

The background is a dark blue field filled with a network of thin, glowing lines in blue and red. These lines connect various points, some of which are small, bright dots of the same color. The overall effect is a complex, crystalline or molecular structure that gives a sense of depth and technological sophistication.

# **CPE – C++ Certified Entry-Level Programmer Certification**

**Fernando Ruan**

Olá, pessoal, tudo bem? Estou desenvolvendo este material para ajudar pessoas a se qualificarem para todas as certificações do [cppinstitute.org](http://cppinstitute.org) de maneira gratuita. Esse é o início da saga de C++. No total, resolveremos aqui 400 exercícios, 100 por tópico da prova. Ao final, estaremos preparados para conseguir um excelente aproveitamento e conquistar a tão sonhada aprovação. Um grande abraço e vamos com tudo :)

## SUMÁRIO

### Exam block #1: Syntax, literals, and operators

C++ syntax fundamentals: literals, symbols, code blocks, and keywords

- C++ built-in types and their literals
- **main()** function declaration conventions and parameters
- operators: unary and binary, priorities and binding
- numeric operators: `*` `/` `%` `+` `-`
- post- and pre- increment and decrement operators: `++`, `--`
- short-circuit evaluations
- bitwise operators: `~` `&` `^` `|` `<<` `>>`
- logical (Boolean) operators: `!` `&&` `||`
- relational operators: `==` `!=` `>` `>=` `<` `<=`
- assignment and shortcut operators: `=` `op=`
- basics of I/O streams operation

