

## [PATC: Introduction to CUDA Programming](#)

### Objectives

This course will provide very good introduction to the **PUMPS Summer School run jointly with NVIDIA** also at Campus Nord, Barcelona. For further information [visit the school website](#) as this school has attendee selection process.

You may also be interested in our [Introduction to OpenACC](#) course.

The aim of this course is to provide students with knowledge and hands-on experience in developing applications software for processors with massively parallel computing resources. In general, we refer to a processor as massively parallel if it has the ability to complete more than 64 arithmetic operations per clock cycle. Many commercial offerings from NVIDIA, AMD, and Intel already offer such levels of concurrency. Effectively programming these processors will require in-depth knowledge about parallel programming principles, as well as the parallelism models, communication models, and resource limitations of these processors.

### Requirements

Basics of C programming and concepts of parallel processing will help, but are not critical to follow the lectures.

#### [Academic Staff](#)

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**Convener:**

Antonio Pena, BSC  
Acting Director,  
NVIDIA GPU Center of Excellence

**Lecturer:** Manuel Ujaldon - NVIDIA CUDA Fellow

#### [Further information](#)

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**All PATC Courses at BSC do not charge fees.**

**PLEASE BRING YOUR OWN LAPTOP.** Your laptop does not need a particular GPU. An ssh client is required to connect to our GPU-equipped servers.

**Recommended Accomodation:** Please follow [the link](#) for map of some local hotels.

**[CONTACT US](#)** for further details about MSc, PhD, Post Doc studies, exchanges and collaboration in education and training with BSC.

For further details about Postgraduate Studies in UPC - Barcelona School of Informatics (FiB), visit the [website](#).

**Sponsors:** BSC and PRACE 4IP project are funding the PATC @ BSC training events.

If you want to learn more about PRACE Project, visit the [website](#).

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**Source URL (retrieved on 21 jul 2024 - 09:27):** <https://www.bsc.es/ca/education/training/patc-courses/patc-introduction-cuda-programming>