



Value-Added Course

**Climate Change and Health: Adaptation,
Mitigation, and Resilience & IKS**

**MBA Batch 2024-26, Second Year (Academic
Year - 2025-26)**

VAC-039

Dr. Goutam Sadhu

Professor

A handwritten signature in blue ink, appearing to read 'Dr. Goutam Sadhu', written over a blue circular stamp.

Registrar

IIHMR University

**1, Prabhu Dayal Marg, Near
Sanganer Airport, Jaipur-302018**



IIHMR University, Prabhu Dayal Marg, Near Sanganer Airport, Jaipur – 302029

Date: 01-12-2025

CIRCULAR

All students are hereby informed that **IIHMR University** is offering a **Value-Added Course (VAC-039)** titled **“Climate Change and Health: Adaptation, Mitigation, and Resilience & IKS.”**

The course aims to develop a comprehensive understanding of the interlinkages between climate change and public health, while equipping students with knowledge and skills related to adaptation, mitigation strategies, and building resilient health systems.

The course will cover important themes such as:

- Climate change and its impact on human health
- Climate-sensitive diseases and vulnerabilities
- Health system resilience and WASH interventions
- Adaptation and mitigation strategies
- National and global climate-health frameworks

Course Code: VAC-039

Course Credits: 1.5

Students interested in enrolling are required to complete the registration process through the concerned **Program Office / Course Coordinator**.

The schedule and detailed teaching plan will be shared separately. The course duration and session timings shall be conducted as per the university guidelines.

All eligible students are encouraged to take advantage of this opportunity to enhance their knowledge in the emerging domain of **climate change and public health**.

Registrar's Office


Registrar
IIHMR University
1, Prabhu Dayal Marg, Near
Sanganer Airport, Jaipur-302029

Course Information

Course Title	Climate Change and Health: Adaptation, Mitigation, and Resilience & IKS
Course Code	VAC-039
Course Credit	1.5

Course Description

The main objective of the course "*Climate Change and Health: Adaptation, Mitigation, and Resilience*" is to equip learners with a comprehensive understanding of how climate change affects human health and to explore strategies for reducing health risks through adaptation, mitigation, and building resilient health systems. The course aims to develop skills among the students in climate-informed public health planning, strengthen interdisciplinary collaboration, and promote policies and community-based interventions that integrate health equity and environmental sustainability.

Course Objectives (CO)

- CO 1: Understand the fundamental linkages between climate change and public health.
- CO 2: Identify climate-sensitive diseases and their socio-environmental drivers.
- CO 3: Analyze adaptation and mitigation strategies for climate-resilient health systems.
- CO 4: Examine the role of WASH in climate adaptation and community health.
- CO 5: Evaluate the role of Indian knowledge system in addressing health and climate resilience.

Program Objectives:

Climate change poses a profound threat to global public health, exacerbating existing vulnerabilities and creating new challenges through rising temperatures, extreme weather events, altered disease patterns, food insecurity, and air pollution. Adaptation strategies such as strengthening healthcare infrastructure, early warning systems, and community-based health programs are essential to reduce health risks and safeguard populations. At the same time, mitigation efforts like transitioning to clean energy, promoting sustainable transport, and reducing emissions from agriculture and industry can yield significant co-benefits for health, including reduced respiratory and cardiovascular diseases. Building resilience involves empowering communities, enhancing health system preparedness, and integrating climate considerations into health policies and disaster response frameworks. A coordinated approach combining adaptation, mitigation, and resilience is crucial to protect human health in an era of accelerating climate change. Following are the program objectives of the course:

PO1 – Public Health Knowledge

Students will demonstrate a comprehensive understanding of health systems, epidemiology, health policy, disease burden, WASH, pharmaceuticals, and healthcare delivery mechanisms, enabling them to address contemporary public health challenges both in domestic and global contexts.

- Understand frameworks like NHM, Ayushman Bharat, SDG 3, SDG 6
- Recognize disease trends and population health indicators
- Appreciate the role of institutions like WHO, MoHFW, CDSCO


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PO2 – Problem Analysis

Students will be able to identify, define, and critically analyze complex health, hospital, and pharmaceutical management problems using appropriate theoretical and empirical tools.

- Diagnose healthcare issues across rural, urban, and institutional contexts
- Analyze healthcare access, quality, and equity using data and stakeholder insights
- Examine root causes of failures in public health interventions, disaster responses, or pharmaceutical distribution

PO3 – Design/Development of Solutions

Students will be capable of designing effective, efficient, and sustainable solutions for real-world challenges in the healthcare, WASH, and pharmaceutical sectors.

