



Università degli Studi di Roma "Tor Vergata"

**INDUSTRIAL ENGINEERING DEPARTMENT
AND
SCHOOL OF MEDICINE AND SURGERY**

**1ST-LEVEL MASTER COURSE
IN
"PROTECTION AGAINST CBRNe EVENTS"
(Master Course for the First Responders) 120 ECTS**

Academic Year 2015/2016- Academic Year 2016/2017

Coordinator: Prof. Pasquale Gaudio

The 2015/2016 1st-Level Master Course in "Protection against CBRNe Events" is hereby officially announced. The Master Course is organised by the Industrial Engineering Department and the School of Medicine and Surgery of University of Rome Tor Vergata.

AIMS

This Master Course – which will be held in English by international subject-matter experts and lecturers – aims at standardising First Responder education and training – at least in Europe – by providing state-of-the-art training in the following areas:

- CBRNe (Chemical, Biological, Radiological, Nuclear, explosive-related) Risk;
- Analysis of CBRNe Agents;
- The Effects of CBRNe Agents
- Software Applications
- General Operating Principles and Practical Use of CBRNe Detectors
- Protection and Decontamination of Personnel/Equipment and Infrastructure after CBRNe Events: Practical Exercises and Case Studies;
- The International Response System to CBRNe Events: First Responders' Action
- Medical Emergency Response
- Investigating CBRNe Events and Communication about the Events, complemented with Practical Exercises carried out at International CBRNe Training Facilities.

Hence, this Master Course aims at providing Participants with the technical, theoretical, and operational tools required to take action in the new, 21st-Century CBRNe Risk scenario.

The Master Course takes place under the formal agreements and with the cooperation of:

- The Prime Minister's Office;
- The Italian Ministry of Defence;
- The Italian Ministry of the Interior;
- The Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA)

- The National Institute for Geophysics and Vulcanology;
- The National Health Institute (ISS);
- Crati scrl;
- Scire scrl;
- Maris scrl;
- SOGIN

and with the support of outstanding companies operating in the safety and security fields (for more information, please refer to the website www.mastercbrn.com).

STRUCTURE

The Master Course consists of Modules and Internships, for a total duration of two academic years. However, depending on each individual's plan, it could last up to three years.

The overall educational and training activities will account for 120 ECTS points, that is, a total of 3,000 hours that each student shall devote to classes (580 hours) – which are the same for all participants –and practical training (180 hours) at International specialised facilities.

Moreover, each student shall devote at least:

- 50 hours to operational laboratory activities, supported by teachers of University of Rome Tor Vergata and external experts and tutors;
- 50 hours workshops, held by University of Rome Tor Vergata and external subject-matter experts.

Furthermore, each student shall carry out an internship at one of the supporting organisations and companies, under the supervision of a personal tutor. Besides, all students shall write and defend a Master Thesis.

The course foresees 13 modules, an internship and a final thesis as indicated in the following scheme:

Module	ECTS
Introduction to CBRNe risks-The point of view of First Responders	4
Radiological and nuclear agents and events and operations	5
Biological agents, events and operations	5
Chemical agents, events and operations	4
Explosives agents, events and operations	4
Detection, protection and decontamination	5
Medical first aid and medical management	5
DSS, Software	4
Investigation, communication and psychology	4
DIM, Protection and decon – Practical activity in Joint CBRN School	5
Crisis management after a CBRN incident course	5
Practical training on chemical and radiological agents	5
Private companies – visit to 7 th CBRN Regiment and Joint CBRN Logistic and Technical Centre	5
Internship	40
Final Thesis	20
Total	120

ADMISSION CRITERIA

This Master Course targets people with at least a 3-year Bachelor's Degree in technical-scientific disciplines, or any title considered as equivalent for admission purposes by the Board of Industrial Engineering Department. It also targets people with a Bachelor's Degree in other disciplines, to be authorised by the Master's Steering Committee.

The Master's Steering Committee might also recognise other vocational certified training and practical activities carried out by applicants after obtaining the Degree allowing them to participate in the Master Course (including individual courses attended in the framework of wider educational programmes), if they are consistent with the subject matters of the Master Course. Such activities might be attributed a number of ECTS points – up to a maximum of- 40 – which the relevant student could use to obtain the final Degree of the Master course.

