



1337 coding school
Mail central, Bâtiment B
25000 Khouribga,
MOROCCO

ACADEMIC RESULTS FOR ABDELFAH BERTACH

I, the undersigned Larbi EL HILALI, Managing Director of 1337 coding school located at Mail central, Bâtiment B 25000 Khouribga, Morocco, hereby certify that:

Abdelfattah Berkach, born on February 20, 2000 in Taza (Morocco)

obtained the grades detailed below as of March 05, 2025.

This certificate is delivered upon request for all legal intents and purposes.

Selected in: Unknown 2022

Curriculum started on: October 05, 2022

Curriculum ended on: -

The progression of the student inside the curriculum is represented by its level, over 21.

The current level of the student is: 11.36.

The 42 curriculum is divided into two halves: the common core and the 42 advanced part. Once students complete the first half (the common core), they have the option to either continue their journey in the 42 advanced part, or conclude their progression and become an alumni at any point during this second part.

The current situation of the student is: in the 42 advanced part.

See details below.

Made in Khouribga, on March 05, 2025

DETAILS

Here is a description of each part of the curriculum and the current position of the student:

The Common Core

The common core of the 42 curriculum represents the minimum set of skills to be ready for a first professional experience. It provides basic and standard coding skills, as well as a fruitful range of soft skills. The delay of the CC is approximately between 1 and 2 years. The following information represent the skills developed during this part of the curriculum and the current progression of the student:

Abdelfattah Berkach : Common core achieved at: 100%.

Developed skills during the entire common core:

- **Algorithms & AI:** Standards algorithms on standards structures: searching, sorting, insertion, deletion, balance, on: arrays, linked lists, trees. State machine and asynchronous management.
- **Graphics:** Image management, RGB structure of an image, manipulating areas, drawing into an image, interacting with the window management system and getting user events and inputs from keyboard and mouse, programming with callbacks and event loop.
- **Group & interpersonal:** Collaboration, relationships and group management situations, including different kinds of interactions between people (friendly, tensions ...)
- **Imperative programming:** Basics of coding in C : the C syntax, variable, loops, conditional branches, functions, recursivity, instructions, calculus and expressions, comparisons operators, standard and advanced types, strings processing, structures, includes and libraries, memory allocation and release, linked lists, trees, the C standard library
- **Network & system administration:** Basics of computer networking : IP addresses, subnets, default routing, local network structure, host to host connectivity to network services; Basics of system administration : operating system installation with Linux, setting up security, access, users, storage, installing network services like mail, dns, web server, ...
- **Object-oriented programming:** Object programming principles in C++, classes, namespaces, constructors and destructors, memory management in C++, inheritance, abstraction, overloading, templates, standard C++ library types and tools
- **Rigor:** The need to fulfill administrative and technical constraints. The need for a wide and deep testing process to eliminate failure.
- **System programming:** Classic Unix system interactions : system calls, filesystem access and management, process creation, execution, management; inter-process communications : pipes and signals; device management and ioctl, terminal capabilities; network communication : TCP & UDP sockets, DNS resolution, endianness
- **Web:** The client-server architecture involved in the web, role and actions of the web server, role and actions of the web browser; The HTTP protocol; Web technologies involved : HTML, CSS, Javascript, images and videos; Backend language and framework for dynamic websites: one among php, ruby, python, go, javascript, Rails, Symfony, Django, Node, ... ; MVC model; users web services : web sessions, authentication, cookies, search, caddie, backoffice configuration, ... ; Basics of user experience, user interface, and design.

Details of each validated project in appendix 1.

The 42 Advanced Part

The 42 Advanced offers a choice of path among various ICT specialisations: each student can select the topic(s) she/he wants to develop and improve. This part of the curriculum also contains several professional experiences (internships, part-time jobs, ...).

No projects completed yet

Professional experience: no professional experience yet

Details of the validated projects in appendix 2.

APPENDIX 1

Projects covered during the common core:

