PROJ 406 - Data Analytics Capstone Project

Course Description:
This capstone project for the Data Analytics program presents the framework for students to complete a synthesis of the program outcomes and learning in a final, demonstrative manner.

3 Credits

Time Guidelines:
The standard instructional time for this course is 48 hours.

Effective Year
2019/2020

Course Assessment:

Document (Business Analysis Proposal/Solution)	30%
Creation of Solution	35%
Presentation of Solution	25%
Feedback to Peers on Their Solutions	10%
Total:	100%

Other Course Information:
Learner Engagement:

In order to be successful, the learner is expected to be engaged in learning activities for a total of 9 to 12 learning hours per course per week, which includes both in-class and out-of-class time.

ICT Policies:

The School of Information and Communications Technologies (ICT) expects students to act professionally during their studies. A guideline outlining expectations is available on the Information and Communications Technologies Orientation page (https://www.sait.ca/accepted-students/orientation/information-and-communications-technologies-program-orientation-requirements). Students should review the guideline regularly, as the content may change.

SAIT Policies and Procedures:
For information on the SAIT Grading Scale, please visit policy AC 3.1.1 Grading Progression Procedure: http://www.sait.ca/Documents/About SAIT/Administration/Policies and Procedures/AC.3.1.1 Grading and Progression Procedure.pdf

For information on SAIT Academic Policies, please visit: www.sait.ca/about-sait/administration/policies-and-procedures/academic-student

Course Learning Outcome(s):
1. Prepare a business case for the use of data analysis in an organization.

    Objectives:

        1.1 Identify relevant questions and objectives by engaging your client.

        1.2 Select an appropriate open data source to analyze.

1.3 Prepare a statement of intent for the use of data analysis in an organization.

2. Write a data analysis proposal.

Objectives:

2.1 Develop a project-appropriate data analysis proposal for the organization.

2.2 Demonstrate how data analytics can support business needs.

2.3 Describe data and information and how they interrelate.

3. Develop a data analysis solution that addresses an organization's specific needs.

Objectives:

3.1 Distinguish between different types of data analysis, such as descriptive, diagnostic, predictive, and prescriptive analysis.

3.2 Interpret the organization with decision-making insight into customer trends and behaviours.

3.3 Use data analytics to support the organization's strategic and operational decisions.

3.4 Design a data analysis solution for the organization.

3.5 Outline the solution to the objectives in the proposal.

3.6 Demonstrate the ability to troubleshoot your data analysis.

3.7 Create advanced analytical models to predict future results.

4. Present the results of your analysis.

Objectives:

4.1 Demonstrate how your solution meets the objectives outlined in your data analysis proposal.

4.2 Create a project implementation plan based on the results of your analysis.

4.3 Interpret the defined models to address all of the questions asked at the beginning of the project.

4.4 Identify patterns that can help the organization in its decision-making processes.

4.5 Outline the project results for the organization's stakeholders.