



WAKE  TECH[®]

LADDER ECONOMICS





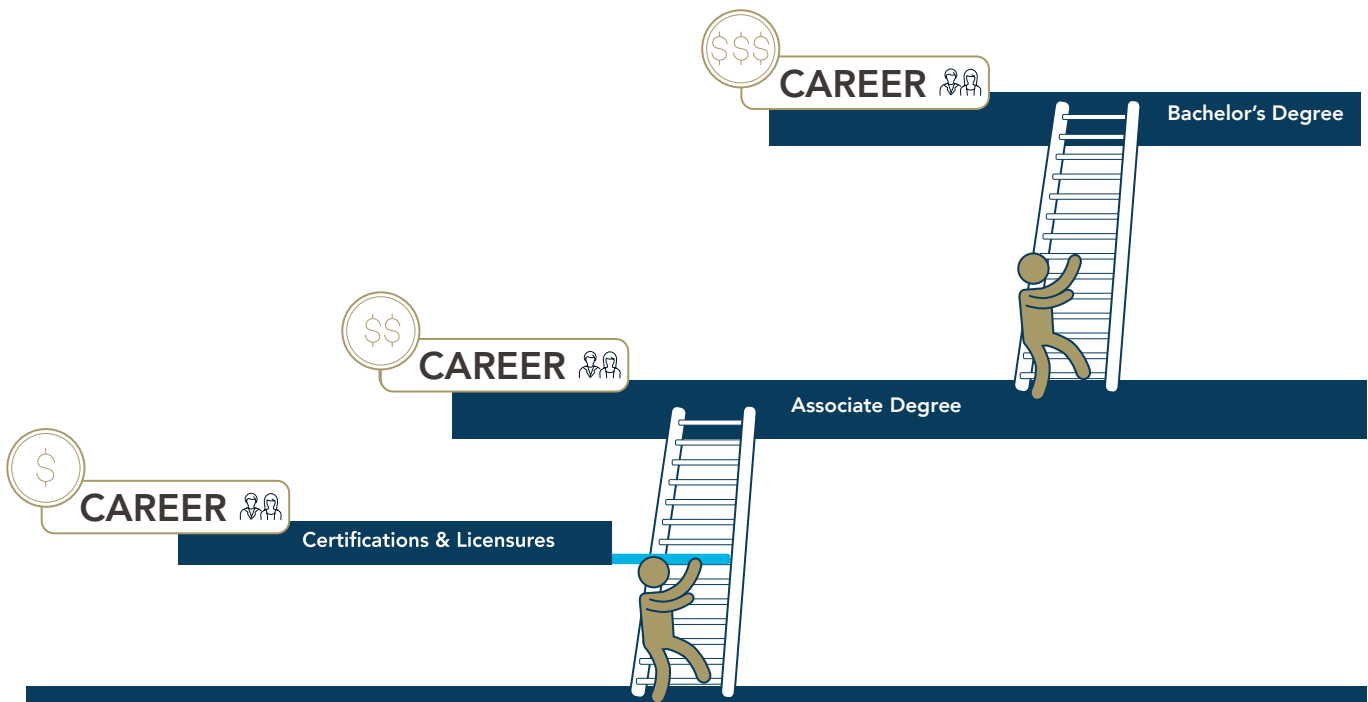
Ladder Economics

Completion of an academic credential or workforce training program is an important step for many in achieving economic opportunity, but alone, may not be sufficient in attaining longer term career and economic mobility. Typically, that requires continuous knowledge and skill development and progressive attainment of credentials meaningful in the workplace. The goal of Wake Tech's laddering initiative, or LadderWorks, is to create program connections and maps enabling residents of our region to attain economic and career mobility in our dynamic labor market. The LadderWorks initiative addresses the Active Employer Engagement and Career Ladders strategies of the college's Reach and Rally strategic plan.

Fundamentally, "ladder economics" is the promotion of economic mobility through the development, connection, and refinement of education and workforce training programs that foster career mobility and economic prosperity through progressive salary gains.

