

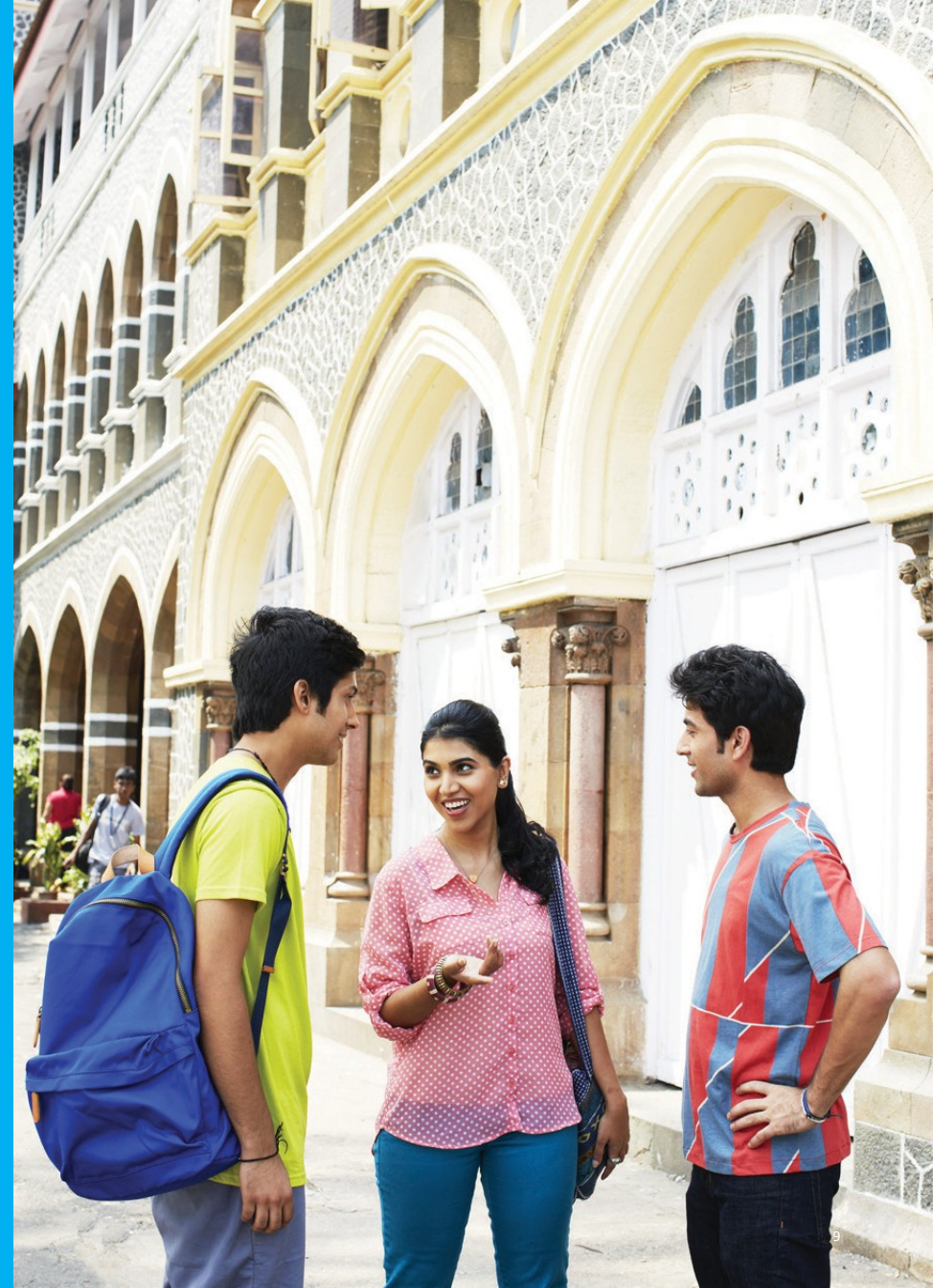
Microsoft Upskilling Programs

Talented people are everywhere. Microsoft supports over a **dozen** Upskilling programs around the world today. Some of our locations are shown below.

In London, **Berlin, and Johannesburg**, Microsoft offers a year-long apprenticeship program that helps thousands of young people get their foot in the door of the tech industry.

In **Bangalore and Seattle**, Microsoft

In New York and Colorado, Microsoft programs deliver middle-skills to mid-career adults in search of good-paying careers.



Chapter 1: Introduction to the Playbook

Cities across the United States and around the world are eager to address their own local skills gap and implement new models for upskilling their people in order to benefit from the increasingly tech-oriented 21st century economy. This playbook serves as a step-by-step guide for how to successfully implement a Tech Jobs Academy program.

While the intensive in-class portion of a Tech Jobs Academy instance may only last 18 weeks, work must be done before and after to ensure success. To make it simple and straightforward, the Tech Jobs Academy program has been broken out into three distinct phases:

- 1) Planning Phase,
- 2) Program Phase, and
- 3) Placement Phase.

The following terms and acronyms are used throughout the playbook, and are important to become familiar with.

- **Skills Gap:** a mismatch between employer needs and potential employee capabilities
- **Workforce Development:** focuses on investing in and training people to grow the economy. This includes equipping workers with the skills they need to thrive in a particular industry.
- **Coding Bootcamp:** a high-intensity technical training program that teaches programming
- **IT:** Information Technology
- **Cloud:** a network of remote servers on the Internet that store, manage and process data
- **Server Administration:** management of server hardware and/or remote servers
- **Dev Ops:** Development & Operations – a common job held by graduates
- **Cybersecurity:** the protection of networks, data, and computers from attack or unauthorized access
- **Web Development:** the building, creating, and maintaining of a website
- **Microsoft Partner Company:** one of the hundreds of thousands of businesses in the Microsoft ecosystem that uses Microsoft technology, resells, Microsoft technology, or teaches others how they can benefit from Microsoft technology
- **Microsoft Learning Partner:** a company that delivers the execution of Tech Jobs Academy program, which may include applying to

receive government funding or hiring a learning partner

- **Trainee:** accepted and enrolled Tech Jobs Academy participant.
- **Learning:** used to indicate that trainees are not necessarily undergraduate level
- **Cohort:** group of trainees within the same graduating class
- **Modules:** a specific topic area with a learning objective that collectively – in combination with other modules – make up a Course
- **Course:** a collection of related learning Modules that culminates with its own Microsoft certification exam, e.g. 70-410: Windows Server.
- **Learning Path:** collection of Courses that often leads to Microsoft Certified Solutions Associate (MCSE) certification. Defined by Microsoft (LeX). e.g. Cloud and Server Administration
- **Microsoft Certification Exam:** a time-bound examination developed by Microsoft to test the knowledge of a person in one of a variety of information technology subject areas
- **Certification:** the proof of knowledge received by a person who successfully passes a Microsoft Certification Exam
- **Voucher:** an access code used to sign up for a Microsoft Certification Exam
- **MCP:** Microsoft Certified Professional, the designation bestowed on a candidate who successfully passes a Microsoft Certification Exam
- **MCT:** Microsoft Trained Professional, a certification given by Microsoft for 1 successful certification exam
- **MCSA:** Microsoft Certified Solutions Associate

