

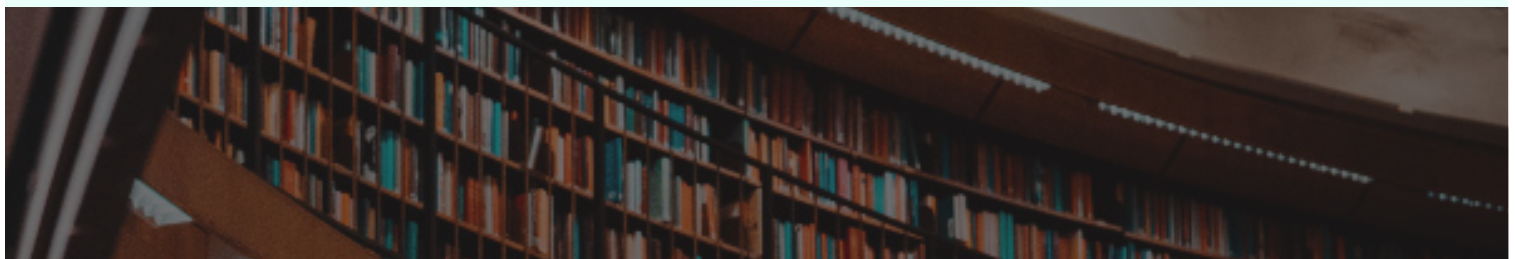


**Kwame Nkrumah  
University of Science  
and Technology**

WORLD BANK AFRICAN CENTRE OF EXCELLENCE

# MSc Programme

**IN DISASTER PREVENTION AND  
MANAGEMENT**



# MASTER OF SCIENCE (MSC) IN DISASTER PREVENTION AND MANAGEMENT

## RWESCK World Bank African Centre of Excellence, Kwame Nkrumah University of Science and Technology Kumasi-Ghana

The number of people threatened by earthquakes, floods, landslides, volcanic eruptions, erosion, fire and other natural hazards has dramatically increased over the last decades. Climate change and variability, urbanization and environmental degradation further increase exposure and vulnerability to natural hazards. This disturbing trend of disasters around the world has made it clear that a holistic approach to Disaster Management is needed to substantially reduce disaster losses. In Ghana, the history of disasters including earthquakes, perennial flooding, fire outbreaks, droughts, epidemics and other complex emergencies cannot be overemphasized. These have resulted in considerable loss of lives and properties. In order to effectively manage these occurrences there is the need for adequate institutional capacity to be developed.

### Aims and Objectives

The programme aims at producing human resources capacity with fundamental understanding of disaster prevention and management. It seeks to build competencies of disaster management professionals and development practitioners for effective organization, planning and decision making for disaster risk management.

The objectives of the MSc programme are to equip students to:

- Gain knowledge and skills in risk assessment, disaster prevention and management, and the opportunity to develop in-depth knowledge across the whole subject area
- Develop skills to evaluate information critically, communicate ideas clearly and undertake advanced conceptual analysis
- Acquire relevant interdisciplinary knowledge and experiences using desk-based research, laboratory and field situations,
- Develop rudimentary ability to respond to disaster,
- Develop a practical awareness of the different aspects involved in emergency management including planning, logistics and response. Participants will also gain insight in how risk information is used for evaluation of risk reducing measures, disaster preparedness planning, post disaster damage assessment and remediation.

## Taught Courses and Research

Students will undertake nine (9) months taught courses and three (3) months project work and submit a project work report in partial fulfilment for the award of the MSc degree.

Students will undertake three months project work related to disaster prevention and management and submit a project report in partial fulfilment for the award of the MSc degree. To achieve this, students will apply their knowledge from earlier modules to undertake a detailed project work on important disaster prevention and management issues in Ghana or abroad and write a report. Students will be guided by their supervisors but the work will be their own and they will take responsibility for the design, planning and execution of the project. The course also includes two seminars where students will present and defend their project work and discuss the results of their study. Formal assessment will be the final Postgraduate defence.

