers use multiple methods of presenting course content to address each student's learning needs.</p> <p>2.6.6. Academic intervention: Pathway students performing below grade level are supported by a range of services, which may include supplemental instruction, tutoring, credit recovery, before- and/or after-school programs, and academic support programs.</p>	<ul style="list-style-type: none"> • Pathway teachers assess each student's preferred learning style and specific learning needs. They consult with their team about the best teaching adaptations for each student. • Pathway teachers are trained in the implementation of differentiated instruction and use it effectively to meet the learning needs of each student. • Pathway teachers provide targeted support to individual students based on the student's identified learning needs. • To the extent possible, supplemental instruction in math and English is related to the pathway theme and delivered through hands-on, student-centered instructional methodologies such as problem- or project-based learning. • Computer-assisted learning may be used to support and/or supplement tutoring. 		