02635 Fall 2016 — Module 1

Homework

Read chapters 1 and 2 in "Beginning C". Many of the concepts introduced in the first two chapters should bee familiar to you if you already know another programming language.

Exercises

Before you get started on the exercises, make sure that you have a **C compiler** and a **text editor** (or an **IDE**) on your system. We highly recommend that you install a C compiler on your own system if you do not already have one. You may also use the DTU Unix system by connecting to Gbar via ThinLinc or ssh.

1. Write, compile, and run "Hello World!" (see p. 6 in "Beginning C") on your own laptop. Repeat the exercise on the DTU Unix system with ThinLinc — read the separate exercise description (`introlabs02635.pdf`) for further instructions.
2. Do exercises 2-3 and 2-4 in "Beginning C".
3. Take this quiz to test your understanding of the basics of C.
4. Take this quiz to test your understanding of *explicit type conversion* (or *typecasting*). Do not just guess if you do not know the answer to a question: write some code to find the correct answer.
5. Write a program with an integer variable that has the value 2,343,432,205. Choose an appropriate data type for this integer and print its value and its hexadecimal representation using `printf()`. How many hex digits are needed to represent a byte?

Optional exercises:

1. Compile and run Program 2.11 ("Beginning C", p. 57). Is the output on your system the same as in the book?
2. Compile and run Program 2.12 ("Beginning C", p. 59). Is the output on your system the same as in the book?
3. Watch Robert Fano explain Scientific Computing.