

Students must use their Western (@uwo.ca) email addresses when contacting their instructors. We strive to answer all emails within 24 business hours.

The topics covered in this module will include:

Introduction and overview of banking analytics: CRISP-DM, Analytics problems, designing a data-driven problem-solving strategy in financial institutions.



1	Sept 8 - 12	Intro to Banking Regulation
2	Sept 13 - 19	Bonds and credit instruments
3	Sept 20 - 26	Provisions and capital requirements
4	Sept 27 - Oct 3	CRISP-DM and analytics in banking
5	Oct 4 - 10	Credit scoring and GLM applied in banking I
6	Oct 11 - 17	Credit scoring and GLM applied in banking II
7	Oct 18 - 24	LGD and EAD models Ensembles I
8	Oct 25 - Oct 31	LGD and EAD models Ensembles II
9	Nov 1 - 7	Reading Week. No lectures or activities.
10	Nov 8 - 14	Introduction to deep learning
11	Nov 15 - 21	Convolutions and architecture design I
12	Nov 22 - 28	Convolutions and architecture design II
13	Nov 29 - Dec 5	Convolutions and architecture design III
14	Dec 6 - 8	Model interpretation and transparency



September 8	November 1 - 7	December 8	December 9	December 10 - 21

* Nov 12, 2021: Last day to drop a first-term half course or a first-term full course without penalty

In the event of a COVID-19 resurgence during the course that necessitates the course delivery moving away from face-to-face interaction, all remaining course content will be delivered entirely online, synchronously (i.e., at the times indicated in the timetable). The grading scheme will change. Any remaining assessments will also be conducted online as determined by the course instructor.

Please note a recording of the lecture will be made available in OWL for students who cannot attend the in-person lectures.

There is no assigned textbook for the course. The course incorporates multiple sources, publications, and books that can be used as reference:

Books:

Chollet, F. (2021) Deep Learning with Python, second edition. Manning Publications (last five weeks)

Davison, M. (2017) Quantitative Finance: A Simulation-Based Introduction using Excel. CRC Press 2014 (weeks 1-3)

Siddiqi, N. (2017) Intelligent Credit Scoring: Building and Implementing Better Credit Risk Scorecards, Second Edition. Wiley. (Week 5-6)

Hastie, T., Tibshirani, R. and Friedman, J. (2013) The Elements of Statistical Learning, 10th ed. NJ, USA: Springer. Available freely online at <https://statweb.stanford.edu/~tibs/ElemStatLearn/>. Only some

Verbeke, W., Baesens, B. and Bravo, C. (2017) Profit Driven Business Analytics. Wiley and Sons. Chapter 5 (Week 6 and 8)

Goodfellow, I., Bengio, Y. and Courville, A. (2017) Deep Learning. Freely available online at <http://www.deeplearningbook.org/>: MIT Press.

Thomas, L.C., Crook J.N. and Edelman. (2017) Credit Scoring and Its Applications, 2nd Edition. Philadelphia, PA, USA: SIAM Press.

Students are responsible for checking the course OWL site (<http://owl.uwo.ca>) regularly for news and updates. This is the primary method by which information will be disseminated to all students in the class.

If students need assistance, they can seek support on the [OWL Help page](#). Alternatively, they can contact the [Western Technology Services Helpdesk](#). They can be contacted by phone at 519-661-3800 or ext. 83800.

If students need assistance with the course OWL site, they can seek support on the OWL Help page. Alternatively, they can contact the Western Technology Services Helpdesk. They can be contacted by phone at 519-661-3800 or ext. 83800.

[Google Chrome](#)

We will use either Google Colab

Students should also note that individual instructors are not permitted to receive documentation directly from a student, whether in support of an application for consideration on medical grounds or for other reasons.

For the policy on Academic Consideration for Student Absences – Undergraduate Students in First Entry Programs, see:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_illness.pdf

and for the Student Medical Certificate (SMC), see:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf.

When a course requirement conflicts with a religious holiday that requires an absence from the University or prohibits certain activities, students should request accommodation for their absence in writing at least two weeks prior to the holiday to the course instructor and/or the Academic Counselling office of their Faculty of Registration. Please consult the University's list of recognized religious holidays (updated annually) at

<https://multiculturalcalendar.com/ecal/index.php?s=c-univwo>.

Please note this course is assignment-based so the below would not apply to regular assessment. This could apply however to a make-up exam if necessary.

If you miss the Final Exam, please contact the Academic Counselling office of your Faculty of Registration as soon as you are able to do so. They will assess your eligibility to write the Special Examination (the name given by the University to a makeup Final Exam).

You may also be eligible to write the Special Exam if you have failed a course (e.g., more than 2 exams in a 23-hour period, more than 3 exams in a 47-hour period).

If a student fails to write a scheduled Special Examination, the date of the next Special Examination (if granted) normally will be the scheduled date for the final exam the next time this course is offered. The maximum course load for that term will be reduced by the credit of the course(s) for which the final examination has been deferred. See the Academic Calendar for details (under [Special Examinations](#)).

All recorded sessions will remain within the course site or unlisted if streamed

Please be aware that all course materials created by the instructor(s) are copyrighted and cannot be shared. Those include materials used in tests/quizzes, midterms, and finals. Any posting/sharing of such materials in part or whole without the instructor's consent is considered a violation of the Copyright Act and will be considered a scholastic offence.

In addition, online services such as Chegg are actively monitored. Such an activity will be considered a scholastic offence and will result in an academic penalty.

Please visit the Science & Basic Medical Sciences Academic Counselling webpage for information on adding/dropping courses, academic considerations for absences, appeals, exam conflicts, and many other academic-related matters: <https://www.uwo.ca/sci/counselling/>.

Please contact the course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Accessible Education at (519) 661-2147 if you have any questions regarding accommodations.

Western University is committed to a thriving campus as we deliver our courses in the mixed model of both virtual and face-to-face formats. We encourage you to check out the Digital Student Experience website to manage your academics and well-being: <https://www.uwo.ca/se/digital/>.

Learning-skills counsellors at the Student Development Centre (<http://www.sdc.uwo.ca>) are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling.