

## Second Grade

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### The microprocessor 8086

#### Course Objectives:

The main purpose of this course is to explain the internal architecture and functions of 8086 microprocessor, and learn the Assembly language.

#### Syllabus of 8086mp

- General introduction
  - Architecture of processor
  - The memory operation.
  - The types of buses
- Internal architecture of 8086 *mp*
- Addressing mode
- Assembly Instructions:
  - data transfer.
  - arithmetic and logic operations.
  - shift and rotate instructions.
  - string instructions.
  - loop instructions.
  - Control.
  - input/output instruction.
  - Interruptions instructions.
  - Stack.
- Interrupt mechanism.

#### References

- Walter A. Terebel and Avtar Singh, “The 8088 and 8086 Microprocessors-programming, Interfacing, Software, Hardware, and Applications”, Forth Edition, Prentice Hall.
- Richard Blum,”Professional assembly language”, Wiley publishing, inc, 2005.