

## ENGM 514 Technology Management

### Course Description

This course offers a strategic exploration of leadership behaviors, decision-making disciplines, and organizational principles that drive exceptional performance. Students will engage with concepts such as Level 5 Leadership, the Hedgehog Concept, and the Flywheel Effect, applying them to technology-intensive environments. Through case analyses and practical frameworks, the course cultivates the skills needed to lead innovation, manage technological change, and execute long-term strategies for organizational excellence.

### Course Learning Outcomes

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

1. Demonstrate critical knowledge and understanding of both core and specialized theories in technology management
2. Apply principles, practices, and tools of technology management to solve real-world problems
3. Apply disciplined analytical thinking to align organizational processes, people, and resources, driving efficiency and sustained excellence within technical organizations
4. Communicate complex technology management concepts effectively in both written and oral formats, incorporating ICT and numerical data where appropriate.
5. Demonstrate leadership, collaboration, and decision-making skills in technical management, assuming responsibility for decision made in complex organizational settings.

### Learning Resources

N/A

### Course Content

1. Introduction to Technology Management & Good to Great
2. Leadership in Tech – Ambition for the Company, Humility for the Leader
3. “First Who, Then What” in Technical Teams: Hiring for cultural fit and technical excellence
4. Confronting Brutal Facts in Tech Projects: The Stockdale Paradox: Balancing realism and optimism
5. Post-mortem analyses in failed tech projects
6. The Hedgehog Concept in Tech Innovation
7. Culture of Discipline in Tech Organizations
8. Technology Accelerators in Digital Transformation
9. The Flywheel Effect in Scaling Tech Companies
10. From Good to Great to Built to Last
11. Modern Challenges in Technical Management
12. Managing Technology and the Challenges Ahead