
Strategic Use of Business Intelligence

Information and Communications Technology

Course Number: CST2100	Co-Requisites: N/A	Pre-Requisites: N/A
Applicable Program(s): 1514X01FWO - BISI 1514X03FWO - BISI	AAL: 1 1	Core/Elective: Core Core
Prepared by:	Roly Roy, Professor	
Approved by:		
Approval Date:		
Approved for Academic Year:	2017-2018	
Normative Hours:	45.00	

Course Description

In order to get the most out of business data, it is important to ask the right questions. Business principles and practices need to be placed in their operational context. Students examine legal, ethical and strategic uses of BI by businesses, to make sound decisions. Communications skills are refined to comprehend the client's requirements and provide guidance to appropriate solutions. In-class assignments and discussions along with case studies and group presentations explore how businesses use BI to gain competitive advantage in the marketplace. Predications of future applications are debated.

Relationship to Vocational Learning Outcomes

This course contributes to your program by helping you achieve the following Vocational Learning Outcomes:

1514X01FWO - BISI**1514X03FWO - BISI**

- | | |
|-------|--|
| VLO 4 | Provide efficient and effective communications and technical support to guide clients in a manner that promotes safe computing practices and reduces risk. (T,) |
| VLO 6 | Identify, analyze and document a client's business needs and use BI platforms to generate reliable benchmarks and indicators that support business decision making and the corporate strategic plan. (T, A,) |
| VLO 8 | Research and analyze legal and ethical issues to develop criteria surrounding the personal, professional and business use of BI in a business environment. (T, A,) |

Course Learning Requirements/Embedded Knowledge and Skills

When you have earned credit for this course, you will have demonstrated the ability to:

1.) Examine societal trends and predict future uses of BI in business

Understand BI integration implementation with social networking

Awareness of BI system connections to databases and other enterprise systems

Compare on-demand BI versus traditional BI

Familiarize with emerging topics relating to future of BI

2.) Explain common divisions within a business and the types of data the divisions generate

Understand business environments and the need for BI

Awareness of the connection between BI and the business strategy of an organization

Describe the benefits of BI

3.) Define the types of BI tools that are available

Examine various tool categories (e.g.: data management, strategy and performance management, business analytics, etc.)

Awareness of the tools used within the categories (e.g.: extraction, transformation and load (ETL) systems, business/corporate performance management (BPM/CPM), reality mining)

4.) Recommend appropriate BI tools based on a review of an organization

Examine intelligence creation and the use of BI governance

Describe BI architecture

5.) Advocate for the use of BI tools to improve decision making processes

Understand data warehousing versus data/web mining

Examine decision making improvement strategies (e.g.: performance management measurement and architecture)

Describe the user interface (e.g.: dashboards, information broadcasting tools, corporate portals)

6.) Research and analyze legal and ethical (including privacy) issues to develop criteria surrounding the use of BI in a business environment to support personal, professional and business strategies in BI

Examine legal and privacy issues relating to BI

Awareness of ethics within decision making and support

7.) Use effective techniques to address client requirements and guide clients to efficient use of BI, with particular emphasis on contributing to the local and global community through social responsibility, economic commitment and environmental stewardship

Examine BI styles (e.g.: report delivery and alerting, enterprise reporting, cube analysis, etc.)

Discuss value of BI analytical applications (e.g.: automated decision making - ADS)

Understand the BI community

8.) Work efficiently as a leader and member of a team to achieve a common goal

Plan and organize tasks for assignments

Use of effective collaboration tools for presentations and discussions

9.) Compare and contrast leading BI visualization applications

Examine various categorical metrics to determine the effectiveness, and deficiencies, of BI visualization applications

Understand the use of BI visualization tools within a business environment

10.) Use the ETL process (Extract/Transform/Load) to employ data within a BI visualization application

Discuss the differences between formatted data and raw data

Examine differing types of datasets, from various sources, to be used in the ETL process

Use a data reshaping application to massage formatted data into raw data

11.) Develop visualization worksheets and interactive dashboards through the use of a BI visualization application

Understand the difference between the installation, and use, of a BI visualization reader application and a BI visualization developer application

Use of a BI visualization development application to create individual worksheets

