

Code	ECE581
Name	Computer Architecture
Hour per week	3 (3 Theory + 0 Practice)
Credit	3
ECTS	10
Level/Year	Graduate
Semester	Spring
Type	Elective
Prerequisites	-
Content	<p>This course provides the major concepts and design philosophies of computer architecture and explains the principles, tradeoffs, and implementation details of microprocessors. The course introduces the basic mechanisms such as pipeline, branch prediction, multi-threaded execution which are utilized in the current state of the art microprocessors. Also, laws of performance evaluation of a modern computer will be explained in the course to measure if a computer meets functional, performance, energy consumption, cost, and other specific goals. After completing the course, students will get a basic understanding about the topics relevant to design of microprocessors of the present and will be able to foresee problems and possible solution directions for the future architectural designs.</p>