PREDICTIVE ANALYTICS

BUS2004

LMS Subject link

https://lms.latrobe.edu.au/course/view.php?id=121699

SUBJECT LEARNING GUIDE

Teaching Period   Semester 2, 2022

Subject Coordinator   Damminda Alahakoon

SUBJECT DETAILS

Subject Code:	BUS2004
Subject Title:	Predictive Analytics
Teaching Period:	Semester 2, 2022
Location(s):	Melbourne (Bundoora)
Credit Points:	15
Delivery Mode:	Blended
AQF Level:	Level 6 - Associate Degree

ENROLMENT REQUIREMENTS

Prerequisites:

BUS1001 DATA ANALYTICS CONCEPTS **or**
BUS1BAN ANALYSING BUSINESS DATA
Prerequisite
BUS1DIB DISRUPTION IN BUSINESS

Co-requisites: NA

Class materials: **Workshops and Workbooks on LMS**

STAFF CONTACTS

Subject Coordinator:	**Damminda Alahakoon**
Email:	D.Alahakoon@latrobe.edu.au
Tel:	
Location:	
Consultation time/s:	**See LMS**

Lecturer:	**Saher Manaseer**
Email:	**S.manaseer@latrobe.edu.au**
Tel:	
Location:	
Consultation time/s:	

ABOUT THIS SUBJECT

Predictive Analytics is the use of data, statistical algorithms, and machine learning techniques to produce actionable insights from historical data to facilitate the decision-making in organizations. This subject equips you with the fundamental knowledge and skills required for conducting predictive analytics targeting business needs. Topics include fundamental business analysis concepts, processes, tools and methods for predictive analytics, data pre-processing, principle component analysis, clustering, regression and association analysis. Besides the theoretical knowledge, you will learn to apply the practical skills through real-life study cases using commercial and open-source tools.

SUBJECT INTENDED LEARNING OUTCOMES (SILOs)

Upon successful completion of this subject, you should be able to:

1   Apply key statistical theories and data mining techniques to show predictive analytics so as to build predictive models

2   Effectively employ commercial and open-source tools to design predictive models

3   Use predictive models and data analytics methodologies to solve business problems

GRADUATE CAPABILITIES (GC)

GC	GC Point
Communication	Mid-point
Inquiry and Analysis	Mid-point
Personal and Professional	Mid-point
Discipline Knowledge and Skills	Mid-point

LEARNING ACTIVITIES

Timetable details are available at https://www.latrobe.edu.au/students/your-course/timetables. Students should also regularly check this subject's LMS site for updated information.

Session	Date	Learning Activities	Contact hours
1-12	18/07/2022 – 10/10/2022	Workshops	2 hours

Details of any self-allocation activities
NA

SELF-DIRECTED STUDY

In addition to the learning activities specified, you are expected to allocate approximately **<number; see** [Staff Guidelines for Calibrating Student Workload](#)**> hours per week of self-directed study in this subject.** This time includes subject preparation, completing learning activities, readings, assessment preparation and other related work to enhance your participation in this subject and your learning at La Trobe.

LEARNING RESOURCES & TECHNOLOGIES

Resource Type	Title	Author and Year	Publisher
Recommended			
Book	Data Mining 4E: Practical Machine Learning Tools and Techniques	Ian Witten, Eibe Frank and Mark Hall 2016	Elsevier
Book	Data science for business	Foster Provost and Tom Fawcett 2013	O'Reilly Media, Inc, USA

ASSESSMENT AND FEEDBACK SUMMARY

Week Session	Date due	%	Assessment	Feedback method	SILOs assessed
7	**11:59 pm Sunday of the week**	25	Case study based development application and evaluation of predictive models (1000-word equivalent)	Written feedback will be available on LMS within 3 weeks of the due date.	1,2
11	**11:59 pm Sunday of the week**	25	Case study based development of a business model and demonstration of association rules as supporting techniques for predictive analytics (1000-word equivalent)	Written feedback will be available on LMS within 3 weeks of the due date.	1,2
TBA	**TBA**	50	Final examination consisting of short and essay type questions		1, 2, 3

Additional information about assessment & feedback
Students should keep a copy of all assignments submitted for assessment.

