

CONCEPT NOTE

**Department of Geography
Faculty of Arts
University of Colombo**

The Certificate in Application of Geographical Information System (GIS) Techniques for Disaster Risk Reduction and Management (DRR+M)

1. Introduction

Climate Change Impacts have adversely been escalated throughout the world. This is because the occurrence of unexpected natural calamities such as torrential rains, mas flooding events, landslides and storms has dramatically been accelerated in the Sri Lankan context as well for decades. The bad consequences of those natural calamities are very serious including loss of lives, loss of livelihoods and properties of hundreds of thousands of people and so on. This is because the application of GIS/Geo-information technologies for Disaster Risk Reduction and Management has been come to the fore. Especially there is a lacking of the application of GIS technologies for DRR+M in the Sri Lankan context. In order to fill this gap, the Department of Geography, University of Colombo is planning to offer a Certificate course in Application of Geographical Information System (GIS) Techniques for Disaster Risk Reduction and Management (DRR+M) probably since June/2022 for the stakeholders in the field of Disaster Management and related working backgrounds. Thus, this certificate will be impacted in training and improving the knowledge on the DRR+M context plus disaster preparedness practices in Sri Lanka.

By the completion of this certificate course, participants will be able to;

- Identify and realize the key concepts of DRR+M and GIS
- Recognize and discuss the key issues related to DRR+M based on spatial dimensions
- Understand the current applications of spatial dimensions in DRR+M
- Analyze/Evaluate current issues of DRR+M using GIS applications
- Simulate and demonstrate possible solutions for existing DRR+M issues using GIS technologies

2. Target Groups

DRR+M stakeholders and practitioners

3. Admission Requirements

- i. GCE/AL or above
- ii. At least one year experience in relevant field (e.g. DRR+M)

4. Medium of Instruction

English/ Sinhalese

5. Course Fee

- i. Course fee: 30,000.00
- ii. Application Fee: 1000.00
- iii. Registration Fee: 2,500.00

6. Course duration

80 hours (Teaching plus practical)

7. Teaching Methodology

Online teaching Mode including case study analysis

8. Evaluation

- i. 50% by the continues assessment
- ii. 50% by the end course examination (online/onsite)

The grading scales of the Faculty of Arts shall apply to this course:

Range of Marks	Grade
80% +	A+
75% -79%	A
70%- 74%	A-
65% -69%	B+
60% -64%	B
55%-59%	B-
50% -54%	C+
45% -49%	C*
40% -44%	C- (fail)
35%-39%	D+ (fail)
30% - 34%	D (fail)
0% -29%	E (fail)

Notes: i. * - minimum performance for a pass.

The achievement structure will be as follows:

45% -69% of total marks - Pass

70% -79% of total marks - Merit Pass

80% - of total marks or above - Distinction Pass

9. Syllabus

- Introduction to the conceptual contexts of disaster risk analysis/assessment; disaster risk reduction; and management
- Introduction to the key methods of Spatial data gathering/collection
- Introduction to the key elements of spatial data analysis in GIS

Template approved and confirmed at the 390th Faculty Board (07.01.2020) and approved at the 447th Senate (29.01.2020)

- The UNDRR mechanism of Disaster management and risk reduction and their spatial approaches (in Disaster Management and Risk Reduction)
- GIS applications in disaster risk analysis/assessment; Mapping; disaster risk reduction; and management
- Modelling and simulating of local disaster management approaches/mechanisms with the application of spatial techniques