ILLUMINATE

A pilot program developed by RITE

Illuminate IT was created by



With support from TECHCORPS and COEC



For Youth Opportunities Unlimited and the Young Adult Resource Center



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WELCOME TO

On behalf of the Regional Information Technology Engagement Board (RITE) and Youth Opportunities Unlimited (YOU), we are pleased that you are joining us for this program.

Illuminate IT is a career exploration and skill enhancement program for young adults who are considering a career in information technology. The program is aligned to the market demand for Customer Support Specialists and Help Desk Technicians. As an onramp to related work experience and continuing education required for this career pathway; students will build knowledge and baseline skills essential to these roles, explore hardware and software basics, learn first-hand from industry professionals working in this field and be prepared for further IT educational programming and related work experiences.

By the end of this program, you will:

- Understand the broad-based functions of IT in today's companies
- Understand the various roles professionals can play within these functions
- Be more skilled and knowledgeable
- Have more confidence to take the next step in your education and career path

In return, we ask for your commitment to learning and engagement in the program every day. Expect to learn and be challenged. Come prepared to each session and to engage positively with your peers, instructors and presenters. Doing these things will ensure the most positive outcomes for you and for all involved.

Thank you!

RITE Staff

Program Notes

What is IT?

Information Technology (IT) is the application of computers to store, study, retrieve, transmit, and manipulate data or information, often in the context of a business or other enterprise. IT is considered a subset of information and communications technology. Information and communication technology (ICT) stresses the role of unified communications and the integration of telecommunications (telephone lines and wireless signals), computers, as well as necessary enterprise software, middleware, storage, and audiovisual systems, which enable users to access, store, transmit, and manipulate information.

Source: Wikipedia

What is an IT Job?

There is no singular definition of an IT job. There are many, many things you can do within this field. Development, server administration, network engineer, tester, project manager, business analyst, systems analyst, database administrator, information security, help desk technician, and so on. Working with employers, RITE has identified four broad "pathways" or areas in IT, to be considered, as you navigate your next steps for education and employment.

- 1. Business Integration Accessing and analyzing enormous amounts of data to support business
- 2. Network, Security and Systems Administration Deploying and maintaining computer systems and networks
- 3. Development Software development for all forms of digital devices and applications
- 4. Internet and Interactive Media Internet development and maintenance and all forms of digital media to enable interaction with data and applications

What does Career Pathway mean?

Choosing to chart your employment future according to a career pathway means being intentional about your future. All jobs require specific competencies. Depending on the job, you need to understand the level of skill, knowledge, education, and experience that is required not only to enter but to succeed and thrive. With career pathways, you begin your long-term planning early. As a result, you have a sense of direction, and with each step you take, you build toward your future, a future where you can fulfill your potential on the job and in your family and communities.

Why Should You Consider an IT Career?

Just as digital technology is in every walk of life, Information Technology is one of the most diverse and varied career domains that exists. Working in IT, you can find yourself among some of the brightest minds of any industry, working in a recession-proof industry, making an above average salary, and being connected to the leading-edge technology advancements that are moving this planet forward into the future!

Careers in IT Pay Well

In 2016, according to TeamNEO, the median hourly wage for Computer and IT Workers, at all levels, from high school to advanced degrees, is \$35.28 per hour, or \$73,382. This is 66% above the median household income of \$44,190 in Cuyahoga County (2011-2015 ACS).

Careers in IT Provide Meaningful Work

IT professionals work on creative teams to develop cutting-edge products and solutions that help save lives, solve health problems, improve the environment, and keep us connected.

Careers in IT are Vast

As we said, IT is not just one type of job nor is it even just one category of jobs! It is in fact at least four categories and even within the four clusters, there are distinct tracks. In general, all IT careers are those that actively involve developing, innovating, or promoting the use of information technologies.

"Do not hire a man who does your work for money, but him who does it for love of it."

- Henry David Thoreau

Program Notes

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IT Jobs are in Demand

In a recent study produced by TeamNEO, Jobs for Computer and IT Workers were number one in terms of substantial demand by regional companies, offering family sustaining wages, and holding promise for future employment for Northeast Ohio residents.

Top Five IT Jobs in Demand:

- 1. Computer Support Specialist*
- 2. Software Developer / Engineer

- Systems Analyst
 Data Entry Clerk
 Network / Systems Administrator

Just last year, there were more than 1,778 job postings for Computer Support Specialists!

* Depending on the company, these same jobs may be titled Help Desk Technician or User Support Specialist.

Source: Labor Insight Jobs (Burning Glass Technologies)



IT Jobs are in Every Sector and Every Type of Company

Employers of all kinds need people to fill a diverse array of IT jobs. IT occupations exist in multi-national firms including advanced manufacturing, consumer goods, and health care. In addition, many IT jobs are available within small to medium size firms, such as those that provide consulting and technology services. IT is both a critical business function that support operations, as well as a strategy level that firms use to grow their competitive advantage.



