

Course Outline

Course Code	RSM 417 H1 F
Course Name	Supply Chain Analytics
Term, Year	Fall, 2024
Course Meets	Mondays from 11am to 1pm in WO 25
Web page URL	https://q.utoronto.ca

Instructor Details

Name	Email	Phone	Office Hours	Virtual Office Link
Paul Jan	paul.jan@rotman.utoronto.ca	416-273-8498	Mondays 1 – 3PM LL1019	

Course Description

This course examines the role of the management consultant in the context of supply chain functions and how the consulting industry leverages analytics to enhance the effectiveness of the organizations it serves. From an internal perspective, the course examines what it means to act as an external advisor, what skills are necessary to excel as a supply chain consultant, and how to engage and assist clients to reach their goals successfully. The learning pedagogy is simple - students learn by doing. Through the Collaborative Consulting Projects (CCP) framework developed by Professor Jan, the students gain real-world experience by working with a company in North America to investigate and solve their supply chain challenges. Emulating the skills necessary to be a successful consultant, this course will aid in the development of problem-identification and solving abilities, communication and influencing skills, and introduce a project-based management mindset. These components lead to success in the consulting marketplace by balancing formal processes, methodologies, and models with the spontaneous creativity of a high-performance team, which manifests as true innovation for clients and firms alike.

By following the consulting lifecycle, course participants will learn the nuances of the consulting business, from uncovering issues to framing problems, analyzing issues, presenting recommendations, and planning for the ever-important “Phase 2”. Students will see the industry from both perspectives, as future consultants on a career path to partner and as future industry managers maximizing external resources. The course’s 50:50 mix of lecture and in-depth case analysis will put traditional strategic, process, & functional analyses into practice while taking on the role of innovative consultant.

This course broadens students’ knowledge from prior Operations Management courses, such as RSM270 and RSM370, how and when to apply concepts learned in these classes, and how to bridge the gaps between theories and practices at the partnering company. This course also deepens students’ understanding of demand and supply planning processes, their accountability and reporting structure, and their importance to the overall health of a company’s supply chain.

In this course, students also learn how to use analytic tools, such as Excel and Envision (Python-like high-level programming language made specifically for solving supply chain challenges), to process and analyze enterprise data. Students learn to apply advanced technology to stochastic events and how to interpret and draw insights from the analytic outputs.

This course covers the actions of the consultant, consulting competencies, the profession of consulting and supply chain management, consulting and supply chain careers, interactions with clients, and professional service firms. It is NOT a consulting or supply chain survey course, but rather more analogous to the multi-course offerings of more traditional business disciplines "rolled into one."

Learning Outcomes

By the end of this course, students will be able to:

- *Execute an assessment project on a company's supply chain operation*
- *Determine the effectiveness of an organization's planning process*
- *Possess the ability to start an analytic project in the supply chain field*
- *Demonstrate the ability to work with large amounts of data from different areas of a company's operation*
- *Possess an understanding of stochastic events and how predictive technologies work in these situations*

Course Co-requisite

You must take RSM370 concurrently with this course or you must have completed it prior to starting this course. If you are taking it concurrently and drop RSM370 anytime during the semester, you must also drop this course.

Course Materials

Required Readings

Supply Chain Management [1]: <https://www.lokad.com/supply-chain-management-definition/>
Sales and Operations Planning [2]: <https://www.lokad.com/sales-and-operations-planning/>
Bill of Material (BOM) [3]: <https://www.lokad.com/bill-of-materials-bom/>
Probabilistic forecasting [4]: <https://www.lokad.com/probabilistic-forecasting-definition/>
Time Series [5]: <https://www.lokad.com/time-series-supply-chain/>

Electronic Course Materials

This course will be using the following electronic course materials:

Supply chain-related materials:

- Lokad technical documentation (<https://docs.lokad.com/>)
- Lokad functional documentation (<https://www.lokad.com/learn/>)

Evaluation and Grades

Grades are a measure of the knowledge and skills developed by a student within individual courses. Each student will receive a grade on the basis of how well they have command of the course materials, skills and learning objectives of the course.

Work	Percentage of grade	Due Date
Class Participation	25%	Ongoing
Weekly Status Reports	15%	Ongoing; due before each lecture
Reading Reports	10%	Ongoing; due before lecture
CCP	50%	Ongoing; final report due Dec 8, 2024

Course Format and Expectations

This course is a co-curriculum course where the majority of the learnings come from live interactions with the client stakeholders and the instructors, from reviewing the meetings and events each week, and from actively thinking about the cases we read and the problems we are solving. This is not a lecture and assignment-based course. The majority of your mark will come from interactions with others. Students can expect the following the following measurable learning objectives:

1. Actively participate in all the in-class and client meetings. Simply “showing up” to lectures or other meetings is not enough. Students must contribute views and insights or ask thoughtful questions in all interactions.
2. Be professional in all interactions with the client stakeholders and the instructor. This includes being thoughtful of the client’s schedule and willing to learn to work as a team to accomplish the tasks at hand.
3. Exhibit ability to plan and execute a mini consulting project. This may include but is not limited to developing a proposal, conducting analyses, putting together spreadsheet models, coding and reporting, providing updates in meetings, and delivering the final presentation.