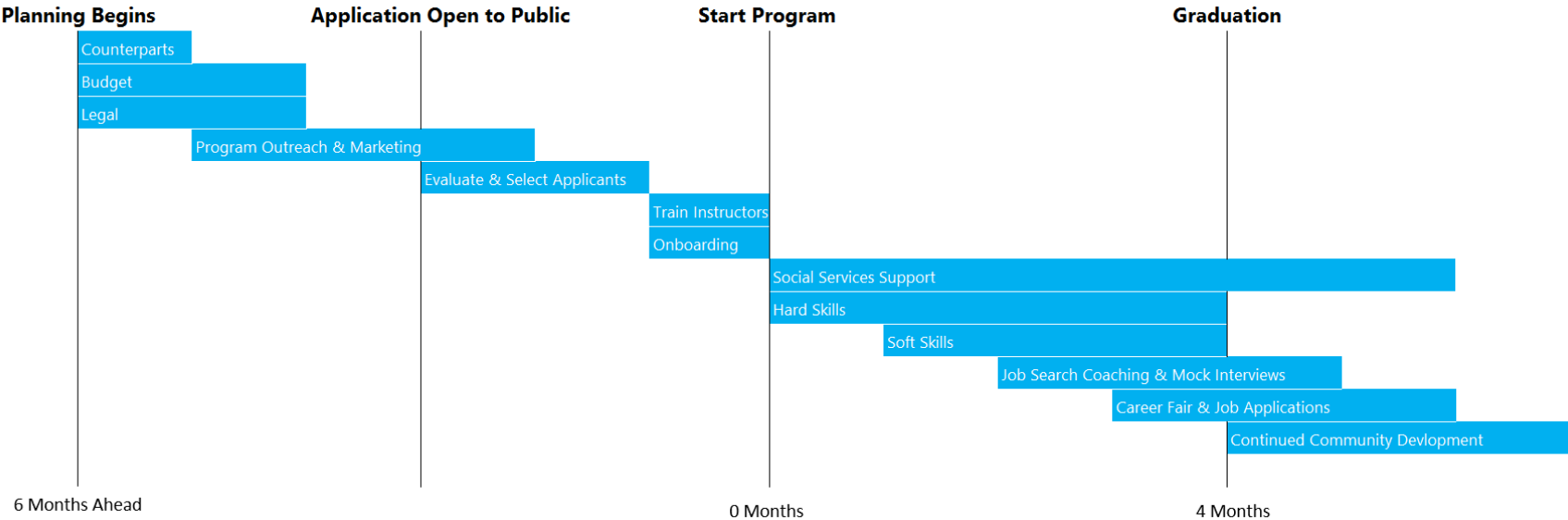
1.1:

Introduction to the Playbook

- **MCSE: Microsoft Certified Solutions Expert**
 - **MTA: Microsoft Technology Assessment**
 - **Microsoft Partner Ecosystem:**
 - **Funding Counterpart:** entities providing financial support to the Tech Jobs Academy program
 - **Education Delivery Counterpart:**
 - **Employment Counterpart:**
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1.2: Overall Timeline

Introduction to the Playbook

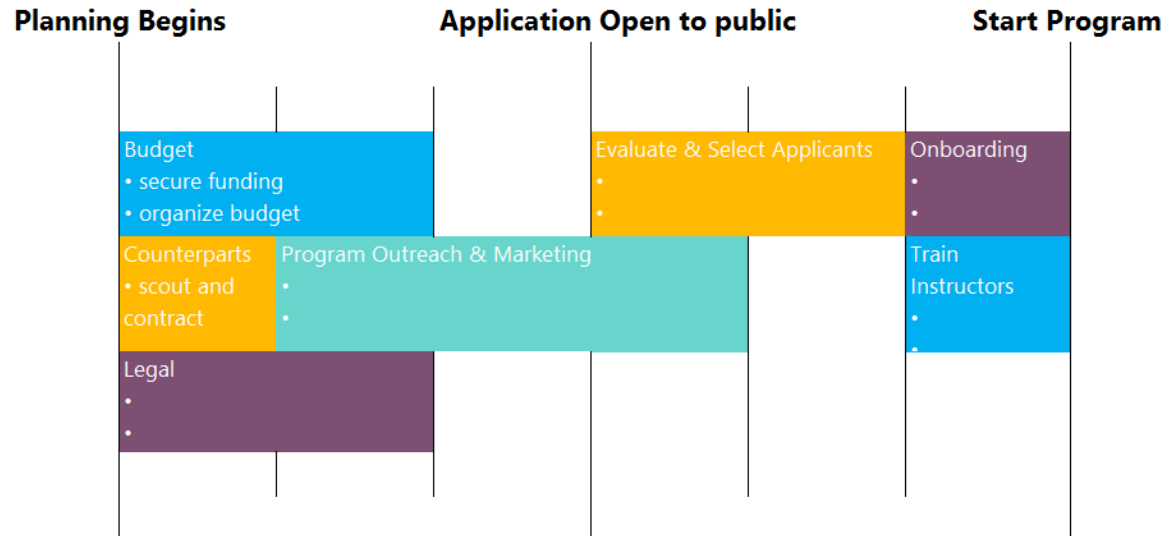


Chapter 2: Planning Phase

Understanding ahead of time the roles, financing structure, and legal requirements involved with running a Tech Jobs Academy program is critical for success. Teams looking to operate a Tech Jobs Academy should engage in a planning phase that ensures the program is ready to begin at its scheduled time.

Below is a tentative timeline with core items and tasks that should be addressed in those relative time periods. Tech Jobs Academy teams should be sure to consider any potential obstacles or additional preparations necessary, and adjust their own timelines accordingly.

Planning Phase



2.1: Market Research

Planning Phase

Contrary to the traditional “train-and-pray” model, where industry demand is not considered, this program emphasizes teaching the technical skills that local employers value most. Ultimately, this targeted approach leaves graduates better prepared to find full-time employment once the program concludes because they can offer in-demand skills.

Strategies:

If conducted successfully, market research should yield a clear understanding of the tech needs of local businesses. This is a critical first step in running a Tech Jobs Academy as the curriculum should be designed to meet this articulated need. This market research will also inform decisions on what types of instructors to hire.

Suggestion 1: key was to focus on skills gap so we wanted to make sure everyone was trained to meet the need of employers....

- took advantage of the fact that Microsoft has hundreds of thousands and in NYC alone over 1,000...so we sent them a survey....company's hungry for talent so willing to employ non-traditional*
- what skills do*
- cyber security cloud and server information*
- idea was to readminister the survey often*
- LinkedIn provided data from the economic graph*
-

Suggestion 2: what did we do here?

- Employment Counterparts - speak to the engineering/IT and/or HR team too
- Microsoft Partner Distribution List - **can talk about LinkedIn here

Expectations/Deliverables:

- Work with government entity/grant provider to complete paperwork
- Understand financial expectations to accept and manage public funding

Employment Counterpart:

This counterpart helps make job connections and provides industry knowledge to guide graduates through the interview process. This person is the eyes and ears of the industry. Note: The Education Delivery Counterpart may also serve the function of an Employment Counterpart.

Expectations/Deliverables:

- Possess a strong network of employers in the industry
- Work with trainees in a full-time capacity once instructional portion of the program is complete
- Assign a recruiter to each student

"this was a heavy lift manual process, it let us get in touch with thousands of Microsoft partner companies in the community – a much easier process would be to use LinkedIn, which puts out a

2.2: Counterparties

Planning Phase

Nothing worth doing can be done alone. The Tech Jobs Academy program includes a diverse set of community stakeholders. This collaborative approach not only helps connect our trainees to the best resources and employers, but also helps establish Tech Jobs Academy as the community-based, community-owned effort it should be.

In addition to Microsoft, which created the Tech Jobs Academy approach and framework, three other counterparts are needed:

1. Education Delivery Counterpart
2. Funding Counterpart
3. Employment Counterpart

There are also legal agreements that are important to establish within the counterpart relationships (see Section 2.5).

Education Delivery Counterpart:

This counterpart provides the Microsoft Certification.

Expectations/Deliverables:

- Hiring and managing education standards and metrics for success (KPIs)
- Work with a Microsoft Learning partner to purchase courseware through them

Funding Counterpart:

This counterpart accepts and manages public workforce training funds. If leveraging Workforce Innovation & Opportunity Act funding, most states empower local Workforce Investment Boards to make programmatic decisions.

