



# Integral University, Lucknow

## Attributes &SDGs Common for all branches/Disciplines

Course Code	Course Title	Attributes							SDGs No.
		Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
ES202	Disaster Management					√			SDGs 3,,11 & 17

## B.Tech Civil Engineering

Effective from Session:							
Course Code	ES202	Title of the Course	Disasters Management	L	T	P	C
Year	II	Semester	IV	2	1	0	3
Pre-Requisite		Co-requisite					
Course Objectives	1.To Study the types of Disasters and its profile in India. 2. Knowledge of causes and impacts of Disasters, and Case studies of National and Global Disasters. 3. To learn about risk reduction approaches of Disasters with safety issues in mitigating Industrial disasters 4. Basic concepts of Disaster Management Cycle and its Risk Reduction Measures. 5. To know the National Acts and policies for mitigating disasters. Role of Army, Police, Community, Corporate, Media etc. for post Disaster Management.						
Course Outcomes							
CO1	Students are able to learn types of disasters and its profile in India						
CO2	Students are able to understand the causes and impacts of disasters on environment						
CO3	Students are able to learn about risk reduction approaches of disasters with safety issues in mitigating industrial disasters.						
CO4	To understand the concept of Disaster Management Cycle and its Risk Reduction						
CO5	Students are able to learn role of Disaster Management Act , NDRF for Disaster Management						

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Introduction to disaster	Introduction to Disasters, Concepts, Definition and types (Natural and Man-made), Disaster profile of India.	8	CO1
2	Impact of Disaster	Causes and Impacts of Disasters, Global and National Perspective, Case studies from Disasters, Large Hydro projects and its risks for Disasters.	8	CO2
3	Disaster Risk Reduction	Approaches to Disaster risk Reduction, Safety issues in mitigating Industrial disasters, Case studies, EHS etc	8	CO4
4	Disaster Management	Disaster Management Cycle, Risk Reduction Measures (Preparedness, Mitigation, Response Reconstruction and Rehabilitation etc.)	8	CO3
5	Disaster Act. and Policies	National Acts and policies for mitigating Disasters ( Disaster Management Act 2005, NDRF, National Policy for Disaster Management 2009, Role of Army and Police Force in Disaster, Role of International/National Humanitarian aid/ Relief Organizations for Disaster management, Role of Community, Corporate, Media etc. for post Disaster Management, Case Studies etc.	8	CO3

### Reference Books:

- (1) Gupta Harsh K., Disaster Management, Hyderabad University Press,Publications-Meerut.
- (2) Sethi, V.K., Disaster Management, New Delhi Maxford Books
- (3) Bhattacharya, Tushar, Disaster Science and Management, New Delhi Tata Mc Graw Hill.
- (4) Nidhi Gauba, Dhawan/ Ambrina Sardar Khan, Disaster Management and Preparedness, CBS

### e-Learning Source:

- [https://www.youtube.com/watch?v=9WIwljva\\_s](https://www.youtube.com/watch?v=9WIwljva_s)  
[https://www.youtube.com/watch?v=uA\\_OLKfQpYA](https://www.youtube.com/watch?v=uA_OLKfQpYA)

### Course Articulation Matrix: (Mapping of COs with POs and PSOs)

PO-PSO CO	Course Articulation Matrix: (Mapping of COs with POs and PSOs)																	
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	2	1	1	1	1	2	3	-	2	2	1	2	1	2	-	-	-	-
CO2	2	2	2	1	2	2	3	-	2	2	2	2	1	2	-	-	-	-
CO3	3	2	2	1	2	2	3	-	2	2	1	2	1	2	-	-	-	-
CO4	2	2	3	1	2	2	3	-	2	1	1	2	1	2	-	-	-	-
CO5	1	1	2	2	1	1	2	-	2	2	1	2	1	2	-	-	-	-

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

<b>Name &amp; Sign of Program Coordinator</b>	<b>Sign &amp; Seal of HoD</b>
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**Integral University, Lucknow**  
**B.Tech Mechanical Engineering**

