Università di Roma Tor Vergata

International CBRNe Master Courses University of Rome **Tor Vergata**

The evolution of and increase in Safety and Security threats at an international level place remarkable focus on the improvement of the emergency systems to deal with crisis, including those connected to ordinary and the non-conventional events (Chemical, Biological, Radiological, Nuclear, and explosives).

Given the global interest in these issues, the Department of Industrial Engineering and the School of Medicine and Surgery of the Tor Vergata University organise the following Master Courses:

LEVEL 1

Master Course in **Protection against CBRNe events** (120 ECTS)

LEVEL 2

Master Course in **Protection against CBRNe events** (60 ECTS)

INTERNATIONAL CBRNe MASTER COURSES
www.mastercbrn.com

The aforesaid Master Courses are organised by the University of Rome Tor Vergata, in cooperation with the following Italian Public Entities that have signed formal Agreements with the University:

- Italian Prime Minister's Office
- Italian Ministry of Defence
- Italian Ministry of The Interior
- ENEA (Italian National Agency for New Technologies, Energy and Sustainable Economic Development)
- National Institute for Geophysics and Vulcanology
- National Health Institute
- Italian Parliamentary Committee for Technological Innovation
- University consortia: Crati scrl, Maris scarl, Scire scarl

Cooperation Agreements have also been signed with the following International Entities:

- Hotzone Solutions Group (The Netherlands)
- OPCW (Organization for the Prohibition of Chemical Weapons)
- NATO Centre Of Excellence (Czech Republic)
- Oberammergau NATO SCHOOL (Germany)
- VVU (Czech Republic)
- Seibersdorf Laboratories GmbH (Austria)
- Chornobyl Centre (Ukraine)

The Tor Vergata Unversity Master Courses offer unique modules, such as Live Agent Modules with real CBRN materials and newly developed simulants; it also boast cooperation with outstanding companies operating in the safety and security sector.

LEVEL 1

Master Course in **Protection against CBRNe events** (120 ECTS)

For First Responders

DURATION

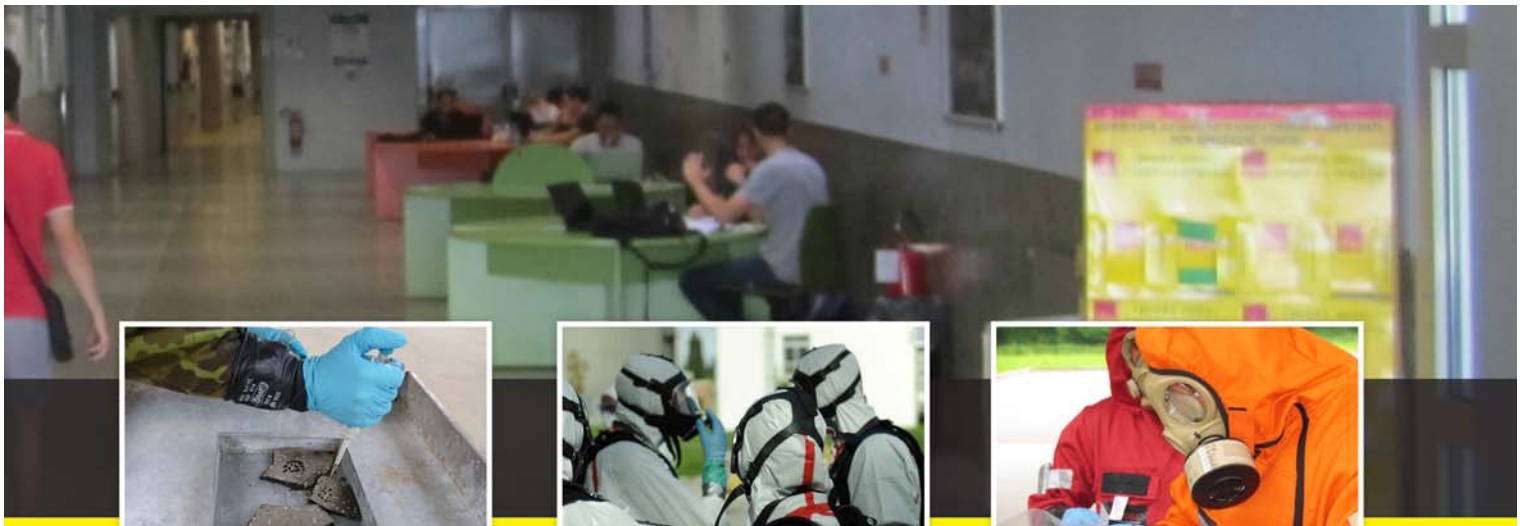
2 years *(January/February 2014 – December 2015)*