Expectations/Deliverables:

- Work with government entity/grant provider to complete paperwork
- Understand financial expectations to accept and manage public funding

Employment Counterpart:

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2.3: Roles & Responsibilities

Planning Phase

Qualified and engaged staff are essential to a well-run Tech Jobs Academy and to trainees who the resources and support they need to succeed both during and beyond the program. The following chapter is an example of how these responsibilities could be distributed across a team of 5-6 people. While it is not necessary for a TJA program team to be comprised of the exact roles and titles below, each responsibility and job task should be accounted for.

Positions:

- Program Manager
- Financial/Accounts Manager
- Program Coordinator
- Case/Social Worker
- Microsoft Skills Instructor
- Backup Microsoft Skills Instructor
- Microsoft Skills TA
- Curriculum Designer
- Math Instructor
- Career Development and Interpersonal Skills Instructor
- Job Placement Team
- Administrative Assistant (as needed)

Program Manager:

The Program Manager is the point-person for Tech Jobs Academy and oversees all program operations. This role requires strong organizational and communication skills and an eye for detail.

Length: Full-Time

Tenure: Planning Phase, Program Phase, Placement Phase

Responsibilities:

- Planning
- Report to stakeholders
- Manage Tech Jobs Academy program
- Serve as the public face of the Tech Jobs Academy program in their city

Job Tasks:

- Run meetings
- Confirm curriculum, equipment and other program fundamentals
- Ensure Tech Jobs Academy is well represented to third parties
- Keep other program employees on task, accountable and engaged
- Collaborate with budget person to manage the financials

Skills/Experience:

- Detail oriented
- Organized
- Strong communicator

Financial/Accounts Manager:

This person is responsible for all the financial management and planning around Tech Jobs Academy. The person managing the budget should report directly to the Program Manager.

Length: Part-Time

Tenure: Planning Phase

Responsibilities:

- Manage general finances, as approved by Program Manager

Job Tasks:

- Work with vendors

2.3: Roles & Responsibilities

Planning Phase

- Manage invoices and reimbursements
- Locate and purchase equipment and resources as needed
- Report to Program Manager

Skills/Experience:

- Experience managing grant money
- Understand contracts, vendors, payment processing
- Detail-oriented

Program Coordinator:

This person will assist the Program Manager in all aspects of running a successful Tech Jobs Academy cohort.

Responsibilities:

- Support Program Manager in every aspect of their role

Job Tasks:

- Report to Program Manager

Skills/Experience:

- Organized
- Detail oriented

Case/Social Worker:

This person can be full-time or part-time and is critical to ensuring trainees succeed and complete the program. This employee will work with trainees to overcome obstacles at home and in their everyday environment that may impede their ability to get the most out of the program or find gainful employment upon completion.

Length: Part-Time

Involvement: During program phase

Responsibilities:

- Manage student experience throughout program
- Mitigate external factors hindering program performance and employment opportunities
- Develop 1-1 relationship with each member of the program

Job Tasks:

- Work with HRA to make sure trainees get the assistance they need
- Schedule meetings with trainees
- Explore avenues for student financial assistance and connect trainees to the relevant resources

Skills:

- Strong communication skills
- Well organized

Microsoft Skills Instructor:

This person is responsible for teaching the Microsoft technical curriculum.

Length: Part-Time

Tenure: Planning/Program Phase (??)

Responsibilities:

- Teach technical content
- Ensure trainees are on track with their learning
- Identify areas of improvement in the technical curriculum
- Keep the rest of the team informed on execution of the technical curriculum and student progress

Job Tasks:

- Grade assignments
- Assign quizzes, projects, homework
- Create schedule for technical aspect of the program
- Lecture and do demonstrations of technical concepts

2.3: Roles & Responsibilities

Planning Phase

- Install courseware/equipment on classroom computers
- Ensure all technical/hardware/software issues related to the Microsoft curriculum are resolved
- Report to Program Manager
- Manage Microsoft Skills TA

Skills:

Familiarity teaching in a classroom setting

Basic Excel/reporting tools

Communication skills

Must be a Microsoft Certified Trainer

Backup Microsoft Skills Instructor:

This person should be prepared to fill the teaching role, should Microsoft Skills Instructor not be able to come a class.

Length: Part-Time

Tenure: Planning/Program Phase (??)

Responsibilities:

- Keep up to date with program's status, specifically for the Microsoft component
- Be ready to fill in for the instructor at a moment's notice, including grading, troubleshoot, evaluating trainees, etc.

Job Tasks:

- Report to Microsoft Skills Instructor

Skills/Experience:

- Must be a Microsoft Certified Trainer

Microsoft Skills TA:

This person will assist the Microsoft Skills Instructor in delivering the Microsoft technical curriculum.

Length: Part-Time

Tenure: Planning/Program Phase (??)

Responsibilities:

- Ensure trainees are paying attention, engaged, and keeping up with course material
- Be ready to help trainees and instructor troubleshoot any technical issues or teach Microsoft content

Job Tasks:

- Be present throughout all technical lessons
- Manage the lab on days/hours during non-instructional hours when lab is available for trainees to come in
- Assist Microsoft Skills Instructor on grading, collected data, and generating reports on trainees for the rest of the team
- Report to Microsoft Skills Instructor

Skills/Experience:

- Knowledgeable on Microsoft technologies (preferably Microsoft Certified Instructor)

Curriculum Designer:

If this function is not done by the Microsoft Skills Instructor, this person will design the overall curriculum, particularly the technical component.

Length: Part-Time

Tenure: Planning Phase

Responsibilities:

- Work with team, specifically the Microsoft Skills Instructor, to design a curriculum that maximizes trainees' understanding of the concepts

Job Tasks:

- Report to Program Manager

2.3: Roles & Responsibilities

Planning Phase

Skills/Experience:

- Strong communication and writing skills
- Detail and process oriented
- Understand curriculum design
- Strong understanding of Microsoft content, preferred MCT

Math Instructor:

This role is to teach and manage the math curriculum.

Length: Part-Time

Tenure: Planning Phase (??)

Responsibilities:

- Grade assignments
- Assign quizzes, projects, homework
- Create schedule for math aspect of the program
- Work with team to make sure trainees get the instructional support they need outside of the program

Job Tasks:

- Report to program manager
- Work closely with Microsoft Skills Instructor or Microsoft curriculum designer to ensure that the math and Microsoft curriculum

Skills/Experience:

- Strong communication skills
- Previous teaching experience
- Knows how to manage a classroom
- In-depth knowledge of mathematical topics covered

Career Development & Interpersonal Skills

Instructor:

This person manages and delivers curriculum focused on

teaching skills and best practices that will be most helpful to them in their job search.

Length: Part-Time

Tenure: Planning Phase (??)

Responsibilities:

- Prepare trainees for employment opportunities and the job application process by creating workshops
- Report back to team on trainees' progress, including those who might need more time and attention
- Keep records of trainees' progress, including any grading or feedback given

Job Tasks:

- Review job application material (resume, cover letter, etc.)
- Work with trainees in groups and one-on-one to review their material
- Deliver curriculum via lectures, workshops, and one-on-one meetings with trainees
- Work closely with Microsoft Skills Instructor to tie in technical content when applicable
- Grade assignments and quizzes
- Assign quizzes and assignments
- Create schedule for delivery of curriculum in sync with the Microsoft curriculum
- Manage technical blog writing
- Report to Program Manager
- Work closely with instructional team

Skills/Experience:

- Understand the technical landscape, specifically in IT and the types of roles graduates would be applying for
- Strong communication and editing skills

2.3: Roles & Responsibilities

Planning Phase

Job Placement Team:

This team will work with graduates and employers to increase employment readiness and prospects.

Length: ?

Tenure: ?

