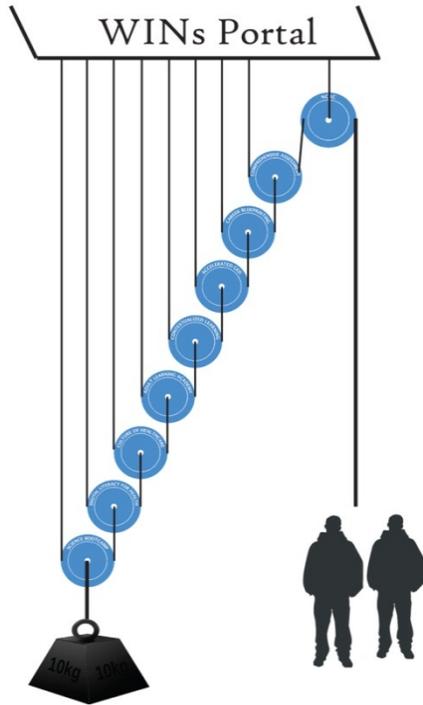


St. Louis Community College

MoWINS Portal



Pulleys and Ropes



Prolific inventor Leonardo Da Vinci experimented with simple machines and designed innovative mechanical systems by combining simple devices in new and ingenious ways. Although many of his ideas were not implemented during his lifetime, his designs continued to influence technical advancement well into modern times. One of the drawings found in Da Vinci's notebooks depicted the Spanish Burton, a system comprised of multiple pulleys and ropes. Da Vinci showed that when two or more pulleys were connected together a heavy load could be lifted with less force. Each pulley functioned as a building block within the system and the rope segments provided the connections making it possible to more efficiently raise and move heavy loads. The MoWINs Portal consists of a series of educational opportunities designed as the first step on a healthcare or

STEM career pathway. These opportunities are the building blocks, the pulleys, in a revised educational system designed to meet adult students where they are and to empower adult students to quickly and more efficiently reach their educational and career goals.

St. Louis Community College's Missouri Workforce Innovation Networks (MoWINs) Portal offers a unique series of educational services and learning opportunities, all designed to jump-start adult students into a career pathway leading to an academic credential. Designed specifically with the adult learner in mind, many of the Portal learning opportunities are flexibly-paced, competency-based and technology-enabled, allowing students to accelerate entry into a post-secondary certificate or associate degree program. A career pathway coach guides each student through the Portal and customizes each student's experience based on individualized assessment and stated career goals.

The Portal learning activities provide an educational experience where basic skills are developed and delivered within a contextualized technical framework. Those with the greatest skills gap participate in the Adult Learning Academy and demonstrate mastery of competencies in math, reading and writing under the guidance of developmental education faculty who deliver accelerated instruction tailored to students' unique needs. All participants complete a series of workshops and technology-enabled courses introducing the "skills all employees need, no matter where they work," as defined by the National Network of Business and Industry Associations. Aligning the MoWINs Portal learning objectives and student learning outcomes to the National Network's Common Employability Skills provides an industry-defined foundation

to map basic skill requirements to post-secondary credentials and career pathways. Through a series of flexibly-paced, competency-based and technology-enabled learning experiences, basic skills instructors partner with faculty subject matter experts to ensure students develop their personal, people, applied knowledge, and workplace skills. Upon meeting the Portal exit requirements, students are prepared to enroll in college-level coursework in pursuit of a post-secondary non-credit or credit academic credential within their chosen career pathway.

Each Portal feature is analogous to one of the pulleys in Da Vinci's system, and the career pathway coaches are the ropes, connecting students to each portal service and learning opportunity while facilitating movement from one activity to the next. Pulley systems are designed to quickly lift heavy objects to great heights. The MoWINs Portal is designed to quickly launch adult learners on a path leading to a new or additional post-secondary credential, an increasingly important factor in securing a good job, earning family-sustaining wages, and contributing to the local economy.

