

Ministry of Health and Family Welfare

2017

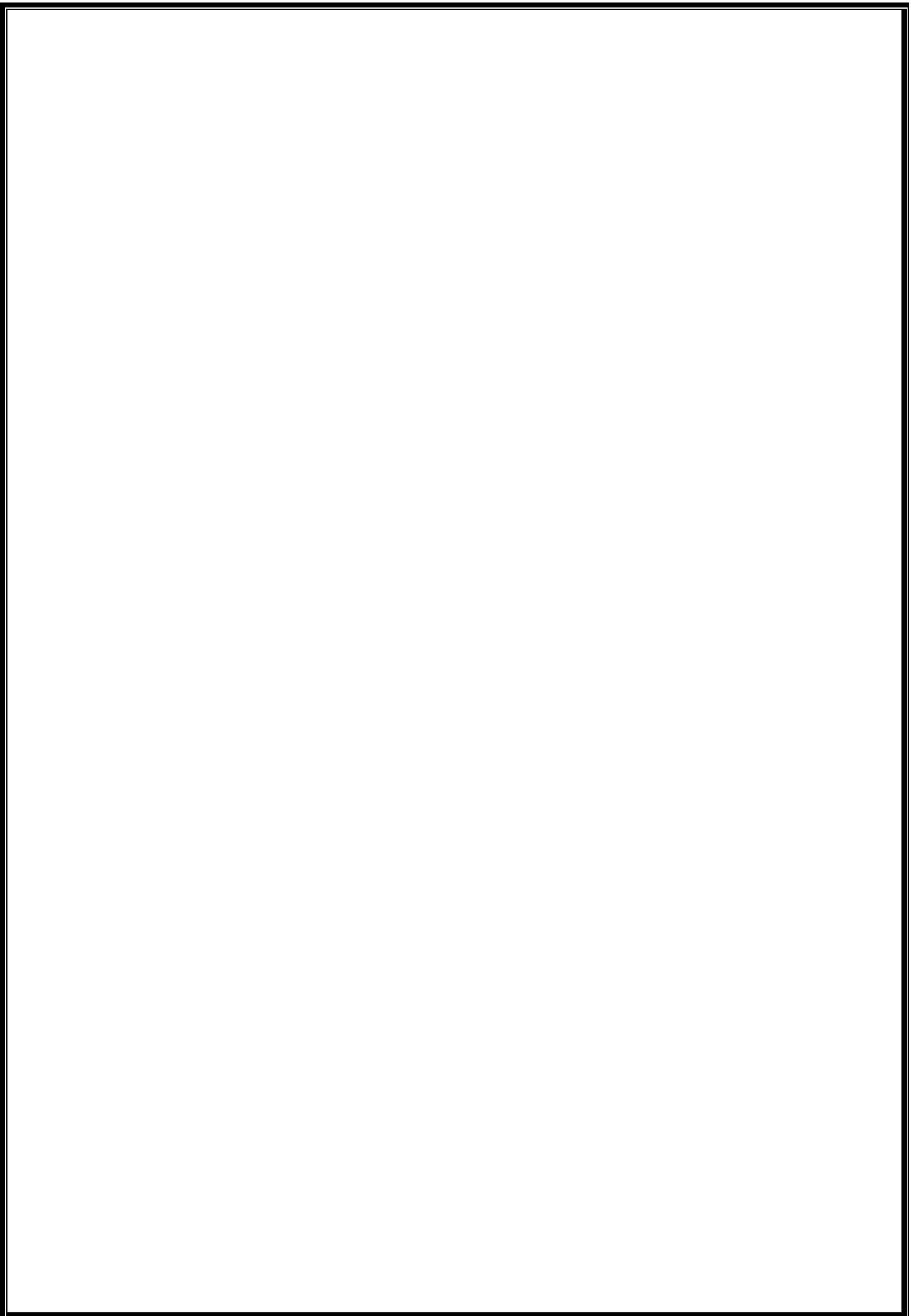


सत्यमेव जयते

Training Curriculum Handbook

**FIRST RESPONDER**





Ministry of Health and Family Welfare

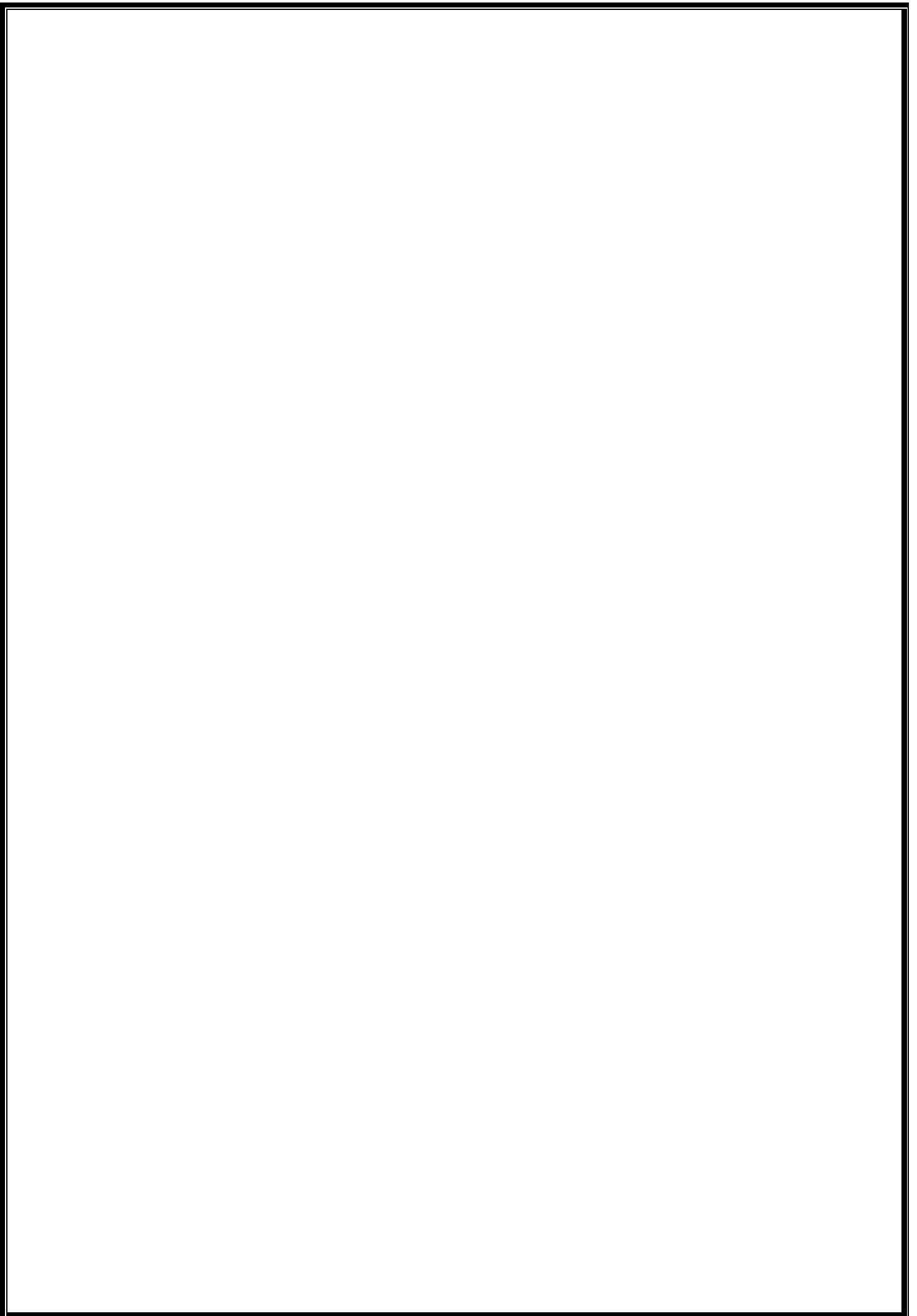
2017



सत्यमेव जयते

Training Curriculum Handbook

**FIRST RESPONDER**



## Contents

<b>INTRODUCTION TO THE SKILLS BASED TRAINING CURRICULA .....</b>	<b>3</b>
<b>Who is a First Responder? .....</b>	<b>3</b>
<b>Scope of practice .....</b>	<b>3</b>
<b>Minimum Entry requirement .....</b>	<b>3</b>
<b>Minimum Course duration .....</b>	<b>3</b>
<b>Course Participants: .....</b>	<b>3</b>
<b>Teaching faculty and infrastructure: .....</b>	<b>3</b>
<b>Medium of instruction: .....</b>	<b>4</b>
<b>Attendance: .....</b>	<b>4</b>
<b>TRAINING CURRICULUM FOR SKILL CERTIFICATION.....</b>	<b>5</b>
MODULE – 1: INTRODUCTION TO THE FIRST RESPONDER PROGRAMME.....	6
MODULE – 2: AIRWAY, BREATHING AND CIRCULATION: TRAUMA.....	8
MODULE – 3: BASIC LIFE SUPPORT: CPR.....	9
MODULE – 4: INITIAL MANAGEMENT OF THERMAL INJURY, STABILIZING INJURED EXTREMITY AND WOUND MANAGEMENT .....	10
MODULE – 5: MEDICAL EMERGENCIES .....	11
MODULE – 6: TRANSPORTATION AND DISASTER PREPAREDNESS.....	12
SKILL STATIONS.....	13
<b>EQUIPMENT LIST:.....</b>	<b>14</b>
<b>LIST OF ABBREVIATIONS .....</b>	<b>16</b>
<b>CONTRIBUTORS TO THE CONTENT AND DRAFTING OF THE FIRST RESPONDER COURSE .....</b>	<b>17</b>
<b>REFERENCES:.....</b>	<b>18</b>

MOHFEW

## INTRODUCTION TO THE SKILLS BASED TRAINING CURRICULA

The Skill based training courses are the training content developed for enhancing the specific skills of existing professionals or provide for a platform for imparting skills to candidates with no formal qualification.