Responsibilities:

- Outreach to potential employers and companies to inform them of Tech Jobs Academy
- Assist graduates in finding job opportunities, connecting with employers, and preparing for different stages of the interview process

Job Tasks:

- Resume and cover letter reviews
- Mock interviews
- Working with trainees one-on-one to help them navigate the job application process
- Reach out to potential employers who might be interested in working with graduates
- Work with potential employers to recommend graduates for specific positions
- Report to?
- Work closely with Career Development and Interpersonal Skills Instructor

Skills/Experience:

- Solid understanding of technical hiring process
- Has established network of recruiters and companies with existing open positions for related roles

Other Notes:

- There should be some overlap between the instructional delivery

- and the employment phase for the team to work with trainees, ideally an overlap of at least one-month.
- If possible, the job placement team can be very valuable in informing the career development and interpersonal skills training, and could be very helpful in making certain decisions based on local industry information and economic landscape early in the program timeline. It's worth having at least one meeting with them at the beginning of the instructional delivery portion.

Administrative Assistant (as needed):

This role is to make sure that program data and paperwork are appropriately organized and maintained at all times.

Length: ?

Tenure: ?

Responsibilities:

- Support the team in making sure all data is reported and managed, and all paperwork is properly processed

Job Tasks:

- Create systems to maximize productivity
- Ensure staff is up-to-date on and engaging with management systems
- Prepare reports to facilitate meetings and inform stakeholder decision-making
- Ensure student files/records are updated
- Collect, analyze, and maintain data relevant to program
- Report to?

Skills/Experience:

- Excel
- Basic data analysis and reporting
- Strong communication skills

2.4: Budget

Planning Phase

Below is a tentative outline of financial needs for the program, as well as a Sample Budget. Items purchased and this structure can vary as needed, based on your program.

Budgetary Considerations:

Planning & Development:

- Curriculum/planning/grading time - incorporating changes and updating the curriculum
- Review/plan/finalize curriculum

Staff:

- 10 hours per week - plus additional personnel time for tutoring with instructors and/or facilitated small groups with a teaching assistant.
- 2 hours per week - meetings to include all staff

Implementation:

- Lab Setup – Ideally 2 weeks before class start
 - Additional time for courseware/labs Installation, especially if switching or adding courseware
 - Additional time for new hardware
- 10 hours of feedback and Office Hours

Certifications:

- The commercial cost of exam vouchers in the U.S., as of July 2017, is \$165 per exam
- "Second Shot" policy: check the policy on retakes - depending on Microsoft's policy at the time, trainees might be eligible to retake the exam for free
- Academic Discount: consider trainees' eligibility for a discount for additional vouchers
- Study materials:
 - MeasureUp practice exams
 - Textbooks

Courseware: The core of Tech Jobs Academy courseware is comprised of a curated set of Microsoft Imagine Academy Modules, based on the selected track for a given cohort. For example, for the Cloud & Server Administration track, the curated set of modules includes the following:

- Courseware (required): 410, 411, 412, 246, 247, and 533
 - Includes online books, labs, and potentially exam vouchers
 - *Special Pricing: If the Funding Counterpart is an academic institution that has an IT Agreement with Microsoft, they'll be eligible for academic pricing. Courseware can be purchased a la carte for academic institutions.*
- Instructor Courseware
 - If hiring an MCT, this does not need to be purchased
 - If this is purchased, it is reusable

Physical Textbooks (optional): Physical textbooks are often ideal because they are reusable over multiple cohorts.

Travel Assistance: MetroCards or other mass transit vouchers are very helpful to trainees during both the instructional phase and employment phase, allowing them to arrive on time to classes, career fairs, and job interviews, without having to worry about cost – a likely barrier for many, given the underemployed/unemployed target demographic of Tech Jobs Academy.

Lunch: Providing lunch daily alleviates both the financial burden on trainees as well as the time needed to leave the building and return, which could otherwise be spent on instruction or community building.

Refrigerator, Coffee Machine, and Microwave:

Each of these minor expenses can make the training space more of a hub for activity, feel more like a community space, and will minimize the time spent on trips outside. If not available within venue, a moveable storage cart can hold a coffee machine and a microwave.

2.4: Budget

Planning Phase

Instructional Space:

Each of these components play a critical role in providing the optimal learning environment for trainees.

Classroom (without computers): This space is essential for focused lectures and for guest speakers.

- Equipment needed:
 - Moveable Desks
 - Moveable Chairs
 - Projector
- Purpose:
 - 1:1 meetings
 - Office hours
 - Professional development ...PD what? hours? Instruction?

Computer Lab (or general-purpose room containing computers): This is the main space for technical hands-on work to be completed with equipment, as well as taking any exams or quizzes.

Lounge/Breakout Space: Given the importance of building community, this space offers an environment for trainees to interact, eat lunch, and work on group projects. This also helps develop public speaking and presentation skills.

Sample Budget:

To the right is a sample budget that can be used for estimate/planning purposes. However, all costs should be verified prior to planning to confirm any variation in prices based on your location or time period. Be sure to factor in an extra portion of the budget for needs that may arise throughout the program.

[insert Sample Budget screenshots from pg. 36 once finalized]

2.5: Legal Considerations

Planning Phase

It is likely that the Counterparts involved in running a Tech Jobs Academy program will need legal documentation outlining the agreed upon roles and responsibilities. The following documents and topics may be of use.

Documents:

- Non-Disclosure Agreement – partners to sign to work with Microsoft

Topics to Address:

The following are just a few examples of topics that should be discussed amongst all Counterparts to reach an agreed upon position for each of them. This will help ensure accountability and a record of previous agreements between Counterparts.

- Personally Identifiable Information (PII): ensure privacy of trainees and adhere to government and/or academic requirements
- Trademarks: enact policy to guide usage (i.e. in marketing materials)
- Application Goals: The application for Tech Jobs Academy seeks to vet candidates based on how well they meet program requirements. The program is selective and applicants must demonstrate an ability to complete the course and the drive to pursue a tech career post-program.
- Application timeline
- Any agreements surrounding the online application

Note: Due to multi-party legal reviews, principles' schedules, edits to the documents, finalizing an agreement can take anywhere from weeks to months. In the case of the pilot program of Tech Jobs Academy, signing of the agreements took two months.

Legal Agreements:

It is important that Tech Jobs Academy Program Managers, staff, and counterparts adhere to the stipulations in the legal documents identified below, as well as any others that are deemed necessary.

- **MOU (Memorandum of Understanding):** This document outlines the roles and responsibilities of all counterparts involved.
- **Co-marketing Agreement:** The permissions, roles, and responsibilities around marketing and speaking about the program externally are outlined in this document. It also allows counterparts to utilize each other's logos for marketing purposes.
- **ICA (Independent Contractor Agreement):** This contract is to work with **learning partner**. If the **MCT (do we want to write this out)** is hired through the **Community Partner**, and if this partner is an educational institution, then the **Community Partner** will most likely require an ICA. Depending on the **community partner's** process, this might take months to complete and require several steps. It is therefore important to understand this process and the expected timeline well before beginning the delivery program to ensure all steps are complete in time for the program's launch. If possible, make room in the contract for the option of renewing with the MCT's company for future cohorts, to make the process in the future smoother. If future cohorts are already planned, include that information in the contract.

2.6: Marketing

Planning Phase

The following materials should be used to inform third parties about the Tech Jobs Academy program and update counterparts and trainees on important Tech Jobs Academy and Tech Jobs Academy related events.

Marketing Materials:

- Employer Info Sheet
- Application Info Sheet
- Fact Sheet

Outreach:

To attract the underserved populations Tech Jobs Academy focuses on serving, it is important to spread awareness of the program well in advance of the application process.

