A Comprehensive Parallel Computing Curriculum:
From Second Year to Professionals

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(this file is available from http://cs.anu.edu.au/~Peter.Strazdins/seminars)

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1 HPC Curriculum from Second Year to Professionals

- COMP2300 *Introduction to Computer Systems*: ILP
- COMP2310 *Concurrent & Distributed Systems*: threads, shared objects
- COMP3320 *High Performance Scientific Computation*: data modelling, SM programming models & performance issues
- COMP4300 Parallel Systems: 'classical' SM & DM ‖ism (capstone)
  - philosophy: *research-based education* and *cognitive apprenticeship*
  - key goal:teach how architectural effects relate to program performance
- non-assessed one-week intensive courses for HPC professionals
  - separate courses for shared and distributed memory HPC (web page for latter http://cs.anu.edu.au/courses/distMemHPC)
  - format of 1hr lecture + 1hr hands-on exercise worked well
- outlook: accelerators intensive course, convert intensives for students introduce FP ‖ism to COMP1100 *Intro. to Programming and Algorithms* ⇒ realize long term-goal of comprehensive, many-level HPC curriculum