

Western University
Faculty of Information and Media Studies

DC 3204F: Search Engines, Web Data Mining, and Analytics
Course Outline, Winter 2023

1. Contact Information

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2. Course Overview & Important Dates

Delivery Mode: In Person: 2 lecture hours, 1 lab hour (Wednesdays 930am-1230pm, Room FNB-1240)

Classes Start	Reading Week	Classes End	Study day(s)	Exam Period
Jan 11	Feb 18-26	Apr 10	April 11-12	April 13-30

* March 7, 2023: Last day to drop a first-term half course or a first-term full course without penalty

OWL site information: <http://owl.uwo.ca>. Any changes will be indicated on the OWL site and discussed with the class.

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, either synchronously (i.e., at the times indicated in the timetable) or asynchronously (e.g., posted on OWL for students to view at their convenience). The grading scheme will not change. Any remaining assessments will also be conducted online as determined by the course instructor.

3. Office Hours

- Office hours will be held remotely using Zoom
- Students will be able to sign up for an appointment using email or Slack

4. Technical or PPE requirements:

Laptop or Computer, Stable Internet Access, Mask

Students will be expected to wear triple layer non-medical masks at all times in the classroom as per university policy and public health directives. Students who are unable to wear a mask for medical reasons should seek accommodation through Accessible Education.

5. Resources

All resources will be posted in OWL. No textbook required.

6. Course Description & Design

This course is broken into three, 4-week modules covering key digital marketing concepts: Search Optimization, Web Analytics, and Search Marketing.

Module 1 covers Search Engine Optimization. Here students will learn about how search engines index and rank digital assets today. On Page SEO Factors such as site speed, meta data, organic clickthrough rate, user experience, structured data, local factors, and more will be covered. Off Page SEO Factors including content development, content amplification and link building will be covered. Students will be able to explain the importance of having a website that is rich in unique, value-added content that answers questions and solves problems.

Module 2 covers Web Analytics. Here students will study live website analytics accounts using the Google Analytics 4 platform. Students will study how key metrics are computed. Students will learn to interpret the metrics to drive decisions related to website user experience, conversion rate optimization, and more. Students will also learn how web analytics platforms gather and report traffic acquisition data. They will be able to identify a website's micro and macro goals and will learn how to set up conversion tracking in a web analytics platform.

Module 3 covers Search Engine Marketing. Here students will study SEM through the Google Ads platform. Students will learn how to create an effective structure for a Google Ads account including the importance of campaign settings. Students will execute keyword research, choose keyword match types, and craft text ads and extensions on behalf of a mock client. Students will also study the importance of bidding, budgeting, ad rank and goal tracking.

FIMS Prerequisite statement: None

Delivery Mode [specify]	Dates	Time	Frequency
Face to face	Wednesdays	930am-1230pm	weekly

- Attendance at face to face or synchronous sessions is required
- Missed work should be completed within 24 hours.
- Students are expected to obtain course material for missed classes by checking OWL and Slack.

All course material will be posted to OWL: <http://owl.uwo.ca>. Any changes will be indicated on the OWL site and Slack and discussed with 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. [Google Chrome](#) or [Mozilla Firefox](#) are the preferred browsers to optimally use OWL; update your browsers frequently. Students interested in evaluating their internet speed, please click [here](#).

7. Learning Outcomes

Upon successful completion of this course, students will be able to:

- complete a technical SEO audit
- complete a website backlink analysis
- create a link building plan for a website
- craft a website content building plan
- navigate the Google Analytics 4 interface
- explain Google Analytics 4 dimensions and metrics
- interpret web analytics data & draw meaningful conclusions
- outline website conversion tracking events and conversions
- complete a keyword research plan for a search marketing campaign
- craft effective search marketing ads and assets
- measure the success of a search marketing campaign