The following are a list of areas where outreach may be most effective:

- Public Institutions: ex. public libraries distribution lists
- Community Organizations: ex. technology/STEM education non-profits distribution lists
- Educational Institutions: ex. public and local colleges and universities
- Industry Events & Newsletters: ex. announcements at Meetups and on mailing lists
- Info Sessions: ex. events at public institutions and/or community organizations

Employment Counterpart:

As part of the job-seeking process, the Employment Counterpart has a major role in bringing in additional employers into the network, as well as onboarding existing employers on the Tech Jobs Academy curriculum and graduates. The goal is to have employers continually be in

touch through different cohorts as they seasonally hire.

The following may help achieve that goal:

- Informational & Introductory Calls
- In-Person & Virtual Info Sessions

Content:

This section includes the one-liner for the program, a standard overview of the pitch, and one-line bullet talking points for the program. This draft was used to craft a more targeted copy for the different marketing channels, including the website, print outs (one pager and info card), social media copy, and newsletter blurbs.

- **Program Description:** How the program is framed will be informed by the market research conducted in the very beginning of the program, and by the applicants the program is trying to attract. Based on that information, craft a short paragraph that best describes the program and can be used across different mediums and platforms.
- Talking Points/Fact Sheet
- Digital - Email, blog, social media copy, press release(s)
- **Info Card and One Pager (printed):** these marketing assets were designed for print
 - Info Sheet: print on heavy 5x7 card stock; highlight important program details, especially application deadline
 - One Sheet: expanded version of the info card containing more programmatic details; print on 8.5x11 paper

Digital Assets:

To ensure a wide reach, digital marketing and outreach is vital – especially maintaining an informative website

2.6: Marketing

Planning Phase

Website:

- Content: The goal of the website (techjobsacademy.com) is to provide a snapshot of what the program involves, layout the eligibility requirements and application process, and encourage eligible candidates to apply.
- Topics:
 - Program Overview
 - Curriculum
 - Application Process
 - Key Dates
 - How to Apply or Get Involved
- Notes:
 - The pilot Tech Jobs Academy website was built by Microsoft Civic Tech Fellows. For ease of use and replication, it was designed in Sketch and built using GitHub Pages.
 - Programming languages used: HTML, CSS, JavaScript
 - Frameworks & Grid: Bourbon frontend framework and Neat grid system and jQuery
- *Considerations: Given that the pilot deployment of Tech Jobs Academy program was a project funded by the NYC Tech Talent Pipeline (TTP), it was deemed important that TTP own the codebase for the site. Before public announcement of the site, Microsoft transferred ownership to TTP and remained open source contributors, making fixes and updating content.*

Mailing List:

- Collecting emails of those who express interest in the Tech Jobs Academy program and sending frequent updates to subscribers is a powerful to increase the number of completed applications received and build the Tech Jobs Academy community.

Microsoft Blog:

- Microsoft maintains a public blog to celebrate successful examples of technology serving the community.

- To share Tech Jobs Academy success stories, email: info@techjobsacademy.com

Social Media:

- What are we doing here? We don't have the official account...should we still encourage this?

Other Digital Channels:

- Unique URLs
- Event Listings

2.7: Applications & Analysis

Planning Phase

Tech Jobs Academy is committed to providing ambitious and qualified trainees who have everything but opportunity with the skills they need to secure a modern tech job. To this end, below are a few guidelines on how to structure the program's application and admissions process.

Application Criteria:

- Less than \$50,000 individual income
- United States resident
- Educational Background Minimum and/or Maximum

Note: the above criteria can be adjusted based on location. For example, the income level can be adjusted based on the cost of living in the city in which the program is being run. The residency requirement can similarly be made more specific – for the pilot program, the requirement was to be a New York City resident.

Also, it is worth considering setting a cap on not only individual income, but also household income. A learning of the pilot program in NYC was that there was one trainee who was making less than the \$50,000 cap, but whose spouse was making more than enough to comfortably support their household, resulting in the trainee not seeking employment post-program because there was no need for it.

Application Process:

The application process for Tech Jobs Academy involves four stages:

1. **Online Application:** This form is designed to screen for eligibility, get a sense of the applicant's writing and problem solving skills, and understand the applicant's career goals and ability to commit to this intensive program.

2. **Test of Adult Basic Education (TABE) Math and Reading Exams:** These placement tests are used to ensure that applicants have the minimum math and reading abilities needed to excel in the program.
3. **Microsoft Technology Assessment (MTA) Technical Exam in Networking Fundamentals:** this technical exam tests:
 - a. Applicants' ability to comprehend dense technical material and perform on an exam
 - b. Applicants' technical foundation in program material
 - c. As a benchmark, the NYC pilot of Tech Jobs Academy invited 73 people to take the MTA, 63 took the exam, and 52 passed.
4. **Group Interview:** This exercise includes a group problem-solving activity, and should be conducted with a small number of applicants.
 - a. The goals of this interview include determining applicants':
 - i. Interpersonal Ability: by evaluating how applicants conduct themselves in a group
 - ii. Technical Ability: by observing how the applicants approach an abstract problem
 - b. The interview assessment team is comprised of:
 - i. Program Manager
 - ii. Case Manager/Social Worker
 - iii. Technical Staff Member (instructor, TA, etc.)

Final Selection:

It is important to consider applicants ability to successfully complete the Tech Jobs Academy curriculum, however it is also essential to evaluate applicants based on need and determination to succeed post-program.

2.7: Applications & Analysis

Planning Phase

- Factors to consider in selection process:
 - Need: how important is this program to the person?
 - Motivation for applying: do their career/personal goals align with the intended goals of the program?
 - Availability: Can they commit to the program?
 - Team work ability: demonstrated during group interview and past experience
 - Aptitude: demonstrated by TABE exams and past experience
- Make selections in collaboration with multiple staff members from various Counterparts
- Accept: 25 applicants; Waitlist: 10 applicants (suggested)
- Once selections are made, send final emails to all applicants: invites, rejections, and waitlists

2.8: Performance & Data Management

Planning Phase

Collecting and managing data around both programmatic and trainee efforts is required. Keeping track of trainee's skillsets and job prospects before and after the program allow Tech Jobs Academy Program Managers to understand what is working and how the program might be improved in the future. Trainees rely on data collection and subsequent feedback to understand their own progress throughout the course.

The following are examples of many of the types of data that will need to be collected and managed, during each of the three phases: planning, program, and placement.

Planning Phase:

- Previous employment and salary records of applicants/accepted trainees

Program Phase:

- Attendance
- Quizzes & Tests
- Homework Submissions
- Group Projects
- Certification Scores
- Suggested tools:
 - Some large online education platforms offer Learning Management Systems. Ex: the EdX platform manages curriculum and grades.
 - Share Point: helps manage documents, slides, etc.

Placement Phase:

- Job-Seeking Activities
- Additional Certifications

- Continuing Education
- Suggested tools:
 - Microsoft OneDrive Shared Excel Spreadsheets: easy way to manage number job applications submitted or any other data collaboratively and in real-time

Follow-up to ensure data is not missing:

- After the program, graduates may be busy acclimating to a new job, moving, or addressing a host of personal issues. This can make it challenging to stay updated on graduates' post-program performance.
- Set expectations from the beginning of the program that staying in touch and updating Tech Jobs Academy coordinators on post-program performance and placement is part of the initial program commitment.
- Hosting community building events during the placement phase is a smart way to stay in touch with graduates.

2.9: Classroom Set Up

Planning Phase

Ensuring that working and learning spaces are set up before trainee onboarding will help program managers and instructors stay organized and save time later on in the program.

- Laptops and/or workstations: physical equipment that can handle the latest virtualization software
- Server(s): physical servers to demonstrate hands-on learning and skills development
- Wi-Fi & Ethernet: good stable Internet connection

Consideration: some trainees will not have access to a computer at home that can meet minimum software requirements

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2.10: Onboarding

Planning Phase

Seamless onboarding is essential to establishing high expectations and a culture of professionalism in the classroom.

Introductory Professional Development Skills:

These skills are especially important because the results of the pilot program showed that people who were knowledgeable in these areas or adept to learning these skills placed into job positions faster after the program, and had an easier time receiving interviews and/or moving onto the next phase in the interview process.