<b>Effective from Session:</b>							
<b>Course Code</b>	<b>ES202</b>	<b>Title of the Course</b>	<b>Disasters Management</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	<b>II</b>	<b>Semester</b>	<b>III</b>	2	1	0	3
<b>Pre-Requisite</b>		<b>Co-requisite</b>					
<b>Course Objectives</b>	<ul style="list-style-type: none"> <li>To Study the types of Disasters and its profile in India.</li> <li>Knowledge of causes and impacts of Disasters, and Case studies of National and Global Disasters.</li> <li>To learn about risk reduction approaches of Disasters with safety issues in mitigating Industrial disasters</li> <li>Basic concepts of Disaster Management Cycle and its Risk Reduction Measures.</li> <li>To know the National Acts and policies for mitigating disasters. Role of Army, Police, Community, Corporate, Media etc. for post Disaster Management.</li> </ul>						
<b>Course Outcomes</b>							
<b>CO1</b>	Students are able to learn types of disasters and its profile in India						
<b>CO2</b>	Students are able to understand the causes and impacts of disasters on environment						
<b>CO3</b>	Students are able to learn about risk reduction approaches of disasters with safety issues in mitigating industrial disasters.						
<b>CO4</b>	To understand the concept of Disaster Management Cycle and its Risk Reduction						
<b>CO5</b>	Students are able to learn role of Disaster Management Act , NDRF for Disaster Management						

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Introduction to disaster	Introduction to Disasters, Concepts, Definition and types (Natural and Man-made), Disaster profile of India.	8	CO1
2	Impact of Disaster	Causes and Impacts of Disasters, Global and National Perspective, Case studies from Disasters, Large Hydro projects and its risks for Disasters.	8	CO2
3	Disaster Risk Reduction	Approaches to Disaster risk Reduction, Safety issues in mitigating Industrial disasters, Case studies,EHS etc	8	CO4
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[https://www.youtube.com/watch?v=uA\\_OLKfQpYA](https://www.youtube.com/watch?v=uA_OLKfQpYA)

**Course Articulation Matrix: (Mapping of COs with POs and PSOs)**

PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
	<b>CO1</b>	2	1	1	1	1	2	3	-	2	2	1	2	1	2	-	-	-
<b>CO2</b>	2	2	2	1	2	2	3	-	2	2	2	2	1	2	-	-	-	-
<b>CO3</b>	3	2	2	1	2	2	3	-	2	2	1	2	1	2	-	-	-	-
<b>CO4</b>	2	2	3	1	2	2	3	-	2	1	1	2	1	2	-	-	-	-
<b>CO5</b>	1	1	2	2	1	1	2	-	2	2	1	2	1	2	-	-	-	-

**1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation**

<b>Name &amp; Sign of Program Coordinator</b>	<b>Sign &amp; Seal of HoD</b>
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**Integral University, Lucknow**  
**B.Tech Electrical Engineering**

<b>Effective from Session:</b>							
<b>Course Code</b>	<b>ES202</b>	<b>Title of the Course</b>	<b>Disasters Management</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	<b>II</b>	<b>Semester</b>	<b>IV</b>	2	1	0	3
<b>Pre-Requisite</b>		<b>Co-requisite</b>					
<b>Course Objectives</b>	<ul style="list-style-type: none"> <li>To Study the types of Disasters and its profile in India.</li> <li>Knowledge of causes and impacts of Disasters, and Case studies of National and Global Disasters.</li> <li>To learn about risk reduction approaches of Disasters with safety issues in mitigating Industrial disasters</li> <li>Basic concepts of Disaster Management Cycle and its Risk Reduction Measures.</li> <li>To know the National Acts and policies for mitigating disasters. Role of Army, Police, Community, Corporate, Media etc. for post Disaster Management</li> </ul>						
<b>Course Outcomes</b>							
<b>CO1</b>	Students are able to learn types of disasters and its profile in India						
<b>CO2</b>	Students are able to understand the causes and impacts of disasters on environment						
<b>CO3</b>	Students are able to learn about risk reduction approaches of disasters with safety issues in mitigating industrial disasters.						
<b>CO4</b>	To understand the concept of Disaster Management Cycle and its Risk Reduction						
<b>CO5</b>	Students are able to learn role of Disaster Management Act , NDRF for Disaster Management						