To undertake the skill based training programme, it is mandatory that the candidate must fulfill certain entry criteria. The training and assessment will certify that the candidate is able to undertake specific set of activities. **These must not be equated with the formal qualifications- diploma/ degrees which are given by a University.**

### Who is a First Responder?

**First Responder is the first person on the incidence scene to recognize the emergency, activate an EMS system and provide lifesaving first aid with minimal equipment until the EMS providers arrive.**

### Scope of practice

First Responders provide a service in an environment requiring specific skills and knowledge. They also serve as liaisons with other emergency services. This course provides an introduction to these concepts. This curriculum includes skills necessary for the individual to provide first aid with a limited amount of equipment. Specifically, after successful completion of the program, the student will be capable of performing the following –

1. Recognize the seriousness of the patient's condition or extent of injuries to assess requirements for first aid;
2. Administer appropriate first aid for life threatening injuries relative to airway, breathing and circulation and disability;
3. Understand certain lifesaving emergencies and initiation of first responder care
4. Successful transfer of the victim to medical care system
5. Assist health care providers

### Minimum Entry requirement

Educational requirement - The curriculum may be taught to lay persons with educational qualification of 10<sup>th</sup> standard and above. Medical professionals including doctors, nursing staffs and allied and healthcare professionals may also attend the program and may be eligible for training of trainers' First responder programme.

### Minimum Course duration

To qualify as an entry level professional in the field of First Responder, it is recommended that training programme would be of **8 hours duration (one day)** and would be a mix of didactic, video-based, interactive lectures and hands on practice. The course content is indicative of the basic content to be taught for the programme, however training modules may be customized based on the target population.

### Course Participants:

A maximum of 60-75 candidates may be accommodated per course

### Teaching faculty and infrastructure:

- Course director: 1
- Core Faculty: 4-5
- Adjunct Faculty: 4-5

Who qualifies to be faculty?

1. Doctors
2. Emergency Medical Technician
3. B.Sc. (Nursing) with two years of experience or GNM with three years of experience with adequate training
4. They should be able to perform and train the patient related skills

All trainers with requisite essential educational qualifications will have to attend the basic first responder course successfully before they become eligible for the trainer course. Trainer course would include additional topics like topic on Communication skills. The teaching faculty MUST be supervised by at least 1-2 Course director.

