AMP-IT: ACCELERATED MODEL PATHWAYS FOR INFORMATION TECHNOLOGY

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Education Systems Center
NORTHERN ILLINOIS UNIVERSITY

What if students in Illinois high schools had the opportunity to earn 15–30 college credits toward an associate degree by the time of high school graduation and be well-prepared for a great job or further education towards a bachelor's degree, all at no cost?

What if Illinois' education systems supported enough students interested in information technology to fill every vacancy in this high-demand, well-paying sector?

This vision is possible today, and could help transform individual families as well as regional and state economies.

Education Systems Center at Northern Illinois University is supporting that vision through the new Accelerated Model Pathways for Information Technology (AMP-IT) project. AMP-IT will engage school districts and their community college and employer partners to design and launch an accelerated version of the Illinois Model Programs of Study in Information Technology. As a result, students in AMP-IT schools will have the opportunity to:

» Earn 15 to 30 hours of early college credit in high school.

» Seamlessly transition into aligned associate and bachelor's degree programs.

» At no cost, earn an associate degree in IT in year 13.

» Take part in a continuum of meaningful work-based learning opportunities to help them affirm their interest in the industry and gain valuable hands-on experiences and soft skills while earning social capital with industry employers.

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DESIGNING IT PATHWAYS THROUGH YEAR 13

AMP-IT will support school districts to accelerate and deepen aspects of their existing IT pathways by designing opportunities for high school students to earn up to 30 hours of early college credit that seamlessly stacks into associate and bachelor's degree programs. Early college credit will be available through both IT career-focused course sequences and general education courses in math, English, science, and social sciences. Consistent with the Illinois Model Programs of Study Guide in Information Technology, all early college courses will be selected based on their strategic value for articulation into aligned postsecondary credential opportunities.

All AMP-IT pathways will use a regional version of the design process used for the Illinois Model Programs of Study Guide in Information Technology: a data-driven, backward-mapping approach that extends from the areas of job growth down through the high school course sequence. This includes:

1. Identifying high-priority occupations in the industry sector that are high-skill, high-wage, and in-demand based on labor market information;

2. Identifying promising postsecondary credentials that are accessible through the community college system and lead to high-priority occupations;

3. Mapping the stackable degrees and credentials that progress to promising credentials;

4. Identifying strategic community college courses that appear across promising credential areas, provide a foundation of knowledge for the sector, and are feasible for dual credit;

5. Mapping a course sequence from secondary through the first year of postsecondary that incorporates strategic early college credit and considers industry trends; and

6. Defining related technical competencies that can be used to guide course development and postsecondary articulation.

For AMP-IT, this process will be applied to IT pathways leading to promising postsecondary credentials in the areas of Networking, Cloud Computing, and Cybersecurity. Generally, the entry-level occupations in these pathway areas pay a median hourly wage well in excess of the State of Illinois living wage threshold of $26.27/hour, with median hourly wages ranging from $29.80/hour for Computer Network Support Specialists to $46.13/hour for Information Security Analysts and $56.07/hour for Computer Network Architects. In addition, all occupational areas are expected to see increased growth over the next ten years, ranging from 5% to 23% occupational growth.

While the AMP-IT pathways will allow students to enter these pathway areas upon high school graduation or with no more than one year of additional postsecondary education, they will also enable students to accelerate through computer science bachelor's degree programs at Illinois universities.

JOINING THE AMP-IT DESIGN TEAM

The AMP-IT Design Teams is a cross-sector partnership spanning K-12, higher education, employers and community-based organizations, with prior experience implementing pathways models in their region and using data to inform improvement. This team, facilitated by EdSystems, will demonstrate a commitment to racial and socioeconomic equity in opportunity and outcomes for all students.

The Design Team will participate in a series of monthly design thinking workshops, learning events, and planning sessions that will take place between February 2022 and June 2022. The workshops will be virtual, with the possibility of one national in-person workshop if public health conditions permit. Additionally, EdSystems, will facilitate engagements with participants between workshop sessions.

During the workshops, participants will engage in a set of topics that inform the design, delivery and sustainability of their pathways scale strategies. The following learning questions will be explored:

» What are the characteristics of innovative and effective pathway models that can be operationalized at a large scale and meet quality parameters?

» What are the policy, funding conditions, and other incentives that foster strong partnerships between districts, higher education, and employers?

» What narrative and organizational culture shifts are needed to enable stronger collaboration between districts, higher education, employers, and intermediaries?

» What enablers and barriers, including funding structures, do system actors face when implementing programs?

» What conditions, program features, modalities, and implementation supports enable scale across a geography and contexts?

» What specific elements of pathway models show promise for improving credential attainment and early career outcomes for Black and Latino students and students from low-income backgrounds?

AMP-IT participants must commit to the following guiding principles that outline the key qualities of associate-degree-by-grade-13 initiatives and the opportunities that they provide for young people into their initiative. Not all of these guiding principles need to be currently in place, although participants will be expected to work towards these objectives as part of ongoing pathways implementation.:

1. Designing an IT pathway that enables students to attain an associate degree through an additional year of formal education (year 13), leading directly to good jobs and/or further education towards a bachelor's degree. Student can earn:

» A minimum year's worth of high-quality program-aligned transferable college credit (a minimum of 30 college credits) by the end of 12th grade

» A transferable, regionally in-demand, career-aligned associate degree by the 13th year

» Guaranteed acceptance to regional/state bachelor's degree programs upon completion of the associate degree

2. Designing an intentional, integrated curricular experience and integrated student supports:

» Provide career-aligned coherent program(s) of study that extends beyond introductory courses, designed around skills and credentials needed in specific middle- to high-wage, high-growth career clusters within IT, healthcare, business, or other high demand sectors in your region.

» Informed and validated by employers in these sectors, integrated learning and work experiences

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» Student perspectives and experiences are incorporated into the design of and ongoing evaluation of the program

» Quality postsecondary and career advising are provided to help students select and prepare for a range of postsecondary pathways offered

» Student supports are embedded and span academic, career, financial aid, and social/emotional domains

» Credit articulation/transferability agreements between and across institutions are established to maximize transitions.

» Programs are anchored to institutional brands that are recognized and valued in the local job market (as reflected in graduate employment rates)

3. Designs will minimize transitions for students and ensure opportunities are available and equitably accessible for all students across the region/state.

» Integrated into high school and institutional schedules

» Accessible to students across the district's geographic areas via partnerships and articulation agreements

» To ensure accessibility, student support, coursework and other learning experiences can be delivered in- person, virtually, and in hybrid models.

» Incorporate intentional strategies to help prepare students for the rigors of college- and career-level coursework and experiential learning

» Fully accessible and equitably available across student achievement levels (without exclusionary entrance or selection policies)

» Use data to regularly monitor student outcomes and ensure equitable opportunities and supports

4. Designs will ultimately be sustainable via public funding and affordable for students.

» Draw on and bring together multiple sources of public funding (e.g. K-12, dual enrollment, 13th year, Pell/state financial aid, workforce) in ways that are accessible for both institutions and students

» Require no or minimal tuition, and support students to navigate and address non-tuition affordability barriers (books, transportation, food, housing, etc.)

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