

Capstone — Applied Microbiome Project — Hands-on

Apply everything learned across microbiome and metagenomics modules in a guided capstone. You will scope a realistic question, design or refine an analysis plan, run contamination aware and compositional workflows, and deliver a concise, reproducible report and slide deck suitable for collaborators, hiring managers or academic supervisors.

Capstone — Applied Microbiome Project

[Help Desk](#) · [WhatsApp](#)

Session Index

[Session 1 — Project Scoping & Dataset Audit](#) [Session 2 — Workflow Design, QC & Preprocessing](#)

[Session 3 — Core Analysis, Figures & Interpretation](#) [Session 4 — Final Report, Slides & Reproducible Package](#)

Session 1

Fee: Rs 8800 [Apply Now](#)

Project Scoping & Dataset Audit

Selecting a project and framing the question

[choice of gut, environmental or clinical theme](#)
[biological, clinical or One Health motivation](#) [clear](#)
[primary and secondary endpoints](#)

Dataset, metadata and readiness audit

[what is already available vs to be collected](#) [sample](#)
[numbers, groups and time points](#) [missingness, batch](#)
[and obvious caveats](#)

Ethics, consent and data sharing boundaries (concept level)

clinical vs public environmental datasets **de**
identification and safe reporting **repository and**
collaboration constraints

Session 2

Fee: Rs 11800 Apply Now

Workflow Design, QC & Preprocessing

Choosing and sketching the pipeline

amplicon vs shotgun vs MAG centric path **tools**
already used in earlier modules **simple diagrams of**
steps and inputs

Quality control and contamination checks

read level QC and trimming choices **negative**
controls and potential contaminants **basic run and**
batch diagnostics

Preprocessing into analysis ready tables

feature tables, taxonomic and pathway profiles
normalisation and transformations for compositional
data **clean, linked sample and metadata sheets**

Session 3

Fee: Rs 14800 Apply Now

Core Analysis, Figures & Interpretation

Exploratory and ecological summaries

alpha and beta diversity panels **ordination plots**
coloured by key covariates **basic time course or**
gradient views if relevant

Differentials, networks or multi omics (as suited to project)

differential abundance or composition aware

methods **simple co occurrence or association views**
optional metabolome or host covariate overlays

Interpreting patterns without over claiming

effect sizes, uncertainty and limitations **biological**
and applied meaning of key results **clear next steps**
and follow up experiments

Session 4

Fee: Rs 18800 Apply Now

Final Report, Slides & Reproducible Package

Structuring a short report or manuscript style summary

introduction, methods, results and discussion
skeleton

Building a slide deck for non specialist stakeholders

story arc and key messages **figure selection and**
simplification **next steps and decision support**
framing

Deliverables: notebook, report, slides and project bundle

analysis notebook with comments **PDF or HTML**
report plus slide deck **organised folder with data,**
metadata and readme