ECTS 120 ECTS

At the end of Master Course, participants will obtain a **1st-Level Master Degree in "Protection Against CBRNe Events" (120 ECTS).**

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

- CBRNe threats and risks
- Analysis of CBRNe agents
- Effects of CBRNe agents
- Diffusion and dispersion of CBRNe
- Software and codes for CBRNe emergencies
- Detection of CBRNe agents: equipment and techniques
- CBRNe protection
- CBRNe decontamination
- International emergency systems in case of CBRNe events
- Sanitary rescue and psychological approach to emergencies in case of CBRNe events
- Critical infrastructure
- Investigation and mitigation
- Communication and information in case of CBRNe events
- **Practical activities and Live-Agent Training** at up to four specialized European Facilities: NBC School of Rieti (Italy), VVU (Czech Republic), Chornobyl Centre (Ukraine), Seibersdorf Laboratories (Austria)



Contamination of Asphalt

Training with radioactive substances

Preparation for liquid CW Agent sample

TUITION FEE

The Master Course Tuition Fee amounts to **€ 15 146,00** (including taxes and parchment), divided into 4 instalments, to be paid as follows:

€ 3 896,00	upon enrolment – to be paid by January 10th 2014
€ 3 750,00	to be paid by June 23th 2014.
€ 3 750,00	to be paid by January 12th 2015
€ 3 750,00	to be paid by June 22th 2015

ADMISSION CRITERIA AND ATTENDANCE

In order to participate in the Master Course and obtain the final degree (which has legal value according to the Italian law), candidates must have a **180-ECTS point Bachelor's Degree or equivalent**. "Equivalence" of degrees such as Military, Police, Fire- fighters Academy degrees etc., will be assessed on a case-by-case basis by the University's competent bodies and the Master Course's Steering Committee.

Students are required to attend at least **80 %** of classes and practical activities. Students shall only graduate if they meet the following requirements:

- Have attended at least 80% of all classes and practical activities
- Have passed the tests for each module
- Have passed the final examination

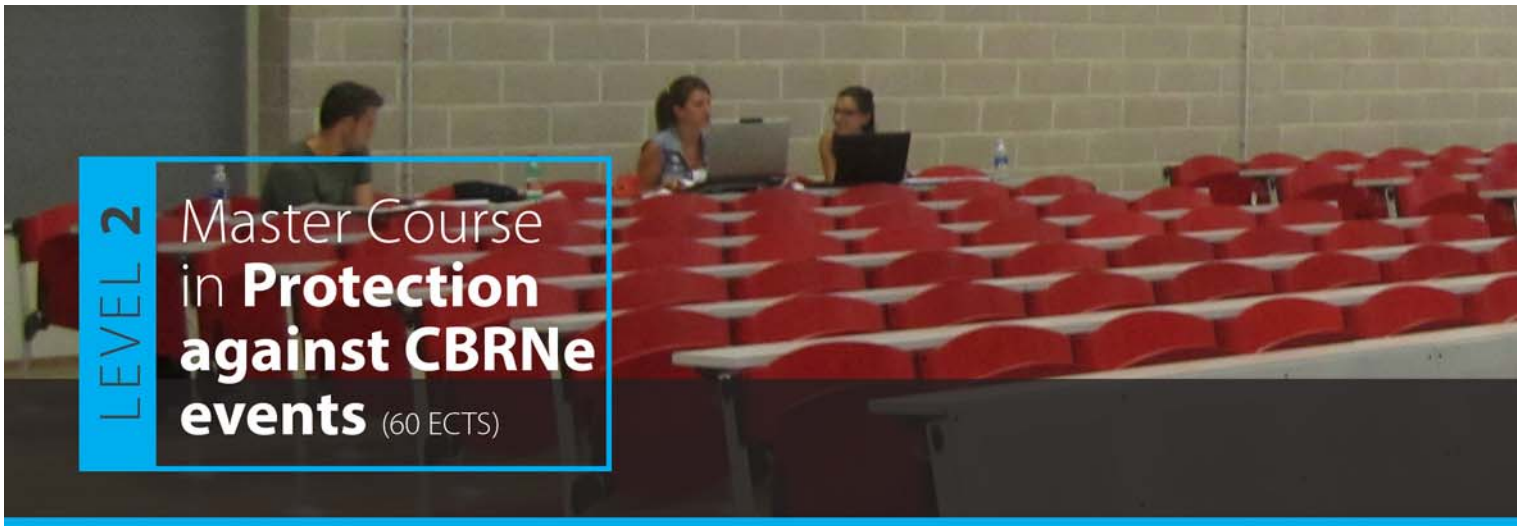
At the end of the Master Course, students who have attended at least 80% of all classes and practical activities, passed the tests and the final examination will be awarded the **1st-Level Master Degree in "Protection against CBRNe events"** (120 ECTS).
The best Master Thesis will be selected for publication in scientific journals.

