

DATA SCIENCE AND ARTIFICIAL INTELLIGENCE, CERTIFICATE OF ACHIEVEMENT

The Certificate of Achievement in Data Science and Artificial Intelligence provides students with core knowledge and practical hands-on experiences either to be employed in the fast emerging and high in-demand Data Science and Artificial Intelligence profession or pursue a higher degree in the DS/AI or related fields.

This certificate will cover basic key areas of data science including data acquisition, data cleansing, data modeling, data management, data visualization and interpretation. Also, it will cover basic concepts of machine learning including supervised and unsupervised learning. Students will use a variety of tools to solve real-life cases in the domain of DS/AI. The COA in DS/AI is following the ACM recommendations of Computing Competencies for Data Science curricula.

Course ID	Title	Units/ Hours
Required Core Courses		
CS V25	Python Programming for Data Science	3
CS V26	Data Science Fundamentals	3
CS V29	Artificial Intelligence and Machine Learning Fundamentals	3
STAT C1000	Introduction to Statistics	4
BUS V57	Data Analytics for Business Decisions	3
Total Units for the Certificate		16

Year 1		
Fall Semester		Units/Hours
CS V25	Python Programming for Data Science	3
CS V26	Data Science Fundamentals	3
CS V29	Artificial Intelligence and Machine Learning Fundamentals	3
STAT C1000	Introduction to Statistics	4
BUS V57	Data Analytics for Business Decisions	3
Units/Hours		16
Total Units/Hours		16

Upon successful completion of this program, students will be able to:

- Explain the fundamental principles of Data Science.
- Develop well-designed programs to collect, clean, analysis, interpret and visualize data to solve real-life problems.
- Explain ethical issues related to Data Science, Artificial Intelligence and Machine Learning including privacy and bias.
- Analyze short- and long-term trends in a selected topic using credible research sources.
- Develop and justify strategies for preparing for and adapting to projected changes in the field so they will be a life-long learner beyond the classroom.