Portal Educational Services and Learning Opportunities



Comprehensive Assessment

A Portal participant's first step is completion of a comprehensive assessment of existing knowledge and skills earned through prior education or experience. The assessment is needed to identify strengths along with the areas where additional skill development is needed. Assessment results are used by the student and coach to collaboratively develop an individualized plan to accelerate entry into, and progress through, a career pathway program of study. A variety of assessment tools are utilized, each designed to elicit the essential information needed to individualize each student's Portal experience. Comprehensive gap analyses, combined with the flexibly-paced, modular format of Portal activities, allow students to focus only on those areas targeted for development. By design, the Portal allows students to demonstrate mastery when they are ready, which allows flexibility to accelerate more prepared learners as compared to traditional post-secondary developmental education. Students are able to quickly develop the skills that need to be strengthened and to demonstrate mastery without spending unnecessary seat time engaged in lessons covering skills already developed.

Assessments include:

WorkKeys

The WorkKeys assessments measure common skills required for success in the workplace. Employers use WorkKeys, and associated benchmark scores, to identify individuals who have

the basic skills required to be successful in a given occupation or career. The Portal uses WorkKeys to assess basic skills in reading and mathematics. Results are used by the student and pathway coach to identify and address gaps prior to beginning a workforce training program. Upon completion of the Portal, students are better prepared to absorb the information presented and are more likely to successfully complete their training program. WorkKeys is administered when a student enters the Portal and may be retaken after completion of Portal coursework if needed to demonstrate eligibility for a workforce training program.

Successful completion of ACT WorkKeys assessments in Applied Mathematics, Locating Information, and Reading for Information qualifies participants to earn the National Career Readiness Certification, earned by more than 1 million people across the United States. In a March 8, 2013 letter to members of the American Association of Community Colleges, Walter G. Bumphus, President and CEO, announced,

Community colleges now can recognize and award 3 hours of college credit in applied critical thinking to individuals who earn specific levels of the ACT National Career Readiness Certificate. The credential can expand postsecondary opportunities for returning service members, dislocated and emerging workers, and career and technical education students. Earning the credential enables an individual to demonstrate essential foundational competencies across three critical skill areas linked by research to workplace success: reading comprehension, applied mathematics, and locating information.

An NCRC certificate is awarded to each qualified individual based on their highest WorkKeys scores.

Compass

ACT Compass is a computer-adaptive placement test that is used by the College to evaluate incoming students' skills in reading, writing, and math. Test results are interpreted as indicators of a student's readiness for college-level courses and cut scores are used to determine placement in developmental education courses. Portal participants, whose Compass scores would have required a developmental education placement, will instead engage in accelerated, contextualized, and competency-based learning activities allowing students to more quickly meet the college-ready standard and begin coursework contextualized to a career pathway. Students take the Compass upon entering the Portal, and may be asked to retake the exam, solely for data gathering purposes, following completion of the Adult Learning Academy, the MoWINS alternative to traditional developmental education courses.

Digital Literacy

Assessments are taken which measure knowledge and proficiency in Microsoft Windows[®], Microsoft Word[®], and Internet and Communications Fundamentals. The Windows assessment measures students' foundational understanding of computer hardware and the Windows operating system. The Word assessment evaluates participants' knowledge of, and proficiency in using, common features of Microsoft Word. The Internet and Communications assessment measures knowledge of the foundational skills necessary to work in an Internet or networked environment including the ability to maximize communication, online education, collaboration and social interaction in a safe environment. The Digital Literacy assessments provide students the opportunity to "test out" of these three areas. A score of 80 percent on an assessment indicates adequate mastery and students are waived out of the aligned lessons. Students scoring less than 80 percent in one or more subject areas receive a personal plan assigning online lessons and assignments for each unit.

Keyboarding

Today, proficient use of a keyboard is a necessity for most occupations and industry sectors. Through TypingWeb, a free program accessed from a web browser, students take a typing assessment to evaluate their speed and accuracy. Test results are interpreted by the software and indicate the student's current standing for the following benchmarks: touch control of the keyboard, proper use techniques, a minimum of twenty-five words per minute and 93 percent accuracy.

Students scoring below the keyboarding benchmarks are encouraged to remediate their skills through versatile online lessons, each meant to focus on specific problem areas such as speed, accuracy, key-rows, and trouble-keys. Remediation occurs in the learning lab over a two-week period and students have the opportunity to re-test to reach the benchmarks.