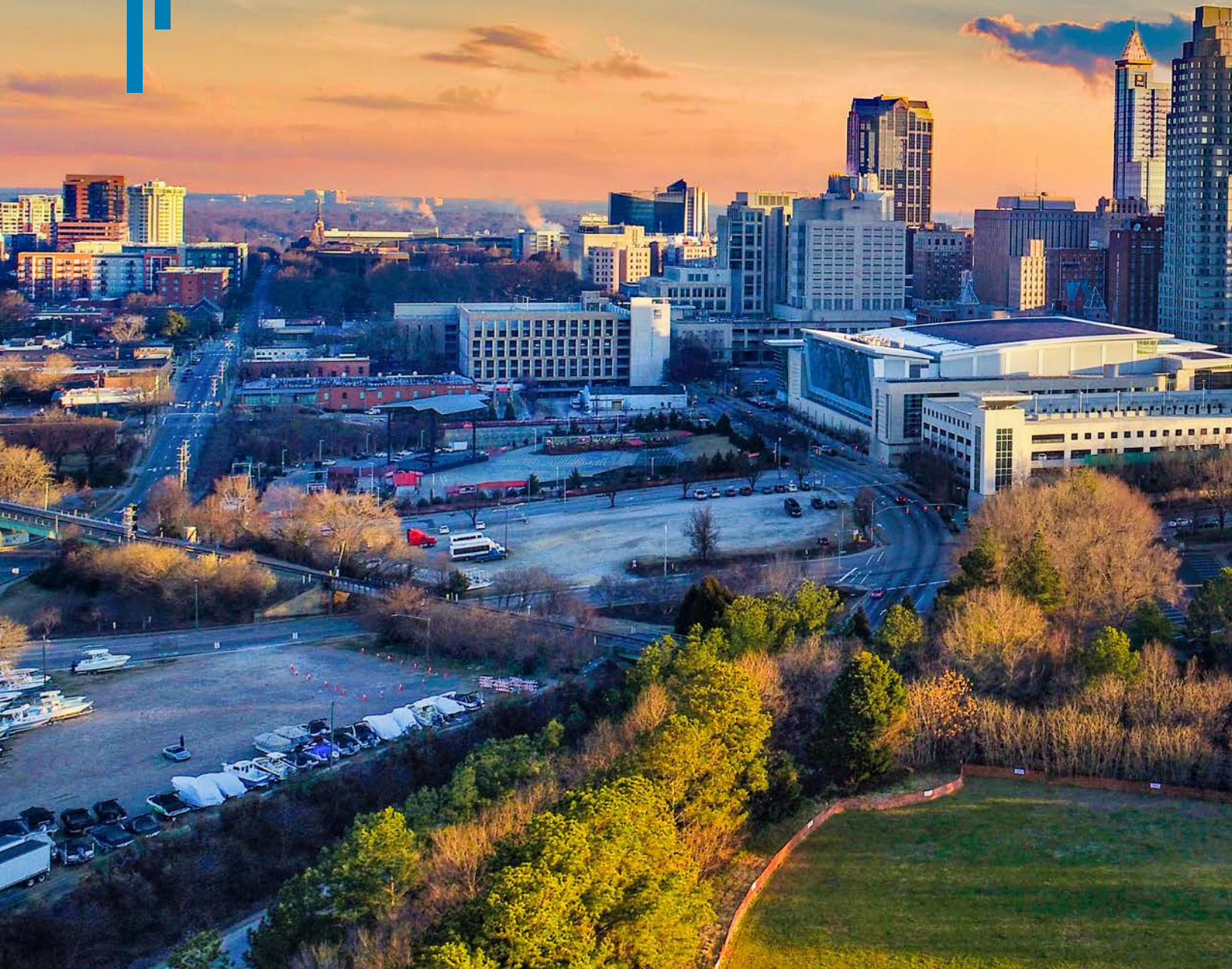
Effective "laddering" requires the continuous development and clear delineation of attainable steps to meaningful career opportunities, attainable through **connected** program rungs available through Wake Tech and our educational partners. It also requires the development of strong employer partnership "planks" that foster student opportunity in our regional economy. The development of strong program ladders entails the continuous backward mapping of employer skill targets into program requirements, and the forward scaffolding of program elements to job placement and career growth opportunities in the regional economy.

