



# Università degli Studi di Roma "Tor Vergata"

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

### **2nd-LEVEL MASTER COURSE IN "PROTECTION AGAINST CBRNe EVENTS" (Executive Course for Advisors of Decision Makers) 60 ECTS**

**Academic Year 2015/2016**

**Coordinator: Prof. Pasquale Gaudio**

The 2015/2016 2nd-Level Master Course in "Protection against CBRNe Events" (Executive Course) 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 the education and training of Decision Maker Advisors – 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
- Contaminant spreading and dispersion patterns
- Numerical analyses in planning CBRNe Emergency actions
- CBRNe detection methods, techniques, and equipment
- CBRNe Protection
- CBRNe Decontamination of personnel
- CBRNe Decontamination of environment, equipment, and infrastructure
- The International Response System to CBRNe Events
- Medical emergency action and emergency psychology for CBRNe events
- Critical infrastructure and CBRNe risk
- Preventing, countering, repressing, and investigating cases of involuntary and/or voluntary release of CBRNe agents
- CBRNe event-related communication and information.

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 srl;
- Scire srl;
- Maris srl;
- SOGIN

and with the support of outstanding companies operating in the safety and security fields (for more information, please refer to the relevant page of this web site).

## SRUCTURE

This Master Course has a total duration of one academic year, and consists of different Modules.

The overall educational and training activities will account for 60 ECTS points, that is, a total of 1,500 hours, 390 of which shall consist of classes and lectures.

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 a 200 hours 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.

<b>Module</b>	<b>ECTS</b>
Introduction to CBRNe risks – The role of the advisor for decision makers	4
Radiological and nuclear agents/events. Risk assessment and management	4
Chemical and explosives agents/events. Risk assessment and management	4
Decision support systems and software for the prevision and management of CBRNe events	5
International CBRNe emergency system	5
NATO biological warfare defence awareness course (NATO School Oberammergau, Germany)	5
CBRNe medical management	4
CBRNe protection and decontamination	5
Investigation, communication and psychology	5
Policy security office course in collaboration with Italian Coast Guard	4
Internship	9
Final Thesis	16
<b>Total</b>	<b>60</b>

## ADMISSION CRITERIA

This Master Course targets people with a MSc Degree or a Bachelor's Degree in technical-scientific disciplines + 2 years 120 ECTS relevant Master course, or any title considered as equivalent for admission purposes by the Board of Industrial Engineering Department. It also targets people with a 3+2 University education 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(s) 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 20 – 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 4<sup>th</sup> 2016, by filling in the attached application file and sending it to the mail address: [info@mastercbrn.com](mailto: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 March 14<sup>th</sup> 2016, on the <http://www.uniroma2.it> and [www.mastercbrn.com](http://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 € 7,146.00, which shall be paid as follows:

- € 3,646.00 upon registration, by March 25<sup>th</sup> 2016 (this amount also includes € 16.00 tax and € 130.00 charge).
- € 3,500.00 by June 27<sup>th</sup>, 2016

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

Should a student's personal plan last longer than one academic year, the student under consideration shall pay an additional € 1.016,00 fee (including all charges) for each additional year after the first one.

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 role of the advisor for decision makers	1.000 euro
Radiological and nuclear agents/events. Risk assessment and management	1.000 euro
Chemical and explosives agents/events. Risk assessment and	1.000 euro

management	
Decision support systems and software for the prevision and management of CBRNe events	1.000 euro
International CBRNe emergency system	1.000 euro
NATO biological warfare defence awareness course (NATO School Oberammergau, Germany)	1.600 euro
CBRNe medical management	1.000 euro
CBRNe protection and decontamination	1.000 euro
Investigation, communication and psychology	1.000 euro
Policy security office course in collaboration with Italian Coast Guard	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 € 466, 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 **March 21<sup>st</sup> 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 “**2<sup>nd</sup> level University Master Course in Protection against CBRNe Events (60 ECTS)**” (*Master Universitario di II livello in Protezione da Eventi CBRNe under the Italian Law*)”.

All students shall defend the Thesis within the last session of the first 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](mailto:malizia@ing.uniroma2.it)).**

- **Master Course Secretariat: Ms. Colomba Russo, Ms. Valentina Gabbarini ([info@masterCBRN.it](mailto:info@masterCBRN.it); [info@mastermastercbrn.com](mailto:info@mastermastercbrn.com)). 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