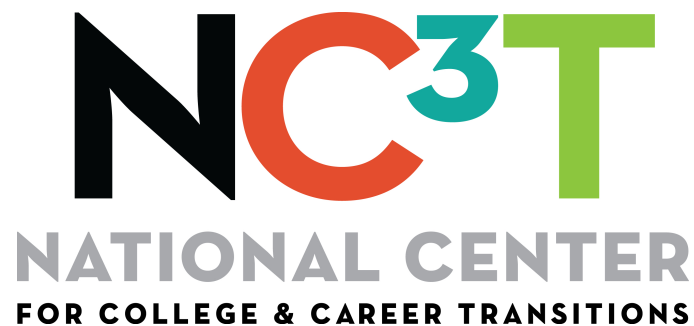


November 2015



Pathways System Framework™ Design Specifications



*EVERY LEARNER WITH A DREAM AND A PLAN
EVERY COMMUNITY WITH A CAPABLE, READY WORKFORCE*

COLLEGE AND CAREER PATHWAYS SYSTEMS

Across the United States, community leaders are working together to create innovative approaches for meaningful high school reform. Specifically, college and career pathways are being developed with input from workforce and community organizations, employers, and educators. Effective college and career pathways result in multiple benefits for students including greater engagement, increased understanding of the workplace, and better decision-making pertaining to college and career planning.

PATHWAYS DESIGN SPECIFICATIONS¹

The National Center for College and Career Transitions, or NC3T, has developed a systematic approach to designing and implementing an effective pathways system² through its Pathways System Framework™. Using this framework, clients are provided with ongoing technical assistance, proven resources and tools, expert coaching, and key meeting planning and facilitation.

One of the essential Pathways System Framework™ resources is the **Design Specifications**. This document is built upon 40 years of research and innovation carried out by multiple organizations and high school improvement models.



NC3T's **Design Specifications** address each interconnected area of development that factor into a robust College, Career, and Life Pathways System. The development process takes time, often 12 to 18 months of initial planning with some implementation and three to five years for full implementation, followed by periodic continuous improvement.

DEVELOPING COLLEGE, CAREER, AND LIFE READY LEARNERS

The primary goal of the Pathways System Framework™ is to ensure that learners are provided with experiences and education that lead to success in postsecondary education, economically viable career pathways, and personal effectiveness in a 21st Century economy. College, career, and life readiness includes the development of the following:

1. Applied knowledge

¹ NC3T also provides clients with a Design Specifications and Asset Inventory tool, allowing stakeholders to perform gap analysis in early planning stages.

² A pathways system is the broad framework that encompasses and addresses all aspects of a college, career, and life readiness pathways initiative.

2. Effective relationships skills
3. Executive skills
4. Transition knowledge and skills
5. Career navigation skills
6. Financial literacy
7. Civic engagement

A brief description of the Pathways System Framework™ components is as follows.

CROSS-SECTOR PARTNERSHIPS

A Pathways System brings together members from K-12 and postsecondary education, employer organizations, community volunteers, and workforce and economic developers; these stakeholders are organized as a Pathways Partnership. The Pathways Partnership convenes a Leadership Team to provide strategic input on the direction and responsibilities of all partners involved in implementing the Pathways System. Together, they identify the key knowledge, skills, and attributes that help youth and young adults succeed in education, the workplace, and civic life. All aspects of the Pathways System reflect these shared college, career, and life readiness goals.

CAREER EXPLORATION AND PLANNING

In a Pathways System, all learners experience meaningful and expansive career exploration and their parents or guardians are actively engaged in the process. A well-planned career exploration program encourages students to identify personal aptitudes and interests, explore career options through multiple methods, and make informed postsecondary education and training decisions. In the K-12 system, these efforts begin early, intensify in the middle school years, and become even more focused during high school. Postsecondary partners utilize an aligned career development framework for their adult learners.