8. Course Content & Schedule

WEEK	MODULE	TOPIC	ACTIVITIES/ASSIGNMENTS
Week 1 W Jan 11	1	SEO – Tech SEO & User Testing	SEO Audit Project Begins. The project template is introduced and students will be assigned to their mock client that will also be used for the Search Marketing project. Students should complete the Tech SEO portion of the audit template.
Week 2 W Jan 18	1	SEO – Content Development & Amplification	Students should complete the Content Development & Amplification portion of the audit template.
Week 3 W Jan 25	1	SEO – Link Building	Students should complete the Link Building portion of the audit template.
Week 4 W Feb 1		SEO – Final Work on the SEO Audit Project SEO Audit Project Due to OWL Sunday Feb 5 @ 11:55pm	
Week 5 W Feb 8	2	Web Analytics – Navigating the Google Analytics 4 (GA4) interface, Metrics, Events, ConversionTracking, Secondary Dimensions	Students will be given access to the live Google Analytics master account to be used in this module. Web Analytics Quiz 1 Available on OWL Due Sunday Feb 12 @ 11:55pm

WEEK	MODULE	TOPIC	ACTIVITIES/ASSIGNMENTS
Week 6 W Feb 15	2	Web Analytics – User Reports	Web Analytics Quiz 2 Available on OWL Due Tuesday Feb 28 @ 11:55pm
W Feb 22		Reading Week - No Class	
Week 7 W Mar 1	2	Web Analytics – Acquisition Reports	Web Analytics Quiz 3 Available on OWL Due Sunday Mar 5 @ 11:55pm
Week 8 W Mar 8	2	Web Analytics – Pages & Screens Reports	Web Analytics Quiz 4 Available on OWL Due Sunday Mar 12 @ 11:55pm
Week 9 W Mar 15	3	SEM – Google Ads Account Structure, Campaign Settings	Students will each create their own mock Google Ads account.
Week 10 W Mar 22	3	SEM – Keyword Research, Match Types, Ad Groups	Students begin work on their mock client project using the same client assigned earlier in the course.
Week 11 W Mar 29	3	SEM – Ads & Assets	
Week 12 W Apr 5	3	SEM – Quality Score, Ad Rank, Bidding, Budgeting	SEM Mock Client Project Due to OWL Sunday Apr 9 @ 11:55pm

WEEK	MODULE	TOPIC	ACTIVITIES/ASSIGNMENTS
Exam Period		<p>Students must complete the following Google Certification Exams through Google's Skillshop.</p> <p>Students should sign up for an account with their personal Gmail address.</p> <p>Students can write each exam as many times as they like at no cost until happy with their grade.</p> <p>Links to the 2 exams needed for this course: Google Analytics Certification https://skillshop.exceedlms.com/student/path/508845/activity/845864</p> <p>Google Ads Search Certification https://skillshop.exceedlms.com/student/path/18128-google-ads-search-certification</p>	<p>After students are content with their grade, they should take a screenshot that includes their name, the name of the exam, and their grade as issued by Google and submit to OWL</p> <p>Both exams Due no later than Sunday Apr 16 @ 11:55pm</p>

9. Evaluation

1	SEO Audit Project Deck (PPT, Google Slides, Canva)	35%	Sunday Feb 5
2	Google Analytics Quizzes OWL Online Open Book Quiz	20% (4 x 5% each)	Quiz 1: Sunday Feb 12 Quiz 2: Tuesday Feb 28 Quiz 3: Sunday Mar 5 Quiz 4: Sunday Mar 12
3	Google Ads Client Project Spreadsheet (.xls or Google sheets)	25%	Sunday Apr 9

Final Exam Period	Google Certification Tests Online Open Book Test through Google's Skillshop	20% (2 x 10% each)	Sunday Apr 16
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Unless otherwise noted, all deadlines are at 11:55pm.

Written assignments will be submitted to Turnitin.

Rubrics will be used to evaluate assessments and will be posted with the instructions.

After an assessment is returned, students should wait 24 hours to digest feedback before contacting their evaluator; to ensure a timely response, reach out within 7 days.

Click [here](#) for a detailed and comprehensive set of policies and regulations concerning examinations and grading. The table below outlines the University-wide grade descriptors. Detailed FIMS specific descriptors are included in the Notes from the Dean's Office appended to this syllabus.

A+	90-100	One could scarcely expect better from a student at this level
A	80-89	Superior work which is clearly above average
B	70-79	Good work, meeting all requirements, and eminently satisfactory
C	60-69	Competent work, meeting requirements
D	50-59	Fair work, minimally acceptable
F	below 50	Fail

Information about late or missed evaluations:

Late assessments without academic consideration will be subject to a late penalty 5 %/day.