- Develop health project plans, CSR proposals, disaster preparedness plans
- Design behaviour changes strategies (BCC), supply chain models, or health financing models
- Innovate community-level solutions using design thinking and systems approach

PO4 – Conduct Investigations

Students will possess the skills to conduct meaningful research and evaluations, including needs assessments, baseline/endline surveys, and impact assessments using quantitative and qualitative methods.

- Develop research tools (KAP surveys, PRA tools, MIS templates)
- Evaluate program outcomes in terms of health, cost, and efficiency

PO5 – Ethics and Sustainability

Students will apply ethical principles and sustainable practices in managing healthcare services, conducting research, and implementing development programs.

- Adhere to ethical norms in pharmaceutical marketing, CSR implementation, and clinical trials
- Integrate sustainability principles in health planning and infrastructure (Green Hospitals, WASH)
- Ensure informed consent, transparency, and inclusion in community-based programs

PO6 – Environment and Society

Students will assess the broader societal and environmental implications of health, hospital, and pharmaceutical decisions and demonstrate a commitment to equity, gender inclusion, and climate resilience.

- Analyze the impacts of climate change on health and the importance of environmental health
- Promote inclusive health services for marginalized populations (e.g., women, PwDs, tribal groups)
- Contribute to disaster resilience and climate adaptation in public health policies

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Regd. University
1. Pradip Das
Pradip Das
Pradip Das

Syllabus

Module 1: Introduction to Climate Change and Health

- Basics of climate science: Greenhouse gases, global warming, IPCC findings
- Pathways from climate change to human health impacts
- Climate vulnerability in South Asia and India
- Introduction to SDG 13 and its relevance to health systems
- Indian Knowledge Systems (IKS): Panchamahabhutas (Five Elements) and their relationship with environmental and human health
- Environmental ethics and sustainability in Vedic literature and traditional Indian practices

Module 2: Climate-Sensitive Diseases

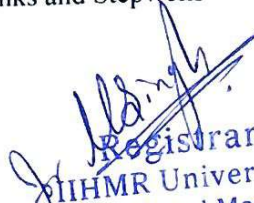
- Vector-borne diseases: Malaria, dengue, chikungunya, Japanese encephalitis
- Water-borne diseases: Diarrhea, cholera, typhoid in flood and drought-prone areas
- Heat stress and respiratory illnesses (urban heat islands, AQI)
- Emerging zoonoses and pandemic risks
- Ayurvedic concepts of disease prevention through Ritucharya (seasonal regimen)
- Traditional medicinal plants and indigenous healthcare practices for climate-sensitive diseases

Module 3: Health System Vulnerabilities and Resilience

- Health infrastructure and emergency capacity
- Risk-sensitive planning and climate-resilient health systems
- Human resource planning for extreme weather events
- Resilient supply chains for medicines and health commodities
- Role of Ayurveda and traditional healthcare systems in disaster preparedness and response
- Community-based resilience practices from indigenous and rural Indian communities

Module 4: Role of WASH in Climate Adaptation

- Droughts, water scarcity, and safe drinking water access
- Floods and sanitation system failures
- Climate-resilient WASH infrastructure: Rainwater harvesting, eco-toilets
- Gender and WASH in climate-vulnerable regions
- Traditional Indian water conservation systems: Johads, Baolis, Kunds, Tanks and Stepwells
- Indigenous practices of water stewardship and sustainable sanitation


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Module 5: Urbanization, Pollution, and Health Risks

- Urban heat islands, slum vulnerability, and air pollution
- Climate-related mental health concerns
- Role of municipal bodies in urban climate adaptation
- Environmental justice and health equity
- Traditional Indian approaches to environmental conservation and biodiversity protection
- Sacred groves, community forests, and ecological stewardship practices

Module 6: Adaptation and Mitigation Strategies

- Early warning systems and surveillance for climate-sensitive diseases
- Decentralized health planning and climate-proof infrastructure
- Mitigation through renewable energy in health facilities
- Promoting climate-smart agriculture and nutrition
- Traditional agricultural practices, natural farming, and sustainable food systems
- Yoga and holistic well-being for enhancing resilience to climate-related stress

Module 7: National and Global Policy Frameworks

- India's National Action Plan on Climate Change (NAPCC) – Health mission
- State Action Plans on Climate Change and Health (SAPCCH)
- WHO COP26 Health Commitment, UNFCCC
- Financing mechanisms: GCF, climate bonds, CSR for adaptation
- National Education Policy (NEP 2020) and promotion of Indian Knowledge Systems
- Role of Ministry of AYUSH in climate-resilient and preventive healthcare