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Introduction to disaster	Introduction to Disasters, Concepts, Definition and types (Natural and Man-made), Disaster profile of India.	8	CO1
2	Impact of Disaster	Causes and Impacts of Disasters, Global and National Perspective, Case studies from Disasters, Large Hydro projects and its risks for Disasters.	8	CO2
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4	Disaster Management	Disaster Management Cycle, Risk Reduction Measures (Preparedness, Mitigation, Response Reconstruction and Rehabilitation etc.)	8	CO3
5	Disaster Act. and Policies	National Acts and policies for mitigating Disasters ( Disaster Management Act 2005, NDRF, National Policy for Disaster Management 2009, Role of Army and Police Force in Disaster, Role of International/National Humanitarian aid/ Relief Organizations for Disaster management, Role of Community, Corporate, Media etc. for post Disaster Management, Case Studies etc.	8	CO3

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**Course Articulation Matrix: (Mapping of COs with POs and PSOs)**

PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
<b>CO1</b>	2	1	1	1	1	2	3	-	2	2	1	2	2					
<b>CO2</b>	2	2	2	1	2	2	3	-	2	2	2	2	2					
<b>CO3</b>	3	2	2	1	2	2	3	-	2	2	1	2	2					
<b>CO4</b>	2	2	3	1	2	2	3	-	2	1	1	2	2					
<b>CO5</b>	1	1	2	2	1	1	2	-	2	2	1	2	2					

**1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation**

<b>Name &amp; Sign of Program Coordinator</b>	<b>Sign &amp; Seal of HoD</b>
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**Integral University, Lucknow**  
**B.Tech. Electrical and Communication Engineering**

<b>Effective from Session:</b>							
<b>Course Code</b>	<b>ES202</b>	<b>Title of the Course</b>	<b>Disasters Management</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	<b>II</b>	<b>Semester</b>	<b>IV</b>	2	1	0	3
<b>Pre-Requisite</b>		<b>Co-requisite</b>					
<b>Course Objectives</b>	<ul style="list-style-type: none"> <li>To Study the types of Disasters and its profile in India.</li> <li>Knowledge of causes and impacts of Disasters, and Case studies of National and Global Disasters.</li> <li>To learn about risk reduction approaches of Disasters with safety issues in mitigating Industrial disasters</li> <li>Basic concepts of Disaster Management Cycle and its Risk Reduction Measures.</li> <li>To know the National Acts and policies for mitigating disasters. Role of Army, Police, Community, Corporate, Media etc. for post Disaster Management</li> </ul>						
<b>Course Outcomes</b>							
<b>CO1</b>	Students are able to learn types of disasters and its profile in India						
<b>CO2</b>	Students are able to understand the causes and impacts of disasters on environment						
<b>CO3</b>	Students are able to learn about risk reduction approaches of disasters with safety issues in mitigating industrial disasters.						
<b>CO4</b>	To understand the concept of Disaster Management Cycle and its Risk Reduction						
<b>CO5</b>	Students are able to learn role of Disaster Management Act , NDRF for Disaster Management						

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Introduction to disaster	Introduction to Disasters, Concepts, Definition and types (Natural and Man-made), Disaster profile of India.	8	CO1
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**Course Articulation Matrix: (Mapping of COs with POs and PSOs)**

PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
<b>CO1</b>	2	1	1	1	1	1	3	2	1	1	2	1			2	2	-	-
<b>CO2</b>	2	2	2	1	2	3	3	2	2	2	2	2			2	2	-	-
<b>CO3</b>	3	2	2	1	2	2	3	2	2	2	1	2			2	2	-	-
<b>CO4</b>	3	2	2	1	2	2	3	2	2	1	1	2			2	2	-	-
<b>CO5</b>	3	1	3	2	2	2	2	2	3	2	1	2			2	2	-	-

**1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation**

<b>Name &amp; Sign of Program Coordinator</b>	<b>Sign &amp; Seal of HoD</b>
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**Integral University, Lucknow**  
**B.Tech Biotech ,Food Tech**

