

Curiosity Courses

This is the README.md from github project <https://github.com/lzwjava/curiosity-courses>.

Curiosity Courses

Students don't need perfect teachers; they need happy teachers who can make them excited to come to school every day. I have always been interested in education. I also hope to be a good teacher. However, education is so difficult, and changing people is so difficult. Over the past few years, I have learned a lot. I learned the basics in school and a lot more after entering society. I also want to practice and improve my educational theories, so I am launching the Curiosity Courses.

Perhaps the best education is not when students ask teachers, but when teachers ask students. We think together and experiment together. In education, I have learned a lot from Wang Yin. He has also shared a lot of educational insights. I have learned a lot from him. His courses are very well-run, so I also want to be like him and offer some courses. This will allow me to learn how to impart knowledge, how to learn from students, how to rethink problems from a beginner's perspective, and how to explain knowledge in a very simple and clear way.

Course Progress

- Unlocking Computer Science
- Homework 1
- Getting Familiar with the Programming Environment
- Other
- Trying Out Rust Programming
- Trying Out Python Programming
- Trying Out C Programming
- Trying Out Java Programming
- Advanced Python Programming
- How to Access Google
- Introduction to Web Programming
- Introduction to Cloud Computing and Big Data
- Introduction to Machine Learning
- Online Coding Practice
- Introduction to Redis
- Python Tutorial Notes
- Practice: Turning Feynman's Physics Lectures into an Ebook

Exercise Instructions

The completed course content includes instructions for exercises. Students can send them to me via WeChat private message or submit them directly by creating an issue on GitHub. The content of the exercises may be added to the course content, or an exercise review article may be written based on the submitted exercises to supplement the course.

Public Account

The beginning of articles reprinted on the public account is as follows:

This article is part of the content of the third lesson in the programming direction of the Curiosity Courses. For real-time course content, please click the original link to visit Github@lzwjava. The third lesson uses the Python language to learn the basics of syntax, modules, object-oriented programming, and web programming. Please read this article after studying the “Unlocking Computer Science” and “Trying Out Python Programming” lessons.

Course Plan

- Recruit some students.
- Free of charge.
- There are several major directions: programming, algorithms, backend, frontend, iOS, Android, entrepreneurship, self-media, English, physics, electronics, Japanese, and information retrieval.
- The number of class hours depends on the direction, possibly 2-20 lessons, each lesson lasting 2 hours. The duration ranges from 2 weeks to 3 months.
- No age or occupation restrictions, beginners are especially welcome.
- There will be homework after class.
- Depending on the situation, students can also discuss with the teacher at other times.
- At the same time, learning content will be accumulated, teaching videos and discussion videos will be recorded, and discussion notes will be organized.
- Students can choose the directions they are interested in.
- In the early stages, one student will be recruited to refine the course, and more may be recruited later.
- Those interested can contact me via WeChat private message.

The goals for each direction are as follows. I have achieved all of these, so I am confident in trying to teach students. I am also just starting to learn some of the directions. This is good because I can better think from a beginner's perspective and grow and learn together.

Course Directions

Programming:

- Have a preliminary grasp of basic programming knowledge.
- Be able to write programs of more than 2,000 lines of code that they are interested in.

Algorithms:

- Have a preliminary grasp of a programming language.
- Understand some algorithms.
- Solve 100 problems online.

Backend:

- Have a preliminary grasp of a commonly used backend programming language.
- Languages can be PHP, Java, Python, Ruby, NodeJS, Rust, C, C++, or Go.
- Be able to write a web backend application with simple functions.

Frontend:

- Have a preliminary grasp of frontend knowledge.
- Involve HTML, CSS, and Javascript.
- Be able to write a website or mini-program with simple functions.

iOS:

- Have a preliminary grasp of iOS knowledge.
- Languages can be Objective-C or Swift.
- Be able to write an iOS application with simple functions.

Android:

- Have a preliminary grasp of Android knowledge.
- Languages can be Java or Kotlin.
- Be able to write an Android application with simple functions.

Entrepreneurship:

- Make money through skills, information gaps, etc.
- Find a client or sell some courses, etc.
- Earn 3000 yuan outside of work through legitimate labor.

Self-Media:

- Write articles, create graphic content, and make videos.

- Gain 500 followers by outputting content.

English:

- Focus on practicing input skills.
- Learn to obtain English information.
- Be able to watch American TV series without subtitles.
- Read two English books.
- Watch 20 documentaries or American TV series without subtitles.

Physics:

- Mainly learn the knowledge of Feynman's Physics Lectures.
- Be able to better understand Newtonian mechanics.
- Independently redo experiments to deeply understand physical formulas.
- Have a good grasp of the first half of the first volume of Feynman's Physics Lectures.
- Learn together with the teacher.

Electronics:

- Learn basic breadboard experiments.
- Learn to DIY a radio.
- Learn together with the teacher.

Japanese:

- Learn basic Japanese knowledge.
- Be proficient in the 50 kana characters.
- Master 200 basic vocabulary words.
- Be able to understand articles with the help of a dictionary.
- Learn together with the teacher.

Information Retrieval:

- Be able to use tools to access English information.
- Learn to access English information on computers, mobile phones, and TVs.