Module 8: Case Studies and Best Practices

- Odisha's climate-health planning
- Community health adaptation in Bangladesh
- Maharashtra's urban health heat action plans
- Traditional water conservation systems of Rajasthan and their relevance to climate adaptation.
- Indigenous community practices for climate adaptation and health resilience
- Integration of Ayurveda and public health during climate-related emergencies
- Field-based project or group assignment

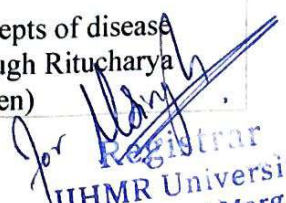
CO-PO Matrix


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Course Outcomes (COs)	Description	PO1	PO2	PO3	PO4	PO5	PO6
CO1	Explain the relationship between climate change and health risks	3	2	2	1	2	3
CO2	Identify and analyze climate-sensitive diseases and health vulnerabilities	2	3	3	2	2	3
CO3	Propose adaptation and mitigation strategies for health systems	3	3	3	2	3	3
CO4	Evaluate the role of WASH and public health interventions in resilience	3	2	2	3	2	3
CO5	Critically assess the role of Indian Knowledge Systems, including Ayurveda, traditional ecological knowledge, water conservation practices, and sustainable lifestyles, in promoting climate resilience and public health.	2	2	3	3	3	3

Teaching Calendar

Day	Session 1 (Morning) (10.00 AM to 1.00 PM)	Session 2 (Afternoon) (2.00 PM to 5 PM)
1	Module 1: Climate Change & Public Health - Basics of climate science: Greenhouse gases, global warming, IPCC findings - Pathways from climate change to human health impacts - Climate vulnerability in South Asia and India - Indian Knowledge Systems (IKS): Panchamahabhutas (Five Elements) and their relationship with environmental and human health - Environmental ethics and sustainability in Vedic literature and traditional Indian practices	Module 2: Climate-sensitive Diseases - Vector-borne diseases: Malaria, dengue, chikungunya, Japanese encephalitis - Water-borne diseases: Diarrhoea, cholera, typhoid in flood and drought-prone areas
	Introduction to SDG 13 and its relevance to health systems	- Heat stress and respiratory illnesses (urban heat islands, AQI) - Emerging zoonoses and pandemic risks - Ayurvedic concepts of disease prevention through Ritucharya (seasonal regimen)


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Module 3: Vulnerability & Resilience

- Health infrastructure and emergency capacity
- Risk-sensitive planning and climate-resilient health systems
- Human resource planning for extreme weather events
- Resilient supply chains for medicines and health commodities
- Role of Ayurveda and traditional healthcare systems in disaster preparedness and response
- Community-based resilience practices from indigenous and rural Indian communities

- Traditional medicinal plants and indigenous healthcare practices for climate-sensitive diseases

Module 4: Role of WASH in Climate Adaptation

- Droughts, water scarcity, and safe drinking water access
- Floods and sanitation system failures
- Climate-resilient WASH infrastructure: Rainwater harvesting, eco-toilets
- Gender and WASH in climate-vulnerable regions
- Traditional Indian water conservation systems: Johads, Baolis, Kunds, Tanks and Stepwells
- Indigenous practices of water stewardship and sustainable sanitation

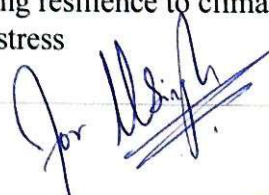
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Module 5: Urbanization, Pollution & Health

- Urban heat islands, slum vulnerability, and air pollution
- Climate-related mental health concerns
- Role of municipal bodies in urban climate adaptation
- Environmental justice and health equity
- Traditional Indian approaches to environmental conservation and biodiversity protection
- Sacred groves, community forests, and ecological stewardship practices

Module 6: Adaptation & Mitigation Strategies

- Early warning systems and surveillance for climate-sensitive diseases
- Decentralized health planning and climate-proof infrastructure
- Mitigation through renewable energy in health facilities
- Promoting climate-smart agriculture and nutrition
- Traditional agricultural practices, natural farming, and sustainable food systems
- Yoga and holistic well-being for enhancing resilience to climate-related stress


