

## NOTICE

### Registrations for Value added Course-Data Analytics

October 6, 2020

Value Added Courses Committee, Shri Ram College of Commerce invites applications for the Value Added Course-**Data Analytics with R** offered by **AICPA-CIMA**.

Details of course are as follows:

<b>Name of the Course</b>	Data Analytics with R
<b>Duration</b>	30 Hours
<b>Fee</b>	11,800 (including GST)

The registrations for the course are open for all the students of Undergraduate and Post-Graduate Courses.

Interested students are required to fill in the registration form latest by **Oct 11, 2020 till 5:00 p.m.**

**Registration form can be accessed using the following link:**

<https://forms.gle/8UdVGMjdyJjFx7CTA>

Details regarding course content and schedule of classes are attached herewith.

For any queries related to the course, kindly mail to: [valueaddedatsrcc@srcc.du.ac.in](mailto:valueaddedatsrcc@srcc.du.ac.in)

Dr. C. S. Sharma

Convenor

Value Added Course Committee

Attachments:

Annexure I: Detailed Course outline

Annexure II: General Guidelines

Annexure III: Tentative Schedule of classes

## Annexure I: Detailed Course outline

Sl. No.	Module Name	Topics	Duration
1	Introduction to Data Analytics – and R	<ul style="list-style-type: none"> <li>➤ Introduction to Artificial Intelligence and Data Analytics</li> <li>➤ Factors driving surge in popularity of Data Analytics.</li> <li>➤ Data Analytics Use Cases from multiple industries.</li> <li>➤ Data Ecosystem of an Organisation.</li> <li>➤ Difference between Business Analytics and Data Analytics</li> <li>➤ Skill set for Data Analytics professional.</li> <li>➤ Reasons for growing popularity of R.</li> <li>➤ Basics of R language</li> <li>➤ Introduction to R Ecosystem and Community</li> <li>➤ R in comparison to other analytics tools</li> </ul>	2 Hours
2	Installation of R Studio and Packages	<ul style="list-style-type: none"> <li>➤ Installation of R Studio</li> <li>➤ Installation of packages in R</li> <li>➤ Basic operations using R Studio.</li> </ul>	1 Hour
3	R programming – Basics I	<ul style="list-style-type: none"> <li>➤ Data types in R – vectors, matrix, arrays, lists, data frames.</li> <li>➤ Basic Data manipulation</li> </ul>	2 Hours
4	R programming – Basics II	<ul style="list-style-type: none"> <li>➤ Use of built in functions in R like, seq(), cbind(), rbind(), merge()</li> <li>➤ Summarise and interpreting data using functions like, str(), class(), length(), nrow(), ncol()</li> <li>➤ Inspecting data frames with functions like, head(), tail()</li> </ul>	2 Hours
5	R Programming – Basics III	<ul style="list-style-type: none"> <li>➤ For and While Loops in R</li> </ul>	2 Hours
6	Data Manipulation	<ul style="list-style-type: none"> <li>➤ Steps in Data Cleaning</li> <li>➤ Data Inspection</li> <li>➤ Tackling the issues arising during data cleaning.</li> <li>➤ Use of string manipulation functions like grepl(), grep(), sub()</li> <li>➤ Data coercion</li> <li>➤ Use of apply() family of functions.</li> </ul>	2 Hours
7	Data Importing into R	<ul style="list-style-type: none"> <li>➤ Import data from spreadsheets, CSV and text files into R.</li> <li>➤ Import data from different file statistical formats like sas7bdat, spss.</li> <li>➤ Install packages for database import.</li> <li>➤ Connect with RDBMS from R and perform basic functions.</li> </ul>	2 Hours

