

# Programming Languages 1

## Lesson 1

### Information about the course

By taking the course in neptun the students accept all rules and regulations of the University and the course. The rules of the University is available online on the page of the University and the rules of the course are written below and available online on the page of the course.

#### *Criteria to pass course*

- Students must not miss more than 3 classes in the semester
- Students must not late more than 20 minutes from classes. In the opposite case the student is registered as being absent from the class (However (s)he is still allowed to stay in the class).
- The knowledge of the students will be measured in two tests and at the end of the semester the worse from these two can be retaken
- Students pass a test if their result is not lower then 50%.
- Students get signature if they pass 2 tests and the average of these two tests is not lower than 60%.
- If a student fails both the first and the second test, (s)he can retake the worse exam with special conditions. Namely the average of the retake exam, and the better exam from the first two, has to reach 60%.
- If both tests are under 30% the student has to get at least 90% on the retake to pass.
- **There is only one retake test in the semester.**

#### Examples:

exam 1: **60%**, exam 2: **60%** -> **passed**, no retake exam is needed

exam 1: **60%**, exam 2: **40%** -> 60% is needed on retake. retake exam: **75%** -> **passed**

exam 1: **90%**, exam 2: **30%** -> 50% is needed on retake. retake exam: **40%** -> **failed**

exam 1: **20%**, exam 2: **20%** -> 90% is needed on retake. retake exam: **92%** -> **passed**

exam 1: **20%**, exam 2: **40%** -> 80% is needed on retake. retake exam: **75%** -> **failed**

Note that if a student fail only one test and pass the other the result on the retake has to be at least 50% no matter of the result of the passed test. (See the 3rd example above.)

#### *Personal advices:*

Programming Languages 1 is a fundamental course of your education. Many other subjects build on it, and students are only allowed to take them if they pass Prog. Lang. 1. In most of the cases home practice is a must to fulfill the criteria to pass.

You can ask for help both at office hours and any time via e-mail BEFORE the tests. Following the rules of the course above, after writing the first and the second test there is only one chance to retake.

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### Exercises:

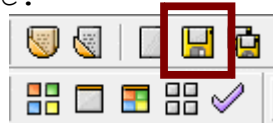
1. Start your computer using windows and log in as student. Start Dev-C++.
2. Start a new project. Select `File` → `New` → `Project...`  
Click on „Console Application“. Select the radiobutton „C project“.  
Give the name „Hello“ to your project.

The location of the project has to be `Users/Student/Documents/ProgLang1`  
If the folder does not exist create it.

3. Type the following line above the line `return 0;`:  
`printf("Hello world!");`

(Hint: It may happen if you use HU layout that you can not type `;` using `ALT-GR+`, . To solve this select `Tools` → `Configure shortcuts` and remove the shortcuts from `Edit Comment` and `Edit uncomment` using the `ESC` key.)

4. Save your file. Name it `main.c`.



5. Compile the project.



6. Run the project.



(Hint: Later you can also use the third icon "Compile and run", to fasten your work.)

7. Modify your code, so that it breaks the line after printing the text. (Use `\n` after the text.)
8. Delete the line containing `printf` from your code, or start a new project.
9. Read a number from the keyboard, and print it back.
10. Declare a new `int` variable named `a` at the beginning of you code.
  1. Use `scanf(...)` to read a number from the keyboard.
  2. Print back the read number using `printf`.

The resulting code should be the following:

```
int main(int argc, char *argv[]){
    int a;
    scanf("%d", &a);
    printf("The number is: %d", a);
    system("PAUSE");
    return 0;
}
```

11. Modify the code so that after the number you break the line...
12. **Homework:** Wirt a C program that ask the year of your birth and the actual year, and prints your age.