Health Career Readiness Assessment

The HCRA is given to those participants seeking a health science pathway training program. The assessment is used to identify individuals who have the behavioral aptitude required for success within a specific healthcare job. The HCRA custom-written individual development plans continue to inform each participant and career pathway coach throughout their MoWINS experience. O*NET work style comparative data is used to generate a Job Fit Profile for each participant that includes a graphic representation of strengths and gaps. The Individual Feedback Report includes a forced-ranking of critical behavioral healthcare competencies and prescriptive suggestions for lowest ranked competencies. The coach thoroughly reviews each of the HCRA reports with each student.



Contextualized Learning

Career-related content is being utilized in two distinct ways in the MoWINs Portal. Content from healthcare and STEM-related open education resources is used to contextualize basic skills development in the Adult Learning Academy and two STEM Readiness short courses have been developed, one for students pursuing health or life science training programs and the other for students pursuing information or engineering technology programs. This contextualized approach creates a platform on which students can develop their foundational skills while interacting with some of the exact subject matter content they will later encounter more independently. At this level, basic academic skill development takes precedence over content acquisition, which enables faculty and paraprofessionals to pinpoint individual student weaknesses and design focused instruction and experiences for optimum, comprehensive skill development so students are continuously progressing toward personally meaningful outcomes.

A second approach, **integrating** or embedding basic skills within a variety of MoWINs courses enables students to benefit from a core literacy experience designed to develop and focus attention on basic reading, as well as studying and writing processes fundamental to the success of every post-secondary student. In the context of a course, content acquisition and skill development occur in tandem. All students benefit from the blended reading and writing approach that requires them to demonstrate mastery on literacy core competencies. In this manner, contextualized learning is delivered through a variety of non-credit and credit-bearing courses, such as Introduction to Biology, Patient Care Technician, and Help Desk Principles, which are **team-taught** by content and basic skills faculty members, with college-ready literacy outcomes seamlessly integrated into those curricular experiences. Students have ample opportunity and adequate support in developing their academic reading and writing skills within the context of college-level reading, writing, and critical thinking requirements.



Adult Learning Academy

Students' Compass test scores are used as the basis for participation in the Adult Learning Academy (ALA) which introduces the literacy and numeracy skills students need to be successful in college-level coursework and to effectively compete in today's workforce. Employers increasingly require mastery of academic skills in reading, writing and computation for entry-level positions and for career advancement. Students in the ALA develop their foundational skills and improve their ability to transfer skills from one context to another, think critically, and successfully transition to college coursework in pursuit of an academic credential. Through a series of competency-

based learning experiences, students develop confidence in themselves as lifelong learners who can adapt to the changing demands of the workplace. Successful completion of the ALA is the first step on a pathway to career opportunity and advancement preparing students to better comprehend content and meet performance outcomes as they matriculate to the next level of Portal learning activities and workforce training including college-level coursework.

The Adult Learning Academy: Pre-Algebra curriculum incorporates all of the St. Louis Community College credit MTH:020, Pre-Algebra learning objectives and performance measures and adds student learning outcomes aligned to a student's chosen pathway. For example, a student pursuing a healthcare program will develop knowledge and skills in using the metric system and military time, essential skills for successful performance as a healthcare professional. Adult Learning Academy: Elementary Algebra is an optional course, also self-paced and competency-based, offered to students whose career goals include pursuit of a STEM or healthcare-related academic credential in nursing, allied health, or informatics. Students successfully completing ALA: Pre-Algebra or testing into the College's MTH:030, Elementary Algebra course may be enrolled in ALA: Elementary Algebra. Appendix A includes a comprehensive review of the ALA: Pre-Algebra and ALA: Elementary Algebra courses, including pedagogy and sample instructional materials.

The Adult Learning Academy: Literacy curriculum is arranged in a series of units progressing from direct instruction to independent application. Following the GRR (Gradual Release of Responsibility) pattern of "model, guide practice, apply with assistance, and apply independently," the units thoroughly integrate reading and writing strategies and emphasize the recursive nature of both processes. Writing activities often require the demonstration of reading comprehension; in addition, writing activities involve research and discovery, familiarizing students with their career field as they work with the contextualized reading selections and related vocabulary.