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WAKE COUNTY

North Carolina





Why Wake Tech?

The region we serve is one of the fastest growing in the nation, and higher education has played a fundamental role as a magnet to employers, families and students. While our region has been an effective magnet for economic opportunity, it has also been described as having a broken ladder. Children who grow up in lower socioeconomic conditions into our region have been found to be less likely to escape poverty as adults, compared to most other metropolitan regions in the nation. It is Wake Tech's strategic intent to change these circumstances by positioning ourselves as the region's largest "ladder college." While other colleges and universities may play a larger role in pulling people in to our region, Wake Tech's potential is to play the predominant role in pulling people up.

As an institution, Wake Tech is uniquely poised to serve this role and address our region's economic mobility challenge. We offer one of the nation's broadest arrays of non-degree programs, comprehensive opportunities for high school students through Career and College Promise and early college programs, stackable associate degrees with strategic employer and university partnerships, and perhaps the fastest growing work-based learning/apprenticeship program in the country. Because of the breadth and scale of our programs, Wake Tech can, with legitimacy, claim to be the nation's most comprehensive opportunity college. Key to achieving our strategic goal of fostering economic mobility for all in our region is ladder economics -- the connectivity of our program rungs, and the informational tools and employer partnerships that connect our students to our region's dynamic career opportunities.

Connecting Program Rungs

To foster the stronger program connections required for laddering, Wake Tech initiated a “One College” organizational restructuring to eliminate programmatic silos and foster seamless program connections, particularly between non-degree and degree programs where applicable. In this model, programmatic leadership and development of degree and non-degree offerings falls within the responsibilities of Provosts.

As part of our LadderWorks initiative, we are making significant steps to connect the following strategic program “rungs” that provide the opportunities for laddering.

Program “rungs” provide opportunities for laddering.



Foothold Training

Short-term training programs are a first step to attaining new job opportunities for many adults. Whenever feasible, short-term training should be a first step to both job attainment and career mobility through articulated degree credit. Wake Tech is fostering development of more foothold training programs providing students increased job opportunity through certification and/or licensure, and when possible, credit towards pre-apprenticeship and/or academic credit.

EXAMPLE



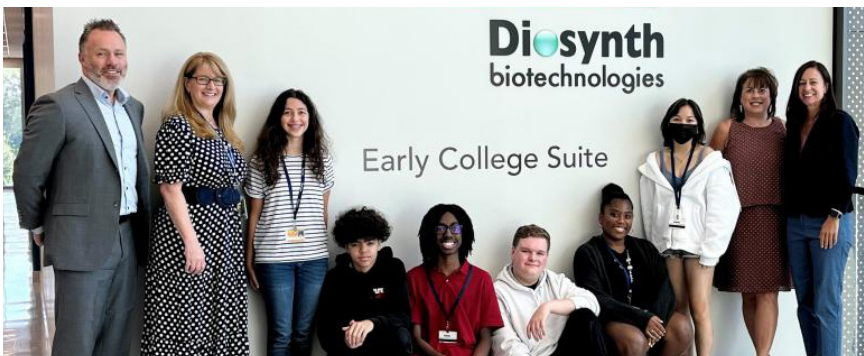
Through its Propel offerings, Wake Tech is providing free short-term workforce training courses that lead to high demand certifications and licensures, and/or are included as part of the NC Workforce Credentials master list. For example, all IT Propel training programs lead to industry certifications that count toward prior learning credit for one or more Wake Tech information technology degrees.



Aligned Dual Enrollment

Dual enrollment is a first rung for many high school students on a career ladder. More than 3,000 area public high school students enrolled free-of-charge in Wake Tech academic degree courses in Fall 2022. As part of the statewide Career and College Promise program, student course selections follow declared career/degree pathways. Through additional partnership with Wake County Public Schools, Wake Tech sponsors four cooperative innovative high schools enabling students to pursue specific associate degrees at specialized early college high schools. Wake Tech has a strategic goal to increase dual enrollment program offerings for more high school students in our region, and to connect adult high school equivalency students to foothold training and career ladders.