PATHWAY PROGRAMS OF STUDY

The Pathways Partnership coordinates the development of a range of pathway programs of study (POS) for youth and adult learners. A pathway POS is a sequence of interconnected academic and elective classes revolving around a career or subject theme, integrated with experiential learning and close connections between secondary and postsecondary education, training, and/or apprenticeships. Pathway programs of study are designed to address workforce needs and support the development of college, career, and life readiness knowledge and skills for each learner.

For K-12 systems, students explore available programs of study while in middle school or early high school and then choose a program in which to enroll. Each school offers programs of study that address a variety of student interests as well as prominent career opportunities in the region and state. In systems that have regional career and technical education centers, their programs are linked to programs at the partnering high school, and when open enrollment options are offered, students may choose among multiple schools. Each pathway POS is seamlessly connected to postsecondary education and/or a training program.

At the postsecondary level, courses may be organized into pathway programs of study (or “guided pathways”), designed for adult learners who want a very clear connection between education, training, and career options. Postsecondary programs of study may also be created to develop closer links to GED, English language acquisition, and basic skills programs, helping adult learners transition into career-based programs more expeditiously.

DYNAMIC TEACHING AND LEARNING

In a Pathways System, teachers and faculty members employ evidence-based instructional practices that are highly engaging, rigorous, and relevant to each pathway program of study. Teachers continue to implement important required curricular reforms, and there is an ongoing emphasis on problem-based, project-based, and inquiry-based learning in all pathway programs of study. Targeted professional development, peer collaboration, and instructional coaching provide ongoing teacher support.

EMPLOYER AND COMMUNITY ENGAGEMENT

In a Pathways System, employers and community organizations are essential partners, helping to provide students with skill development and career exploration experiences in the workplace and bringing highly relevant work-based activities, content, and role models into the classroom. The Pathways System outlines practical and specific ways that employers and community organizations can connect with students and impact each pathway program of study.

COMMITTEES AND WORKING GROUPS Several committees and working groups are recommended for successful and efficient implementation of the Pathways System. The following chart provides a description of recommended committees and working groups.

Committee or Team	Description
Pathways Partnership	A well-developed leadership infrastructure that facilitates sustained collaboration among members of K-12 and postsecondary education, employers, community, economic development, and the local or regional workforce system. The Pathways Partnership creates other working groups as needed to carry out detailed planning around specific components of the Pathways System implementation plan.
Pathways Partnership Leadership Team	The Pathways Partnership Leadership Team is a subgroup of the Pathways Partnership, a smaller team of key stakeholders identified and selected from within the Pathways Partnership. This team plans and manages the Pathways Partnership.
Campus-based Leadership Team	The team of campus administrators and designated staff that provide oversight of the Pathways System, assuming the daily implementation work at the campus (either K-12 or postsecondary) level.
Intermediary Organization	Within the Pathways Partnership, one organization is identified as the intermediary organization that takes the lead role in convening all the Pathways System partners, inviting new partners, documenting decisions, drafting and finalizing the Pathways System Implementation Plan, and monitoring and reporting progress.
Career Exploration Committee	A team of educators who develop and oversee the implementation of an integrated career awareness/exploration scope and sequence for the campus.
Industry Sector Working Groups	Regional employer representatives and industry-coalition members who help coordinate industry sector work with the Pathways Partnership.
POS Advisory Committees	Comprised of local experts, employers and other community partners, these committees are formed to support particular pathway programs of study.
POS Instructional Teams	A team of teachers and guidance advisors that work together to integrate their curriculum in a meaningful way for a specific pathway program of study. Each team also addresses the achievement and support needs of students who participate in their program.
Pathways Communications Team	The Pathways Communications Team is formed to create shared communications tools (talking points, branding messages, brochures, and web-based information) and provides coordination and training to ensure that all pathway partners are communicating similar messages to various stakeholders and using multiple communications channels.