STRUCTURE

The Master Course consists of Modules and Internships, for a total duration of two academic years.
Each module will last one week (Monday to Friday). One module per month shall be held, so to allow employed students to reconcile work and attendance.
Internships shall take place at one of the sponsoring companies or at the cooperating organisations and institutions. Students who already have a job may decide to spend the internship period by working on a specific Project (related to the Master's subject matters) at their company/organisation.

For the Curriculum, please refer to:
www.mastercbrn.com

The 1st-level Master Course in "Protection against CBRNe Events" will start in **January/ February 2014, latest**



LEVEL 2

Master Course in **Protection against CBRNe events** (60 ECTS)

Executive Course for Decision Maker's Advisors

DURATION

1 year (January 2014 – December 2014)

ECTS 60 ECTS

At the end of Master Course, participants will obtain a **2nd-Level Master Degree in "Protection Against CBRNe Events" (60 ECTS).**

This Master Course aims at training professional **CBRNe Advisors of Decision Makers**, with specific skills in the following areas:

- CBRNe threats and risks
- Analysis of CBRNe agents
- Effects of CBRNe agents
- Diffusion and dispersion of CBRNe agents
- Software, codes, tools, and DSS for CBRNe emergencies
- Detection of CBRNe agents: instruments and techniques
- CBRNe protection
- CBRNe decontamination
- International emergency systems in case of CBRNe events
- Sanitary rescue and psychological approach to emergencies in case of CBRNe events
- Critical infrastructure
- Investigation and mitigation
- Communication and information in case of CBRNe events
- High-Level Experiences in two specialized European Facilities

TUITION FEE

The Master Course Tuition Fee amounts to **€ 7 146,00** (including taxes and parchment), divided into 2 instalments, to be paid as follows:

€ 3 646,00	to be paid upon enrolment, by January 10th 2014
€ 3 500,00	to be paid by June 27th 2014

ADMISSION CRITERIA AND ATTENDANCE

This Master Course targets people with a 3+2-year Bachelor's Degree and Master Degree (for a total of 300 ECTS) in technical-scientific disciplines, or any title considered as equivalent for admission purposes by the relevant Board (Consiglio di Dipartimento). It also targets people with a 3+2 University education in other disciplines, to be authorised by the Master's Steering Committee "Equivalence" of degrees will be assessed on a case-by-case basis by the University's competent bodies and the Master Course's Steering Committee.

Students are required to attend at least 90% of classes and practical activities. Students shall only graduate if they meet the following requirements:

- Have attended at least **90 %** of all classes and practical activities
- Have passed the tests for each module
- Have passed the final examination

Safety Check of protective suit and gas mask

Decontamination of CW Agent

Pripyat, Chernobyl

At the end of the Master Course, students who have attended at least 90% of all classes and practical activities, passed the tests and the final examination will be awarded the **2nd-Level Master Degree in "Protection against CBRNe events"** (60 ECTS).
The best Master Thesis will be selected for publication in scientific journals.

STRUCTURE

The Master Course consists of Modules and Internships, for a total duration of one academic year. However, depending on each individual's plan, it could last up to three years.
Each module will last one week (Monday to Friday). One module per month shall be held, so to allow employed students to reconcile work and attendance.

Internships shall take place at one of the sponsoring companies or at the cooperating organisations and institutions. Students who already have a job may decide to spend the internship period by working on a specific Project (related to the Master's subject matters) at their company/organisation.

For the draft Curriculum, please refer to:
www.mastercbrn.com

The 2nd-Level Master Course in "Protection against CBRNe Events" will start in **January/February 2014**.