Late assessments with academic consideration require the student to work with the Academic Advising unit in their Faculty of registration; once that has been approved, students need to contact the instructor to arrange for an alternate submission date.

For work worth 10% or less, students should contact the instructor directly about how to make up missed work.

A make-up test will be offered. If a make-up assessment is missed, the student will receive an INC and complete the task the next time the course is

offered.

10. Participation & Engagement

Students are expected to participate and engage with content as much as possible during class by answering questions, offering solutions, and completing in class assignments. Students can participate during live sessions.

11. Communication

Students should check the OWL site every 24 – 48 hours.

Students should email their instructor using OWL “messages” or Slack.

Emails will be monitored daily during the week; students will receive a response in 24-48 hours.

This course will use Slack for discussions. Students should post all course-related content on the appropriate Slack channel so that everyone can access answers to questions

12. Professionalism & Privacy

Western students are expected to follow the [Student Code of Conduct](#). Additionally, the following expectations and professional conduct apply to this course:

Students are expected to follow online etiquette expectations provided on OWL.

All course materials created by the instructor(s) are copyrighted and cannot be sold/shared.

Recordings are not permitted (audio or video) without explicit permission.

Permitted recordings are not to be distributed.

Students may be expected to take an academic integrity pledge before some assessments.

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

13. How to Be Successful in this Class

Students enrolled in this class should understand the level of autonomy and self-discipline required to be successful.

1. Invest in a planner or application to keep track of your courses. Populate all your deadlines at the start of the term and schedule time at the start of each week to get organized and manage your time.
2. Make it a daily habit to log onto OWL to ensure you have seen everything posted to help you succeed in this class.
3. Follow weekly checklists created on OWL or create your own to help you stay on track.
4. Take notes as you go through the lesson material. Treat this course as you would a face-to-face course. Keeping handwritten notes or even notes on a regular Word document will help you learn more effectively than just reading or watching the videos.
5. Connect with others. Try forming an online study group and try meeting on a weekly basis for study and peer support.
6. Do not be afraid to ask questions. If you are struggling with a topic, check the online discussion boards or contact your instructor(s) and or teaching assistant(s).
7. Reward yourself for successes. It seems easier to motivate ourselves knowing that there is something waiting for us at the end of the task.
8. FIMS Undergraduate Services (fims@uwo.ca) and [Western Student Experience](#) are resources to help students succeed.

NOTES FROM THE FIMS DEAN'S OFFICE

Winter 2023

Rights and Responsibilities

The conditions governing a student's ability to pursue their undergraduate education at Western are ratified by Senate and can be found on the Academic Policies section of the University Secretariat:

http://www.uwo.ca/univsec/academic_policies/rights_responsibilities.html

Statement on Academic Offences

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site:

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

Plagiarism

Students must write their essays and assignments in their own words. Whenever students take an idea, or a passage from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as footnotes or citations. Plagiarism is a major academic offence.

All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software Turnitin under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system.

Accommodation Policies

Academic Accommodation

Students with disabilities work with [Accessible Education \(AE\)](#) which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing.

Medical Consideration

Students who have medical grounds for academic consideration for any missed tests, exams, participation components and/or assignments worth **10% or more of their final grade** must apply to the Academic Counselling office of their home Faculty (for FIMS students this is [Undergraduate Student Services](#)).

Students are required to provided

documentation in the form of a [Student Medical Certificate](#). It will be the Dean's Office that will determine if consideration is warranted.

For work worth less than 10% of the final grade, the instructor will consider requests for academic consideration on medical grounds made in a timely manner in writing or during office hours. Such requests need not be accompanied by documentation. The instructor may decide to require documentation be submitted to the appropriate Academic Counselling office.

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. **All documentation must be submitted to the Academic Counselling office of a student's home Faculty.**

Compassionate Accommodation

Academic accommodation (extensions, makeup tests and exams, additional assignments etc.) may be given to students on compassionate grounds. The situations for which compassionate accommodation can be given must be serious, including significant events such as death in the immediate family, trauma (fire, robbery, harassment, muggings, car accidents, etc.) or emergency situations. Documentation is required.