EXAMPLE



FUJIFILM

The Wake Early College of Information and Biotechnologies opened in Fall 2022 on Wake Tech's RTP Campus. The high school provides students the opportunity to simultaneously pursue and complete Wake Tech degrees in computer programming, cybersecurity, network management, and biotechnology. Wake Early College of Information and Biotechnologies has an enrollment target of 70% of students to be first-generation college students.

Stackable Credentials

Serving one of the nation's leading technology employment hubs, Wake County offers a number of tall opportunity ladders, meaning our region has both a higher number of job opportunities and opportunities for career growth, relative to most other regions. For many Wake Tech students, our degree programs form the core of our career ladders and wherever possible, Wake Tech strives to create and sustain stackable, demand-driven degree programs that lead to higher wages. Stackable means that whenever possible, applied degree programs have multiple points of potential entry and exit, and enable students the opportunity to gain certifications and certificates along the way to a valuable degree. In early 2010, Wake Tech was the lead North Carolina community college in a comprehensive statewide curriculum redesign to streamline and promote stackable credentials in over 80 technical degree program areas.

EXAMPLE



A certificate in Renewable Energy is available to students in the Wake Tech Electrical Systems Technology degree program providing hands-on training in photovoltaic systems in accordance with the North American Board of Certified Energy Practitioners standards. Electrical students may attain this certificate after previous completion of Residential Wiring and Commercial Wiring certificates, embedded within the Electrical AAS degree.



Solar Thermal Training

Work-based Learning

Work-based learning provides students a learn-and-earn “win-win” where they gain a “rung-up” with valuable work experience in their chosen career field along with a workforce-relevant credential that furthers career mobility. Many Wake Tech programs foster and encourage work-based learning experiences, enabling students to earn degree credit for on-the-job work experience. In addition, several non-degree programs also integrate work-based learning opportunities. Apprenticeship, the “gold standard of work-based learning” is rapidly expanding across many Wake Tech programs thanks to WakeWorks. The unique Wake County funded initiative facilitates employers in offering apprenticeship and provides scholarships to Wake Tech students participating in registered apprenticeship programs. In addition, high school students who begin youth apprenticeship programs while in high school receive tuition fee waivers at Wake Tech when employed as an adult apprentice within 120 days of high school graduation.

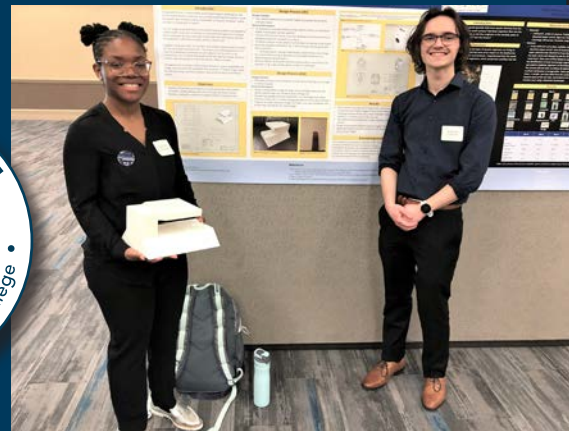


EXAMPLE



Wake County is a leading STEM (Science Technology Engineering Math) employment hub and Wake Tech has created a unique work-based learning opportunity for STEM students called START (Stem Academic Research Training and Transfer). Wake Tech STEM students selected for this program work on research projects with partner universities and research labs across the Research Triangle Region, while employed by Wake Tech and gaining valuable mentorship from partners and Wake Tech faculty.

START Program



Strategic Workforce Transfer and Student Entrepreneurship

For most career fields, upward mobility requires further learning after an associate degree. All associate degree programs at Wake Tech, including applied associate programs, have transfer opportunities to regional and national universities. As part of its laddering efforts, Wake Tech actively seeks strategic university articulation partnership where students in applied degree programs seamlessly transfer maximum credit into strong, employment-relevant bachelor's degree programs. Statewide articulation programs provide seamless articulation to UNC System and North Carolina private institutions in not only Associate in Arts and Science degrees, but also in Associate in Engineering, Teaching, and Fine Arts as well. For students in one-year diploma programs, Wake Tech seeks to provide entrepreneurship training and counseling opportunities and all Wake Tech students are eligible for start-up business venture funding through a pitch competition.