Grades will be a function of student’s success on the activities noted above (and described below in more detail) to ensure a fair and objective assessment of performance.

It is expected that successful participants will have also achieved the following learning milestones by completion of this course:

- Applied cross-functional skills to guide the client to make sound decisions in the planning and execution of the supply chain project.
- Learned several new analytical techniques used by professionals in strategy consulting and business advisory services.
- Analyzed and evaluated various aspects of several case organizations, their competition, their business issues, their context, and related tactical options
- Developed client issue responses, decided among alternatives, and created implementation plans to ensure project success, client satisfaction, and firm profitability.
- Created innovative “visions for the future” for each case, including how the marketplace might evolve, what products/services will be like, what the consultant can do to assist in preparing for that future, and what they can do to “shape their destiny,” drive thought ware development, and gain market eminence.

- Presented the results of their analyses and decision-making to their peers in an executive-style client summary.
- Understand the use of these techniques in real-life settings, as demonstrated by consulting guest speaker(s).
- Enhanced communication skills by clearly and concisely sharing complex information with their peers.

Achieving the additional learning milestones will be evaluated as part of the participation grade and the overall quality of case analyses and recommendations made during class cases, quizzes, final exam, and the assignments.

A proposal and project work plan are due to the Professor, submitted to the appropriate assignment on Quercus, by September 29, 2024. A status report (written and oral) is due each week.

Writing Assignments or Presentations

Status reports are intended to help you develop your communication skills. How well you communicate your ideas, in writing or orally, will be considered in the evaluation of the assignment. In your written assignments, you should aim for clarity, strong organization, concision, professionalism, and correct grammar. Your presentations should reflect strong planning and organization, clarity of speech, and an engaging demeanour. Sources, whether in written or presentation assignments, should always be correctly attributed.

Support is available through the RC Centre for Professional Skills (CPS) for students who would like help or feedback on their writing or speaking (presentations). CPS offers both individual and group appointments with trained writing instructors and presentation coaches who are familiar with the RC program and common types of business assignments. You can also access your college Writing Centres for help with written assignments.

You can book an appointment with a writing or presentation coach through the RC Centre for Professional Skills Writing Centre. For more information about writing centres, student supports, and study resources, see the [Writing and Presentation Coaching academic support page](#).

Team or Group Assignments

CCP requires students to work in teams of 5. Learning to work together in teams is a crucial transferrable skill you will use not only in your coursework, but also in your future careers. Support is available if you encounter common teamwork challenges such as:

- Team members feeling left out of the team.
- Team members not responding in a timely manner to communication.
- Division or quality of work among team members being unequal or unfair.

Consult the [Centre for Professional Skills Teamwork Resources page](#) for tips, strategies, and best practices. You can also [book an appointment with a teamwork mentor](#) through the RC Centre for Professional Skills Writing Centre. Teamwork mentors can help you resolve or mitigate conflict, strategize on planning, or improve team communication.

If you are a student registered with Accessibility Services, and extensions are one of your academic accommodations, consult with your Accessibility Advisor about the teamwork in this course.

Class Participation

Students are expected to prepare thoroughly and make every effort to attend every class. As class participation is a graded component of the course, students will be evaluated on the following:

- Thoughtful responses
- Understanding and analysis of topic
- Idea generation
- Feedback to peers or guest speaker (if applicable)
- Promoting further discussion
- Respectful active listening
- Attentiveness

While attendance is necessary for students to participate in class discussions, attendance on its own will not earn students any participation grade. Students must actively contribute and participate by exhibiting the components listed above.

Missed Assignments

Since a live project will be executed throughout the course of the semester, there will be no exceptions for late status reports. Students need to work as a group to get this done in writing and come to class for the in-class presentation and discussion. Students failed to work as a team will not earn the equivalent mark of the peers in the same group.

Students who miss a term test or assignment for reasons entirely beyond their control (e.g. illness) may request special consideration **within 1 business day** of the missed midterm/test/assignment due date.

In such cases, students must:

1. Complete the Request for Special Consideration form: <https://uoft.me/RSMConsideration>
2. Provide documentation to support the request, eg. Absence Declaration from [ACORN](#), medical note etc.