If a member of your immediate family is seriously ill, obtain a medical certificate from the family member's physician and submit the documentation to your Academic Counsellor.

If you have been involved in a severe accident, fire, or some other exceptional crisis, obtain a copy of the police report or be prepared to provide the necessary documentation upon request.

Generally, for deaths within a student's immediate family (parents, guardians, caregivers, siblings, spouses), bereavement leave is granted, upon provision of documentation. For deaths within a student's extended family, academic accommodation is given for one to three days, upon provision of documentation. Students seeking additional bereavement leave should contact their Academic Counsellors with valid documentation.

Religious Accommodation

Students should consult the University's list of recognized religious holidays, and should give reasonable notice in writing, prior to the holiday, to the Instructor and an Academic Advisor. Additional information is given in the [Western Academic Calendar](#).

Gender-Based and Sexual Violence

Western [is committed to reducing incidents of gender-based and sexual violence](#) and providing compassionate support to anyone who has gone through these traumatic events. If you have experienced sexual or gender-based violence, you will find information about support services for survivors, including emergency contacts, [here](#). The gender-based violence and survivor support case managers are located in Thames Hall (3114-3127 office suite.) To connect with a case manager or set up an appointment, please contact support@uwo.ca.

Support Services

Students who are in emotional/mental distress should refer to [Health and Wellness](#) for a complete list of supports.

SUPPORT SERVICES - LINKS

[FIMS UGSS](#): *academic advising; career services*

[Psychological Services](#): *Information about accessing mental health supports*

[Medical Services](#): *Student health related services*

[Office of the Registrar](#): *Financial Information, Timetable, Exam Schedules, Academic Calendar Information*

[Academic Support and Engagement](#): *Central Academic Supports, including Writing Centre, Learning Development, Transition and Leadership Supports, and Careers and Experience*

[Accessible Education](#): *Assessment and recommendations for students with disabilities*

[Accessibility Information](#): *Information to help support barrier free access, including floor plans, accessible washroom locations, service disruptions etc.*

[Indigenous Student Services](#): *Includes information about financial support, indigenous self-identification, orientation, and tutor support*

[Western International](#): *Information and support for international students and students seeking to go on exchange*

FIMS Grading Policy

FIMS Undergraduate programs now have the following class average policy:

First year courses required for entry into an MIT or MPI module (MIT 1020E and MIT 1025F/G) are expected to have a course average between 68-72%.

Second year required courses (MIT 2000, 2025, 2100, 2200, 2500) are expected to have a course average between 70 and 75%. The third year required (MIT 3100) is expected to have a course average between 72 and 77%.

Elective courses and 4th year seminars have no recommended course averages.

Appendix A: Suggested Grade Ranges in MIT, MPI and MTP

Guidelines to the MIT Grade Range

These guidelines are benchmarks, and are not to be followed as rigid regulations. They will be adjusted as appropriate to take into account the level of the course and any specific instructions given by a professor. As well, competency in English language usage (including spelling and grammar) may be taken into account in the assignment of grades by individual instructors. Note that the 70-79 grade range is broken into two divisions, as this is the grade range into which a large number of students fall.

90-100 (Outstanding, A+)

The report shows sparkling originality and exhibits a high degree of critical analysis of the topic. Sophisticated synthesis and analysis of the theoretical and conceptual dimensions of the topic are demonstrated. Mastery of complex material and ideas is immediately evident. The topic is treated with sensitivity and subtlety of thought. The quality of the writing and background research is exemplary.

80-89 (Excellent, A)

The report shows originality and exhibits a high degree of critical analysis of the topic; it gets to the heart of the matter with comments and/or questions. It is clearly focused and logically organized. The quality of writing makes the report immediately understandable. Mastery of complex material and ideas is demonstrated. The report is of appropriate length, while preserving the priorities and emphasis of the material, so that the result is meaningful, not simplistic.

75-79 (Very Good, B+)

The report shows above average analysis, critical thinking and independent thought. Claims are supported by ample evidence and the components of the topic are well-researched and presented. The topic is addressed in reasonable depth and/or breadth and covers material appropriate to the course. The analysis is organized around focal points and the argument is easily followed. The report demonstrates an above average ability to write in an intelligible style and to condense material meaningfully and with a concern for priorities of that material.

