

# Specialized Master in Nuclear Engineering

Unique year | MS-NUAP

## Compulsory courses

- CHIM-Y600**      **Nuclear materials**  
 3 credits    academic year    English  
 2 ECTS - KULeuven ; 1 ECTS ULg - Jacqueline LECOMTE-BECKERS, Walter BOGAERTS, Eric VAN WALLE
- ELEC-Y600**      **Introduction to nuclear energy**  
 3 credits    academic year    English  
 KULeuven - William D'HAESELEER
- MECA-Y600**      **Nuclear thermal hydraulics**  
 5 credits    academic year    English  
 UCL - Yann BARTOSIEWICZ
- PHYS-H602**      **Introduction to nuclear physics and measurements**  
 3 credits    academic year    French  
 ULB - Nicolas PAULY, Alain DUBUS
- PHYS-Y601**      **Nuclear reactor theory**  
 6 credits    academic year    English  
 2 ECTS - KULeuven ; 2 ECTS - UGent; 2 ECTS - VUB - William D'HAESELEER, Jean-Marie NOTERDAEME, Peter BAETEN
- PHYS-Y602**      **Nuclear fuel cycle**  
 3 credits    academic year    English  
 ULg - Hubert DRUENNE, Pierre VAN ISEGHEM
- PHYS-Y603**      **Radiation protection**  
 3 credits    academic year    English  
 UGent - Hubert THIERENS, Klaus BACHER
- PHYS-Y608**      **Safety of nuclear power plants**  
 5 credits    academic year    English  
 3 ECTS - UGent; 2 ECTS - ULB; Hubert DRUENNE, Pierre-Etienne LABEAU, Greet HANSSENS-MAENHOUT

## Elective modules

*A total of nine credits chosen from the following*

- PHYS-Y605**      **Advanced nuclear materials**  
 3 credits    academic year    English  
 2 ECTS - KULeuven ; 1 ECTS - ULg; Walter BOGAERTS, Jacqueline LECOMTE-BECKERS, Eric VAN WALLE
- PHYS-Y607**      **Nuclear and radiological risk governance**  
 3 credits    academic year    English  
 1 ECTS - UGent; 2 ECTS - UCL; Frank HARDEMAN, Greet JANSSENS-MAENHOUT
- PHYS-Y609**      **Advanced radiation protection/radiation ecology**  
 3 credits    academic year    English  
 Ugent, Klaus BACER

- PHYS-Y610 **Advanced courses of the nuclear fuel cycle**  
🕒 3 credits 📅 academic year  
VUB, Hubert DRUENNE, Pierre VAN ISEGHEM
- PHYS-Y611 **Advanced course elective topic**  
🕒 3 credits 📅 academic year  
VUB, Peter BAETEN
- PHYS-Y616 **Advanced nuclear reactor physics and technology**  
🕒 3 credits 📅 academic year 🗨️ English  
UCL - Hamid Ait ABDERRHAHIM

## Memory

- MEMO-H601 **Master thesis**  
🕒 20 credits 📅 academic year 🗨️ English

