



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" (Advanced Course for Advisors of Decision Makers) 60 ECTS (Code Course: PHY)

Academic Year 2017/2018

Coordinator: Dr. Pasqualino Gaudio

The 2017/2018 2nd Level Master Course in "Protection against CBRNe Events" (Advanced Course) is hereby officially announced. The Master Course is organised by the Industrial Engineering Department and the School of Medicine and Surgery of the University of Rome Tor Vergata.

AIMS

This Master Course – held in English by International subject-matter experts and lecturers – aims at standardising the education and training of "CBRNe Advisors for Decision Makers" – at least in Europe – in the following areas:

- CBRNe (Chemical, Biological, Radiological, Nuclear, explosive-related) risk;
- Analysis of CBRNe Agents;
- Effects of CBRNe Agents;
- Contaminants spreading and dispersion patterns;
- Numerical analysis in planning CBRNe emergency actions;
- CBRNe detection methods, techniques, and equipment;
- CBRNe protection;
- CBRNe decontamination of personnel;
- CBRNe decontamination of environment, equipment, and infrastructure;
- International response system in case of CBRNe events;
- Medical first aid;
- Emergency psychology for CBRNe events;
- Critical infrastructures and CBRNe risk;
- Preventing, countering, repressing, and investigating cases of involuntary and/or voluntary release of CBRNe agents;
- Investigation and communication in case of CBRNe events.

Hence, this Master Course aims at providing participants with 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:

Segreteria Master, Corsi di Perfezionamento, Scuola di Specializzazione per le Professioni Legali

- 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 Volcanology;
- The National Health Institute (ISS);
- SOGIN S.p.A.

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 one academic year. However, depending on each individual plan, it could last up to three years.

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

The lectures are scheduled in 9 didactic modules to be held in one week per month to allow students who work to attend the course more easily. A discretionary orientation module, which will have a duration of three days (24 hours), will be organized in the edition of this announcement. This module is focused on the evolutions of the young people's and international job market, on the new legislative deeds of active policies, on the creation of companies and on auto-employment, on individual placement skills and on continuous formation paths in the field of CBRNe safety&security. A module, compulsory for INPS Master "J" and Master"Exe" scholarship holders and discretionary for the others, of a total duration of 36 hours to provide expertise in writing technical reports and theses and in doing a literature search.

The hours of lessons, laboratory work and stage activities are organized as follows:

Teaching points	ECTS
CBRNe risks and agents	4
CBRNe agents effects and sampling techniques	5
Instruments for CBRNe agents detection	4
Software for CBRNe events prediction and protection techniques	5
Decontamination and remediation	4
International CBRNe emergency response system	5
Critical infrastructures, investigation and communication in case of CBRNe events	4

First responders trainers CoE NATO – First responders training at NATO CoE	5
Course at NATO School Oberammergau	5
Internship	13
Final Thesis	6
Total	60

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 '2nd Level Master Course in Protection against CBRNe events (60 ECTS) Degree'.

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 required.

APPLICATIONS

Candidates shall be admitted based on the assessment of their CVs by the Master Steering Committee, according to the selection criteria reported in Annex A.

The person responsible for the procedure is the CBRNe Master Courses Coordinator, Dr. Pasqualino Gaudio – Dept. of Industrial Engineering, University of Rome Tor Vergata, via del Politecnico, 1, 00133 Rome.

Applicants are required to pre-register online by January 15th, 2018, by filling in the attached application file and sending it to the mail address: info@mastercbrn.it

together with the following records:

- resume;
- Master Degree self certification, showing the marks obtained for each exam and the final grade.

For all foreign students each qualification must be officially accompanied by a "Declaration of value" (Certificate of Equivalence of Qualification), issued by the Italian Embassy in the country where the qualification was awarded.

The list of admitted applicants shall be published on January 17th, 2018, on the <http://www.uniroma2.it> and www.mastercbrn.com websites 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 January 24th 2018 (including € 16,00 for tax stamp and € 130,00 for parchment);
- € 3,500.00 by July 02nd, 2018.

Students admitted have to register by January 24th 2018.

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.

Auditors can be admitted providing that the number is less than of 20% of all participants, upon a payment of € 5.016,00 tuition fee (including tax stamp) divisible in 2 instalments in the above-mentioned modalities.

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

Modules*	Tuition fee
Fundamentals of crises, emergencies, disasters and CBRNe events management	1.000 €
International cooperation for crises, emergencies & disasters preparedness and management	1.000 €
CBRNe events management	1.000 €
Management of chemical releases scenarios	1.000 €
Management of nuclear events and radiological scenarios	1.000 €
Crisis and emergency risk communication	1.000 €
Investigation	1.000 €
Table Top Exercise for crises, emergencies, disasters and CBRNe events management	1.000 €
Course at NATO School Oberammergau	1.600 €

* Modules may undergo some minor changes.

For the application to a single module the deadline is January 24th, 2018

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 **January 22nd, 2018**.

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 “**2nd 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:

- **Master Course Secretariat: info@mastercbrn.it. Telephone: +39 0672597201 (Monday through Friday from 9.00 a.m. to 1:00 p.m.)**

Rome, December 13, 2017

The Director General
Mr. Giuseppe Colpani

The Rector
Prof. Giuseppe Novelli

Admission Criteria

The criteria for the admission to the 2nd Level Master Course in Protection against CBRNe events (a.y. 2017/2018) include the assessment of qualifications focusing on the following aspects:

- Assessment of resume and qualifications awarded;
- Assessment of the real interest towards the main topics of the course through the analysis of the work experience.

Mainly, assessment will be based on the following indicators:

INDICATORS		SCORE
Mark of degree (up to 110)	110 with honours	40
	106-110	36
	101-105	32
	104-100	28
	99-80	24
	80-66	20
English Language Level of knowledge		0-10
Further qualifications concerning the main subjects of the Master Course		0-25
Work experience		0-25

In case of equal score, priority is given to the youngest candidate.