Summary
The course extends and completes the topics of the "Analog circuits design I". The using of computer aided design tools becomes systematic in order to validate the studied concepts. System level design is added with a complete design project of electronic mixed-mode system.

Content
Analog comparators.
Differential Amplifiers and CMFB.
Voltage references : available voltage sources and circuits to extract them. Current references : circuits based on various principles; voltage to current converters.
Linear regulators : voltage regulators and LDO.
Case studies of analog systems: Project to be done in the laboratory

Keywords
Analog design, stability, LDO, linear regulator, low offset amplifiers.

Learning Prerequisites
Required courses
Analog circuits design I

Learning Outcomes
By the end of the course, the student must be able to:
• Design of comparators, differential amplifiers, LDO and low offset low noise amplifiers
• Analyze stability of linear regulators
• Design Using CAD environment of mixed-mode integrated circuits & systems

Transversal skills
• Plan and carry out activities in a way which makes optimal use of available time and other resources.
• Set objectives and design an action plan to reach those objectives.

Teaching methods
Ex cathedra, lab exercises and projects

Assessment methods
Continuous control

Supervision
Office hours  No
Assistants  Yes
Forum  No

Resources
Bibliography
Duplicated lecture notes, slide copies, hands-on for lab

Prerequisite for
Master thesis project