Name	Estimated workload	Result	Associated skills	Validation date
Libft	70H	Pass	Rigor, Algorithms & AI, Imperative programming	November 21, 2022
ft_printf	70H	Pass	Rigor, Algorithms & AI	December 01, 2022
get_next_line	70H	Pass with bonus	Rigor, Unix, Algorithms & AI	December 19, 2022
Born2beroot	40H	Pass with bonus	Rigor, Network & system administration	March 03, 2023
pipex	50H	Pass	Unix, Imperative programming	April 06, 2023
push_swap	60H	Pass with bonus	Rigor, Unix, Algorithms & AI, Imperative programming	May 15, 2023
so_long	60H	Pass	Imperative programming, Graphics	June 10, 2023
Exam Rank 02	0H	Pass		June 22, 2023
Philosophers	70H	Pass	Rigor, Unix, Imperative programming	August 20, 2023
Exam Rank 03	0H	Pass		August 23, 2023
minishell	210H	Pass with bonus	Rigor, Unix, Imperative programming	September 29, 2023
NetPractice	50H	Pass	Rigor, Network & system administration	October 20, 2023
cub3d	280H	Pass with bonus	Rigor, Algorithms & AI, Imperative programming, Graphics	November 23, 2023
CPP Module 00	22H	Pass	Rigor, Imperative programming, Object-oriented programming	December 18, 2023
CPP Module 01	12H	Pass	Rigor, Imperative programming, Object-oriented programming	December 26, 2023
CPP Module 02	12H	Pass	Rigor, Imperative programming, Object-oriented programming	January 01, 2024
CPP Module 03	12H	Pass	Rigor, Imperative programming, Object-oriented programming	January 04, 2024
CPP Module 04	12H	Pass	Rigor, Imperative programming, Object-oriented programming	January 08, 2024
Exam Rank 04	0H	Pass		February 08, 2024
CPP Module 05	25H	Pass	Rigor, Imperative programming, Object-oriented programming	February 13, 2024
CPP Module 06	25H	Pass	Rigor, Imperative programming, Object-oriented programming	February 21, 2024
CPP Module 07	25H	Pass	Rigor, Imperative programming, Object-oriented programming	February 23, 2024
CPP Module 08	25H	Pass	Rigor, Imperative programming, Object-oriented programming	February 28, 2024
CPP Module 09	40H	Pass	Rigor, Imperative programming, Object-oriented programming	March 08, 2024
ft_irc	175H	Pass with bonus	Rigor, Unix, Network & system administration, Object-oriented programming	September 07, 2024
Inception	210H	Pass	Rigor, Network & system administration	October 08, 2024

Exam Rank 05	OH	Pass	October 10, 2024
Exam Rank 06	OH	Pass	January 16, 2025
ft_transcendence 245H	Pass with bonus	Rigor, Web, Group & interpersonal	January 19, 2025

APPENDIX 2

Projects covered during the 42 advanced:

Name	Estimated workload	Result	Associated skills	Validation date
42Nice Exam Pedago Test	OH	in progress		-

Internship and professional experiences

Company name	Duration	Validation	Skills	Validation date
-				

APPENDIX 3

Description of each covered project:

Name	Description
Libft	This project is your very first project as a student at 42. You will need to recode a few functions of the C standard library as well as some other utility functions that you will use during your whole cursus.
ft_printf	This project is pretty straightforward, you have to recode printf. You will learn what is and how to implement variadic functions. Once you validate it, you will reuse this function in your future projects.
get_next_line	May it be a file, stdin, or even later a network connection, you will always need a way to read content line by line. It is time to start working on this function, which will be essential for your future projects.
Born2beroot	This project aims to introduce you to the wonderful world of virtualization.
pipex	This project aims to deepen your understanding of the two concepts that you already know: Redirections and Pipes. It is an introductory project for the bigger UNIX projects that will appear later on in the cursus.
push_swap	This project involves sorting data on a stack, with a limited set of instructions, and the smallest number of moves. To make this happen, you will have to manipulate various sorting algorithms and choose the most appropriate solution(s) for optimized data sorting.
so_long	This project is a small 2D game with minilibx. You'll learn about textures, sprites and tiles.
Exam Rank 02	This project will evaluate your abilities and knowledge about programming.
Philosophers	This project aims to teach concurrent programming, focusing on multithreading and multiprocessing.
Exam Rank 03	
minishell	The objective of this project is for you to create a simple shell.
NetPractice	NetPractice is a general practical exercise to let you discover networking.
cub3d	This project is inspired by the world-famous eponymous 90's game, which was the first FPS ever. It will enable you to explore ray-casting. Your goal will be to make a dynamic view inside a maze, in which you'll have to find your way.
CPP Module 00	This first module of C++ is designed to help you understand the specificities of the language when compared to C. Time to dive into Object Oriented Programming!
CPP Module 01	This module is designed to help you understand the memory allocation, reference, pointers to members and the usage of the switch in CPP.
CPP Module 02	This module is designed to help you understand Ad-hoc polymorphism, overloads and orthodox canonical classes in CPP.

CPP Module 03 This module is designed to help you understand Inheritance in CPP.

CPP Module 04 This module is designed to help you understand Subtype polymorphism, abstract classes and interfaces in CPP.

Exam Rank 04

CPP Module 05 This module is designed to help you understand Try/Catch and Exceptions in CPP.

CPP Module 06 This module is designed to help you understand the different casts in CPP.

CPP Module 07 This module is designed to help you understand Templates in CPP.

CPP Module 08 This module is designed to help you understand templated containers, iterators and algorithms in CPP.

CPP Module 09 This module is designed to help you understand the containers in CPP.

ft_irc Create your own IRC server in C++, fully compatible with an official client.

Inception This project aims to broaden your knowledge of system administration by using Docker. You will virtualize several Docker images, creating them in your new personal virtual machine.

Exam Rank 05

Exam Rank 06

ft_transcendence This project is centered around the design, development, and organization of a full-stack web application.