Determine the integration of BI visualization worksheets into an interactive BI visualization dashboard

Learning Resources

Required Text Book:

Business Intelligence: A Managerial Perspective on Analytics, Third Edition, Efraim Turban, Ramesh Sharda, Dursun Delen. Pearson
ISBN-13: 978-0-13-305105-6

Learning Activities

Reading and understanding the text material
Attending lectures that follow (and supplement) the text material
Attending/participating in content-related discussions
Investigating prescribed web sources to capture additional information
Installation and use of a BI visualization application
Completing assignments
Completing additional projects, where applicable

Evaluation/Earning Credit

The following list provides evidence of this course's learning achievements and the outcomes they validate:

Project(s) (40%)

Validates Outcomes: CLR 5, CLR 6, CLR 7, CLR 8, CLR 9, CLR 10, CLR 11

Midterm Exam(s) (30%)

Validates Outcomes: CLR 1, CLR 2, CLR 3, CLR 4

Final Exam (30%)

Validates Outcomes: CLR 1, CLR 2, CLR 3, CLR 4

Students are expected to meet evaluation and completion deadlines as stated in course outline and course section information documents. In circumstances where evaluation and/or completion deadlines are missed or student performance has been affected by a temporary or permanent disability (including mental health), interim or retroactive accommodations may be considered. In such instances, please consult your course faculty member. For other situations where deferral of evaluations may be warranted, please refer to college policy AA21.

Prior Learning Assessment and Recognition

Students who wish to apply for prior learning assessment and recognition (PLAR) need to demonstrate competency at a post-secondary level in all of the course learning requirements outlined above. Evidence of learning achievement for PLAR candidates includes:

- Portfolio

Course Related Information

The following information is course-specific:

Teaching/Learning Methods

The course consists of 3 hours of lectures per week (2 hours 'in-class' and 1 hour 'online'). It is anticipated that you will need to spend an additional 3 hours per week, on average, of your own time for assignments and study.

The Computer Studies Department requires that all course assignments (homework exercises, laboratory work, projects, etc) be submitted by students using a standard which could be specific to one or more courses. Professors will ensure, at the beginning of the term that students are advised of the exact details of these course specific submission requirements. Professors will also post them online alongside the course outline.

Department Related Information

STUDENT ACADEMIC RESPONSIBILITIES

Each student is responsible for:

- Knowing the due dates for marked out-of-class assignments.
- Attending all classes and knowing the dates of in-class marked assignments and exercises.
- Maintaining a folder of all work done in the course during the semester for validation claims in cases of disagreement with faculty.
- Keeping both paper and electronic copies of all assignments, marked and unmarked, in case papers are lost or go missing.
- Regularly checking both Blackboard announcements as well as one's Algonquin e-mail account for important messages from both professors and college administration.
- Participating in on-line and classroom exercises and activities as required.
- Retaining course outlines for possible future use to support applications for transfer of credit to other educational institutions.

Harassment/Discrimination/Violence will not be tolerated. Any form of harassment (sexual, racial, gender or disability-related), discrimination (direct or indirect), or violence, whether involving a professor and a student or amongst students, will not be tolerated on the college premises. Action taken will start with a formal warning and proceed to the full disciplinary actions as outlined in Algonquin College Policies - HR22 and SA07.

Harassment means one or a series of vexatious comment(s) (whether done verbally or through electronic means),

or conduct related to one or more of the prohibited grounds that is known or ought reasonably to be known to be unwelcome/unwanted, offensive, intimidating, derogatory or hostile. This may include, but is not limited to: gestures, remarks, jokes, taunting, innuendo, display of offensive materials, offensive graffiti, threats, verbal or physical assault, stalking, slurs, shunning or exclusion related to the prohibited grounds.

For further information, a copy of the official policy statement can be obtained from the Student Association.

Violation of the Copyright Act

General – The Copyright Act makes it an offence to reproduce or distribute, in whatever format, any part of a publication without the prior written permission of the publisher. For complete details, see the Government of Canada website at <http://laws.justice.gc.ca/en/C-42> . Make sure you give it due consideration, before deciding not to purchase a textbook or material required for your course.