### **Medium of instruction:**

English/ regional language shall be the medium of instruction for all the subjects of study and for examination of the course. The module should be in ENGLISH, HINDI and Regional Language. In Indian Scenario, a mix of languages is also desirable. However trainer should be well versed with atleast English and the regional language.

### **Attendance:**

A candidate has to secure 100%attendance in overall. No relaxation, whatsoever, will be permissible to this rule under any ground including indisposition etc.



## TRAINING CURRICULUM FOR SKILL CERTIFICATION

**Learning Outcomes:** At the completion of this module, the student should be able to perform:

1. Opening and maintaining an patent airway: assessment and knowledge of airway maneuvers and adjuncts
2. Ventilating patients: Assessment and management of breathing with Mouth to mouth and mouth to mask
3. Administering basic life support skills including cardiopulmonary resuscitation
4. Providing first aid of simple and multiple system trauma such as
  - Controlling hemorrhage
  - Managing Burns and wounds
  - Response to effects of weapons of mass destruction
  - Manually stabilizing injured extremities
5. Providing first aid to patients with medical emergencies like heart attack and stroke
  - Identifying signs of Stroke and heart attack and safe transfer after first aid without delay in transfer.
  - Manage general medical complaints seizures and animal bites (snake /dog bite)
6. Communication, team dynamics and transfer skills:
  - Reassuring patients and bystanders by working in a confident, efficient manner
  - Avoiding mishandling and undue haste while working expeditiously to accomplish the task
7. Managing safe patient transport entailing-Extrication of the victim, helmet removal and spine protection during transport.
8. Roles, responsibilities and limitation of first responder.

## MODULE – 1: INTRODUCTION TO THE FIRST RESPONDER PROGRAMME

**Learning Outcomes:** At the completion of this module, the student should be able to:

- Understand the healthcare scenario in India
- Understand the duties and responsibilities of an First Responder
- Learn the scope of work for an First Responder
- Recognize the boundary of one’s role and responsibility and seek supervision when situations are beyond one’s competence and authority
- Understand the art of effective communication with various stakeholders like patients, nurses, etc.
- Understand relevant medico-legal principles
- Learn how to identify rapidly changing situations and adapt accordingly
- Understand the importance of and process for first aid and triage
- Understand his/her role in disaster preparedness and management

**Content –**

S. No.	Topics	Duration
		Theory
1.	Problem statement	15 mins
2.	Scope and responsibilities of a first responder	
3.	Professionalism , ethical ,legal issues and well-being of First responder	30 mins
4.	The Human Body	30 mins
<b>TOTAL</b>		<b>1 hour 15 mins</b>

### Detail of Topics

#### 1. Introduction to healthcare and hospitals& problem statement

- a. Healthcare delivery system in India at primary, secondary and tertiary care
- b. Community participation in healthcare delivery system
- c. Emergent conditions and magnitude
- d. Why we need First responders
- e. Concept of golden hour
- f. Duties and responsibilities of first responder

#### 2. Professionalism ethical issues and well-being of first responder

- a. Code of conduct, professional accountability and responsibility, misconduct
- b. Ethics in healthcare – Privacy, confidentiality, consent, medico legal aspects
- c. Understanding scope of work and avoiding scope creep
- d. Handling objections
- e. Gather information from observation, experience and reasoning
- f. Identification of rapidly changing situations and adapt accordingly
- g. Planning and organization of work
- h. Scene safety
- i. Dealing with emotional reactions family members and bystanders
- j. Personal protection
  - i. Steps to be taken against airborne and blood-borne pathogens
  - ii. Personal protective equipment necessary for each of the following situations:

- Hazardous materials
  - Rescue operations
  - Violent scenes
  - Crime scenes
  - Electricity
  - Water and ice
  - Exposure to blood-borne pathogens
  - Exposure to airborne pathogens
- k. Consent
- i. Definition of consent
  - ii. Methods of obtaining consent
  - iii. Difference between expressed and implied consent
  - iv. Role of consent of minors in providing care
- l. Actions to assist in the preservation of a crime scene
- m. Issues concerning the fundamental components of documentation