Sl. No.	Module Name	Topics	Learning Outcome
8	Exploratory Data Analysis and Data Visualisation	<ul style="list-style-type: none"> <li>➤ Exploratory Data Analysis (EDA) – Concepts</li> <li>➤ Performing EDA on datasets</li> <li>➤ Co-relation function cor() in R</li> <li>➤ Use of packages for EDA in R</li> <li>➤ Use of Plot function</li> <li>➤ Creating various graphs like, boxplot, density plot and histogram.</li> </ul>	2 Hours
9	Visualisation II	<ul style="list-style-type: none"> <li>➤ Lattice package for Visualisation</li> <li>➤ GGplot2 package for visualisation</li> <li>➤ Decision making through plots</li> </ul>	3 Hours
10	Data Analysis Project Management	<ul style="list-style-type: none"> <li>➤ Steps in Data Analysis Project Management Life Cycle.</li> </ul>	1 Hour
11	Data Mining I	<ul style="list-style-type: none"> <li>➤ K-means Clustering</li> <li>➤ Hierarchical Clustering</li> </ul>	3 Hours
12	Data Mining II	<ul style="list-style-type: none"> <li>➤ Association Mining Rule</li> </ul>	2 Hours
13	Data Mining III	<ul style="list-style-type: none"> <li>➤ Linear Regression</li> <li>➤ Decision Tree - Regression</li> </ul>	3 Hours
14	Data Mining IV	<ul style="list-style-type: none"> <li>➤ Logistic Regression</li> <li>➤ Decision Tree – Classification</li> <li>➤ Random Forest</li> </ul>	3 Hours

## Annexure II

### General Guidelines-Value Added Courses

1. Tentative Timelines:
  - Registration opens: 7 October, 2020
  - Registration closes: 11 October, 2020
  - Submission of fee opens: 12 October, 2020
  - Submission of fee closes: 16 October, 2020
  - Announcement of Batches: 17 October, 2020
  - Commencement of Classes: 18 October, 2020
2. The students are advised to read the guidelines, annexures as well as the embedded instructions in the registration forms very carefully before proceeding.
3. The admission for a course will be done on first come first serve basis.
4. The names of the selected students will be put up in a separate notice. A waiting list will also be displayed in the same notice. A mail will also be sent from [valueaddedarcc@srcc.du.ac.in](mailto:valueaddedarcc@srcc.du.ac.in) to selected students intimating them of their selection.
5. The selected candidates will be required to pay fee in full upon confirmation of their selection.
6. The fee once paid shall not be refundable or transferable.
7. On the commencement of the course, it is mandatory for the students to attend all the classes pertaining to the course.
8. The total duration of the course shall be 30 hours. The classes will be held on non-teaching days.
9. AICPA-CIMA will conduct the exam and also evaluate the same during the course and at the end of course.
10. The certificate shall be provided by AICPA-CIMA to the students upon successful completion of the course.
11. AICPA-CIMA/ VAC Committee reserves the right to alter, modify or change the content as it deems fit without assigning any reasons to the students.

### Annexure III

## Tentative Schedule of the Sessions

Total duration: 30 hours

<b>Session</b>	<b>Date</b>	<b>Time</b>
Session 1	18.10.2020 (Sunday)	9:00 am-12.30 pm
Session 2	25.10.2020 (Sunday)	2:00 pm -5:30 pm
Session 3	30.10.2020 (Friday) Holiday-Id-e-Milad	9:00 am-12:30 pm
Session 4	01.11.2020 (Sunday)	9:00 am-12:30 pm
Session 5	08.11.2020 (Sunday)	2:00 pm -5:30 pm
Session 6	15.11.2020 (Sunday)	9:00 am-12:30 pm
Session 7	22.11.2020 (Sunday)	9:00 am-12:30 pm
Session 8	28.11.2020(Saturday)	9:00 am-12:30 pm
Session 9	29.11.2020 (Sunday)	9:00 am-12:30 pm
Session 10	30.11.2020 (Monday) Holiday-Guru Nanak's Birthday	9:00 am-12:30 pm

\* There will be a break of 15-20 minutes in between each of the sessions.

\*The mode of classes will be Online/Offline depending upon the prevalent situation.