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4	Module 7: National & Global Policies • India's National Action Plan on Climate Change (NAPCC) – Health mission • State Action Plans on Climate Change and Health (SAPCCH) • WHO COP26 Health Commitment, UNFCCC • Financing mechanisms: GCF, climate bonds, CSR for adaptation • National Education Policy (NEP 2020) and promotion of Indian Knowledge Systems • Role of Ministry of AYUSH in climate-resilient and preventive healthcare	Group Discussion: Role Play – Community adaptation planning
5	Module 8: Case Studies Odisha's climate-health planning • Community health adaptation in Bangladesh • Maharashtra's urban health heat action plans • Field-based project or group assignment • Integration of Ayurveda and public health during climate-related emergencies	Group Work and Presentation: Local Climate & Health Mapping Course Wrap-Up & Reflection

For MS. Singh

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Value Added Course
MBA Batch 2024-26, Second Year (Academic Year - 2025-26)
Feb 02-06, 2026
Student Attendance
VAC-039 Climate Change and Health: Adaptation, Mitigation, and Resilience & IKS

Registration ID	Name	Total Sessions Scheduled	Sessions Attended	Present Percentage
IIHMR-U/01/2024-26/1916	Astha saraf	20	16	80.00
IIHMR-U/01/2024-26/1947	Gadge Sayalee Vilas	20	19	95.00
IIHMR-U/01/2024-26/1954	Harshita Jain	20	16	80.00
IIHMR-U/01/2024-26/1971	Kanishka Tewari	20	20	100.00
IIHMR-U/01/2024-26/1983	Koshta Sanskruti Prabhat	20	20	100.00
IIHMR-U/01/2024-26/1988	Lira Sarkar	20	15	75.00
IIHMR-U/01/2024-26/2071	Satheesh S	20	19	95.00
IIHMR-U/01/2024-26/2108	URVI Sharma	20	15	75.00
IIHMR-U/02/2024-26/0664	Madhusudan S D	20	15	75.00
IIHMR-U/10/2024-26/0052	Aarushi Saxena	20	16	80.00



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Certification of Completion

This certifies that

Astha saraf

Master of Business Administration (Hospital and Health Management)

2024-26

has successfully completed the Value Added Course (VAC) on
Climate Change and Health: Adaptation, Mitigation, and Resilience & IKS

Conducted during **February 2–6, 2026**, accumulating a total of 30 hours
with **Grade A**

[Signature]
Registrar

[Signature]

Dr. Himadri Sinha

Professor and Coordinator (VAC)

[Signature]

Dr. P.R. Sodani

President

Date of issue: February 20, 2026

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1, Prebha Marg, Near
Jaipur-302029



This certifies that

URVI Sharma

Master of Business Administration (Hospital and Health Management)

2024-26

has successfully completed the Value Added Course (VAC) on

Climate Change and Health: Adaptation, Mitigation, and Resilience & IKS

Conducted during **February 2–6, 2026**, accumulating a total of 30 hours

with Grade A+

A handwritten signature in blue ink, appearing to read 'Himadri Sinha', written over a horizontal line.

Dr. Himadri Sinha
Professor and Coordinator (VAC)

A handwritten signature in blue ink, appearing to read 'P.R. Sodani', written over a horizontal line.

Dr. P.R. Sodani
President

Date of issue: February 20, 2026



This certifies that

Kanishka Tewari

Master of Business Administration (Hospital and Health Management)

2024-26

has successfully completed the Value Added Course (VAC) on
Climate Change and Health: Adaptation, Mitigation, and Resilience & IKS

Conducted during **February 2–6, 2026**, accumulating a total of 30 hours
with **Grade B+**

A handwritten signature in blue ink, appearing to read 'H. Sinha', written over a horizontal line.

Dr. Himadri Sinha
Professor and Coordinator (VAC)

A handwritten signature in blue ink, appearing to read 'P.R. Sodani', written over a horizontal line.

Dr. P.R. Sodani
President

Date of issue: February 20, 2026



Certification of Completion

This certifies that

Aarushi Saxena

Master of Business Administration (Hospital and Health Management)

2024-26

has successfully completed the Value Added Course (VAC) on

Climate Change and Health: Adaptation, Mitigation, and Resilience & IKS

Conducted during **February 2–6, 2026**, accumulating a total of 30 hours

with Grade A+

For Registrar
IIHMR University
Prabhu Dayal Marg, Near
Sanganer Airport, Jaipur-302029

H.S.
Dr. Himadri Sinha

Professor and Coordinator (VAC)

P.R. Sodani
Dr. P.R. Sodani
President

Date of issue: February 20, 2026