**Welcome and Introduction (15 minutes)**

* Welcome the class to PROJ 309, the Capstone Project course.
* Introduce yourself:
  + Harsanjit Bhullar.
  + Roles: SAIT board member, partner at AdaptX Corporation, product manager at Dant AI/Enerva.
  + Experience: manufacturing, software development, energy consulting, FIRST Robotics judge.
* Overview of the course purpose:
  + Apply program knowledge in a real-world context.
  + Develop a meaningful project showcasing creativity, technical skills, and problem-solving.

**2. Course Overview (20 minutes)**

* **Structure:**
  + 3 credits, 75 instructional hours.
  + Projects: solve a problem or seize an opportunity with a solution.
* **Grading Breakdown:**
  + Peer Assessments: 30%.
  + Assignments: 50%.
  + Final Showcase: 20%.
* **Topics Covered:**
  + Team Dynamics, Opportunity Assessment, Project Planning, Execution, and Presentation.
* **Expectations:**
  + 9–12 hours/week outside of class.
  + Active participation and professional-quality work are essential.

**3. Expectations and Tools (15 minutes)**

* **Real-World Simulation:**
  + Teams, deliverables, and industry standards.
* **AI Tool Usage:**
  + Allowed: Anthropic, Mixtral, OpenAI.
  + Transparency required: document when/how AI is used.
  + Goal: learn from tools, not just rely on them.

**4. Logistics and Office Hours (10 minutes)**

* **Office Hours:**
  + 3 PM–7 PM.
  + Immediate concerns: first hour after class.
  + Appointments: email harsanjit@adaptx.ca (plan ahead for complex issues).

**5. Agile Methodologies and Sprints (15 minutes)**

* **Agile Focus:**
  + Flexibility, collaboration, iterative results.
* **Sprint Structure:**
  + 1–2 weeks per sprint.
  + Tasks: review progress, adjust plans, deliver consistent value.
* **Takeaway:**
  + Principles useful for course and future careers.

**6. Course Kickoff: Team Dynamics (25 minutes)**

* **Team Success:**
  + Establish norms, roles, communication, decision-making, responsibilities.
  + Diversity as a strength: manage disagreements and leverage skills.
* **Icebreaker:**
  + Introductions: expertise and excitement for the project.
* **Next Step:**
  + Brainstorm project ideas.

**7. Wrap-Up and Next Steps (10 minutes)**

* **Assignment:**
  + Brainstorm a project idea addressing a real-world problem or opportunity.
  + Write a brief description and its value.
  + Bring ideas to the next class for discussion.
* **Encouragement:**
  + Explore AI tools and Agile concepts over the next few days.

**8. Closing Remarks (5 minutes)**

* **Summary:**
  + Culmination of program knowledge and skills.
  + Opportunity to solve real-world problems and showcase work.
* **Support:**
  + Reach out with questions or concerns.
* **Motivation:**
  + Aim for a productive and rewarding course experience.