

# Specialized Master in Nuclear Engineering

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**Unique year** | MS-NUAP

## Compulsory courses

- CHIM-Y600**     **Nuclear materials** | Marc SCIBETTA  
 ⌚ 3 credits   📅 academic year   🗨 English  
 KU Leuven : 2 ECTS - ULiège: 1 ECTS
- ELEC-Y600**     **Introduction to nuclear energy**  
 ⌚ 3 credits   📅 academic year   🗨 English  
 KULeuven - 3 ECTS
- MECA-Y600**     **Nuclear thermal hydraulics**  
 ⌚ 5 credits   📅 academic year   🗨 English  
 UCLouvain : 5 ECTS
- PHYS-H602**     **Introduction to nuclear physics and measurements**  
 ⌚ 3 credits   📅 academic year   🗨 French  
 ULB - 3 ECTS
- PHYS-Y601**     **Nuclear reactor theory**  
 ⌚ 6 credits   📅 academic year   🗨 English  
 KULeuven : 2 ECTS - UGent : 2 ECTS - VUB : 2 ECTS
- PHYS-Y602**     **Nuclear fuel cycle**  
 ⌚ 3 credits   📅 academic year   🗨 English  
 ULiège : 3 ECTS
- PHYS-Y603**     **Radiation protection**  
 ⌚ 3 credits   📅 academic year   🗨 English  
 UGent : 3 ECTS
- PHYS-Y608**     **Safety of nuclear power plants**  
 ⌚ 5 credits   📅 academic year   🗨 English  
 UGent : 3 ECTS - ULB : 2 ECTS

## Elective modules

*A total of nine credits chosen from the following*

- PHYS-Y605**  
(optional)     **Advanced nuclear materials** | Steven Van Dijck  
 ⌚ 3 credits   📅 academic year   🗨 English  
 KULeuven : 2 ECTS - ULiège : 1 ECTS
- PHYS-Y607**  
(optional)     **Nuclear and radiological risk governance** | Greet JANSSENS-MAENHOUT and Fernand VERMEERSCH  
 ⌚ 3 credits   📅 academic year   🗨 English  
 UGent : 1 ECTS - UCLouvain : 2 ECTS
- PHYS-Y609**  
(optional)     **Advanced radiation protection/radiation ecology**  
 ⌚ 3 credits   📅 academic year   🗨 English  
 UGent : 3 ECTS

PHYS-Y610  
(optional)

### Advanced courses of the nuclear fuel cycle

3 credits academic year

ULiège : 3 ECTS

PHYS-Y611  
(optional)

### Advanced course elective topic

3 credits academic year

VUB : 3 ECTS

PHYS-Y616  
(optional)

### Advanced nuclear reactor physics and technology

3 credits academic year English

UCLouvain : 3 ECTS

## Memory

MEMO-H601

### Master thesis

20 credits academic year English