Table 1 Programme Structure of MSc in Disaster Prevention and Management Programme

Course Code	Course Name	T (hr)	P (hr)	C(hr)
<b>Year one Semester 1</b>				
CEDM 551	Concepts and Fundamentals in Disaster Prevention and Management	1	0	1
CEDM 555	Vulnerability and Risk Assessment Methods	2	2	3
CEWE 515	GIS and Remote Sensing for Disaster Prevention Management	2	2	3
CEDM 557	Disaster Risk Management	2	2	3
CEDM 559	Disaster Response and Recovery	2	2	3
CEDM 561	Disaster Risk Reduction	2	2	3
CEDM 566	Institutional Arrangements in Disaster Management	2	0	2
<b>Total Credits for Semester 1</b>		<b>13</b>	<b>10</b>	<b>18</b>
<b>Year 1 Semester 2</b>				
CEDM 558	Shelter, Water, Sanitation and Health in Emergencies	2	2	3

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Course Code	Course Name	T (hr)	P (hr)	C(hr)
CEDM	ELECTIVE (select one elective)	2	2	3
CEWE 554	Research Methods	2	0	2
CEDM 552	Managing and Financing Disasters	2	0	2
CEWE 532	Project Management and Evaluation	2	0	2
CEDM 651	MSc Project Work	0	16	8

### ELECTIVE COURSE (Select one)

CEDM 560	Fire Prevention and Control			
CEDM 562	Flood Management and Climate Resilient Systems			
CEDM 564	Seismic Risk Assessment and Designs			
<b>Total Credits Semester 2</b>		<b>10</b>	<b>20</b>	<b>20</b>
<b>Total Course Credits</b>		<b>23</b>	<b>30</b>	<b>38</b>

## Admission Entry requirements

The basic entry requirements into the programme are those specified by the University as detailed below:

1. First Class or Second Class (Upper Division) degree or its equivalent from a recognized University in Engineering, Physical Sciences, Humanities and any field of specialisation relevant to Disaster Prevention and Management.
2. Applicants with qualifications other than those specified in (1) above shall be interviewed and if found necessary, would be required to take a written examination before admission.

## Graduation requirements

The programme is a 12-months study, to be taken in a distance-learning mode. The programme is designed for holders of a bachelor degree (1st Class or 2nd Class Upper or their equivalent) in engineering, science, health and humanities. Applicants with 2nd Class Lower and some work experience may be admitted. All applicants will be admitted after passing an interview. To qualify for the award of an MSc degree in Disaster Prevention and Management a candidate should have:

1. Obtained a total of at least 39 credit hours of courses
2. Passed (obtained not less than 50%) in all courses taken earning a cumulative

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weighted average of 55.00 or more

3. Completed a thesis on an agreed and supervised topic
4. Satisfied all other requirements of the Graduate School Board.

### Mode of Application

Sale of E-Vouchers for admission is in progress

- Purchase e-Voucher for **GHC280.00** at the following banks: **GCB, CBG or ECOBANK** or **dial \*447\*160#** on any network and follow the prompts
- Upon payment of the application fee, candidates will receive an e-Voucher containing
- an application number and PIN that will grant access to the on line admissions portal
- Candidates should then proceed to online admissions website: <https://apps.knust.edu.gh/admissions/> and begin the application process
- Once the process has been completed, candidates **MUST PRINT OUT 2 COPIES** of the completed application form from the portal and submit them (by post) to the School of Graduate Studies together with all relevant documents (Photocopies of Certificates,
- Recommendation Letters, and Transcript for those attending KNUST for the first time) to the following address:

**THE SECRETARY**

**SCHOOL OF GRADUATE STUDIES**

**(KNUST, KUMASI-GHANA)**

**Deadline for submission of application forms is 31st October, 2022.**

Application forms submitted after the deadline will not be processed.

Admissions will be preceded by an interview. Students awaiting results can apply!

NB: All International Applicants must use this link: <https://apps.knust.edu.gh/admissions/apply/Account/Register> to generate logins and apply online.