These skills include:

- Email etiquette
- Basic foundations of appropriate networking/professional behavior
- Downloading and practicing with necessary tools such as Skype, calendar management software, etc.

Cohort Communication:

Communication is critical within the cohort, especially in early stages when trainees may not be familiar with the Tech Jobs Academy processes.

- **SharePoint (staff, cohort):** Trainees should receive an invite to the Student SharePoint and the Cohort.
- **Teams:** Each cohort should have a Microsoft Teams channel setup for trainees to converse, share info, and post updates. It's also a fast way for instructors and staff to communicate information and make announcements quickly, or communicate with specific trainees. It's available for web, mobile, and a standalone app, and cohorts have found this to be an important tool in their

- program experience, especially as they build relationships with each other.
- **Outlook email addresses:** To join the Student SharePoint, trainees should have an Outlook email address. These email accounts should be setup by the trainees before the program begins, and to avoid confusion, should be used as their primary form of communication during program. Trainees should make sure they have access to their Outlook account in the same places they would normally access their regular email addresses (phone, tablet, etc.) to ensure smooth communication with the cohort.
- **Communication Procedures:**
 - **For trainees:** trainees should have clear contact info and communication guidelines for which staff member to reach out to in different situations. For each situation, they should at the very least send an email, and are welcome to use other forms of communication like direct messaging on Teams, text, phone call, etc.:
 - Attendance: Case manager, Program Manager
 - Late homework submissions: Program Manager, instructor who assigned the homework
 - Issues/complaints/feedback on the program: Program Manager
 - Issues/complaints/feedback on a program component (Microsoft, math, career & interpersonal): Program Manager, instructor of the component
 - Life update, announcement, concern, problem: Program Manager, Case manager
 - Other: Program Manager
 - **For staff:** Staff should be clear on how to communicate both with each other and with trainees.
 - Ideally, communication with other staff members

2.10: Onboarding

Planning Phase

should be done via email, with the use of text, phone call, or Teams messages in urgent/time-sensitive situations

- Any announcements, changes to the curriculum, changes to the schedule, etc. need to be communicated with staff first before being communicated with trainees. This should be done via email, with the use of messages on Teams, text, phone as an additional form of communication.
 - Any changes to the program or instructional component that will affect the trainees' program experience and/or learning should not be communicated with the trainees without it going through the Program Manager. It is up to the instructors and staff members' discretion, but if the specific scenario calls for a need to communicate directly with trainees without first going through the Program Manager, the Program Manager must be CC'd on that communication, so they are kept in the loop
- **Absent Instructor Protocol:**
 - Microsoft Skills Instructor must notify both the Program Manager and the backup instructor
 - Backup instructor must stay abreast of program and student progress to be able to come in and pick things up from where they were left. This shouldn't take more than an email update once a month.

The backup instructor should be ready to come in to fill the spot of the primary Microsoft Skills Instructor seamlessly, whether that role is giving a lecture, providing feedback on group projects, or administering a quiz.

Pre-Work: (better term?)

- **Industry knowledge:** Links, videos, articles that talk a bit more about the industry and what it's like to hold certain roles are helpful for trainees. Any resources that might give people a clearer picture of what a day in the life would be like on the job would help trainees' expectations as they go through the program.
- **Technical knowledge:** Links, videos, articles that cover important foundational technical knowledge before starting the program are crucial in giving trainees a solid technical baseline to help them once they begin the program. It also introduces them to basic concepts and keywords that will be used regularly throughout the program. This familiarity will make it easier for them to dive into technical concepts. It will also decrease the likely disparity between the tech knowledge of trainees with and without past technical experience.
- **Format:** This pre-work can be a collection of links, about should add up to about 30 hours of work at most. Ideally, there would be a breakdown of three levels for trainees: minimum review (10 hours total), good review (20 hours total), stretch goals (30 hours total).

Eligibility Verification:

- With government funding, budget a minimum of 1 week prior to the program to verify student's documentation on an Eligibility Verification day
- Potential trainees should bring all required documentation. It is suggested that extra documents and additional information are supplied for trainees to bring

Student IDs:

Depending on program venues, trainees may require valid

2.10: Onboarding

Planning Phase

government issued IDs and/or student IDs to enter the building before, after and during class.

Suggestion: Arrange for student ID photos to be taken during Eligibility Verification Day to avoid multiple onsite trips by trainees.

Curriculum Expectations:

These guidelines and requirements should be agreed upon in advance by both instructors and trainees.

- Syllabus
- Rubrics – clear rubric provided
- Feedback – focus on providing feedback over academic performance
- Organization – posted on SharePoint

Attendance Expectations:

Attendance is critical for both programmatic and individual trainee success.

- Establish strict expectations from the first day, have trainees agree and sign attendance pledge
- Important note: public funding requires attendance and accurate recordkeeping
- Late or Absentees should be contacted within 24 hours to remind them of attendance compliance

Post-Program Expectations:

Two-sided communication after the program is complete is critical for data collection

- Sign agreement to get them to respond to requests for info/updates once they've graduated

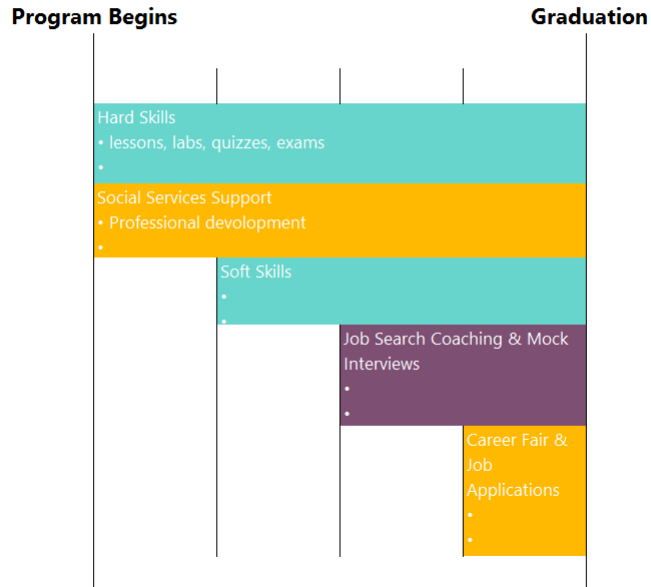
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NEWChapter 3: Program Phase

The Tech Jobs Academy program is broken into different sections, the first being technical training. The goal of a Tech Jobs Academy program is to not only equip trainees with new skills, but to also guide them towards successful employment opportunities in the post-training phase of the program. Additionally, organizing follow-up events and continual check-ins with graduates allows for the program to reach its full potential.

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Program Phase



3.1: Instructional Delivery

Program Phase

The instructional portion is broken down into a few standard academic components but with additional exercises which include technical knowledge demonstration.

- **Lectures:** 1-2 hours of instruction including PowerPoint slides, white/black board exercises, and group activities
- **Quizzes & Tests:** weekly and bi-weekly exams to encompass materials from certification exams and class materials
- **Suggested:** PowerShell Exercises – quick morning quizzes to go through PowerShell scripting
- **Homework:** daily assignments to practice acquired knowledge and skills
- **Team Projects:** longer-term, 1-1.5 weeks to problem-solve technical case studies and present project and technical learnings

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3.2: Hard Skills Curriculum

Program Phase

The Tech Jobs Academy curriculum is what sets our efforts apart from other training programs. Our course is designed to be responsive to local employer needs while also offering trainees a core skillset of both hard tech skills and soft-skill interpersonal development.

Microsoft Technologies:

Course Objectives: The Microsoft curriculum is designed to help students review and master Windows server fundamentals, design and implement server infrastructure, learn PowerShell 3.0, and build and integrate Azure infrastructure. Trainees study the courses below, and work toward a group project encompassing the different topics of the program.

