AI and Data Science Course List (Ordered)

Basic Foundation Courses

- UBA01 — Engineering Mathematics I (Basic)
- UBA04 — Discrete Mathematics (Basic)
- UBA53 — Probabilistic Methods and Linear Algebra (Basic)
- UBA10 — Numerical Methods (Basic)
- UBA06 — Applied Mathematics (Basic)
- UBA48 — Engineering Physics (Basic)
- UBA49 — Engineering Chemistry (Basic)
- BTA01 — Biology and Environmental Science for Engineers (Basic)
- UBA29 — Technical English (Basic)
- UBA28 — Professional Ethics and Legal Practices (Basic)

Programming and Core Computing

- CSA02 — C Programming (Core)
- CSA08 — Python Programming (Core)
- DSA01 — Object Oriented Programming with C++ (Core)
- CSA03 — Data Structures (Core)
- CSA05 — Database Management Systems (Core)
- CSA04 — Operating Systems (Core)
- CSA07 — Computer Networks (Core)
- CSA12 — Computer Architecture (Core)
- ECA47 — Principles of Digital System Design (Core)
- CSA10 — Software Engineering (Core)
- CSA06 — Design and Analysis of Algorithms (Core)

AI and Data Science Specialization

- DSA04 — Fundamentals of Data Science (Advanced)
- DSA06 — Data Handling and Visualization (Advanced)
- DSA05 — Query Processing for Data Science (Advanced)
- CSA17 — Artificial Intelligence (Advanced)
- ITA06 — Machine Learning (Advanced)
- CSA47 — Deep Learning (Advanced)
- DSA02 — Computer Vision with OpenCV (Advanced)
- DSA03 — Natural Language Processing (Advanced)

- CSA15 — Cloud Computing and Big Data Analytics (Advanced)
- CSA14 — Compiler Design (Advanced)