



**The University of Michigan  
Ross School of Business**

Course Syllabus

**Management Consulting Capstone  
Technology and Operations 465**

Winter 2024

Mondays and Wednesdays

Section 1 – 1:00-2:20; Section 2 – 2:30-3:50

Instructor: Jeff Sinclair  
Classroom: Blau B0570  
Office: Ross 3434  
E-mail: [icsinc@umich.edu](mailto:icsinc@umich.edu)

### **Course Overview**

TO 465 is an action-based learning professional capstone that simulates a current day management consulting engagement. Students are organized into teams and cast in the role of management consultants advising executives at Velocity Avionics on the actions they should take to transform the performance of their business. Students discover information about the company and its leaders, customers, and competitors through interviews and workshops with client executives, company documents and financial statements, market and competitor research, and engagement team meetings. Students experience the classroom in a new way as it is transformed into the client site where they work together as a project team serving their client. They personally experience how a consulting engagement is scoped, managed, and carried out by today's leading management consulting firms.

As a capstone course, students are expected to lever their past coursework and experience to take initiative in refining and completing assignments. They are expected to act as professional consultants, with far less prescriptive instruction than they will have experienced in most of their prior academic courses. This level of autonomy requires students to confront and manage ambiguity and challenge themselves. They must think on their own and contribute to the success of their engagement team, leveraging their instructor as an experienced team member and coach, much as they would work with the engagement partner in an actual consulting engagement. The design of the course provides the students the opportunity to appreciate the realities of serving clients in the management consulting profession as it operates today.

The Velocity Avionics case is set in 2024. Velocity is a mid-sized aviation electronics – known as “avionics” – supplier serving the commercial aviation industry. They are in the midst of a turnaround following the downturn in their business caused by the combined impacts of the Covid-19 pandemic on air travel and Boeing's production interruptions caused by the 737 Max catastrophe and 787 Dreamliner supply chain bottlenecks and quality concerns. Prior to the pandemic, Velocity's management realized that their operating issues and slow pace of innovation were limiting their growth and running their profit margins into the ground. After some initial success addressing these challenges, management had grown optimistic that it

had the vision, resources, and leadership to turn around the company's performance. And then Covid hit with a devastating impact on top-line revenue and bottom-line profitability due to the massive cutbacks in the commercial aviation industry – existing aircraft don't need to be maintained and new ones don't need to be built when airlines aren't flying. Management's pre-pandemic optimism was shattered.

In 2022 and 2023 the company engaged TO 465 consultants to design and launch an operational transformation to save the company. The engagements were very successful, and Velocity's performance improved significantly. But the turnaround is not yet complete. So, the company has engaged the TO 465 consultants again (this year's class) to conduct a follow-on assignment to assist in the design and launch of a growth strategy to capitalize on the work from the last two years and to drive additional value creation for customers, employees, and shareholders. The company's executive management team is seeking to capitalize on their newfound operational capabilities, develop and commercialize new technologies and products, explore entry into new aviation segments, and perhaps enter new markets altogether to thrive once again in the aviation industry. The owners and management of Velocity are seeking to aggressively accelerate growth and profitability as their customers in the airline and aircraft manufacturing industries continue to recover and ramp back up to full operations.

Student consulting teams will analyze company information, interview Velocity's management team members, research competitors and market opportunities, and conduct role plays to simulate a management consulting engagement. Students will perform these activities with the instructor serving as the consulting team's engagement director. The students will prepare and present a comprehensive business transformation strategy to Velocity's executive management team, role played by guest industry executives and practicing consultants from firms that in the past have included Accenture, Clarkston Consulting, Deloitte, Ernst & Young, and McKinsey & Company.

The student teams' final deliverables will be in the form of a consulting firm's written report and presentation, and contain the following components:

- Enterprise future state, including vision, strategic goals, and sources of value creation
- Go-to-market strategy, including growth in existing and new strategic business units
- Strategic and operational initiatives, including descriptions, rationale, roadmap, and timeline
- Business case, including investment analysis and expected return on investment
- Human capital and change management plan
- Performance metrics and targets over time
- Income statement projections, including revenue, gross margin, SG&A, and profit
- Cash flow analysis and capital expenditure requirements
- Financing options, including use of debt and/or equity
- Risk analysis and contingency plan.

To effectively complete the analysis and present recommendations, students will draw upon their prior Ross coursework and work experience. Students will incorporate concepts from:

- Strategy, including business planning, core competencies, strategic differentiation
- Marketing, including research, segmentation, value propositions, pricing
- Operations, including product development, supply chain management
- Organization, including leadership, organization design, emotional intelligence

- Financial accounting, including income statement, balance sheet, cash flow
- Managerial accounting, including performance management, forecasting, make vs buy
- Finance, including risk assessment, cost of capital, valuation.

In addition, students will gain exposure to fundamental consulting techniques including team management, project management, interviewing, financial modeling, workshop design and execution, presentation development and delivery, and client relationship development.