Class Resources: Trainees leverage Microsoft official courseware, which includes online labs and technical books, as well as lectures, quizzes, and hands-on group projects to learn the material, apply the knowledge, and gain the technical skills needed for a role as a sysadmin.

Course 20410: Installing and Configuring Windows Server® 2012

This course focuses on the initial implementation and configuration of core services, such as Networking, Storage, Active Directory Domain Services (AD DS), Group Policy, File and Print Services, and Hyper-V.

Course 20411: Administering Windows Server® 2012

This course focuses on the administration tasks necessary to maintain a Windows Server 2012 infrastructure such as configuring and troubleshooting name resolution, user and group management with Active Directory Domain Services (AD DS) and Group Policy, implementing Remote Access solutions such as DirectAccess, VPNs and Web Application

Proxy, implementing Network Policies and Network Access Protection, Data Security, deployment and maintenance of server images, as well as updates.

Course 20412: Configuring Advanced Windows Server® 2012 Services

This course focuses on advanced configuration of services necessary to deploy, manage and maintain a Windows Server 2012 infrastructure, such as advanced networking services, Active Directory Domain Services (AD DS), Active Directory Rights Management Services (AD RMS), Active Directory Federation Services (AD FS), Network Load Balancing, Failover Clustering, business continuity and disaster recovery services as well as access and information provisioning and protection technologies such as Dynamic Access Control (DAC), and Web Application Proxy integration with AD FS and Workplace Join.

Course 20246: Monitoring and Operating a Private Cloud

This course describes how to monitor and operate a cloud with Microsoft® System Center 2012 R2. This course focuses on how to manage and administer a cloud environment, and it describes how you can monitor key infrastructure elements and applications that run within a cloud. This course equips trainees with the skills they require to configure and deploy a cloud using Microsoft System Center 2012 R2

Course 20247: Configuring and Deploying a Private Cloud

This course equips trainees with the skills they require to configure and deploy a cloud using Microsoft System Center 2012 R2.

Course 20533: Implementing Microsoft Azure Infrastructure Solutions

This course is aimed at experienced IT Professionals who currently administer their on-premises infrastructure. The course introduces the trainees to Microsoft Azure and then

3.2: Hard Skills Curriculum

Program Phase

teaches them how to manage their infrastructure in Azure rather than on-premises.

Math:

[intro]

Course Objectives: The purpose of this course is to provide trainees with the mathematical skills necessary to succeed in the Microsoft coursework and to advance in the industry. In furtherance of these goals, this course focuses on Algebra, Logic, Boolean Algebra, and the Binary, Octal, and Hexadecimal Number Systems. Furthermore, trainees develop analytical and problem-solving skills and practice presenting to other trainees their independent projects that display an understanding of these concepts.

Class Resources: Logic Demystified, by Anthony Boutelle and Stan Gibilisco (“Logic”), McGraw Hill; Statistics Demystified, by Stan Gibilisco (“Stats”), McGraw Hill, 2d ed.; Handout 1: Exponents (“H/O 1”); Handout 2: Functions (“H/O 2”). This curriculum is delivered in a combination of lectures, in-class assignments, and quizzes.

Topics:

- Decimal System/Exponents
- Algebra: Functions/Variable Substitution
- Formal Logic Overview
- Boolean Algebra
- Sets/Venn Diagrams
- Binary/Octal/Hexadecimal System

Additional Curriculum:

Successful trainees had a working understanding of other technologies, terms, and methodologies. These are the ones the pilot program identified as industry standard, and that

Employment Counterparts have identified as needing to be added or strengthened.

- **Tech Ecosystem:** how do tech teams work, where/how does cloud & server administration work
 - **Agile/SCRUM:** software development methodology
 - **Issue Management:** understanding how to get troubleshooting information from users, and how ticketing/issue tracking software works
- **Unix Fundamentals**
 - File Systems
 - Shells
 - Package Management
 - The Boot Process
 - Useful Shells Tools
 - Crontab
- **Networking**
 - The RFC Documents
 - OSI 7-Layer Model (OSI Reference Model)
 - TCP/IP (ARPA) 4-Layer Model
 - IP Addressing
 - TCP vs. UDP
 - Subnetting, netmasks, and CIDR
 - Classful Addressing
 - Private Address Space (RFC 1918)
 - Static Routing
 - NAT
 - Networking Cable
- **Troubleshooting**
 - Methodologies
 - Working effectively during a crisis

3.2: Hard Skills Curriculum

Program Phase

- **Hardware**

- Hardware Types
- Basic Server Architecture
- Disk Management
- Performance/Redundancy
- Troubleshooting

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- **Datacenters**

- Power Budgets
- Cooling Budgets
- You will be judged by the tidiness of your rack
- Machine and Cable Labeling
- Traditional Naming Conventions

Suggested Additional Curriculum: Open Source documentation at [OpsSchool.com](https://opschool.com)



Design and Implement
Server Infrastructure



Build and Integrate
Azure Infrastructure



Deep Dive Into
PowerShell 3.0



Learn Windows
Server Fundamentals



Prepare and Review
Resumes and Cover Letters



Improve
Interview Skills

3.3: Certification Exams

Program Phase

Standardized testing allows Tech Jobs Academy trainees to display their knowledge on par with experienced industry practitioners. This is a critical aspect of the program in that it offers potential employers a credible verification that trainees possess certain job-specific skills.

For trainees without prior technical experience and/or a traditional educational undergraduate degree, these can serve in the interim for work experience. However, we have found that mentioning the hands-on training as part of the work experience important for the job-seeking process.

Relevant exams include:

- 98-366: Networking Fundamentals
- 70-410: Installing and Configuring Windows Server 2012
- 70-411: Administering Windows Server 2012
- 70-412: Configuring Advanced Windows Server 2012 Services
- 70-246: Monitoring and Operating a Private Cloud
- 70-247: Configuring and Deploying a Private Cloud
- 70-533: Implementing Microsoft Azure Infrastructure Solutions

NEW3.4: Soft Skills Curriculum

Program Phase

Soft skills integration into the Tech Jobs Academy program offer trainees a competitive advantage over their peers.

Class Resources: Class slides and handouts are posted on the program SharePoint. The curriculum is delivered using a combination of assignments, lectures, and workshops. Representatives from the industry are invited to attend as guest speakers.

Topics:

- **Communicating Technical Knowledge**
 - Written and verbal communication skills
- **Career Development Workshops**
 - Technical writing (Blog Posts)
 - LinkedIn
 - Resume
 - Crafting your story: elevator pitch and in-person networking
- **Time Management**
- **Team Building & Navigating Team Projects**
 - Resume, cover letter, and portfolio review
 - Negotiating/offer letters
 - Technical speaking and presentations
- **Understanding the Industry**
 - Guest speakers from the industry
 - Panel event(s)
 - In-class guest speaker(s)
 - Field trips
 - Career fair
 - Tech conference
 - Tech tools and systems/career paths
 - Mock technical interviews

- **Ongoing**
 - Technical writing (blog posts)
 - Speaking/interview prep (verbal communication skills)
 - Researching and applying to jobs

Technical Interviewing:

Many trainees do not have previous experience in technical interviews, making this a very important skill to build considering how critical of a component they are to the employment process.

Note: during the pilot program, trainees from non-traditional, and/or non-IT backgrounds needed the most help with their technical interview skills. Despite high performance in class or receiving certifications, if they lacked communication and problem-solving skills, they had a difficult time with job-seeking.

- **Asking informed questions**
- **Problem-solving**

3.5: Team Projects

Program Phase

Team projects were designed to not only test and provide hands-on technical work practice, but enable trainees to develop problem-solving skills. Team projects assume that the basics of the technical curriculum have been delivered, as well as preliminary homework and quizzes, so that trainees can focus on the teamwork aspect of these projects.