EXAMPLE



East Carolina's Bachelor of Science in Industrial Technology (BSIT) degree offers a seamless route to a four-year degree for many Wake Tech students enrolled in several workplace-relevant applied degree programs, including mechanical engineering, biopharmaceutical technology, and architectural design. Wake Tech and ECU recently signed an agreement where ECU is now offering the BSIT degree on-site at Wake Tech campuses.



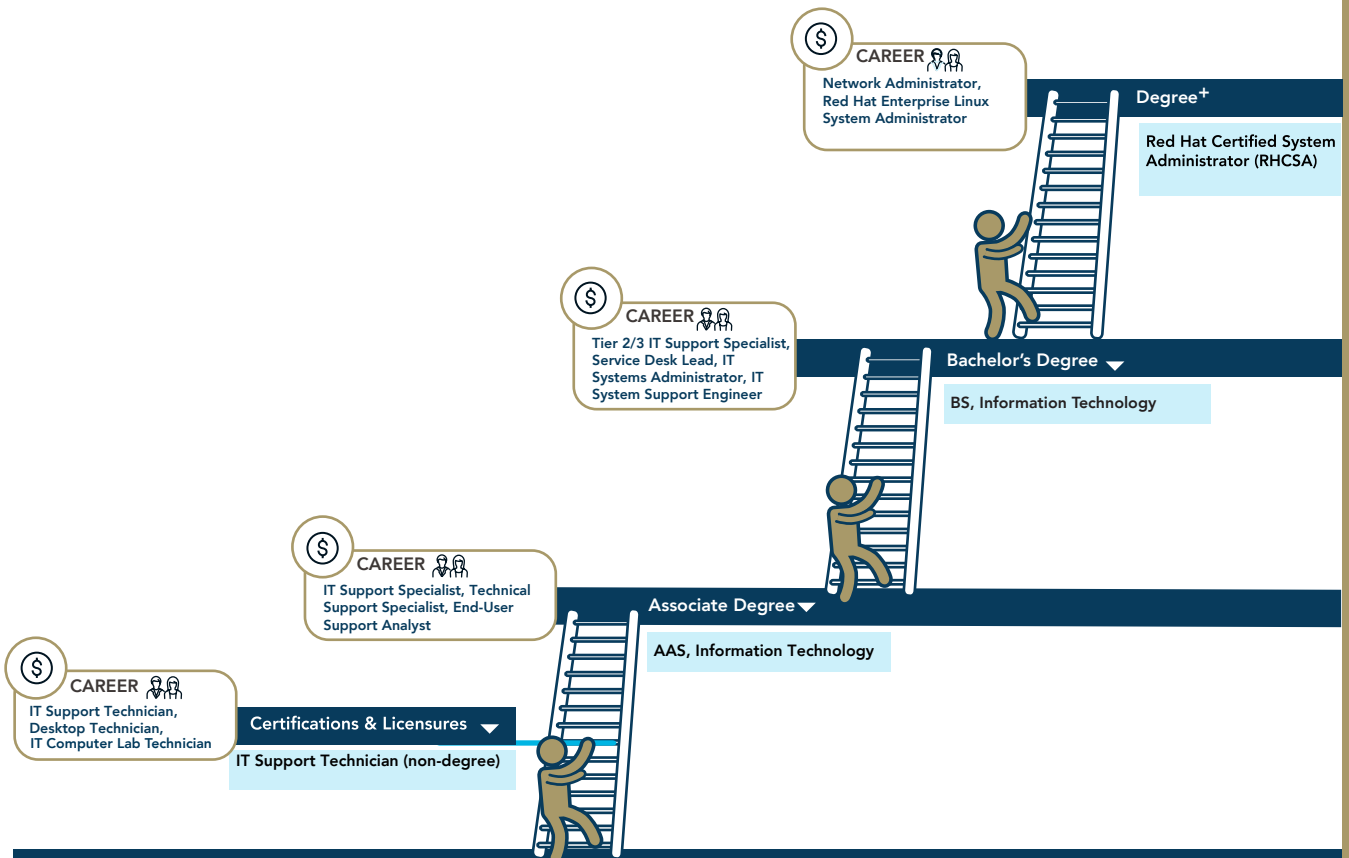
Degree Plus Skills

Working with Lightcast, Wake Tech career mapped each of its applied degree pathways with labor market information regarding both the skillsets and further academic credentials that provide degree graduates an employment and wage boost in the regional economy. Using this data, Wake Tech is adding accelerated Degree Plus training programs to its non-degree offerings, specifically targeted for adults who already have a college degree and work experience in a particular field. Currently over a quarter of Wake Tech students possess bachelor's or graduate degrees. In partnership with tech training leaders Momentum and Red Hat, Wake Tech began offering three Degree Plus IT programs: Collaborative Software Engineering Using Agile Methods and Git; Intro to Back End Software Engineering, and Red Hat Certified System Administrator.

EXAMPLE

More than 20% of Wake Tech students already possess a bachelor's degree or higher, and most enroll in the college's non-degree Workforce Continuing Education programs. These adults and working professionals are attracted to Wake Tech's Degree Plus certifications as a useful way to help them "ladder up" in their careers. Advanced skills programs in areas including biotechnology, healthcare, IT and management foster additional career mobility opportunities for existing degree holders. As an example, Wake Tech partners with Momentum Learning to provide accelerated training in software engineering skills going beyond the software development skillsets students learn in the Computer Programming curriculum. Another example is Wake Tech's collaboration with Red Hat to enable IT professionals to enhance their capabilities and earn the Red Hat Certified Administrator certification.

Information Technology Career Ladder



Planks and Tethers: Employer and Student Connections

Students are more tightly “tethered” to strong career ladders when they see direct connections to regional employment opportunities and the additional rung-by-rung opportunity that furthers career advancement and economic mobility as a result of their educational pursuits. A key to these tethering efforts is accurate, current, regionally relevant, and understandable Labor Market Information.

Active employer engagement is more than just a tether that connects students, but also a plank that holds career ladders together. The main reason many students enroll in Wake Tech programs is to connect with career opportunities in our regional labor market and attain career and economic mobility within our region.