Please note: As of September 2023, students may use the Absence Declaration on ACORN ***one time per term*** to report an absence and request consideration. **Any subsequent absence will require a [Verification of Illness form](#) or other similar relevant documentation.**

Students who do not submit their requests and documentation within 1 day may receive a grade of 0 (zero) on the missed course deliverable.

Late Assignments

Please see details in the Missed Assignment section. As a group, there is no exception for late status reports. If a team member has special situation that prevent him/her from contributing to the weekly status update (written and oral), this must be first communicated to the group and communicated and discussed with the instructor.

Statement on Equity, Diversity and Inclusion

The University of Toronto is committed to equity, human rights and respect for diversity. All members of the learning environment in this course should strive to create an atmosphere of mutual respect where all members of our community can express themselves, engage with each other, and respect one another's differences. U of T does not condone discrimination or harassment against any persons or communities.

Commitment to Accessibility

The University is committed to inclusivity and accessibility, and strives to provide support for, and facilitate the accommodation of, individuals with disabilities so that all may share the same level of access to opportunities and activities offered at the University.

If you require accommodations for a temporary or ongoing disability or health concern, or have any accessibility concerns about the course, the classroom or course materials, please [email Accessibility Services](#) or visit the [Accessibility Services website](#) for more information as soon as possible. Obtaining your accommodation letter may take up to several weeks, so get in touch with them as soon as possible. If you have general questions or concerns about the accessibility of this course, you are encouraged to reach out to your instructor, course coordinator, or Accessibility Services.

Generative AI / ChatGPT

You are welcome to use generative AI to assist you in your research and to further understand the subject matter. However, please do everything possible to verify the facts and numbers you gathered from online sources, including generative AI. Please **DO NOT REPEAT OR WRITE WHAT YOU READ ON GENERATIVE AI BACK TO THE CLIENT VERBATIM**. You may look foolish for doing so, as the client may pick apart your analysis or argument if you do not have a solid understanding or foundation of the analysis and information presented.

Academic Integrity

Academic Integrity is a fundamental value essential to the pursuit of learning and scholarship at the University of Toronto. Participating honestly, respectfully, responsibly, and fairly in this academic community ensures that the U of T degree that you earn will continue to be valued and respected as a true signifier of a student's individual work and academic achievement. As a result, the University treats cases of academic misconduct very seriously.

[The University of Toronto's Code of Behaviour on Academic Matters](#) outlines the behaviours that constitute academic misconduct, the process for addressing academic offences and the penalties that may be imposed. You are expected to be familiar with the contents of this document. Potential offences include, but are not limited to:

In papers and assignments

- Using someone else's ideas or words without appropriate acknowledgement.
- Submitting your own work in more than one course without the permission of the instructor.
- Making up sources or facts.
- Obtaining or providing unauthorized assistance on any assignment (this includes collaborating with others on assignments that are supposed to be completed individually).

On test and exams

- Using or possessing any unauthorized aid, including a cell phone.
- Looking at someone else's answers.
- Misrepresenting your identity.
- Submitting an altered test for re-grading.

Misrepresentation

- Falsifying institutional documents or grades.
- Falsifying or altering any documentation required by the University, including (but not limited to) medical notes.

All suspected cases of academic dishonesty will be investigated by the procedures outlined in the [Code of Behaviour on Academic Matters](#). If you have any questions about what is or is not permitted in the course, please do not hesitate to contact the course instructor. If you have any questions about appropriate research and citation methods, you are expected to seek out additional information from the instructor or other U of T or RC resources such as the RC Centre for Professional Skills, the College Writing Centres or the Academic Success Centre.

Email

At times, the course instructor may decide to communicate important course information by email. As such, all U of T students are required to have a valid UTmail+ email address. You are responsible for ensuring that your UTmail+ email address is set up and properly entered on ACORN. For more information visit the [Information Commons Help Desk](#).

Forwarding your utoronto.ca email to a Gmail or other type of email account is not advisable. In some cases, messages from utoronto.ca addresses sent to Gmail accounts are filtered as junk mail, which means that important messages from your course instructor may end up in your spam or junk mail folder.

Recording Lectures

Lectures and course materials prepared by the instructor are considered by the University to be an instructor's intellectual property covered by the Canadian Copyright Act. Students wishing to record a lecture or other course material in any way are required to ask the instructor's explicit permission and may not do so unless permission is granted. Students who have been previously granted permission to record lectures as an accommodation for a disability are exempted. This includes tape recording, filming, photographing PowerPoint slides, Quercus materials, etc.

If permission for recording is granted by the instructor (or via Accessibility Services), it is intended for the individual student's own study purposes and does not include permission to "publish" them in any way. It is forbidden for a student to publish an instructor's notes to a website or sell them in any other form without formal permission.