## Course Schedule

The course will be fast paced and employ multiple session formats, with an emphasis on action-based learning through role plays, team meetings, presentations, and discussions.

Session	Date	Topic	Format
1	W 1/10	Course Introduction	Lecture
	M 1/15	MLK Jr Day	
2	W 1/17	Project Onboarding	Lecture
3	M 1/22	Training for Client Interviews	Lecture and Role Play
4	W 1/24	Performance Challenge - Core Financial Analyses	Student Presentations and Discussion
5	M 1/29	QAR #1 - Team Health and Progress	Instructor-Facilitated Team Meetings
6	W 1/31	Client Interviews - Operations and HR	Role Plays and Debrief with Guest Executives
	F 2/2	Research Support Session to be Completed	Meeting with Danguole Kviklys
7	M 2/5	Client Interviews - Sales & Marketing and Finance	Role Plays and Debrief with Guest Executives
8	W 2/7	Client Interviews - IT and Operations Employee	Role Plays and Debrief with Guest Executive
9	M 2/12	Client Interview - CEO	Role Play and Debrief with Guest Executive
10	W 2/14	Debrief on Interviews and Workshop Training	Discussion and Lecture
11	M 2/19	Industry and Competitive Analysis	Student Presentations and Discussion
12	W 2/21	Visioning Workshop with Executive Management Team	Role Play and Debrief
	F 2/23	Take Home Mid-Term Quiz Due	Individual Assignment
	2/24-3/3	Winter Break	
13	M 3/4	Quiz Debrief and SWOT Analysis	Lecture and Discussion
14	W 3/6	CEO Phase 1 Progress Review	Role Play and Debrief
15	M 3/11	Phase 1 Debrief and Planning for Phase 2	Lecture and Discussion
16	W 3/13	Strategy Development and Financial Modeling	Lecture
17	M 3/18	QAR #2 - Workplan and Ideation	Instructor-Facilitated Team Meetings
18	W 3/20	Team Time	Team Meetings, Instructor on Call to Help
19	M 3/25	Strategic Proposal Analysis	Student Presentations and Discussion
20	W 3/27	QAR #3 - Strategy Development and Assessment	Instructor-Facilitated Team Meetings
21	M 4/1	Team Time	Team Meetings, Instructor on Call to Help
22	W 4/3	Crafting and Delivering Executive Communications	Discussion and Training
23	M 4/8	A Day in the Life of a Practicing Consultant	Interactive Discussion with Guest Consultants
24	W 4/10	Team Time	Team Meetings, Instructor on Call to Help
	F 4/12	Written Report Due	
25	M 4/15	QAR #4 - Final Presentation "Rehearsal"	Instructor-Facilitated Team Meetings
26	W 4/17	Presentation to Executive Management Team	Team Presentations to Guest Executives
27	M 4/22	Project Wrap Up and Reflection	Discussion and Final Lecture

## Grading

Grades will be awarded in line with the Ross BBA elective grading policy and curve.

Grading Element	Course Weight	Due
Class Participation	20%	Every Class
Core Financial Analyses	5%	Jan 24
Client Interview Plan and Execution	5%	Jan 31-Feb 12
Client Workshop Plan	5%	Feb 16
Mid-Term Quiz	10%	Feb 23
Strategic Proposal Analysis	5%	Mar 25
Written Report to Client Management Team	20%	Apr 12
Presentation to Client Management Team	20%	Apr 17
Peer Evaluations	10%	Apr 22

## Course Materials

To enhance health and safety, improve sustainability, and ensure equal learning access, all materials for this course will be available in electronic format only.

Canvas will be utilized as the course website and learning management system. All course materials will be provided through Canvas and a TO 465-specific website created and maintained by Kresge Library Services.

All materials generated for the course are intended for use only by current students in this class. Any use beyond this class will require the permission of the instructor.

## Laptop/Electronic Device in Class

Use of laptop, tablets, and smartphones is allowed, including in class. While in class, students are expected to focus on this course and not to employ their devices for other course work or personal use.

## Video Recording

This is an in-person class. As such, students may not attend by Zoom. However, the instructor will record all class sessions. These recordings, along with lecture and discussion materials used in class, will be made available to all students to support learning of those affected by

illness or unforeseen circumstances. Any questions about class recording policies should be addressed to the instructor.

Students may not record or distribute any class activity without permission from the instructor, except as necessary as part of approved accommodations for students with disabilities. This applies to both the live recording of an actual class, as well as the duplication of any recordings and/or materials shared by the instructor with the course participants. Recordings may only be used for a student's own private use.

### **Student Wellness**

Please refer to the section on this topic posted in the Canvas site for the course.

### **Academic Integrity**

Please refer to the section on this topic posted in the Canvas site for the course.

### **Accommodations**

Please refer to the section on this topic posted in the Canvas site for the course.