CliMed.Edu
(a constituent unit of CliMed Research Solutions)

CERTIFIED ISO 9001:2015 COMPANY

SKILL DEVELOPEMENT PROGRAM

CliMed Academy, a constituent unit of CliMed Research Solutions, Presents a 6-month skill- development

ADVANCED CERTIFICATE COURSE IN

Advanced Antimicrobial Stewardship (AMS): Clinical, Diagnostic & Therapeutic Mastery

Your Pathway to Expert Antimicrobial Decision-Making

Fee Drop by 50% from Dec 4-10, 2025

Year End Learning Gratitue Scholarship for all

New Course Fee is Just 999/- INR

Target Audience:
Pharmacy/Medical students, interns, clinicians, microbiologists, public health professionals

Type:
Advanced + Practical + Case-Based Training

Duration:
24 to 25 weeks

Mode: *Online*

Why this Topic?

Antimicrobial resistance (AMR) is one of the greatest global health threats, leading to rising treatment failures, longer hospital stays, and increasing mortality. Despite awareness, inappropriate antibiotic use remains widespread in hospitals, communities, and across One Health sectors. This advanced course is designed to equip future clinicians and healthcare professionals with the skills needed to make precise, evidence-based antimicrobial decisions and lead stewardship initiatives. By mastering diagnostics, PK/PD, MDR pathogen management, and system-level AMS practices, learners become part of the solution to combat AMR and protect the effectiveness of life-saving drugs.Future Aspect:
This course equips participants with cutting-edge knowledge essential for evolving roles in clinical pharmacy, psychiatry, and digital health. With growing demand for personalized mental health care, expertise in novel therapeutics, pharmacogenomics, and digital tools opens doors to careers in hospital practice, research, telehealth services, and mental health startups—making you a valuable asset in the future of integrated healthcare.

Future Aspects

The future of antimicrobial stewardship is rapidly evolving with breakthroughs in rapid diagnostics, AI-driven decision support, novel antimicrobials, bacteriophage therapy, microbiome-based treatments, and global AMR surveillance networks. As healthcare moves toward precision medicine, professionals trained in advanced stewardship will be essential for guiding safe, effective, and innovative therapies. This course prepares learners to embrace these emerging technologies and lead the next generation of AMR solutions.

Course Highlights

- ***25 advanced sessions*** *covering real-world antimicrobial decision-making.*
- ***Master MDR/XDR pathogens*** *with latest global & India-specific treatment updates.*
- ***Advanced diagnostics training*** *– PCR, WGS, rapid panels, antibiogram mastery.*
- ***PK/PD-driven dosing*** *for critically ill, ECMO, RRT & special populations.*
- ***Syndrome-based case discussions*** *in sepsis, pneumonia, UTI, CNS, SSTI & ICU infections.*
- ***Focused modules*** *on pediatrics, geriatrics & immunocompromised patients.*
- ***Hospital AMS program design*** *– formulary, audit-feedback, restriction policies.*
- ***AI & digital AMS tools*** *for surveillance, dashboards & resistance prediction.*
- ***Community & One Health AMR strategies*** *for public health impact.*
- ***Research & QI training*** *with mini-project development for publication.*
- ***Certificate of Completion*** *for career enhancement in AMS & clinical practice.*

Detailed syllabus:

A comprehensive, clinical, and systems-based program designed to build **expert-level antimicrobial stewardship (AMS) skills**, integrating microbiology, pharmacology, clinical decision-making, AMR surveillance, MDR/XDR therapeutics, and hospital-level stewardship strategies.

Module 1: Foundations for Advanced AMS (Weeks 1–2)

Introduces the global and Indian AMR crisis, reasons for failure of basic AMS, and key global surveillance networks. Covers advanced PK/PD concepts (fT>MIC, AUC/MIC), dosing optimization, special situations like ECMO/RRT, and foundational case discussions.

Module 2: Advanced Microbiology for Clinicians (Weeks 3–5)

Focuses on rapid diagnostics, genotypic resistance detection, WGS, advanced culture interpretation, breakpoints, and effective lab–clinician collaboration. Students learn to interpret antibiograms, identify ESBL/AmpC patterns, and apply diagnostic stewardship.

Module 3: Clinical Syndromic Stewardship (Weeks 6–10)

Organ-system–based AMS mastery across respiratory infections, sepsis/BSI, UTI, SSTI, osteomyelitis, GI/CNS infections, and special scenarios. Emphasizes de-escalation, narrow-spectrum use, source control, and avoiding unnecessary antimicrobial therapy.

Module 4: MDR & XDR Pathogens (Weeks 11–15)

In-depth therapeutics for ESBL, AmpC, CRE, CRPA, CRAB, MRSA, VRE, fungal infections, and advanced antivirals. Covers novel agents (cefiderocol, vaborbactam, imipenem/relebactam), colistin stewardship, and case-based decision pathways.

Module 5: Special Populations (Weeks 16–18)

Stewardship considerations in pediatrics, geriatrics, and the immunocompromised. Students learn to handle neonatal sepsis, frailty-related PK changes, renal impairment dosing, cancer/transplant prophylaxis, and febrile neutropenia pathways.

Module 6: Operational & Hospital Stewardship (Weeks 19–20)

Covers AMS program design, audit-feedback, formulary restrictions, ICU antibiotic control, and hospital-level policy frameworks. Introduces data analytics, AI-driven dashboards, predictive models, and real-time AMS alerts.

Module 7: Community, Public Health & One Health AMS (Weeks 21–22)

Explores outpatient AMS, communication strategies to reduce OTC misuse, community-level syndromic algorithms, and One Health issues including agriculture, environmental surveillance, and policy linkages.

Module 8: Research, Innovation & Quality Improvement (Weeks 23–24)

Train students to design AMS research projects, select metrics (DOT, LOT, AUR), write IRB protocols, and explore future AMS innovations like phage therapy, microbiome therapeutics, and next-gen antimicrobials.

Module 9: Capstone Case Challenge (Week 25)

*Students defend solutions to **10 complex real-world AMS** cases in front of a faculty panel. This serves as the final graded assessment and demonstrates mastery over clinical, microbiological, and operational AMS skills.*

Assessments

- **Mid-course assessment** (Week 12) – 30 MCQs
- **Final exam** (Week 24) – 50 MCQs + 2 case-based questions
- **Capstone mini project**

Course Details:

Course starting date
January 1, 2026

Last Date of Registration:
December 20, 2025

Classes:
Every Thursday,
7.00 PM to 8:30 PM

Course Fee
~~1999/- INR~~
999/- INR

Special Fee Drop Only
from 4-10 Dec 2025

Registration Link
https://rzp.io/rzp/amsdec

Instructor and Course Director:

Dr. Neha Suratiya,
Pharm.D

Dr. Neha Suratiya is a distinguished healthcare professional with a Doctorate in Pharmacy (Pharm.D) and extensive expertise in clinical and pharmacy practice. Formerly an Assistant Professor at Parul University, she has demonstrated a profound commitment to research and academics. Dr. Suratiya is the author of the book "Drug-Related Problems and Their Overcomes" and has contributed to the scientific community with 12 publications in esteemed national and international journals.

Her active participation in national conferences, webinars, workshops, and panel discussions underscores her dedication to advancing pharmacy education. She served humanity during the COVID-19 crisis at Dhiraj Hospital, earning certification for her contributions. Dr. Suratiya envisions transitioning from the conventional supply-based pharmacy model to a clinical skills- based service approach, aiming to enhance patient care. With her strong foundation in clinical knowledge and academic excellence, she continues to inspire innovation and growth in the pharmacy profession.