The course will take an interactive style to give the students hands on training. Open for those who has missed a chance to learn high level programming language (up to senior or graduate level). The course will be taught based on a unix platform. Complementary to LA50600 (Numerical Simulation in Electrodynamics and Plasma Physics). Selecting materials which are not covered by LA50600.

Master a programming language (C, f95, or Java, for example) by working on standard problems in computational physics.

[1] Introduction to programming. Introduction to numerical analysis (differentiation and integration).

Class notes (Slides) and http://www.mcs.anl.gov/petsc/

CUDA by Example：Jason Sanders (Addison-Wesley) 2010.