Both Master Courses have been granted the **NATO SELECTED** status by the NATO HQ SACT (Supreme Allied Commander Transformation - Norfolk, Virginia, USA). Moreover, the Tor Vergata University has signed a Cooperation Agreement with the **OPCW** (Organisation for the Prohibition of Chemical Weapons), which will support the Master Courses. As it is stated in the OPCW Press Release, ***"it is the first such agreement the OPCW has signed with a university in this field."***

For further information please contact:
info@mastercbrn.it
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10 years CBRNE WORLD 2005 2014 New issue September 2014

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Università di Roma Tor Vergata

Università di Roma Tor Vergata
INTERNATIONAL CBRNe MASTER COURSES
Chemical, Biological, Radiological, Nuclear and explosive
Department of Industrial Engineering and School of Medicine and Surgery

1st International CBRNe Workshop

"IW CBRNe 2014"

"Strategies and solutions to face ongoing global CBRNe threats"

21 November 2014
Sala Convegni

Engineering Faculty
University of Rome Tor Vergata

Università di Roma Tor Vergata

Università di Roma Tor Vergata
INTERNATIONAL CBRNe MASTER COURSES
Chemical, Biological, Radiological, Nuclear and explosive
Department of Industrial Engineering and School of Medicine and Surgery

1st International CBRNe Workshop "IW CBRNe 2014"

"Strategies and solutions to face ongoing global CBRNe threats"

The aim of this workshop is to give a detailed overview on the actual CBRNe risk scenarios, focusing on:

- *Bioterrorism and biological emergency scenarios;*
- *CBRNe mass casualty incidents: new models of collaboration to counter medical emergencies;*
- *Chemical risks: Syria and Gioia Tauro;*
- *H2020 and CBRNe: let's work together!*
- *New perspectives to face the risk: the civil, military, private, and academic point of view*

University of Rome Tor Vergata

1st International CBRNe Workshop "IW CBRNe 2014"

"Strategies and solutions to face on-going global CBRNe threats"
PROGRAM TOPICS

Registration	
Welcome greetings	Rector of the University of Rome Tor Vergata
International Master Courses in Protection against CBRNe events - the technical point of view	Prof. Leonardo Palombi University of Rome Tor Vergata
The role of the Tecnhical Departments of the School of Medicine and Surgery and CBRNe maxi ermegency	A representative of the School of Medicine Uni TV
"The OPCW and the Elimination of the Syrian Chemical Weapons Programme"	Daniel Feakes OPCW
Prevention and Comprehensive approach: New ways to face the CBRNe risk	Magg. Andrea Gloria NATO SCHOOL
Training activities for CBRNe experts	Col D. David Deadrich Joint CBRN COE
Framework Nations Concept (FNC)	LT. Bernd Alert German Armed Forces CBRN Defence Command

Coffee Break

Awaiting for the title of the speech	Dr. Nuno Luzio OSCE
Military strategies and solutions to face CBRNe threats in the new millennium	C.C. Gaetano Carminati Ministry of Defence Office
Awaiting for the title of the speech	Dr. Cornelius Bartels ECDC
Awaiting for the title of the speech	A representative of Prime Minister's Office
Transloading operation of Syrian chemical materials at the Gioia Tauro Port	Ministry of Interior, Dr. Eng Luciano Cadoni
The "Gioia Tauro operation"	MAE

Lunch and stand exposition

The new international book series on CBRNe	Dr. Claudio Gotti Aracne Editrice
The CBRNe in International Projects and H2020	A representative of DG Internationalization of MIUR
The role of private companies in the CBRNe sector	Dr. Lorenzo Mariani SELEX ES
The International Training on CBRNe	Dieter Rothbacher Hot Zone Solutions
Round table and Conclusive remarks	

Coffee Break

The speakers will be from: OPCW, NATO SCHOOL, JCBRNe COE NATO, OCSE, ECDC, Italian Prime Minister's Office, Italian Ministry of Defence, Italian Ministry of Interior, Italian Ministry of Research and University, Italian Ministry of Foreign Affaires, ENEA, ISS, INGV, Comune di Roma, Confindustria, German Armed Forces CBRN Defence Command, HOTZONE SOLUTIONS, SELEX ES, Aracne Editrice and an interesting stand session of the main CBRNe companies cooperating with our Master Courses will be present during the workshop.

For registration please contact:
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