Source: EMSI, NEO 18 County Region

Experience Matters: Find Ways to Use Your Skills and Knowledge

There is no time like the present to seek ways to put your skills and knowledge to work in applied settings. Experiential opportunities range from taking on projects to formal internships. You can gain experience and opportunities to build your skills through traditional and non-traditional means. Community service projects, helping a neighbor who is an entrepreneur with their start-up enterprise, or more formal work-based learning can all build your experience.

Internships are a very effective way to learn how a company works, get your foot in the door at a leading employer, showcase your talent, and gain inside experience that puts you high up on the candidate list. Many companies have paid internships and more and more are filling their entry level career pathway jobs directly from their internship programs.

Likewise, co-ops are offered by some educational institutions, combining classroom coursework with practical work experience. Academic credit is usually awarded for the work experience, and a positive work experience usually makes a strong candidate for hiring after the co-op is completed.

When you are thinking about colleges, ask college representatives to tell you about the experiential opportunities available to their students.

"I am who I am today because of the choices I made yesterday."

- Eleanor Roosevelt

Degrees are Worthy Pursuits:

Though Industry Certifications or Short-Term Training Can Pay Off

If you want to position yourself for a lifelong career with advancement potential in IT, the best pathway is a college degree. While there are jobs for high school graduates, in many cases industry certifications and experience are still required. There are many more opportunities for you if you do have a college degree. Job posting data from 2016 reveals that 56% of IT jobs require a minimum of an Associate Degree.

Certifications can sometimes be required of IT workers, by an employer, depending on the employee's responsibilities, level of seniority, and the nature of the work being performed. Once an employee is hired, the employer will typically pay for renewal of the employee's certification. Depending on the job, career pathway, company and industry; certifications can have a major positive impact on your employability and career advancement.

There are fast-track or "bootcamps" programs that offer more accelerated options, some as short as three months. And in some cases, there may be federal and state workforce funding available for those who are eligible.

Factors that Influence Education Decisions



What are Professional, Scientific, and Technical Services?

This category represents a wide range of services including: Legal, Accounting, Tax Preparation, Bookkeeping, and Payroll; Architectural, Engineering, and Related; Specialized Design; Computer Systems Design and Related; Management, Scientific, and Technical Consulting; Scientific Research and Development; Advertising and Related.

What does the Information Industry include?

This category entails traditional publishing, including software publishing, and publishing exclusively on the Internet; the motion picture, sound recording, traditional and over the internet broadcasting, telecommunications; Web search portals, data processing and information services.



What does the Other category include?

It include jobs in the Educational; Retail; Transportation and Warehousing; Utilities; Real Estate; Arts, Entertainment and Recreation; and Construction sectors.

"Every company is a technology company, no matter what product or service it provides. The companies that embrace this fact are the ones that shape our world."

- Forbes Magazine

IT is for me! How do I get started?

Get Career Counseling First

To be sure that this career is for you, take advantage of available resources to help decide which pathway is right for you. Determining your career goals and understanding the skills, knowledge, educational and experience requirements for the jobs that interest you most, are essential first steps. This intel will help you make informed choices and maximize your time and money! If IT is a career for you, then there is no time like the present to begin your preparation with expert guidance.

Think About Skills: "Hard" and "Soft"

All IT jobs require a combination of skills. Depending on your career pathway, the academic competencies and technical skills will vary. Not surprisingly, employers consider "soft skills" more critical to the success of an IT worker than their skills. These skills can be broken down into six clusters of soft skills – called Baseline Skills – that are required to varying degrees for some occupations and industries.



Top Baseline Skills Sought After by IT Employers:

Communication Skills Organizational Skills Writing Problem Solving Planning Project Management Research Microsoft Word + Office Customer Service

Source: Burning Glass, The Human Factor: The Hard Time Employers Have Finding Soft Skills, Nov. 2015.

Choosing Your Educational Pathway:

Once you know the requirements for your future career, you can research and choose which level of education best matches your career goal and personal situation. Some of the best training in the world is available in Northeast Ohio. Before choosing an education program:

- Check for strong connections with employers which hire graduates from the program
- Understand the entrance requirements including required skills, knowledge, and experience
- Explore funding options including grants, scholarships, and other financial aid and what funding will cover

In general, educational programs beyond high school are organized in the following ways:

- Non-Credit Programs are workshops, seminars, or courses that improve skills for professional development, but do not offer credit toward an academic degree.
- Certificates are documents granted by career centers and colleges after completion
 of study for specific occupations. Certificates usually require a full-time, six-month to
 one-year program of required courses or their part-time equivalent. Some certificates
 can be counted toward a higher degree, but this is not always the case.
- Associate Degrees are granted by colleges after students satisfactorily complete two-year, full-time programs of required college-level courses or their part-time equivalent.
- Bachelor's Degrees are granted by universities or colleges after students have satisfactorily completed four-year, full-time programs of required courses or their part-time equivalent.
- Advanced Degrees Master's, doctorate, or professional degrees (such as law or medicine) – are earned after Bachelor's degrees, taking at least an additional two years for full-time students to complete

Source: Ohio Means Jobs.com Guide to Higher Education

"Life is a matter of choices, and every choice you make, makes you."

- John C. Maxwell