<b>Effective from Session:</b>							
<b>Course Code</b>	<b>ES202</b>	<b>Title of the Course</b>	<b>Disasters Management</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	<b>II</b>	<b>Semester</b>	<b>III</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>3</b>
<b>Pre-Requisite</b>		<b>Co-requisite</b>					
<b>Course Objectives</b>	<ul style="list-style-type: none"> <li>To Study the types of Disasters and its profile in India.</li> <li>Knowledge of causes and impacts of Disasters, and Case studies of National and Global Disasters.</li> <li>To learn about risk reduction approaches of Disasters with safety issues in mitigating Industrial disasters</li> <li>Basic concepts of Disaster Management Cycle and its Risk Reduction Measures.</li> <li>To know the National Acts and policies for mitigating disasters. Role of Army, Police, Community, Corporate, Media etc. for post Disaster Management</li> </ul>						
<b>Course Outcomes</b>							
<b>CO1</b>	Students are able to learn types of disasters and its profile in India						
<b>CO2</b>	Students are able to understand the causes and impacts of disasters on environment						
<b>CO3</b>	Students are able to learn about risk reduction approaches of disasters with safety issues in mitigating industrial disasters.						
<b>CO4</b>	To understand the concept of Disaster Management Cycle and its Risk Reduction						
<b>CO5</b>	Students are able to learn role of Disaster Management Act , NDRF for Disaster Management						

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Introduction to disaster	Introduction to Disasters, Concepts, Definition and types (Natural and Man-made), Disaster profile of India.	8	CO1
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4	Disaster Management	Disaster Management Cycle, Risk Reduction Measures (Preparedness, Mitigation, Response Reconstruction and Rehabilitation etc.)	8	CO3
5	Disaster Act. and Policies	National Acts and policies for mitigating Disasters ( Disaster Management Act 2005, NDRF, National Policy for Disaster Management 2009, Role of Army and Police Force in Disaster, Role of International/National Humanitarian aid/ Relief Organizations for Disaster management, Role of Community, Corporate, Media etc. for post Disaster Management, Case Studies etc.	8	CO3

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<b>CO1</b>	2	1	1	1	1	2	3	-	2	2	1	2		1		-	-	-
<b>CO2</b>	2	2	2	1	2	2	3	-	2	2	2	2		1		-	-	-
<b>CO3</b>	3	2	2	1	2	2	3	-	2	2	1	2		1		-	-	-
<b>CO4</b>	2	2	3	1	2	2	3	-	2	1	1	2		1		-	-	-
<b>CO5</b>	1	1	2	2	1	1	2	-	2	2	1	2		1		-	-	-

**1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation**

Name & Sign of Program Coordinator	Sign & Seal of HoD
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**Integral University, Lucknow**  
**B.Tech.CSE**

<b>Effective from Session:</b>							
<b>Course Code</b>	<b>ES202</b>	<b>Title of the Course</b>	<b>Disasters, Management</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	<b>II</b>	<b>Semester</b>	<b>IV</b>	2	1	0	3
<b>Pre-Requisite</b>		<b>Co-requisite</b>					
<b>Course Objectives</b>	<ul style="list-style-type: none"> <li>To Study the types of Disasters and its profile in India.</li> <li>Knowledge of causes and impacts of Disasters, and Case studies of National and Global Disasters.</li> <li>To learn about risk reduction approaches of Disasters with safety issues in mitigating Industrial disasters</li> <li>Basic concepts of Disaster Management Cycle and its Risk Reduction Measures.</li> <li>To know the National Acts and policies for mitigating disasters. Role of Army, Police, Community, Corporate, Media etc. for post Disaster Management</li> </ul>						
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<b>CO1</b>	2	1	1	1	1	2	3	-	2	2	1	2	1	1		-	-	-
<b>CO2</b>	2	2	2	1	2	2	3	-	2	2	2	2	1	2		1	-	-
<b>CO3</b>	3	2	2	1	2	2	3	-	2	2	1	2	1	2	1	1	-	-
<b>CO4</b>	2	2	3	1	2	2	3	-	2	1	1	2	1	1	1	-	-	-
<b>CO5</b>	1	1	2	2	1	1	2	-	2	2	1	2	1	1		-	-	-