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These projects enable trainees to take-on roles that they may encounter in a work environment, and to also practice their public speaking skills – which are critical for technical interviews and the job-seeking process.

Team Pairings:

Groups were paired randomly in the beginning to allow trainees to work with others they were not seated near. Later in the program, groups were paired to evenly distribute trainees based on individual technical acumen.

Learnings: Distribute teams to include gender diversity when possible. E.g. 1-2 women per 5-person group.

Individual Team Roles:

Each person should be able to work together and present and explain their work and explain their choices.

Rubric:

3.6: Building Community

Program Phase

Community building was one of the most valuable aspects of the program and indicators of trainee success, in terms of outside learning, networking, and connecting them to opportunities.

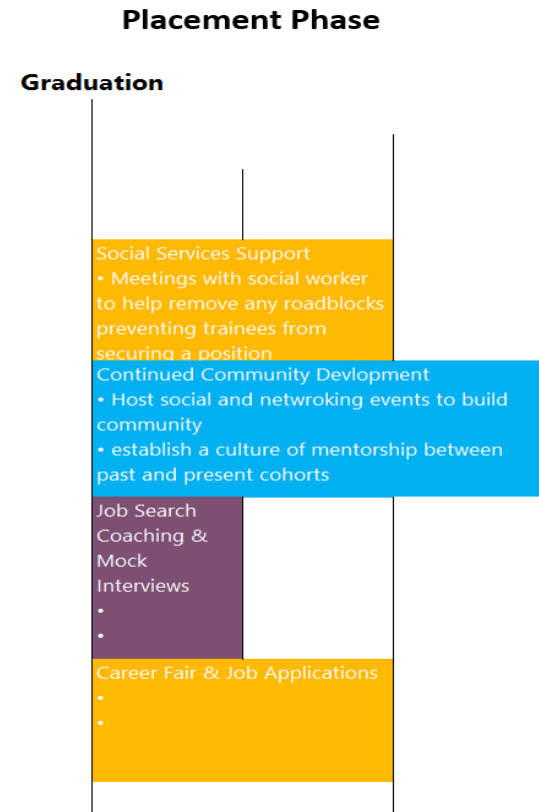
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- **Conferences & Industry Events** – 1 group field trip to a related IT conference and regular encouragement to attend industry events such as Meetups, workshops, panels, talks, networking etc.
- **Communication**
- **Live Group Chat** – allow people to communicate instantaneously to share anything relevant to their studies and professional development i.e. Microsoft Teams
- **Newsletter -**
- **Suggested:** streamline communication with a weekly newsletter with industry events, suggested additional reading, and/or learning material

NEWChapter 4: Placement Phase

- *Study Groups – trainees pursuing additional certifications*
- *Coffee Fridays – regular meetings to check-in with trainees, assist with their job-seeking*

Below is a tentative timeline with core items and tasks that should be addressed in those relative time periods. Tech Jobs Academy teams should be sure to consider any potential obstacles or additional preparations necessary, and adjust their own timelines accordingly.



NEW4.1: Job Search

Placement Phase

The job search phase of Tech Jobs Academy is where the entire program should come together.

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Coordinate with the Employment Counterpart

From the the planning phase onward, Tech Jobs Academy facilitators should be in communication with the employment counterpart to ensure that graduates succeed in finding placement, post-program.

Job Search Expectations:

The purpose of the Tech Jobs Academy program is to place graduates in post-program roles that change their opportunity set and increase their annual income in a meaningful way.

- **Job Search Pledge** – trainees must commit at the start of the program to engaging with resources made available through Tech Jobs Academy and conducting their own efforts, as necessary, to secure post-program employment.
- **Soft Skills** – encourage trainees to think of the soft skills integration of the Tech Jobs Academy program as their competitive edge when going into networking events and interviews.
- **Follow Up** – ensure that program managers stay in touch with graduates to track performance and learn about opportunities that are a good fit for Tech Jobs Academy alumni.

4.2: Tracking Career Progress

Placement Phase

This is how Tech Jobs Academy program facilitators will learn how to improve the program and which trainees may need additional job-placement support. By tracking participant and graduate outcomes are tracked before, during, and after the Tech Jobs Academy training period. This offers stakeholders an opportunity to celebrate the program's success stories and inspire other trainees during their job-search process.

Collect:

- Offer Letters
- Job Title
- Start Date
- Salary/Hourly Wage
- Paystubs

Possible Statuses:

- Employed
 - Full-time (FT) Technical
 - Full-time (FT) Non-Technical
 - Part-time (PT) Technical
 - Part-Time (PT) Non-Technical
- Unemployed
- Full-time Student
- Not looking

4.3: Data Analysis

Placement Phase

After implementing accurate data tracking, data analysis allows for program improvements not only based on application criteria. For example, Cohort 1 of the pilot program did not have anyone who completed education higher than a high school diploma, versus Cohort 2, which widened the applicant pool by accepting people with undergraduate degrees and higher.

Data will vary based upon location which can determine industry demand for certain roles and/or demographics from underserved areas.

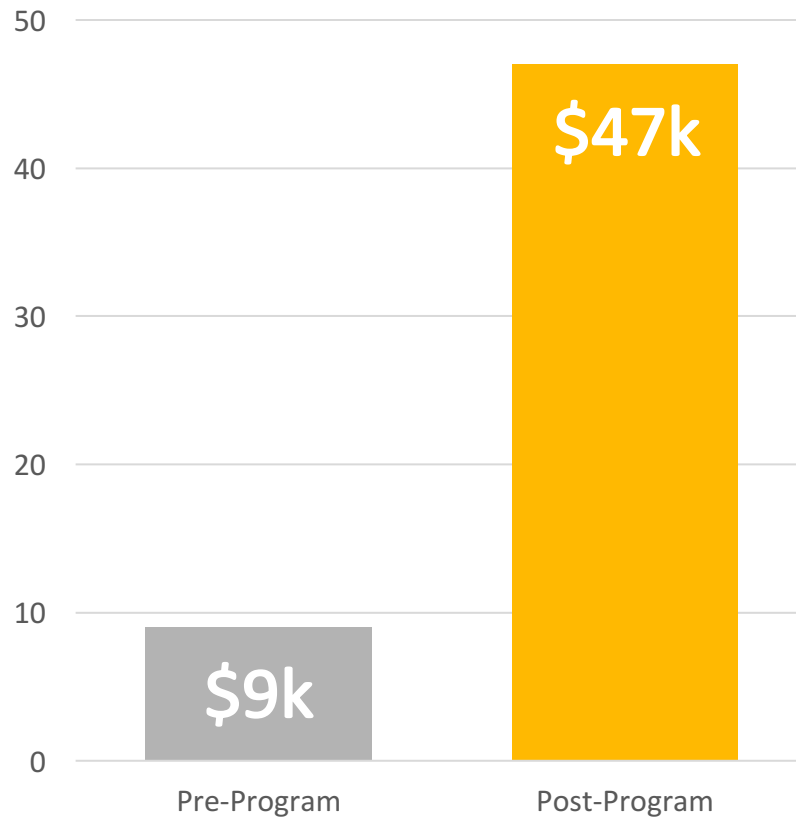
- **Application Information**
 - Demographic Information
 - Level of job-seeking engagement
- **Knowledge & Skills**
 - Technical Acumen & Skills
 - Pre-Program
 - Post Program
 - Certifications
 - Pre-Program
 - Post Program
 - Other Programs & Prior Education
- **Employment**
 - Titles & Salaries of Positions applying/applied to
 - Employment Counterpart Hiring Record & Needs
 - Industry Salary Report

Chapter 5: Detailed Timeline

This is a sample daily schedule of what would be covered each day. This may be altered based on vacation days, preferences, etc., but it is important to keep in mind that certain components would be best taught in the given sequence or should be covered by a particular point in the program.

[INSERT SCHEDULES]

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