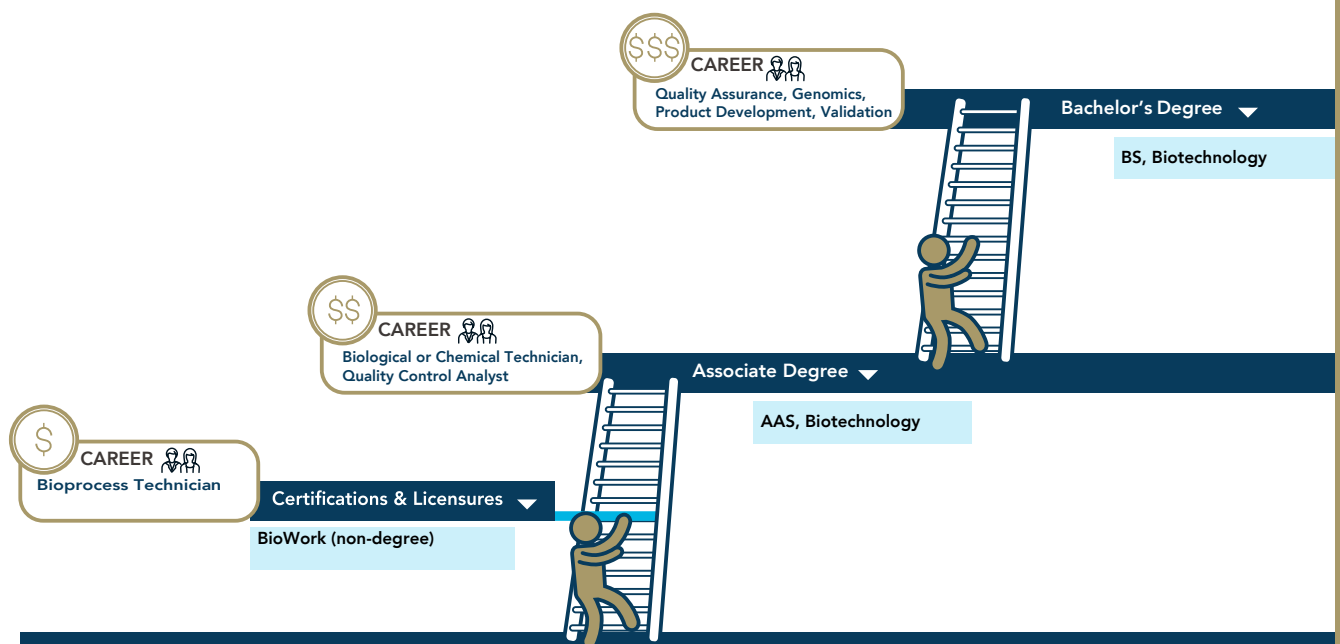
Employer Advisory Committees/Councils

Wake Tech proactively fosters employer connections through frequent informal and formal strategic connections. Consistent with the movement to a “one-college” organization structure, Wake Tech is revising its employer advisory committee structure to integrate career ladders, degree and non-degree opportunities, beyond the previous degree-only format. In addition, Provost Councils are being established to further sector-based engagement with regional employer leaders.

Career Fields/Exploration

Wake Tech offers perhaps the nation’s most comprehensive combination of degree and non-degree programs across multiple career areas of any college in the nation. A challenge for many Wake Tech students is navigating these opportunities -- both the breadth of different career fields offered and the laddering connections between programs. To facilitate student discovery of the myriad of Wake Tech opportunities, the college is redesigning and reorganizing its information and advising efforts along 13 defined career field areas, enabling students to drill down and discover the ladders most relevant and appropriate to them. Along with the defined career fields, the college is also redesigning advising to include a structured exploration option for students who need more time choosing a career field during their initial year of degree enrollment.

Biotechnology Career Ladder

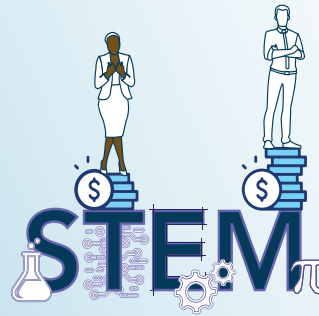


Nontraditional Participation/Success

In some high demand/high wage career fields (i.e., computer programming, engineering, skilled trades, etc.), the diversity of student enrollment and/or completion may be lacking. When this occurs, opportunity is lacking – opportunity for students to broadly share in economic prosperity and opportunity for employers to tap into a broad and diverse labor pool. Wake Tech attempts to encourage and promote broad participation and diversity across all program areas, with particular emphasis on high-wage areas that lack gender and/or racial diversity.

EXAMPLE

The Wake Invests in Women initiative is working to increase the number of women, particularly Black and Latina women, in high-wage, high-demand STEM professions and to reduce the wage gap that exists between male and female workers.



Wake Invests in Women is a workforce development initiative aimed at closing gender wage and representation gaps in STEM occupations, where the inequities for women are greatest.

Career Services

Consistent with the Wake Tech “one college” organizational strategy, a new Career Services division was created combining career development and employment resources previously aligned around separate degree and non-degree program areas. The new alignment facilitates ladder-based support for prospective students, current students, alumni, and the community.

Finish First 2.0

Wake Tech’s Effectiveness and Innovation Division created a unique student recovery analytics tool, Finish First, to target and customize outreach to degree student stop-outs. Through the Finish First 1.0 tool, targeted outreach to student degree stop-outs provided student specific information about how close their proximity to achieving specific credentials and the availability of courses required to complete those credentials. The innovation increased the effectiveness of Wake Tech stop-out outreach campaigns and became a statewide tool utilized to enhance outreach to adult learners in North Carolina. The goal of Finish First 2.0 will be to link course/credential information and labor market information, enabling students to know not only how close they are to attaining a credential, but also the added value of that credential in regional employability and earnings potential.

Glossary

Adult Learners – Adult learners are students between 25-44 years of age who typically do not enter an educational or workforce training program in the year following their high school graduation. Adult learners may be students enrolled in degree, non-degree, or adult basic education programs and are often working and attending college at the same time.

