NCI-INSTITUTE FOR FOOD, NUTRITION & HEALTH SCIENCES

CERTIFICATE COURSE IN ADVANCED EPIDEMIOLOGY & DISEASE SCREENING (CCAEDS)

COURSE FEE:
RS. 3500/-
5 WEEKS
5 MODULES

For Applying, Log on to: www.nci.org.in

Introduction

This specialized certificate course offers an in-depth exploration of advanced epidemiology and disease screening, focusing on the distribution and determinants of health conditions. With practical insights into bias analysis, study design, and programme planning, participants will be equipped to design and evaluate public health interventions effectively.

Designed for healthcare professionals, researchers, public health workers, and scholars, this course fosters data-driven thinking and disease prevention strategies through real-world applications and evidence-based learning.

"If You Can't Measure It, You can't Improve It"

COURSE OBEJCTIVE

✔ Understand core & advanced epidemiologic concepts

✔ Learn bias reduction, modeling & screening methods

✔ Master programme planning & evaluation techniques

✔ Apply tools like DAGs, time-series & decision trees

✔ Build practical skills for public health & research

✔ Gain expertise in screening implementation & policy

OUR APPROACH

This program offers a practitioner-focused curriculum with tools for real-world application in India and globally.

✔ Evidence-Based Curriculum

✔ Guest Faculty from Epidemiology & Public Health Fields

✔ Hands-on Learning via Real Data

✔ Capstone Project to Apply Skills

✔ Flexible Online Access with Mentor Support

✔ Peer Collaboration & Discussion Forums

Course Structure

Module 1: Introduction to Epidemiology & Biostatistics

- *Introductory Epidemiology and Study Designs*
- *Research Methodology*
- *Biostatistics For Epidemiology*
- *Sampling, Test of Significance*
- *Tests of Significance, ANOVA, Regression and Correlation*

Module 2: Introduction to Advanced Epidemiology and Advanced Study Design

- *Models of Advanced Epidemiology*
- *Casual Diagrams, Conceptual Framework*
- *Directed Acrylic Graphs*
- *Measurement of Associations & Bias Analysis (Quantitative, Confounding, Selection, and Others)*
- *Nested study designs*
- *Systematic review*
- *Meta-analysis*
- *Decision tree analysis, time series analysis*

Module 3: An Introduction to Disease Screening

- *Screening, Its Importance, Screening Program, Screening Tests*
- *Natural History of Diseases, Lead Time, Diagnosis and Treatment, Risk of Overdiagnosis*
- *Screening Tests and Markers*
- *Screening Metrics, Validity, Sensitivity, Specificity, Predictive Values, 2 × 2 Tables Presentation*

Module 4: Screening Methods & Programmes

- *Screening Of Non-Communicable Diseases (Cardiometabolic Conditions, Diabetes), Programmes in India*
- *Cancer Screening and Programmes in India*
- *Mental Health Screening, Indian Scenario*
- *Screening In Pregnancy and Newborns, Indian Context*

Module 5: Planning & Evaluation of Screening Programmes

- *Planning A Screening Programme and Problems Associated with Screening Programmes*
- *Evaluation of Screening Programme*
- *Implementation of Screening Programme*
- *Student Activity: Designing A Screening Programme with A Detailed Swot Analysis About Specific Conditions Keeping in Mind the Indian Scenario*

ELIGIBILITY

Bachelors/Masters /Doctoral in Health or Medical Sciences, Public Health Sciences, Sociology, Life Sciences, Management or related Fields

ASSESSMENT & CERTIFICATION

Module-wise Quizzes & Assessment
Practical Analysis of Public Health Data
Certificate awarded by NCI-IFNH upon completion

LEARNING RESOURCES

- *Module Notes & Worksheets*
- *Online Readings, Journals & Videos*
- *Tools: Epi Info, Excel, DAGitty, R (optional)*
- *Guest Lectures by Public Health Experts*
- *Access to Screening Reports & WHO Data Dashboards*

Internship and Placement assistance

Certificate Course in Advanced Epidemiology & Disease Screening (CCAEDS)

Why Choose Us?

Our program offers a dynamic, application-focused curriculum tailored to the Indian public health landscape. It is designed by experienced public health experts and researchers, ensuring academic rigor and real-world relevance. The course integrates real-life case studies, practical models, and hands-on tools to strengthen analytical and implementation skills. Upon successful completion, participants receive a recognized certification, enhancing their professional credentials. Additionally, internship and placement assistance is available to support career growth in leading health institutions and public health projects.

Key Deliverables

- **Advanced Knowledge in Epidemiological Research**

Gain in-depth understanding of advanced epidemiologic models, bias analysis, and complex study designs (e.g., nested designs, meta-analyses) to enhance research quality and accuracy.

- **Career Opportunities in Public Health & Research Sectors**

Strengthens eligibility for roles in government health departments, research institutes, NGOs, academic projects, surveillance units (e.g., ICMR, WHO, NHM), and health policy organizations.

- **Practical Skills in Disease Screening & Program Evaluation**

Develop hands-on expertise in planning, implementing, and evaluating real-world screening programs for conditions like cancer, diabetes, pregnancy, and mental health.

- **Academic Advancement & API Score Boost**

Valuable for enhancing Academic Performance Indicator (API) scores, contributing to teaching and research eligibility in universities and colleges under UGC norms.

- **Foundational Training for Research, Exams, Project Implementation etc.**

DEPARTMENT OF BIOSCIENCES & PUBLIC HEALTH

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or
Go to:
https://www.nci.org.in/apply-now

Course details:

Course fee: Rs. 3500/-

5 Weeks, 5 Modules

NUTRITION COUNCIL OF INDIA
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