The CBRNe Master Course shall have a maximum of 40 and a minimum of 16 participants.

Applicants that wish to register for this Master Course cannot be simultaneously attending any other university course.

An excellent level of English is requested.

APPLICATIONS

Candidates shall be admitted based on the assessment of their CVs by the Master's Steering Committee.

A maximum of 40 and a minimum of 16 people can participate in each Master Course.

Applicants are requested to pre-register online **by March 4th, 2016**, by filling in the attached application file and sending it to-the mail address: info@mastercbrn.com

together with the following records:

- CV;
- Bachelor's Degree self certification, showing the marks obtained for each exam and the final grade;

The list of admitted applicants shall be published on **14/03/2016**, on the <http://www.uniroma2.it> and www.mastercbrn.com web sites together with the instructions for the tuition fee payment.

FEES AND CHARGES

The overall tuition fee and charges amount to € 15,162.00, which shall be paid as follows:

- € 3,896.00 upon registration, by March 25th 2016 (this amount also includes € 16.00 tax and € 130.00 charge).
- € 3,750.00 by June 23rd, 2016
- € 3,766.00 by January 12th, 2017
- € 3,750.00 by June 22nd, 2017

Students admitted have to register by 25/03/2016.

Should a student's personal plan last longer than two academic years, the student under consideration shall pay an additional € 2,016.00 fee (including all charges) by January 12th, 2018.

Students can attend single modules of the course. The tuition fees for the application to the single module are the following:

Module	Tuition Fee
Introduction to CBRNe risks-The point of view of First Responders	1.000 euro
Radiological and nuclear agents and events and operations	1.000 euro

Biological agents, events and operations	1.000 euro
Chemical agents, events and operations	1.000 euro
Explosives agents, events and operations	1.000 euro
Detection, protection and decontamination	1.000 euro
Medical first aid and medical management	1.000 euro
DSS, Software	1.000 euro
Investigation, communication and psychology	1.000 euro
DIM, Protection and decon – Practical activity in Joint CBRN School	1.400 euro
Crisis management after a CBRN incident course	2.000 euro
Practical training on chemical and radiological agents	2.000 euro
Private companies – visit to 7 th CBRN Regiment and Joint CBRN Logistic and Technical Centre	1.000 euro

For the application to a single module the deadline is 25/03/2016

SPECIAL TERMS

Students with at least 66% certified and documented disability shall only pay € 896, that is, 5% of the overall fees and charges.

People who meet the aforesaid requirements, shall include the relevant information in their Applications. After being communicated their admission, they shall then hand in the records attesting their disability to the Master Course Secretariat.

The Faculty Board may – in compliance with the provisions of the Internal Rules – grant special financial terms to individual students.

START

Classes of the Master Course in Protection against CBRNe Events shall start on **14/03/2016**.

ATTENDANCE AND FINAL DEGREE

Students shall attend at least 80% of all classes, lectures and activities.

The final Degree shall only be obtained by students who have attended at least 80% of all classes, lectures and activities and passed the Module-related and final exams. At the end of the Master Course, all students who have attended at least 80% of all classes, lectures and activities, have passed the Module-related exams as well as the final exam (with Thesis and dissertation), and have duly paid all fees and charges, shall obtain the educational qualification “**1st level University Master Course in Protection against CBRNe Events (120 ECTS)**” (*Master Universitario di I livello in Protezione da Eventi CBRNe under the Italian Law*)”.

All students shall defence the Thesis within the last session of the second Academic Year following the latest registration year. After that, it will not be possible to obtain the Degree.

INFORMATION

For information, please contact:

- **Teaching Activity Coordinator: Mr. Andrea Malizia (malizia@ing.uniroma2.it).**
- **Master Course Secretariat: Ms. Colomba Russo; Ms. Valentina Gabbarini (info@masterCBRN.it). Telephone: +39 0672597201 (Monday through Friday from 9.00 a.m. to 1:00 p.m.)**

Rome,

The Director General
Mr. Giuseppe Colpani

The Rector
Prof. Giuseppe Novelli