### 3. The Human Body

Enhances the First Responder's knowledge of the human body. A brief overview of body systems, basic anatomy, and physiology will be given in this session

Includes:

- a. Anatomy, components and function of:
  - i. Airway & Respiratory system
  - ii. Circulatory system
  - iii. Musculoskeletal system
  - iv. Spine
- b. Physiology of Breathing and circulation

## MODULE – 2: AIRWAY, BREATHING AND CIRCULATION: TRAUMA

**Learning Outcomes:** At the completion of this module, the student should be able to:

- Airway:
  - Assessment of airway for its patency: Determine and take necessary action to ensure clear airways
  - Management of Airway: Airway Adjuncts and airway maneuvers
  - Airway foreign body
  - Preventing aspiration
- Breathing
  - Methods to assess if a patient is breathing
- Circulation:
  - Evaluate the cardiac status of the patient
  - Stopping hemorrhage- pressure/tourniquets

### Content -

S. No.	Topics	Duration
		Theory
1.	Airway and breathing	15 mins
2.	Circulation	15 mins
<b>TOTAL</b>		<b>30 mins</b>

### Detail of Topics

#### 1. Airway

- a. Signs of inadequate breathing
- b. Mechanism of injury to opening the airway
- c. Steps in the head-tilt chin-lift
- d. Steps in the jaw thrust
- e. Taking out foreign body
- f. Ensuring patent airway during seizures and vomiting.

#### 2. Ventilation

- a. Of a patient with a mask or barrier device
- b. Steps in providing mouth-to-mouth and mouth-to-stoma ventilation

#### 3. Circulation

- a. Evaluate the cardiac status of the patient
- b. Determine the need for and take necessary action to proper circulation
- c. Steps for control of bleeding: Pressure bandage and tourniquet

#### 4. Clearing a foreign body airway obstruction

**Practical approach-** Students will have an opportunity to practice the techniques of removing a foreign body airway obstruction.

## MODULE – 3: BASIC LIFE SUPPORT: CPR

**Learning Outcomes:** At the completion of this module, the student should be able to:

- Perform Cardiopulmonary resuscitation
- Perform External chest compressions
- Determine the need for additional help

**Content -**

S. No.	Topics	Duration
		Theory
1.	CPR	30 mins
<b>TOTAL</b>		<b>30 mins</b>

### Detail of Topics

#### 1. Circulation

- a. Implications of cardiac arrest
- b. Cardiopulmonary resuscitation (CPR)
  - i. How it works
  - ii. Steps
  - iii. When to stop CPR
- c. Brief overview of AED (only demonstration –no hands on)

**Practical approach-** Students will be given the opportunity to practice CPR skills.

### Equipment required/ teaching strategies for the above content-

1. Mannequins and dummies
2. Videos and presentations
3. Role plays

## MODULE – 4: INITIAL MANAGEMENT OF THERMAL INJURY, STABILIZING INJURED EXTREMITY AND WOUND MANAGEMENT

**Learning Outcomes:** At the completion of this module, the student should be able to:

- Evaluate the patients' condition and take appropriate action in case of bleeding or burn injury
- Size up the site for medical emergencies, injuries etc. and take appropriate action

**Content -**

S. No.	Topics	Duration
		Theory
1.	Thermal injury and wound care	15 mins
2.	Splinting	15 mins
<b>TOTAL</b>		<b>30 mins</b>

**Detail of Topics**

### 1. Bleeding and Soft Tissue Injuries

- a. Difference between arterial and venous bleeding
- b. Stopping external bleeding
- c. Identification of Internal bleeding
- d. Functions of dressings and bandages
- e. How to help a victim of burn injury

### 2. Injuries to Muscles and Bones

- a. Suspecting bony/spinal injury
- b. Splinting –materials used
- c. Importance of splinting