Aligned Dual Enrollment – Programs that allow high school students to enroll in college courses within defined program areas (i.e., Career and College Promise, Cooperative Innovative High Schools). Note: Dual enrollment in North Carolina refers to high school students taking college courses for college credit.

Apprenticeship – Apprenticeship programs are registered with the U.S. Department of Labor and are considered the “gold standard” of work-based learning. They require designated related training, a minimum number of on-the-job (OTJ) training hours, and a progressive wage structure where the apprentice receives a wage increase upon achieving journeyman status. Apprenticeship programs may be registered by an employer or through a sponsor program like Wake Tech’s WakeWorks.

Degree Plus Skills – Degree plus skills are skillsets earned by previous degree earners typically through non-credit or credit certificate programs that are documented to enhance a graduate’s employment prospects or salary potential.

Foothold Training – Non-degree workforce continuing education programs that lead to industry certifications and/or licensures recognized and valued by employers and designated prior learning credit toward an academic degree and/or pre-apprenticeship credit toward related instruction in an apprenticeship program.

Labor Market Information (LMI) – Labor market information is workforce and workplace related information such as employment and wage data that informs decisions such as student degree pathways, college program offerings, company employment decisions or public policy.

Laddering - Effective program “laddering” requires the continuous development and clear delineation of attainable steps to meaningful career opportunities, attainable through connected educational program rungs. It also entails the development of strong employer partnership “planks” that foster student opportunity in our regional economy. The development of strong program ladders requires the continuous backward mapping of employer skill targets into program requirements, and the forward scaffolding of program elements to job placement and career growth opportunities in the regional economy.

Ladder Economics - The promotion of economic mobility through the development, connection, and refinement of education and workforce training programs that foster career mobility and economic prosperity through progressive salary gains.

LadderWorks – Wake Tech’s strategic initiative, as called for in the Reach and Rally Strategic Plan, to foster economic mobility through connected programs, offered through Wake Tech or our educational partners, that provide clearly delineated steps in knowledge and skill attainment, career mobility, and labor market opportunity.

One College Organization Structure – Efforts to better connect program opportunities, advising/coaching, and student supports through the reduction of organizational functional delineations between degree and non-degree programs.

Planks – Planks are boards that hold ladder rungs in place. In ladder economics, employer and educational partnerships are the metaphorical planks that connect program rungs leading to career progression and economic mobility.

Pre-apprenticeship – Pre-apprenticeships are training programs and sets of services that prepare individuals to enter and succeed in a registered apprenticeship program. Non-degree Propel courses at Wake Tech that lead to third-party credentials articulating into degree programs that are designated as the related training for a registered apprenticeship program are examples of pre-apprenticeship.

Rungs – Rungs are steps on a ladder that enable an individual to climb higher because they are positionally located to the next step on the ladder, enabling the climber to take one rung at a time. In ladder economics, programs are the metaphorical “rungs” when they are deliberately connected to other programmatic rungs.

Stackable Credentials – College degrees that enable the earning of sub-credentials – certifications and certificates – as part of the ultimate degree attainment as well as multiple entry and exit points.

Strategic Workforce Transfer – Strategic workforce transfer refers to a degree pathway between Wake Tech and designated universities creating a ladder step (i.e., rung) from Wake Tech to bachelor and graduate degree opportunities. Strategic workforce transfer partnerships typically fall outside of statewide articulation agreements because they are most often articulation agreements between Wake Tech Associate in Applied Science Degrees and specific workforce-relevant bachelor’s degree programs with partner universities.

Tethers – Tethers keep individuals securely connected to unstable structures. In ladder economics, services and initiatives that keep students connected to a ladder pathway are examples of tethers.

Work-based Learning – Work-based experience, preferably paid, that results in academic degree credit as a result of the documented attainment of knowledge and skills.

Youth Apprenticeship – Youth apprenticeship programs integrate both high school career-technical education and college related training in a registered apprenticeship program for 16- to 24-year-olds. In North Carolina, youth apprentices employed as apprentices within 120 days of high school graduation receive tuition waivers.



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