



University of Gezira



Blue Nile National Institute  
for Communicable Diseases  
(BNNICD)

## **Course announcement**

### ***Master of Science (MSc) Degree in Medical Entomology and Vector Control***

#### **Introduction**

The Blue Nile National Institute for Communicable Diseases, University of Gezira, Sudan, in collaboration with WHO Regional Office for the Eastern Mediterranean, announces the second MSc Degree Course in Medical Entomology and Vector Control for the 2009–2010 academic year. The course is in response to the request by Member States in the Eastern Mediterranean to strengthen capacity to implement vector control in the context of integrated vector management. The course will provide advanced training both in the theoretical and practical aspects of biology and control of the major disease vectors, as well as the human pathogens that they transmit. Graduates from this course will mainly go into operational control programmes, and others into applied basic research and academic fields, including higher degree studies and teaching positions.

#### **Course partners**

This course is being conducted in collaboration with:

- the Federal Ministry of Health, Malaria and Leishmaniasis Control Programmes, Khartoum, Sudan
- WHO Regional Office for the Eastern Mediterranean, Cairo, Egypt
- London School of Hygiene and Tropical Medicine, London, United Kingdom
- National Institute for Communicable Diseases, University of Witwatersrand, Johannesburg, South Africa
- Liverpool School of Tropical Medicine, Liverpool, United Kingdom
- Istituto Superiori di Sanità, Rome, Italy
- Institut de Recherche pour le Développement (IRD), France and Centre for Research in Entomology, Cotonou (CREC), Cotonou, Benin.

In addition to the teaching staff from the University of Gezira and from other local institutions, course facilitators will also be drawn from the international partners.

#### **Duration and language of instruction**

The duration of the course is 1 year, beginning 23 August 2009. The course will be conducted in English.

### **Programme objectives**

Upon completion, participants will be able to:

- identify vector-borne disease problems in relation to the general health situation of their countries;
- plan, implement, monitor and evaluate vector control programmes based on integrated vector management approaches in accordance with the prevailing epidemiological, social and economic conditions of their countries.

This will be achieved through acquisition of a matrix of skills acquired from seven modules including:

- knowledge of the major vectors and vector-borne diseases of relevance globally and specifically to the Region;
- skills to conduct entomological surveillance and operational research;
- knowledge on the principles of epidemiological investigations of vector-borne diseases;
- skills in disease control programme management;
- skills to develop vector control strategies based on the principles of integrated vector management;
- skills to facilitate and train others, and effectively document and disseminate information on entomology and vector control.

### **Course structure and syllabus**

#### **First semester**

The semester will start with a one-week orientation period for all students. During this time students will be introduced to the University of Gezira, Blue Nile National Institute for Communicable Diseases and its staff and be given time to settle into Wad Madani.

**Module 1.** Vectors and vector-borne diseases: introduction to vector-borne diseases and their burden, vector biology and ecology, modelling and dynamics of disease transmission.

**Module 2.** Epidemiological investigations and statistics: introduction to general epidemiology, statistical principles and methods, computer-based applications in vector-borne disease control and study design.

**Module 3.** Entomological investigations: sampling and rearing methods, vector identification, vector incrimination and vector surveillance.

**Module 4.** Vector control: principles of vector control, methods and approaches, the integrated vector control approach, pesticides and their management and insecticide-resistance management.

## **Second semester**

**Module 5.** Essential principles of programme management in the context of integrated vector management: programme management, political and institutional frameworks in vector control, planning vector control programmes, monitoring and evaluation, resource mobilization and advocacy, social mobilization, partnership and intersectoral collaboration.

**Module 6.** Field training (2 months).

## **Third semester**

**Module 7.** Dissertation (3 months minimum).

## **Admission requirements**

Applicants should have one of the following qualifications:

1. BSc in Medical Entomology
2. BSc in Agricultural Sciences (crop protection, entomology, pesticides, toxicology, environmental and national resources).
3. Degree in Medicine
4. BSc in Veterinary Medicine
5. BSc in Health and Environmental Sciences
6. BSc in Medical Laboratories Sciences
7. BSc in Sciences (zoology)

Applicants must speak English, possess a minimum of two years of relevant work experience, be computer literate and under 35 years of age.

Holders of an Advanced Diploma in Environmental Health or in Health Sciences with relevant work experience in a disease vector control programme will also be exceptionally considered.

## **Application procedure**

1. Applications, including the candidate's CV and copies of relevant degree and other certificates, are to be submitted to: Director, Blue Nile National Institute for Communicable Diseases; e-mail: [BNRTI@hotmail.com](mailto:BNRTI@hotmail.com)
2. Potential Ministry of Health-sponsored candidates from countries in the Region should route their application through their respective WHO country office. These are to be forwarded to: WHO Regional Office for the Eastern Mediterranean, Fellowship Unit, Abdul Razzak Al Sanhoury Street, P.O. Box 7608, Nasr City, Cairo 11371 Egypt; e-mail: [FEL@emro.who.int](mailto:FEL@emro.who.int)
3. Deadline for applications is 10 April 2009.

## **Cost of study**

The tuition fee for international students is US\$ 6000 per student and US\$ 4500 for national students.

## **Selection of candidates**

Selection of candidates will be undertaken by an International Steering Committee established for this course. The Committee is scheduled to meet in May 2009.

**Accommodation**

All students will be accommodated at the University of Gezira Hostel in the Blue Nile National Institute for Communicable Diseases, in Wad Madani, Sudan. The institute charges US\$ 5 per person per day.

**For further information contact:**

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