AMALITECH TRAINING HANDBOOK

October, 2021

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About AmaliTech

AmaliTech is a social business empowering the next generation of technology leaders in sub-Saharan Africa that reinvests its surplus in further training, network growth and local community support on the ground. As a global talent accelerator, AmaliTech provides free IT training courses to skilled youth in regions of great need. We offer an employment pathway into the digital sector, accompanying young talent from training to employment. Our training academies give local youth the necessary digital skills for employment. Subsequently, successful Graduate Trainees are empowered to apply their acquired skills in the local and international job market. AmaliTech Training Academy Limited Ghana was initially founded and has been in full operations in 2019.

Our Vision and Mission

Our vision is to promote inclusion and diversity in the tech ecosystem. We, therefore, do not discriminate based on gender, race, religion or disability. AmaliTech aspires to include equal numbers of women, men and a representative number of persons with disabilities in our training programme. Our mission is to empower the next generation of technology leaders in Africa.

Equal Employment Opportunity

A diverse workforce is an important driving force of an efficient tech ecosystem. Therefore, AmaliTech promotes gender equality and the inclusion of persons living with disabilities. We are determined to be one of the market leaders in the global drive for employment equality. We celebrate diversity, thrive on creating an inclusive environment for all employees and aiming for balance in our workforce.

AmaliTech Digital Skills Training Programme

Introduction

Demand for digital skills is growing in Africa but there is a significant gap in supply and demand across all regions. To meet the anticipated labour market needs comes the AmaliTech Digital Skills Training Programme. The programme is an I.T./digital skills training that leads to a variety of employment pathways in the I.T. industry. AmaliTech's training curriculum is designed and constantly iterated with partners, who are industry leaders in their fields. Recent studies show that short courses, typically 3 – 12 months of flipped classroom approach geared towards practical learning and development is ideal. The focus is employability and a curriculum that aligns with market demand or employer requirements and guarantees that the learners or trainees gain both technical and soft skills required by the industry.

The training is an integrated programme intended to promote continuous learning and development leading to improvement of skills, higher credentials, and employment opportunities. The training programme is designed as entirely online and self-paced with instructor support. Trainees commit to a training duration which is typically 1 to 8 months with room for extensions. Beyond that, trainees are required to complete a 1-month mandatory capstone project. Upon successful completion, trainees are evaluated and presented with an employment pathway to a promising career in the digital sector at AmaliTech Services.

The training programme is currently opened to all Ghanaian IT graduates.

Training Specializations

The training programme offers a variety of specializations mostly driven by market demand. The various training specializations are outlined below:

Front-End Engineering

The Front-End Engineering Specialisation is specifically designed to introduce the trainees to the art and science of web development. Upon completion, trainees will be equipped with the unique skills required to build a variety of beautiful, functional and efficient websites.

The specialization teaches the technologies required to build efficient websites. It covers the introduction to advanced concepts in HTML, CSS, JavaScript, as well as several frontend libraries like React and Vue. Additional topics include Responsive Web Design, jQuery, Sass, Algorithms and Data Structures. The courses are accompanied by a variety of projects, quizzes, and assessments.

Back-End Engineering

The Back-End Engineering Specialization is specifically designed to introduce the trainees to the hidden processes that run behind the scenes, building APIs and databases that power the front-end. Upon completion, trainees will be equipped with the unique skills required to write back-end code for web applications and gain competencies in database design and DevOps.

The specialization also covers the introduction to advanced concepts in HTML, CSS, JavaScript. The trainees are further introduced to back-end web programming with JavaScript, Node.js and Express frameworks using APIs and microservices. Additional topics include back-end programming with Django, PostgreSQL, MongoDB, jQuery, Algorithms and Data Structures. The courses are accompanied by a variety of projects, quizzes, and assessments.

Full-Stack Engineering

The Full-Stack Engineering Specialization is specifically designed to guide trainees to the mastery of both front-end and back-end technologies. Upon completion, trainees will be equipped with the unique skills required to build web applications, deploy back-end and gain competencies in database design and DevOps.

This specialization also covers the introduction to advanced concepts in HTML, CSS, JavaScript. The trainees are further introduced to a mix of skills in both front-end and back-end technologies which include frameworks like React, Vue, Node.js, Express.js. Additional topics here include back-end programming with Django, PostgreSQL, MongoDB, Sass, jQuery, Algorithms and Data Structures. The courses are accompanied by a variety of projects, quizzes, and assessments.