HURDLE REQUIREMENTS

There are a variety of assessment hurdles or conditions for passing a subject other than the overall mark. **Hurdle Requirements** may be built into the assessment of the learning outcomes of your subject.

There are no Hurdle Requirements for this subject / The Hurdle Requirements for this subject are: Assignment 1, Assignment 2 and final exam

GENERAL ASSESSMENT REQUIREMENTS

SUBMITTING WRITTEN WORK WITH TURNITIN

Turnitin is a web-based text-matching software system used at La Trobe University to assist you in writing your assignments and checking for similarity with existing published work. Please remember to allow adequate time to submit your assignment to Turnitin. **It is your responsibility to have your assignment submitted by the assessment due date.** Not receiving an originality report is not an acceptable reason for requesting an assignment extension unless it is a required part of the assessment.

POLICIES, PROCEDURES AND GUIDELINES

The University has a comprehensive policy framework to which both staff and students must adhere. You should familiarise yourself with those policies, procedures and guidelines likely to affect you especially the following:

- Academic Integrity
- Academic Progress Review
- Assessment Policy
- Adjustments to Assessment, including extensions to submission dates and Special Consideration
- Health and Safety (OHS)
- Privacy
- Validation and Moderation, including applications for review and re-mark

ADJUSTMENTS FOR ASSESSMENT

You may be affected by a range of adverse circumstances while you are preparing for or undertaking an assessment task. There are avenues for adjustments to your assessment depending on the circumstances you face. For more detailed information refer to the Assessment Procedure – Adjustments.

REQUEST AN EXTENSION OF TIME TO SUBMIT AN ASSIGNMENT TASK

Where you know in advance that you will not be able to submit an assessment task by the due date due to adverse circumstances that have affected you during the preparation of the task, you will need to request an extension of time to submit. **This must be done at least three days prior to the due date**. Penalties normally apply if you submit an assessment after the due date. **Poor time management is not an acceptable reason for an extension.**
To apply, go to https://www.latrobe.edu.au/students/admin/forms/request-an-extension/request

SPECIAL CONSIDERATION

If you have experienced serious short term, adverse and unforeseen circumstances that substantially affect your ability to complete an assessment task to the best of your potential, you may be eligible to apply for

Special Consideration. To do this or find more information, go to http://www.latrobe.edu.au/special-consideration

STUDENTS WITH A LEARNING ACCESS PLAN (LAP)

Students who have a Learning Access Plan must apply for any additional adjustments they may need via the same channels but may have access to more flexible arrangements depending on their circumstances. Please refer to your LAP.

ACADEMIC INTEGRITY

Academic integrity means being honest in academic work and taking responsibility for learning the conventions of scholarship. Academic integrity education is integral to the learning experience at La Trobe University. The University requires its academic staff and students to observe the highest ethical standards in all aspects of academic work, and it demonstrates its commitment to these values by awarding due credit for honestly conducted scholarly work, and by penalising academic misconduct and all forms of cheating.

The penalty for submitting an assignment under your name that is the work of a third-party may be severe, even leading to exclusion from the University without readmission. Refer to the **Academic Integrity - Schedule of Responses and Penalties for Academic Misconduct** within the Academic Integrity Policy.

You should understand and be able to practice integrity in all your academic work, and be familiar with the Academic Integrity website and complete the **Academic Integrity Module (AIM)** found in your LMS.

If you have any specific questions regarding **Academic Integrity** about your assessment, your Subject or Course Coordinator will be able to assist.

STUDENT FEEDBACK ON SUBJECT SURVEYS

The **Student Feedback on Subjects (SFS) Survey** is one of the quality assurance processes that occur across the University. In this survey, you can tell us about your learning experiences in this subject. We value your feedback. Your views are taken seriously and assist us to improve the learning experience for future students through the LTU Subject Monitoring process.