Students whose Compass scores would have required traditional placement in St. Louis Community College's 020 or 030 level reading and/or writing courses are enrolled in ALA: Literacy. Acceleration is accomplished by collapsing four developmental education courses (ENG:020, ENG:030, RDG:020 and RDG:030) into a single learning experience thoroughly integrating instruction in reading and writing and incorporating all learning objectives and performance measures of the 030 level courses. All ALA: Literacy students complete the literacy and math activities embedded in the ALA capstone project. The capstone project requires creation of a Public Service Announcement. Students prepare a public service campaign after selecting a current health or STEM-related topic that they believe needs more exposure. Students research their topic and present their results in a way that engages and informs their audience. This project makes relevant the skills in which the students have achieved competency in the ALA; additionally the students will have the opportunity to provide their

materials to educational and public service offices for use, as well as to include their finished product in their Optimal Resume e-Portfolio. Appendix B includes a comprehensive review of the ALA: Literacy course, including pedagogy and sample instructional materials.

Each individual student's time in the ALA course is dependent on the time required to master competencies. Unlike traditional developmental education, students move through the course at their own pace and are allowed to repeat lessons without penalty. Once a competency is mastered, students are not required to repeat lessons aligned to the same competency and skills. All entering students work toward college-readiness under the direction of teachers trained to meet them where they are. Adult Learning Academy instructors guide the students through self-paced learning allowing the students to move to higher levels each time competency mastery is demonstrated.

Students completing the non-credit Adult Learning Academy utilize the College's Credit for Prior Learning process to receive credit for Reading, English, and/or Mathematics developmental level coursework. ALA faculty and educational assistants are recruited from the College's fulltime and adjunct credit faculty.



Career Readiness

MoWINs Portal students are required to participate in a series of three optional workshops delivered by a career pathway coach or in collaboration with the College's Academic Support department. Workshop topics to select from include Acing the Job Application, Career Networking, Communication/Critical Thinking Skills, Finding and Keeping the Job You Want, Note Taking Skills, Test Taking Skills, Time Management and Study Skills, and Using LinkedIn. The core of the Career Readiness experience is a mandatory Work Value/Work Ethic workshop based on the Bring Your A Game to Work[®] curriculum, an engaging training program built around seven foundational values and behaviors of work ethic: attitude, attendance, appearance, ambition, accountability, acceptance and appreciation. Employers perceive these seven values as "non-negotiable" and yet, employers report an increasingly difficult time finding employees who demonstrate each of these in the workplace. This mandatory workshop uses real world scenarios, a peer-to peer learning model, and an adaptable approach to maximize effectiveness. The content, examples, and activities are designed to be adaptable to any industry and cultural context. In addition to Work Value/Work Ethic, a New Student Orientation Workshop is also mandatory.



Career Blueprinting

The career blueprint tool produces a comprehensive integrated academic and career planning document. Each MoWINS Portal participant meets with a career pathway coach to review their skill assessments, prior work and academic experiences, and their career and academic goals. This background information is used to construct an individualized academic and career plan that will guide the participant along their chosen career pathway.

The goal of blueprinting is to empower individuals to better manage their educational choices, establish a life-long learning pattern, improve their skills, and attain employment. This step-by-step process enhances the participant's career management skills and produces a comprehensive document to visually reinforce progress toward career and educational goal attainment.

The career blueprint is used to:

- map existing goals and coordinate future initiatives
- develop, monitor and evaluate career development activities
- specify learning/training outcomes that are clear and measurable
- communicate with other educational and employment service providers
- facilitate connections, networking, and seamless movement between service providers

Career blueprinting is the initial step toward the creation and ongoing use of an e-Portfolio learning and career management process for students. The Optimal Resume e-Portfolio is available for students to showcase learning achievement, training/coursework projects, research materials, earned credentials, resumes, business correspondence, and work documents.

With the assistance of their career pathway coach and instructors, students build and maintain their individual e-Portfolios in the Optimal Resume software platform provided to all students enrolled in the Portal. Optimal Resume is a technology leader in career management software with services that include online portfolio storage, resume builder, letter builder, interview preparation, and video resume production services. Optimal Resume helps job seekers find employment faster.