Training Tools and Resources

The AmaliTech Digital Skills Training Program provides trainees access to a variety of tools and resources to facilitate the training. They are outlined below:

Google Workspace

Google Workspace is a collection of cloud computing, productivity and collaboration tools. Trainees in the training programme are assigned an AmaliTech email which grants them access to the AmaliTech Training Workspace. The Workspace consists of Gmail, Contacts, Calendar, Meet and Chat for communication; Drive for storage and the Google Docs suite for content creation.

Code Academy

Code Academy is an online interactive platform that offers coding lessons in a variety of web design and development tools and technologies. Code Academy is the main learning platform for trainees in the training programme and will have access to the entire catalogue of courses to learn from.

Free Code Camp

Free Code Camp is an interactive learning web platform that provides free resources for learning web development. Free Code Camp is an auxiliary learning platform for trainees in the training programme.

Code Signal

Code Signal is a skills-based assessment platform that offers developers of all skill levels online computer programming challenges for both instructional and recruiting purposes. During the training programme, trainees are assigned a variety of programming challenges on the platform to measure their learning progress.

Workstations

At AmaliTech, we understand the challenges with the physical infrastructure required for programming. The program, therefore, provides all trainees with have access to a computer and broadband internet at our campuses in Takoradi, Accra, etc. This access is currently only available at our campuses to all trainees in the training program.
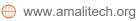
Training Engagements

Training Mentors

Mentorship is an essential part of the AmaliTech training programme. As such, we connect all our trainees with our group of talented and passionate software developer mentors. The role of the mentors is to provide our trainees with technical guidance on their learning journey. They also help you to build effective collaboration and related soft skills required in the tech industry. You can reach our mentors remotely and also onsite at our training campuses. Moreover, trainees are required to attend a mandatory bi-weekly meeting with their assigned mentors. These meetings are non-negotiable and count towards the successful completion of the training program.

Office Hours

To reinforce your learning, we make room for office hours during the training programme. Office hours are times when you can meet with our trainers/developer mentors, and trainer assistants to discuss the topics related to the course contents and your learning. Office hours discussions include asking for extra help, seeking clarification on specific topics and will sometimes involve live coding. Office hours are not mandatory and trainees are expected to decide for themselves when they need or want to participate. Our trainers/developer mentors, and trainer assistants will usually announce/share their office hours schedule in the first week of training.

Training Completion Requirements

This section outlines the various competencies and metrics that are measure during the training program. These metrics define what successful completion of the training program is.

Responsiveness

Responsiveness is a key factor in developing trust and relationships at the workplace. Responsiveness is nothing but to respond as quickly as possible to a situation. At AmaliTech, responsiveness is core to our operations since it leads to better team collaboration and performance. In our training programme, we require our trainees to report daily on their learning progress via an online form. We measure your responsiveness by the percentage of reported daily learning progress out of the required number of days. You will receive the online form on your first day of training and be required to complete the form every weekday until the completion of your training. Your responsiveness score is expected to be at a minimum of 70% at each time point during the training.

Regularity

Regularity is the quality of being consistent to work, meeting or any fixed appointment. Regularity improves productivity and at AmaliTech we value productivity. In our training programme, as much as it is self-paced, we require our trainees to be consistent in their learning. We measure your regularity by the percentage of total code academy log in days out of the expected number of days. You will receive access to the learning platform on your first day of training and will be required to log in to learn daily. Your regularity is recorded every time you log in and at each time, you are expected to have a regularity score of 70%.

Punctuality

Punctuality simply means showing up when you say you will. At AmaliTech we value punctuality since it signals professionalism, credibility, integrity, and respect for other people's time. In our training programme, we measure punctuality by when you show up for your scheduled mentor meetings. Your mentor assigns a score between 0.5 and 1 depending on how early you show up for your scheduled meetings. An average of your score represents your punctuality score which is expected to be a minimum of 70%.

