Principles of Programming Languages

Write an essay on **one** of the following topics. You can choose which one.

(A) Discuss the trade-offs involved when choosing between imperative programming and pure functional programming.

(B) *Briefly* describe various forms of polymorphism, and discuss their advantages and disadvantages *in detail.*

(C) *Briefly* describe the mechanisms involved in object-oriented programming and discuss the advantages and disadvantages of this programming style *in detail.*

(D) *Briefly* describe various language features involving control flow and discuss their advantages and disadvantages *in detail.*

In general, try to keep the description of the various features short and focus on their discussion instead. Your mark will be determined according to the following guidelines.

- The length of your essay and the quality of your English is not important.

- Originality, that is, coming up with your own thoughts and your own way to structure the presentation will be rewarded. Just copying points from the lecture notes will not lead to a good mark.

- Try to substantiate your claims. I will gauge your arguments by how well I am able to follow them. For instance, if you claim that a certain feature improves or decreases readability, you should explain *why* you think so, or at least give an example.

- Inclusion of examples will be rewarded. (The programming language used does not matter.)

- If I receive two essays that are too similar to each other, both authors will fail.

Please upload your essay to the homework vault in IS as either a *PDF file* or as a *plain text file.* The deadline is Sunday, June 7th, 24:00. If you take the state exam and need your result by a certain date, please add a short note saying so.