STEM Readiness

All students complete a short STEM Readiness course as part of the MoWINS Portal program. Students pursuing a health science/life science

career are introduced to basic scientific principles, the scientific method and introductory topics in biology, chemistry, biochemistry, anatomy, and medical terminology. The course is taught face-to-face in a science laboratory allowing students to conduct simple experiments, gather data and document results in a standard lab report format.

Students pursuing an information technology/engineering technology career pathway are introduced to the Internet of Everything - the network of physical objects or "things" embedded with electronics, software, sensors, and network connectivity, which enables these objects to collect and exchange data. Through a series of online lessons that are facilitated by an IS faculty member students are introduced to the basic concepts and language of the networked world.

Both STEM Readiness experiences are designed to give students exposure to career specific vocabulary and to basic concepts that will be re-introduced during the first weeks of their workforce training program. Students enter the training with better preparation and greater confidence after successfully completing the STEM Readiness course.



Digital Literacy

As the nation continues to move toward a more technologically prepared workforce, the ability to use computers and other information technology resources have become essential skills for entry-level healthcare and STEM jobs, and basic computer literacy is a prerequisite to successful completion of STEM programs of study. In the MoWINs Digital Literacy course, students are introduced to the Windows[®] operating system, Microsoft Word[®], and the Internet including standard conventions for safeguarding privacy and security. Through a series of online lessons as well as competency-based learning activities, students develop the basic digital literacy skills that are essential to post-secondary training success.

Through a series of pre-assessments, students demonstrate which content areas have already been mastered and then focus only on those topics where additional skill development is necessary. Students demonstrate competency mastery by scoring 80 percent or higher on the unit assignments and assessments or by "testing out" through pre-tests aligned to unit student learning outcomes.



Certificate of Completion

Students successfully completing the MoWINs Portal program of study receive a St. Louis Community College Certificate of Completion. The

credential is documented on the College’s official non-credit transcript as a Certificate of Completion, MoWINs Portal program award.

Demonstration of competency mastery, through successful course completion or by assessment, is required for the following learning opportunities:

Title	Credit Hour Equivalent
CPDV:701 Career Assessment, Planning and Readiness	3 Credit Hours
CPDV:711 Adult Learning Academy: Pre-Algebra	3 Credit Hours
CPDV:712 Adult Learning Academy: Literacy	6 Credit Hours
CPDV:713 Adult Learning Academy: Elementary Algebra	3 Credit Hours
CPDV:709 Digital Literacy	1.5 Credit Hours
CPDV:716 STEM Readiness – Health/Life Sciences	2.5 Credit Hours
OR	
CPDV:717 STEM Readiness – Engineering/Information Technologies	2.5 Credit Hours

Summary

The career pathway coaches serve as navigators, advisors, and advocates in addition to coaching students through their MoWINs Portal experience. The coach is an essential element of the Portal design and the role of the career pathway coach cannot be overstated. Coaches begin working with MoWINs participants immediately upon acceptance to the program and serve as a coach, guide, and advocate through all levels of their training to help advance progress along a chosen career pathway. Coaches work with participants individually and in small groups, and closely monitor each participant’s progress.

Career Pathway Coaches are responsible for facilitating the development and implementation of a personal plan for each participant that includes assessment, career exploration and blueprinting, basic skill development, enrollment in credit-based career and technical programs or non-credit workforce training, and job search. The coaches assist students with resume writing and interview techniques and link participants with resources on the St. Louis Community College campuses as well as with resources in the community. Coaches assist participants navigate life issues eliminating barriers to retention and/or successful completion of their educational program.

Not all students will participate in all MoWINs Portal activities; however, all MoWINs participants will engage in comprehensive assessment, career blueprinting, career readiness, and will sit for the NCRC. The full complement of MoWINs Portal options provide students with the knowledge and confidence to begin their career pathway education while simultaneously building foundational skills. Students who successfully complete the MoWINs Portal are

prepared to continue their education and/or to enter the workforce. Those entering the workforce immediately are encouraged to continue their education in a part-time capacity and to follow the blueprint prepared in collaboration with their MoWINs career pathway coach.

This workforce product was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The product was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership.



This work is licensed under a [Creative Commons Attribution 3.0 Unported License](https://creativecommons.org/licenses/by/3.0/).