The surveys will be available for you to complete towards the end of the subject teaching period. Feedback from previous students who completed this subject is available in the LMS site for this subject.

For more information you may contact surveys@latrobe.edu.au.

CHARTER OF STUDENT RIGHTS AND RESPONSIBILITIES

As a La Trobe coursework student, you have rights and responsibilities. La Trobe statutes and regulations, as well as policies and procedures govern your rights and responsibilities. La Trobe University aspires to provide an outstanding student experience conducive to scholarly activity and supportive of your learning goals.

The **Charter of Student Rights and Responsibilities** is a summary of your rights and responsibilities as a student at La Trobe. The Charter was developed in consultation with La Trobe students. https://policies.latrobe.edu.au/document/view.php?id=225.

STUDENT COMPLAINTS

The **Student Complaints Management System (SCM)** is a formal mechanism for students to lodge concerns about any aspect of their university experience. A student complaint may be about any aspect of university life, such as an administrative matter, a problem with a subject or course, or the conduct of a student or staff member.

For more information about the **Student Complaint process** and how to lodge a complaint, visit the **Complaints and Feedback** page at: https://www.latrobe.edu.au/students/support/complaints.

GETTING HELP AND SUPPORT AT UNI

A range of services at La Trobe can assist you with your studies, health and wellbeing.
For the full range of services and facilities available for you, go to **Student Help and Support** at http://www.latrobe.edu.au/students/support.

STUDYING ONLINE

When you are in studying an online subject, please be sure that you can continue to access our learning support services through the Learning Hub (academic skills, English language, Maths and Science) via Zoom appointments that you can book by accessing the Learning Hub LMS page or by emailing the LearningHub@latrobe.edu.au.

You also have access to assignment feedback and online study support chat through Studiosity that can be accessed from any subject LMS page. You can also access the Library services remotely through the library website.

LIBRARY

Your **Library** offers many ways to support your study. To discover more about how the Library can help, visit your **Library website** and explore the following essential resources:

- **Achieve@Uni**
  https://www.latrobe.edu.au/students/study-resources/learning/achieve -
  Learn skills to help complete your assessments
- **Assessment Planner**
  http://www.latrobe.edu.au/library/assessment-thesis-support/plan-my-assessment –
  Create a personal assessment schedule
- **Expert Help Guides**
  https://latrobe.libguides.com/ - Find expert discipline and specialist help for your research
- **Referencing at La Trobe University**
  http://latrobe.libguides.com/referencing/ - Understand how and why to reference
- **Academic Referencing Tool**
  www.lib.latrobe.edu.au/referencing-tool - Get detailed examples of referencing styles
- **Chat to library staff**
  www.latrobe.edu.au/library - Access the text chat service from the Library website
- **Contact us**
  www.latrobe.edu.au/library/about/contact - Call or email your Library

ASK LA TROBE

ASK La Trobe is a service open to all La Trobe students who need guidance with administrative matters during their time at La Trobe. ASK La Trobe can provide you with help relating to enrolments and timetabling, fees and financial support, exams, results and graduations & student life and support services.

Go to **ASK La Trobe − Current Students** at http://latrobe-current.custhelp.com/app/home and start by looking at our **FAQs or** visit us at your campus **ASK La Trobe Help Zone**.

If you can't find what you're looking for:

- **Call** 1300 La Trobe (1300 528 762)
- **Ask a question** online at http://latrobe-current.custhelp.com/app/ask
- **Visit** the **ASK La Trobe Help Zone.** Join the queue for the Bundoora, Bendigo or city campuses using the **QLess: Virtual Queuing system**.

LEARNING AND SUPPORT PROGRAMS

There are many resources, including services, to help you with your academic studies at La Trobe. Go to the **Learning and Support Programs** page at http://www.latrobe.edu.au/students/study-resources/learning for further information.

HEALTH AND WELLBEING

Your health and wellbeing are an important part of being a successful student. Studying can be stressful and many factors can affect your mental and physical health, in and outside of the University.
Check out the services available to you at La Trobe to support your health and wellbeing at
www.latrobe.edu.au/wellbeing.