**1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation**

<b>Name &amp; Sign of Program Coordinator</b>	<b>Sign &amp; Seal of HoD</b>
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**Integral University, Lucknow**  
**B.Tech. CTIS**

<b>Effective from Session:</b>							
<b>Course Code</b>	<b>ES202</b>	<b>Title of the Course</b>	<b>Disasters, Management</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	<b>II</b>	<b>Semester</b>	<b>IV</b>	2	1	0	3
<b>Pre-Requisite</b>		<b>Co-requisite</b>					
<b>Course Objectives</b>	<ul style="list-style-type: none"> <li>To Study the types of Disasters and its profile in India.</li> <li>Knowledge of causes and impacts of Disasters, and Case studies of National and Global Disasters.</li> <li>To learn about risk reduction approaches of Disasters with safety issues in mitigating Industrial disasters</li> <li>Basic concepts of Disaster Management Cycle and its Risk Reduction Measures.</li> <li>To know the National Acts and policies for mitigating disasters. Role of Army, Police, Community, Corporate, Media etc. for post Disaster Management.</li> </ul>						
<b>Course Outcomes</b>							
<b>CO1</b>	Students are able to learn types of disasters and its profile in India						
<b>CO2</b>	Students are able to understand the causes and impacts of disasters on environment						
<b>CO3</b>	Students are able to learn about risk reduction approaches of disasters with safety issues in mitigating industrial disasters.						
<b>CO4</b>	To understand the concept of Disaster Management Cycle and its Risk Reduction						
<b>CO5</b>	Students are able to learn role of Disaster Management Act , NDRF for Disaster Management						

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Introduction to disaster	Introduction to Disasters, Concepts, Definition and types (Natural and Man-made), Disaster profile of India.	8	CO1
2	Impact of Disaster	Causes and Impacts of Disasters, Global and National Perspective, Case studies from Disasters, Large Hydro projects and its risks for Disasters.	8	CO2
3	Disaster Risk Reduction	Approaches to Disaster risk Reduction, Safety issues in mitigating Industrial disasters, Case studies,EHS etc	8	CO4
4	Disaster Management	Disaster Management Cycle, Risk Reduction Measures (Preparedness, Mitigation, Response Reconstruction and Rehabilitation etc.)	8	CO3
5	Disaster Act. and Policies	National Acts and policies for mitigating Disasters ( Disaster Management Act 2005, NDRF, National Policy for Disaster Management 2009, Role of Army and Police Force in Disaster, Role of International/National Humanitarian aid/ Relief Organizations for Disaster management, Role of Community, Corporate, Media etc. for post Disaster Management, Case Studies etc.	8	CO3

**Reference Books:**

- (1) Gupta Harsh K., Disaster Management, Hyderabad University Press.Publications-Meerut.
- (2) Sethi, V.K., Disaster Management, New Delhi Maxford Books
- (3) Bhattacharya, Tushar, Disaster Science and Management, New Delhi Tata Mc Graw Hill.
- (4) Nidhi Gauba, Dhawan/ Ambrina Sardar Khan, Disaster Management and Preparedness, CBS

**e-Learning Source:**

- [https://www.youtube.com/watch?v=9WIwljva\\_s](https://www.youtube.com/watch?v=9WIwljva_s)  
[https://www.youtube.com/watch?v=uA\\_OLKfQpYA](https://www.youtube.com/watch?v=uA_OLKfQpYA)

**Course Articulation Matrix: (Mapping of COs with POs and PSOs)**

PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
	<b>CO1</b>	2	1	1	1	1	1	3	2	1	1	2	1	1			-	-
<b>CO2</b>	2	2	2	1	2	3	3	2	2	2	2	2	1			-	-	-
<b>CO3</b>	3	2	2	1	2	2	3	2	2	2	1	2	1			-	-	-
<b>CO4</b>	3	2	2	1	2	2	3	2	2	1	1	2	1			-	-	-
<b>CO5</b>	3	1	3	2	2	2	2	2	2	3	2	1	1			-	-	-

**1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation**

<b>Name &amp; Sign of Program Coordinator</b>	<b>Sign &amp; Seal of HoD</b>
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