70-74 (Good, B)

The report shows an attempt at analysis and critical thinking. Claims are supported by reasonable evidence. The topic is addressed in some depth and/or breadth, with references to the appropriate literature and course material. The analysis is organized around focal points. The report is generally well written and well argued.

60-69 (Competent, C)

The report demonstrates adequate comprehension of the topic. The report is on topic and is a reasonable summary of material covered in the course, but goes no further. Facts are stated accurately; the quality of writing is sufficiently intelligible with enough elaboration and enough connections made between ideas to permit a reader to understand the point of the report.

50-59 (Marginal, D)

The report shows less than adequate comprehension of the topic and of the material covered by the course. The report is a less than adequate summary of sources and/or is considerably off-topic. Facts are stated inaccurately or ambiguously; the writing style is difficult to follow; there is insufficient elaboration to permit reader's comprehension of relations among ideas; little judgment is shown in selecting detail for inclusion in the report.

Below 50 (Unacceptable, F)

The report demonstrates a failure to comprehend the topic. The material is disorganized and unintelligible. The report clearly does not meet the minimal requirements of the assignment.

Appendix B: Guidelines of Academic Appeals for FIMS Students

Grounds for Appeal:

The Faculty of Information and Media Studies does not view the appeals process as an opportunity for students to solicit a second opinion on a grade assigned to a particular piece of work. Appeals must pertain to the final grade in a course, and will only be entertained if sufficient grounds for appeal can be met, including: medical or compassionate circumstances, a defect in the evaluation process, bias, inaccuracy or unfairness.

Stages in the Appeals Process:

The first stage of the process is a discussion of the disputed grade with the appropriate Teaching Assistant (if applicable), and subsequently, the course Instructor. For grades assigned to individual assignments, essays, lab reports, projects and tests completed throughout the term, the student first must appeal to the Teaching Assistant or Instructor of the course, within three weeks of the date on which the Instructor or Teaching Assistant returned the assignments to the class. The Appeals Committee will not hear any further appeals about the final grade in any course unless this first step has been taken.

If completion of the first stage has not resolved the matter, the student may appeal the final grade in the course to the FIMS Appeals Committee. Appeals of final grades must be **within the time frame indicated in the Undergraduate Calendar.** It is the student's responsibility to ensure that the appeal is submitted within the deadline. The student shall submit a formal letter to the FIMS Appeals Committee outlining the grounds for the appeal, the remedy sought and relevant materials including the information about when and with whom (Teaching Assistant and/or Instructor) the student met, as described in Stage 1. If the appeal involves a request for work to be regraded, the original marked work and a clean copy (if possible) must be included. If the appeal is commenced once the deadline has passed, it will not be considered either by the Appeals Committee or by the Associate Dean.

The FIMS Appeals Committee has the discretion to determine whether the grounds for appeal have been met.

If the Committee deems that the reasons for the appeal are not legitimate, the Associate Dean will be informed. The appeal will be terminated and the student will be informed.

If the Committee decides that the grounds for appeal have been met, the following steps will be taken:

1. the course Instructor will be shown the appeal letter and offered an opportunity to make a written response;
2. if work is to be regraded, a reader will be appointed who is competent in the area in question and was not involved in the assignment of the original mark. The reader will consider the work in question and will arrive at an independent evaluation. If there is a large discrepancy between the original mark and the regraded mark, a second reader may be appointed by the Committee. **If the appointed reader(s) arrive at a grade within five marks of the original, the original grade will stand.**

The FIMS Appeals Committee will review the evidence and will make a recommendation on the case to the Associate Dean Undergraduate.

The Associate Dean Undergraduate will consider the recommendation from the Appeals Committee, and will make a decision. The student and the instructor will be notified promptly and in writing by the Associate Dean of the decision and of the change in grade, if any. Within the Faculty of Information and Media Studies, the Associate Dean's decision on the matter is final.

Further appeals are possible under certain circumstances to the Senate Review Board Academic (for Undergraduate students) or to the Faculty of Graduate Studies (for Graduate students) but the student should carefully consult the guidelines regarding such Appeals.