NC3T'S DESIGN SPECIFICATIONS

COMPONENT 1: CROSS-SECTOR PARTNERSHIPS

A Pathways System brings together members from K-12 and postsecondary education, employer organizations, community volunteers, and workforce and economic developers; these stakeholders are organized as a Pathways Partnership. The Pathways Partnership convenes a Leadership Team that provides strategic input on the direction and responsibilities of all partners involved in implementing the Pathways System. Together, they identify the key knowledge, skills, and attributes that help youth and young adults succeed in education, the workplace, and civic life. All aspects of the Pathways System reflect these shared college, career, and life readiness goals.

1.1 Pathways Partnership Leadership Structure

Comprised of leaders from multiple stakeholder groups (including K-12 education, postsecondary education, employers and employer-led organizations, workforce development, economic development, and community-based organizations), the Pathways Partnership provides strategic guidance and advocacy for the Pathways System. The Pathways Partnership creates other working groups as needed to carry out detailed planning around specific components of the Pathways System implementation plan. For example, the Pathways Partnership Leadership Team coordinates with Industry Sector Working Groups and education providers to ensure that all pathway programs of study are treated equitably and receive the support they need for success. Members of the Pathways Partnership meet regularly during initial development of the Pathways System and at least twice annually to monitor and sustain its success.

1.2 School Leadership Structure

A School Leadership Team is formed for each campus and decides on key Pathways System-related issues. Decisions may include identifying the number of students each pathway program of study will accommodate, the grade levels at which pathway POS will be offered; the way in which students will learn about and select a pathway POS, and the way in which pathway programs of study will be organized.

1.3 Pathways Partnership Intermediary Designation

Within the Pathways Partnership, one organization is identified as the intermediary organization that takes the lead role in convening the Pathways System partners, inviting new partners, documenting decisions, drafting and finalizing the Pathways System implementation plan, and monitoring and reporting progress. Ideally, the intermediary organization is not a school but is an employer or community-based organization.

1.4 Communications Tools and Resources

The Pathways Partnership develops and implements a broad-based communications plan aimed at internal stakeholders and the broader community. Within each partner organization, designated staff takes responsibility for implementing their component of the communications plan and articulating the positive benefits of the Pathways System for their organization.

1.5 Industry Sector Collaboration

At the regional level, representatives from industry sectors collaborate with education leaders by forming Industry Sector Working Groups to provide up-to-date information on specific career trends and anticipated changes. School staff and Industry Sector Working Groups meet as often as necessary but not less than twice annually.

1.6 Definition and Implementation of College, Career, and Life Readiness

Members of the Pathways Partnership adopt a shared definition of college, career, and life readiness. The definition (either locally developed or adapted from state level guidance) should include or address academic skills and knowledge, employability skills, postsecondary success skills, and career navigation skills.

1.7 Utilization of Shared Metrics

Each partner in the Pathways System has identified metrics to measure the level and effectiveness of their participation. An ongoing improvement process is established and involves teachers, administrators, and program advisors who regularly set goals, monitor progress, and track improvements made for each pathway POS and the system as a whole.

1.8 Pathways System Progress Report

Metrics provided by Pathways Partners are gathered into an annual Pathways System report that is shared among stakeholders and the broader community; the report is also available on a commonly used website.

1.9 Reporting Dual, Concurrent, and Articulated Credits and Other Skills Credentials

For each pathway POS, school district and postsecondary partners track and report the number of college credits and other skill credentials earned by high school students as well as the number of credits transcribed to the partnering postsecondary education institution.

1.10 Alignment of Local Administration and Funding Policies

Members of the Pathways Partnership continuously identify administrative and funding policies within their purview or those at the state level. To the extent possible, they ensure that policies that support a Pathways System implementation are either created or modified accordingly. An example of such policies is one that provides the funding of a staff position to coordinate employer and community involvement and to coordinate the school's pathway programs of study.

COMPONENT 2: CAREER EXPLORATION AND PLANNING

In a Pathways System, all learners experience meaningful and expansive career exploration and their parents or guardians are actively engaged in the process. A well-planned career exploration program encourages students to identify personal aptitudes and interests, explore career options through multiple methods, and make informed postsecondary education and training decisions. In the K-12 system, these efforts begin early, intensify in the middle school years, and become even more focused during high school. Postsecondary partners utilize an aligned career development framework for their adult learners.

