<table>
<thead>
<tr>
<th></th>
<th>Agenda</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction</td>
</tr>
<tr>
<td>2</td>
<td>Pool accounts</td>
</tr>
<tr>
<td>3</td>
<td>Signing up (two groups)</td>
</tr>
<tr>
<td>4</td>
<td>(If you sign up for group 2 you can come back at 13:30)</td>
</tr>
<tr>
<td>5</td>
<td>Writing a “Hello World” program</td>
</tr>
</tbody>
</table>
What will you learn in this course?

- the programming language **C++**
- the principles of object-oriented programming
- using a programming environment: **Visual Studio**

We will focus on **practical** programming skills.

→ Lab sessions are important!
Our Team

- **Dr. Carsten Gutwenger**
  carsten.gutwenger@cs.tu-dortmund.de
  ls11-www.cs.tu-dortmund.de/staff/gutwenger
  Tel.: 0231 / 755-7707
  Room 238, Otto-Hahn-Str. 14

- **M. Sc. Orwa Nassour**
  orwa.nassour@tu-dortmund.de
  Tel.: 0231 / 755-6329
  Room E09, Otto-Hahn-Str. 16

- **Course materials** (slides, assignments etc.)
  ls11-www.cs.tu-dortmund.de/teaching/oop-2011
Organization

- Two groups:
  - group 1: 10:30 to 13:00
  - group 2: 13:30 to 16:00
- Combined lecture course + lab sessions
- Each week: non-mandatory assignment sheet
- Four exam sheets
  - complete it at home or during the lab sessions
  - present your solution during the lab sessions (next week)
  - successful: solve (and understand) at least half of the problems
- Final written exam (last week):
  - requirement: three successful exam sheets
How will we proceed?

- Small lecture about new concepts
  - Time for asking questions
  - Further reading required (see suggested reading on next slide)
- Work on the current assignment sheet
  - Orwa and myself are around to help you
  - You can also work on the current exam sheet
  - Presentation of your solution for the exam sheet
Suggested Reading

- **Practical C++ Programming**
  *by Steve Oualline*, 2nd edition, O’Reilly Media
  available online in the TU network:
  http://proquest.safaribooksonline.com/0596004192

- **C++ Primer**
  *by Stanley B. Lippman, Josée Lajoie, Barbara E. Moo*, 4th edition, Addison-Wesley Professional
  available online in the TU network
  http://proquest.safaribooksonline.com/0201721481

- **Exploring C++: The Programmer's Introduction to C++**
  *by Ray Lischner*; Apress

- ... or pick your own favorite (lots of books in German and other languages available)
A word of warning

- Programming is a practical task
  - you won’t learn it just by reading a book
  - you need practical experience in solving problems
  - the lab sessions are the most important part
- Be prepared: Read the suggested topics in books before the lecture!
- You don’t have to understand every detail
  - to fully understand you have to try it out!
- Don’t hesitate to ask questions
  - about C++ concepts
  - and: concerning technical problems
Let’s get a RETINA-pool account!

1. Log on to a free computer:
   - Username:  newaccount
   - Password:  anmelden
   - Log on to:  RETINA

2. Fill out the registration form and submit your data ("Anmelden")

3. The admin of the RETINA-pool will visit us, prepare your student id card!
Pool Accounts

1. Log on to a free computer:
   - Username: newaccount
   - Password: anmelden
   - Log on to: RETINA

2. Fill out the registration form and submit your data ("Anmelden")
   - Vorname = first name
   - Nachname = family name
   - Matrikelnummer = student number
   - Studienbeginn = 2011
   - Benutzername = user name
   - Kennwort = password
Signing Up

- Two groups:
  - **group 1**: 10:30 to 13:00
  - **group 2**: 13:30 to 16:00

- To sign up, send an email to
  - carsten.gutwenger@cs.tu-dortmund.de

- Subject: **OOP sign-up group <grp-number>**
  where **<grp-number>** is 1 or 2

- Body:
  
  First name:  **<your first name>**  
  Family name: **<your family name>**  
  **<your student number>**
1. Log on to a free computer with your account
2. Open Visual Studio 2008
3. Create a new C++ project **HelloWorld**
   i. Select **File → New → Project**
   ii. Under **Project Types**, expand Visual C++ and then select Win32
      Under **templates**, click **Win32 Console Application**
   iii. Type project name **HelloWorld** and click **OK**
   iv. In the **Win32 Application Wizard**, click Application Settings
      Under **Additional Options**, select **Empty Project** and click **Finish**
4. Create a C++ source file **HelloWorld.cpp**
   i. In **Solution Explorer**, right-click the **Source Files** folder, point to **Add** and then click **New Item**
   ii. On the **Visual Studio installed templates** list, select **C++ File (.cpp)**, type as file name **HelloWorld.cpp**, and then click **Add**
"Hello World"

- Type in the following code:

```cpp
#include <iostream>

int main()
{
    std::cout << "Hello World!" << std::endl;
    return 0;
}
```

- Build the program:
  - Select **Build → Build Solution**

- Run the program:
  - Select **Debug → Start without Debugging**
Preparations for next week

- Choose your favorite book
- Read the Introduction / Getting Started part
- Read the (basic) parts on
  - variables and assignment
  - conditional statements (if-statements)
  - loops (while-statement)
- e.g. sections
  1.1, 4.1-4.7, 6.1, 6.2, 6.4-6.7
in Practical C++