Weekly Schedule

Session	Date	Topic	Readings & Tasks	Assignments
1	Sep 9, 2024	Overview and Expectations, S&OP I		<ul style="list-style-type: none"> • Complete questionnaire • Lokad readings 1 – 3, summary due Sept 15
2	Sep 16, 2024	S&OP II, Initial Engagement with Client	<ul style="list-style-type: none"> • Develop interview guide 	<ul style="list-style-type: none"> • Project plan • Interview guide
3	Sep 23, 2024	Envision I, Demand Planning	<ul style="list-style-type: none"> • Maple Leaf Intro • Schedule Interviews with stakeholders • Study MLF S&OP Process Maps 	<ul style="list-style-type: none"> • Announce project team • Synthesize MLF S&OP • Lokad readings 4 – 5, summary due Sept 29 • Project Plan due Sept 29
4	Sep 30, 2024	Envision II, Supply Planning	<ul style="list-style-type: none"> • Develop high-level customer, supplier, and lead-time analysis • Conduct interviews (demand planning) 	<ul style="list-style-type: none"> • Interviews summary • Synthesize analysis • Refine hypothesis
5	Oct 7, 2024	Customer, Supplier, and Leadtime Analysis	<ul style="list-style-type: none"> • Conduct interviews (supply planning) • Refine hypothesis as necessary 	<ul style="list-style-type: none"> • Interviews summary • Synthesize analysis • Refine hypothesis
	Oct 14, 2024	Thanksgiving, No Class	<ul style="list-style-type: none"> • Conduct interviews (S&OP leaders and others) • Put together Mid-Point Review 	<ul style="list-style-type: none"> • Develop mid-point review presentation
6	Oct 21, 2024	Mid-Point Review	<ul style="list-style-type: none"> • Mid-point review (in-class presentation and discussion) 	<ul style="list-style-type: none"> • Refine/update project approach
	Oct 28, 2024	Reading Week		
7	Nov 4, 2024	S&OP Decision Points	<ul style="list-style-type: none"> • Conduct interviews (manufacturing leaders) • Wrap-up stakeholder interviews • Put together initial draft of insights 	<ul style="list-style-type: none"> • Interviews summary • Synthesize analysis • Refine hypothesis
8	Nov 11, 2024	Final Presentation Prep – The Nuggets	<ul style="list-style-type: none"> • Wrap up analysis • Refine insights 	<ul style="list-style-type: none"> • Put together presentation for stakeholder preview
9	Nov 18, 2024	Final Presentation Prep – The Content	<ul style="list-style-type: none"> • Preview insights with stakeholders • Confirm findings 	<ul style="list-style-type: none"> • Update presentation, analysis, and insights
10	Nov 25, 2024	Final Presentation Prep - Delivery	<ul style="list-style-type: none"> • Finalize insights and recommendations 	<ul style="list-style-type: none"> • Final presentation
11	Dec 2, 2024	Final Presentation, Wrap Up		

Please note that the last day you can drop this course without academic penalty is November 4, 2024.

Other Useful Links

- [Become a volunteer note taker](#)
- [Accessibility Services Note Taking Support](#)
- [Credit / No-Credit in RSM courses](#)
- [Rotman Commerce Academic Support](#)
- [Where to find teaching assistant opportunities](#)

URL links for print

- ACORN: <http://www.acorn.utoronto.ca/>
- Email Accessibility Services: accessibility.services@utoronto.ca
- Accessibility Services website: <http://studentlife.utoronto.ca/as>
- University's Plagiarism Detection Tool FAQ: <https://uoft.me/pdt-faq>
- The University of Toronto's Code of Behaviour on Academic Matters: <http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>
- Information Commons Help Desk: <http://help.ic.utoronto.ca/category/3/utmail.html>
- Become a volunteer note taker: <https://studentlife.utoronto.ca/program/volunteer-note-taking/>
- Accessibility Services Note Taking Support: <https://studentlife.utoronto.ca/service/note-taking-support/>
- Credit / No-Credit in RSM courses: <https://rotmancommerce.utoronto.ca/current-students/degree-requirements/credit-no-credit-option/>
- Rotman Commerce Academic Support: <https://rotmancommerce.utoronto.ca/current-students/academic-support/>
- Book an appointment with a writing or presentation coach: <http://uoft.me/writingcentres>
- Writing and Presentation Coaching academic support page: <https://rotmancommerce.utoronto.ca/current-students/academic-support/writing-and-presentation-coaching/>
- Centre for Professional Skills Teamwork Resources page: <https://rotmancommerce.utoronto.ca/teamwork-resources>
- Book an appointment with a Teamwork Mentor: <http://uoft.me/writingcentres>