

**School of Consumer Intelligence
and Information Systems in
collaboration with the Institute
for Intelligent Systems**



Short Learning Programme

COMPUTATIONAL INTELLIGENCE FOR INDUSTRY

**SCHOOL OF CONSUMER
INTELLIGENCE AND
INFORMATION SYSTEMS**



**The Future
Reimagined**

Purpose of the Program

The Department of Applied Information Systems, in collaboration with the Institute for Intelligent Systems is pleased to offer the short learning programme on Computational Intelligence for Industry. The University of Johannesburg is playing a leading role in driving the upskilling and reskilling of professionals as we enter the Fourth Industrial Revolution. A critical aspect of the Fourth Industrial Revolution is Artificial Intelligence, as it begins to drastically change the nature of our work environments and jobs. The purpose of this short learning programme is to provide professionals, from any area, with a working knowledge of key Artificial Intelligence and Machine Learning tools.

Upon completion of this short learning programme, participants will be able to perform data analytics and construct predictive models in their field of practice.

Entry Requirement

This short learning programme is at a South African National Qualification Framework (NQF) Level 8. Applicants require at least an NQF level 7 qualification, that includes basic mathematics (NQF level 5), or equivalent.

Timelines

Computational Intelligence for Industry is a one semester programme. First intake begins in February 2021 and ends June 2021. Second intake begins in July 2021 and ends November 2021. Classes will be held twice a month from 3pm to 7pm. The programme consists of a total of 12 classes.

The closing dates for applications end February 2021 and June 2021.

How to Apply

Visit the UJ homepage www.uj.ac.za and click on Study@UJ to apply for this program. All applications are done online.

Registration and Fees

Registration – R3840/ Course Fees — R 13 950 Dr Rehana Minty: rehanam@uj.ac.za

Programme Overview

This programme is offered through a mix of lectures and practical (hands-on) sessions. Supporting study materials will be provided. The following topics will be covered:

- Introduction to Python
- Introduction to machine learning
- Basic Statistics and Probability Theory
- Naive Bayes Classifier
- Bayesian Networks
- Sensitivity Analysis
- Decision Trees
- Support Vector Machines (SVM)
- Instance based learning
 - K-Nearest Neighbor
 - K-Means Clustering
- Artificial Neural Networks
- Post-processing

Required mathematical and statistical foundation will also be provided to the participants at the start of the program.

Assessment

Assessments in this programme comprise of written tests, assignments, practical work and a written exam. Upon successful completion of the programme, participants will receive a certificate.

Enquiries

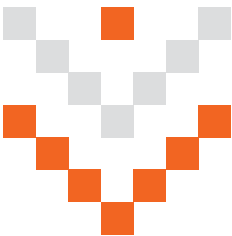
For further information and queries relating to this programme, you may contact:

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Disclaimer: The offering of the course is at the sole discretion of the Department



College of Business and Economics
School of Consumer Intelligence and Information Systems (SCiIS)
Department of Applied Information Systems

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