2.1 Comprehensive Career Exploration Resources and Guidance System

The school has in place a career exploration and career guidance system that reaches all learners and clarifies relevant roles and responsibility of guidance staff, teachers, and administrators. Students engage in career interest assessments, career-related learning activities both in school and within the community, and interactions with adults working in business and industry. Career exploration activities, resources, and guidance procedures are aligned with state and/or local standards. Parents and guardians are actively engaged as important partners in the career exploration process. A Career Exploration Committee oversees this work.

2.2 Student Career and Education Plan

Every learner develops and maintains a personalized career and education plan. The plan is reviewed and modified at least annually.

For K-12 students, this plan is developed by grade eight and integrates career exploration with planning for high school course selection and postsecondary education or training. The plan is developed with parental or guardian input.

2.3 Preparing Students to Choose Among Pathway Programs of Study

In the K-12 sector, counselors from middle and high schools collaborate to introduce students to high school pathway programs of study, helping them and their parents make informed enrollment decisions.

In the postsecondary sector, counselors meet with prospective students, review results from career exploration assessments and inventories as well as employment and hiring data, and make program enrollment decisions.

2.4 Engaging Parents and Family Members

Students and their family have opportunities to learn about postsecondary options and how to make postsecondary decisions that are related to the identified career interests of the student. Extended effort is made to engage students from families that have not participated in postsecondary education and to provide targeted support for specific areas such as understanding the application process and financing options.

COMPONENT 3: PATHWAYS PROGRAMS OF STUDY

The Pathways Partnership coordinates the development of a range of pathway programs of study (POS) for youth and adult learners. A pathway program of study is a sequence of interconnected academic and elective classes revolving around a career or subject theme, integrated with experiential learning and close connections between secondary and postsecondary education, training, and/or apprenticeships. Pathway programs of study are designed to address workforce needs and support the development of college, career, and life readiness knowledge and skills for each learner.

For K-12 systems, students explore available programs of study while in middle school or early high school and then choose a program in which to enroll. Each school offers programs of study that address a variety of student

interests as well as prominent career opportunities in the region and state. In systems that have regional career and technical education centers, their programs are linked to programs at the partnering high school, and when open enrollment options are offered, students may choose among multiple schools. Each pathway POS is seamlessly connected to postsecondary education and/or a training program.

At the postsecondary level, many courses may be organized into pathway programs of study (or “guided pathways”), designed for adult learners who want a very clear connection between education, training, and career options. Postsecondary programs of study may also be created to develop closer links to GED, English language acquisition, and basic skills programs, helping adult learners transition into career-based programs more expeditiously.

THEME I. PATHWAY PROGRAMS OF STUDY STRUCTURE

3.1 Program of Study Interconnected Structure

Pathway programs of study are organized and presented to students as a well-defined, multi-year program of themed courses, interconnected with academic core courses and experiential learning activities.

3.2 Student Access

Pathways programs of study are accessible and marketed to students of varying achievement levels, including students who have Individualized Education Programs or limited English language proficiency.

3.3 Cohort Scheduling

Students in the pathway program of study are scheduled as a cohort and enrolled in as many classes together as possible.

THEME II. PATHWAY PROGRAM OF STUDY LEADERSHIP

3.4 Program of Study Advisory Committee

Each pathway POS has an active employer-led Advisory Committee comprised of experts from the field; this committee reviews the curriculum and equipment and coordinates employer involvement in the program.

3.5 Pathway Programs of Study Instructional Teams

Each pathway POS instructional team consists of teachers of core academics and electives along with staff from the guidance department. Together they develop cross-curricular projects and lessons and track and address the progress of students within their pathway POS cohort.

THEME III. ALIGNMENT

3.6 Alignment to Workforce Needs and Career Opportunities

Each pathway POS is developed in alignment with in-demand careers that lead to family-sustaining earnings.