Reliability

Reliability consists of the extent to which an individual may be counted on to do what is expected of him. Reliability at a workplace affects both the employee and employer. It has a tremendous impact on the performance of the individual employee and also greatly contributes to the overall success and even revenue of the company. In our training programme, punctuality is measured as the inverse of the percentage of scheduled mentor meetings that are missed without adequate notice to the mentor. Mentor meetings are mandatory and non-negotiable, if for any reason you cannot attend this meeting, you are required to provide prior notice to your mentor via mail. Your punctuality is also expected to be at a minimum of 70%.

Training Assessments

These are programming assessments that are assigned to trainees based on their training specialization. Trainees will on the first day of training receive a list of assessments in their specialization. This is list is not exhaustive and you will be notified when there are any changes. You will be required to follow the instructions closely and complete each of the assessments. You are expected to score a minimum of 70% on these assessments.

Training Projects

These are coding projects that accompany the courses on Code Academy. For each course, you will be required to complete and submit all projects associated with it. Trainees on the first day of training will receive instructions regarding the submission of these projects which is usually via an online form. The minimum score required for these projects is 70%.

Capstone Project

The capstone project is a culminating specialization-specific project. Trainees upon completing their assigned courses, projects, and assessments will be eligible for a capstone project. The capstone project could either be an individual project or a group project and will typical required 2 to 4 weeks to complete. Upon completion, trainees will be required to attend a code review with our group of developer mentors for an evaluation. The minimum score required for the capstone project is 70%.

General Coding Assessment (GCA)

The general coding assessment is a culminating assessment on trainees' overall coding skills covering code-writing skills, implementation skills, problem-solving skills, and speed. The certified assessment is conducted in a real-world coding environment with ID verification, automated online proctoring and session recording. The assessment's scoring maps programming skills to a score from 300 to 850, combining information about problem-solving and code-writing skills as well as speed and code quality. The minimum score required is 700.

The Employment Pathway

The trainees who complete the training (meet all completion requirements) will be evaluated and presented with an employment pathway to a promising career in the digital sector at AmaliTech Services. Below is an outline of a matching of the completion requirements and the various entry-level positions at AmaliTech Services.

Junior Associate I

Complete required certifications
A minimum score of 70% on regularity, responsiveness, etc
A minimum score of 70% on projects & assessments
A minimum score of 70% on the capstone project
A minimum of Level 6 on GCA

Junior Associate II

Complete required certifications
A minimum score of 80% on regularity, responsiveness, etc
A minimum score of 70% on projects & assessments
A minimum score of 75% on the capstone project
A minimum of Level 7 on GCA

Junior Associate III

Complete required certifications
A minimum score of 90% on regularity, responsiveness, etc
A minimum score of 80% on projects & assessments
A minimum score of 80% on the capstone project
A minimum of Level 7 on CS-GCA

The Training Staff

The training academy currently comprises a Head of Department, 3 Senior Trainers, 1 Trainer, and 2 Trainer Assistants. The academy is also supported by a group of software developers from AmaliTech Services.

Head of Training

Salami Suleiman (salami.suleiman@amalitech.org)

Senior Trainers

Kwamena Amo-Dadey (kwamena.amo-dadey@amalitech.org)
Emmanuel Asaber (emmanuel.asaber@amalitech.org)
Thomas Darko (thomas.darko@amalitech.org)

Trainers

Francis Class-Peters (francis.class-peters@amalitech.org)

Trainer Assistants

Francis Asante Nsiah (francis.nsiah@amalitech.org)
Lisa-Marie Koomson (lisa-marie.koomson@amalitech.org)

Frequently Asked Questions

What is the duration of the training program?

The training is online and self-paced, but the trainees in consultation with their mentors would commit to a timeline ranging from 1 month to a maximum of 8 months.

Can I change my training timeline?

Yes. You can update your training duration after you have completed half of the time you initially committed to. For instance, if you started by committing to a 6-month schedule, you can extend this after 3 months when you realized you can no longer commit to the schedule. However, if you are able to complete earlier, you can move to the next stage of capstone project and the general coding assessment.

In either case, you are required communicate via email to your Mentor and the Head of Training for the necessary action.

Will I have a chance to re-take the capstone and General Coding Assessments?

Yes. Upon completion of the training curriculum, trainees will be required to complete a capstone project and a general coding assessment. The project and assessment are key metrics that contribute to the successful completion of the training program. The trainees will have two chances to complete the capstone project and the general coding assessment, with a minimum cooling-off period of two months.