## MODULE – 5: MEDICAL EMERGENCIES

**Learning Outcomes:** At the completion of this module, the student should be able to:

- Identify patient with Angina/Myocardial infarction
- Identify stroke
- Initial management of animal bites (Dog and snake bites)

**Content -**

S. No.	Topics	Duration
		Theory
1.	Common medical emergencies	30 mins
2.	Poisoning, drowning and electrocution	15 mins
<b>TOTAL</b>		<b>45 mins</b>

### Detail of Topics

#### 1. Medical Emergencies-

- a. Identification of the patient steps in providing first aid to a patient with
  - i. A general medical complaint- Seizures
  - ii. Chest pain
  - iii. Shortness of breath
  - iv. Exposure to heat
  - v. Including other medical complaints like allergy, diarrhea, fainting, low blood sugar, stroke
- b. Drowning
- c. Poisoning

#### Equipment required/ teaching strategies for the above content-

1. Mannequins and dummies
2. Videos and presentations
3. Role plays

## MODULE – 6: TRANSPORTATION AND DISASTER PREPAREDNESS

**Learning Outcomes:** At the completion of this module, the student should be able to:

- Identify patients' condition and take appropriate action to safely transport the patient

**Content -**

S. No.	Topics	Duration
		Theory
1.	Transportation	15 mins
2.	Disaster preparedness	15 mins
<b>TOTAL</b>		<b>30 mins</b>

### Detail of Topics

1. Importance of timely and proper transportation
2. Importance of spine protection
3. Preparedness and risk reduction
4. Incident command and institutional mechanisms
5. Resource management

### Equipment required/ teaching strategies for the above content-

1. Videos and presentations
2. Discussions and dialogues
3. Dummies and mannequins
4. First aid kit etc.



## SKILL STATIONS

Skill Stations will be set up for training candidates for each of one hour duration: 4 stations of 15 minutes each and rotation every one hour

### Content -

S. No.	Topics	Duration
		PRACTICAL
1.	Airway & Ventilation	60 min
2.	Basic Life Support: CPR	60 min
3.	Initial management of Thermal injury, stabilizing injured extremity and wound management	60 min
4.	Extrication, Helmet removal and spine protection	60 min
<b>TOTAL</b>		<b>4 hours</b>

MOTHEM

## EQUIPMENT LIST:

1. Bed with mattress
2. Patient Side Locker
3. Back Rest
4. Foot Step
5. Cardiac Table
6. Bed Sheet, Blanket, Pillow with Pillow Cover
7. I V Set-up
8. Oxygen Cylinder with Connector, Key, Face Mask and tubing
9. Cupboard
10. Suction Apparatus
11. Thermometer
12. Enamel Basin
13. Rubber Sheet 2 x 2 Mts (2 sets)
14. Draw Sheet
15. Air Cushion
16. Sand Bag
17. Fire Extinguisher 5 KG ABC type
18. Weighing Machine
19. Oral care Set
20. Urinal Set (1 Male + 1 Female)
21. Bed Pan
22. Scissor (3)
23. Nail Cutter (5)
24. Nail Filer (5)
25. Steel Plate (2)
26. Steel Glass (5)
27. Steel Bowl (5)
28. Spoon (10)
29. Steel Jug (5)
30. Bath Tub
31. Measuring Glass
32. Goggles(5)
33. Towel (5)
34. Gown(5)
35. Stop Watch(5)
36. Prosthesis(3)
37. Glasses (3)
38. Mortar and Pestle(2)
39. Ryle's tube
40. Shaving Kit
41. Desktop, Intel Core I3, with 2 GB Ram, 500 GB Hard Disk with accessories
42. T V Monitor 42 Inch LCD TV/ LCD Projector
43. White Board
44. Extension Cord
45. Speakers 40 Watt set of twoPrinter with Scan and copy function Wi-Fi with economical printing
46. Full Body Mannequin - Basic
47. CPR Mannequin