3.7 Alignment with Standards

Each pathway POS is aligned to applicable standards for college, career, and life readiness including relevant standards established by the state for academic and technical knowledge.

3.8 Alignment through Cross-curricular Connections

The pathway POS Instructional Team identifies cross-curricular connections between required academic courses and career-themed elective courses and develops resources for cross-curricular and integrated instruction.

3.9 Alignment with Industry-based Credentials, Certifications, and Technical Skills

Assessments

The pathway POS leads to technical skill assessments and/or industry-recognized certifications. Students know about these options and know what is required to obtain them.

THEME IV: PATHWAY PROGRAMS OF STUDY CONNECTIONS

3.10 Experiential Learning, Community-based Experience, and Student Leadership

Within their pathway POS, students participate in organized and relevant job shadows, mentorships, field trips, career-related clubs, and skill competitions as well as school-based interactions with guest speakers and business members who volunteer to coach students on special projects. Students develop leadership skills through school and community leadership experiences, volunteerism, and competitions.

3.11 Seamless Connections with Postsecondary Institutions and Regional Career and Technical Centers

High school pathway programs of study are aligned and coordinated with programs of study offered by postsecondary education partners and/or regional career and technical education centers. This provides students with a smooth transition from secondary to postsecondary education and/or training and minimizes duplication of content among programs.

3.12 Postsecondary Dual Enrollment and Articulation Agreements

Each pathway program of study is supported by articulation agreements between high schools and postsecondary education partners, enabling students to earn dual, concurrent, articulated credits, and skills credentials at reduced or no-cost tuition rates for the secondary student.

COMPONENT 4: DYNAMIC TEACHING AND LEARNING

In a Pathways System, teachers and faculty members employ evidence-based instructional practices that are highly engaging, rigorous, and relevant to each pathway program of study. Teachers continue to implement important required curricular reforms, and there is an ongoing emphasis on problem-based, project-based, and inquiry-based learning in all pathway programs of study. Targeted professional development, peer collaboration, and instructional coaching provide ongoing teacher support.

4.1 Utilization of High Quality Curriculum and Evidence-based Instructional Approaches

Pathway POS teachers work to implement high quality curriculum. In all classes there is ongoing utilization of evidence-based instructional approaches such as problem-based, project-based, and inquiry-based learning.

4.2 Literacy Across the Curriculum

The school sets expectations and monitors implementation of teaching and learning strategies that strengthen students' literacy skills; this expectation is shared among teachers in all subject areas.

4.3 Academic, Social, and Program Supports

Students that struggle to meet academic and social expectations are given a variety of supports including but not limited to counseling, tutoring, customized online remediation, and credit recovery options. For adult learners, issues such as childcare, transportation, and incidental educational expenses may be addressed.

4.4 Professional Development Planning

The professional development needs of administrators, teachers, and counselors are identified; a systematic plan to provide professional development is in place. Professional development includes a focus on alignment of secondary and postsecondary curricula, development of integrated academic and technical content, strong content knowledge among teachers, and innovative teaching and learning strategies.

COMPONENT 5: EMPLOYER and COMMUNITY ENGAGEMENT

In a Pathways System, employers and community organizations are essential partners, helping to provide students with skill development and career exploration experiences in the workplace and bringing highly relevant work-based activities, content, and role models into the classroom. The Pathways System outlines practical and specific ways that employers and community organizations can connect with students and impact each pathway program of study.

5.1 Well-defined and Coordinated Employer and Community Organization Connections

Each pathway POS offers students a variety of employer- and community-based learning with a strong expectation that students will participate in workplace tours, job shadows, internships, and community-based service learning. Pathway POS teachers engage business and community volunteers for guest lecturing, advising, mentoring of student teams, and coaching and judging of student projects.

5.2 Business and Industry Experiences for School Staff

Teachers from each pathway POS are encouraged to participate in relevant job shadows and teacher externships.