Software Piracy - The Copyright Act has been updated to include software products. Be sure to carefully read the licensing agreement of any product you purchase or download, and understand the terms and conditions covering its use, installation and distribution (where applicable). Any infringement of licensing agreement makes you liable under the law.

Disruptive Behaviour is any conduct, or threatened conduct, that is disruptive to the learning process or that interferes with the well being of other members of the College community. It will not be tolerated. Members of the College community, both students and staff, have the right to learn and work in a secure and productive environment. The College will make every effort to protect that right. Incidents of disruptive behaviour must be reported in writing to the departmental Chair as quickly as possible. The Chair will hold a hearing to review available information and determine any sanctions that will be imposed. Disciplinary hearings can result in penalties ranging from a written warning to expulsion.

For further details, consult the Algonquin College Policies AA32, SA07 and IT01 in your Instaguide.

College Related Information

Email

Algonquin College provides all full-time students with an e-mail account. This is the address that will be used when the College, your professors, or your fellow students communicate important information about your program or course events. It is your responsibility to ensure that you know how to send and receive e-mail using your Algonquin account and to check it regularly.

Students with Disabilities

If you are a student with a disability, you are strongly encouraged to make an appointment at the Centre for Accessible Learning to identify your needs. Ideally, this should be done within the first month of your program, so that a Letter of Accommodation (LOA) can be provided to your professors. If you are a returning student, please ensure that professors are given a copy of your LOA each semester.

Retroactive Accommodations

Students are expected to meet evaluation and completion deadlines as stated in course outline and course section information documents. In circumstances where evaluation and/or completion deadlines are missed or student performance has been affected by a temporary or permanent disability (including mental health), interim or retroactive accommodations may be considered. In such instances, please consult your course faculty member. For other situations where deferral of evaluations may be warranted, please refer to college policy AA21.

Academic Integrity & Plagiarism

Adherence to acceptable standards of academic honesty is an important aspect of the learning process at Algonquin College. Academic work submitted by a student is evaluated on the assumption that the work presented by the student is his or her own, unless designated otherwise. For further details consult Algonquin College Policies AA18: Academic Dishonesty and Discipline and AA20: Plagiarism

Student Course Feedback

It is Algonquin College's policy to give students the opportunity to share their course experience by completing a student course feedback survey for each course they take. For further details consult Algonquin College Policy AA25: Student Course Feedback

Use of Electronic Devices in Class

With the proliferation of small, personal electronic devices used for communications and data storage, Algonquin College believes there is a need to address their use during classes and examinations. During classes, the use of such devices is disruptive and disrespectful to others. During examinations, the use of such devices may facilitate cheating. For further details consult Algonquin College Policy AA32: Use of Electronic Devices in Class

Transfer of Credit

It is the student's responsibility to retain course outlines for possible future use to support applications for transfer of credit to other educational institutions.

Note: It is the student's responsibility to refer to the Algonquin College Policies website for the most current information at <http://www.algonquincollege.com/policies/>

Grade Scheme

Final Grade	Mark Equivalent	Numeric Value	Final Grade	Mark Equivalent	Numeric Value
A+	90% - 100%	4.0	A	85% - 89%	3.8
A-	80% - 84%	3.6	B+	77% - 79%	3.3
B	73% - 76%	3.0	B-	70% - 72%	2.7

C+	67% - 69%	2.3	C	63% - 66%	2.0
C-	60% - 62%	1.7	D+	57% - 59%	1.4
D	53% - 56%	1.2	D-	50% - 52%	1.0
F	0% - 49%	0	FSP	0	0

Legend

Terms

- ALO: Aboriginal Learning Outcome
- Apprenticeship LO: Apprenticeship Learning Outcome
- CLR: Course Learning Requirement
- DPLO: Degree Program Learning Outcome
- EES: Essential Employability Skill
- EOP: Element of Performance
- GELO: General Education Learning Outcome
- LO: Learning Outcome
- PC: Program Competency
- PLA: Prior Learning Assessment
- PLAR: Prior Learning Assessment and Recognition
- VLO: Vocational Learning Outcome

Assessment Levels

- T: Taught
- A: Assessed
- CP: Culminating Performance