



NIPER-DRILS Industry-oriented Training

Dates: August 19, 2019 – September 14, 2019
Application deadline: August 14, 2019

Target Audience: M.Sc. / M.Pharm. Students with
Basic Chemistry knowledge; Fresh Ph.D.s may also apply



DR. REDDY'S
INSTITUTE OF LIFE SCIENCES

Training Goals: Fundamental Pharmaceutical Sciences -related knowledge and skills needed in the industry

Trainers: Technical experts and research scientists from academia and industry

Unique opportunity: Interaction with industry trainers and recruiters

The second week of the course has three options shown below under “specialization”. The other weeks are common to all. The course will involve in-class teaching and laboratory activity where relevant. All applicants will be subject to initial selection and periodic evaluations during training.

Week One

Overview of the Industry

Products and technology; Roles and functions; Integration of different functions; Trends and requirements; Laboratory Rules and Safety

Week Two

Specialization: Medicinal and Process Chemistry (NIPER and DRILS)

Organic synthesis; Experimental methods in Pharmaceutical Chemistry; Name reactions and Catalysis Lab scale to manufacturing; Criteria and tools for route selection; Selection in feasibility and optimization API case studies and process metrics; Introduction to green chemistry; Selected case studies from manufacturing; Laboratory Training

Specialization: Pharmaceutical Formulations (NIPER)

SOPs from raw materials to finished products; Pharmacopoeial evaluation of API and Dosage forms Excipient selection, process optimization, and preformulation studies; Nanocarriers in drug delivery; Laboratory Training

Specialization: Pharmacology, Toxicology, and Clinical Development (NIPER and DRILS)

Preclinical studies; methods and strategies; Good laboratory practice (GLP) and Good manufacturing practice (GMP) guidelines; ICH guidelines, NDA and ANDA, Case studies; Pharmacovigilance and Medical Writing; Laboratory Training

Week Three

Specialization: Pharmaceutical Analysis (NIPER and DRILS)

IR, NMR, LC-MS, GC, and HPLC; Applications; Qualitative & Quantitative Analyses, Data interpretation Method Optimization; Method Validation

Week Four (NIPER and DRILS)

Intellectual property (IP); Biostatistics and Data Interpretation; Research Ethics and Literature Survey; Report writing, Communication