48. Airway Mannequin (3)
49. Ambu Bag with Mask (Adult)
50. AED Trainer with Adult Pad
51. Male Multi Venous IV Arm
52. Advanced Male and Female Catheterization Kit
53. Wound care Model Anatomical
54. Wheel Chair
55. Walker
56. Crutch
57. Malleable Splint set of Large Medium and Small (3)
58. Cervical Collar Set of Large Medium and Small (3)
59. Gloves (disposable) - packet5
60. Gloves (surgical) - packet5
61. Liquid Soap Bottle (4)
62. Mask - packet(2)
63. Shoe Cover - packet(2)
64. Hair Cap - packet(2)
65. Mackintosh(4)
66. Sponge Cloth(4)
67. Registers (attendance 2, record book 2,) Pens, Pencil Erasers, Sharpeners, Marker pens 10 each)
68. Duster (2)
69. Paper (Ream of 500) (2)
70. Cleaning Solution (Colin) (2)
71. Syringe 50 cc/ml (5)
72. Diaper & Sanitary pads (All Sizes) (2)
73. Hot Water Bottle (5)
74. Ice caps (5)
75. Mock kitchen and kitchen facility (5)
76. Foley catheter (2)
77. Euro bags (2)
78. Suction Catheter (2)
79. Ryle's tube(2)

## LIST OF ABBREVIATIONS

AED	Automated External Defibrillator
ASHA	Accredited Social Health Activists
B.Sc.	Bachelor Of Science
BSI	Body Substance Isolation
BVMs	Bag-Valve-Masks
CISD	Critical Incident Stress Debriefing
CPR	Cardiopulmonary resuscitation
DNR	Do Not Resuscitate
EMS	Emergency Medical Services
FR	First Responder
GNM	General Nursing & Midwifery
MPWs	Multi-Purpose Workers
MS	Microsoft
PPE	Personal Protective Equipment

MOHFW

## **CONTRIBUTORS TO THE CONTENT AND DRAFTING OF THE FIRST RESPONDER COURSE**

### **Subject Experts from All India Institute of Medical Sciences (AIIMS), Delhi**

1. Prof. Nitish Naik
2. Prof. Maneesh Singhal
3. Dr Rakesh Garg
4. Dr Piyush Ranjan
5. Dr. Tej Prakash Sinha
6. Dr Chawi Sawney
7. Dr Akshay Kumar

### **Officers from Ministry of Health and Family Welfare, Government of India**

1. Mr Arun Kumar Jha, Economic Advisor, MoHFW
2. Dr B S Murthy, Director, MoHFW
3. Dr Anil Sain, ADG, DGHS

**Special acknowledgement for review** - Dr Himanshu Bhushan, Advisor, NHSRC and Dr J K Das, Director, NIHFV

### **Coordinated and compiled by the National Human Resources for Health (HRH) Cell, MoHFW**

1. Ms Kavita Narayan, Technical Advisor
2. Ms Shivangini Kar Dave, Sr. Consultant
3. Ms Natasha D'Lima, Sr. Consultant
4. Ms Namita Gupta, Consultant
5. Ms Utplakshi Kaushik, Consultant
6. Ms Tanu Sri Sahu, Consultant
7. Mr Vivek Bhatnagar, Consultant
8. Mr Anirooddha Mukherjee, Consultant
9. Ms Nupur Chaurasia, Technical Assistant
10. Ms Anuja Joshi, Technical Assistant

## REFERENCES:

1. Medexpress Companies, Emergency Medical Responder, Course Syllabus. Available at: <http://www.medexpresscompanies.com/uploads/EMRCourseSyllabusSchedule.pdf>. Last visited on Dec 23, 2016.
2. United States Department of Transportation National Highway Traffic Safety Administration First Responder: National Standard Curriculum. Available on - [https://www.ems.gov/pdf/education/First-Responder/FR\\_1995.pdf](https://www.ems.gov/pdf/education/First-Responder/FR_1995.pdf). Last visited on Dec 23, 2016.
3. First Responder EMS Curriculum for Training Centers in Eurasia: Instructor Manual, American International Health Alliance, July 2002. Available on- <http://www.aiha.com/wp-content/uploads/2015/07/FirstResponderInstrctEN.pdf>. Last visited on Dec 23, 2016.

MOHFFEN