

Building Thermal Design

- 1. Course number and name:** 020CTHGS4 Building Thermal Design
- 2. Credits and contact hours:** 2 ECTS credits, 1x1.25 hours
- 3. Name(s) of instructor(s) or course coordinator(s):** Said CHEHAB
- 4. Instructional Materials:**
 - a. Power point Presentations, software, professor textbook

5. Specific course information

- a. Catalog description:** This course aims to introduce and present the Building Thermal Comfort, heating and ventilation systems and technologies. It covers all the aspects related to the thermal comfort such as the humid air treatment, thermal insulation ,efficient glazing ,building envelop treatment and focuses mainly on heating systems: heating load calculation, selection and sizing of the various existing systems: central hot water system, Heat Pumps, Air handling Unit, boilers ,pipes, pumps, fans,...
- b. Prerequisites or co-requisites:** 020ENVGS1 Environment and Sustainable Development
- c. Required:** Required for Buildings and Engineering Management Specialty students.

6. Educational objectives for the course

- a. Specific outcomes of instruction:**

The student will be able to explain the significance of current research about a particular topic.
- b. PI addressed by the course:**

PI	1.2	2.1
Covered	yes	yes
Assessed		

7. Brief list of topics to be covered:

- Thermal Comfort (2)
- Building Energetics (6)
- Heating Systems (6)
- Cooling Systems (4)