



National University of Engineering (UNI)
School of Civil Engineering
Syllabus 2027-I

1. COURSE

CE2C7. Business Organization and Management (Elective)

2. GENERAL INFORMATION

2.1 Course	: CE2C7. Business Organization and Management
2.2 Semester	: 10 th Semester.
2.3 Credits	: 3
2.4 Hours	: 2 HT; 2 HP;
2.5 Duration of the period	: 16 weeks
2.6 Type of course	: Elective
2.7 Learning modality	: Face to face
2.8 Prerequisites	: CE2C8. Business Management in Construction I. (8 th Sem)

3. PROFESSORS

Meetings after coordination with the professor

4. INTRODUCTION TO THE COURSE

Business Organization and Management introduces the fundamentals of business administration: business types and structure, management and leadership, organization and organizational behavior, logistics, accounting, production, and marketing, as a foundation for the management of construction companies.

5. GOALS

- Distinguish the types and structures of companies and their legal implications.
- Apply principles of organization, management, and leadership to a company.
- Understand the processes of logistics, accounting, production, and marketing in a company.

6. COMPETENCES

- ABET-1)** An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics. (Usage)
- ABET-2)** An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors. (Usage)
- ABET-6)** An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions. (Usage)

7. TOPICS

Unit 1: Organizational Behavior (8 hours)	
Competences Expected: ABET-1	
Topics	Learning Outcomes
• Motivation theories: Maslow's hierarchy, Herzberg's two-factor theory, expectancy theory, and self-determination theory • Team formation, group roles, cohesion, diversity, and performance in organizational settings • Organizational culture: dimensions, formation, cultural change, and its impact on performance • Sources of organizational conflict, conflict resolution strategies, and negotiation fundamentals	• Explain major motivation theories and their implications for managerial practice [Familiarity] • Analyze team dynamics and cultural factors affecting organizational performance [Usage] • Design an intervention to address a specific organizational behavior challenge [Assessment]
Readings : [Robbins2017]	

Unit 2: Business Entity Law (4 hours)	
Competences Expected: ABET-1	
Topics	Learning Outcomes
• Legal forms: sole proprietorship, general/limited partnership, LLC, and corporation; comparative liability and taxation • Corporate formation, articles of incorporation, shareholder rights, board duties (fiduciary duty of care and loyalty) • Agency relationships in business: actual and apparent authority, principal-agent duties, and vicarious liability • Mergers, acquisitions, and dissolution: legal process, shareholder approval, due diligence, and winding-up procedures	• Compare the liability, tax, and governance characteristics of different business entity forms [Familiarity] • Analyze the legal implications of a business transaction from the perspective of agency law [Usage] • Select the appropriate legal entity form for a new business venture, justifying the choice on legal and strategic grounds [Assessment]
Readings : [Robbins2017]	

Unit 3: Strategic Management (4 hours)	
Competences Expected: ABET-2	
Topics	Learning Outcomes
• External and internal analysis using PESTEL, Porter's Five Forces, and SWOT frameworks • Generic strategies (cost leadership, differentiation, focus) and their application to competitive positioning • Strategy implementation: organizational alignment, balanced scorecard, and performance management systems • Corporate-level strategy: diversification, vertical integration, mergers and acquisitions, and portfolio management	• Describe the strategic management process and the role of environmental analysis in strategy formulation [Familiarity] • Apply competitive strategy frameworks to analyze the strategic position of a real organization [Usage] • Evaluate the coherence and feasibility of a corporate strategy using analytical frameworks [Assessment]
Readings : [Robbins2017]	

Unit 4: Business Model Design and Validation (6 hours)	
Competences Expected: ABET-2	
Topics	Learning Outcomes
• Business Model Canvas: nine building blocks (customer segments, value propositions, channels, revenue streams, key resources, key activities, key partnerships, cost structure) • Customer discovery and validation: problem interviews, solution interviews, and pivot vs. persevere decisions • Minimum viable product (MVP): design principles, lean experimentation, and build-measure-learn feedback loop • Platform business models and network effects: multi-sided platforms, winner-take-all dynamics, and monetization strategies for digital platforms	• Describe the components of the Business Model Canvas and explain how they interact to create and deliver value [Familiarity] • Design a business model canvas for a new venture idea and identify key assumptions to test [Usage] • Evaluate a startup's business model for internal consistency and market viability [Assessment]
Readings : [Osterwalder2010]	

Unit 5: Leadership Theory and Practice (4 hours)	
Competences Expected: ABET-2	
Topics	Learning Outcomes
• Leadership theories: trait, behavioral (Ohio State, Michigan), situational (Hersey-Blanchard), and contingency (Fiedler) models • Transformational and transactional leadership: vision, inspiration, intellectual stimulation, and individualized consideration • Emotional intelligence dimensions (self-awareness, empathy, social skills) and their relevance to leadership effectiveness • Ethical and servant leadership: leader as steward, moral courage, values-based decision-making, and community service orientation	• Compare major leadership theories and identify the contextual conditions favoring each approach [Familiarity] • Apply situational leadership principles to diagnose leader behavior appropriate for a given team context [Usage] • Evaluate a leader's effectiveness using multiple theoretical lenses including transformational and ethical leadership criteria [Assessment]
Readings : [Robbins2017]	

Unit 6: Inventory Management and Logistics (4 hours)	
Competences Expected: ABET-2	
Topics	Learning Outcomes
- Economic order quantity (EOQ): derivation, assumptions, extensions, and total inventory cost minimization - Reorder point models, safety stock calculation, and service level determination under demand uncertainty - Logistics management: transportation modes, warehousing, distribution network design, and 3PL providers - ABC inventory classification: Pareto principle applied to inventory value, cycle counting policy, and selective control strategies	- Explain the trade-offs between ordering costs and holding costs in inventory management [Familiarity] - Calculate EOQ, reorder points, and safety stock for a product with specified demand parameters [Usage] - Evaluate the inventory and logistics performance of a supply chain and recommend improvements [Assessment]
Readings : [Heizer2020]	

Unit 7: Financial Accounting and Reporting (4 hours)	
Competences Expected: ABET-6	
Topics	Learning Outcomes
- Accounting equation (Assets = Liabilities + Equity), double-entry bookkeeping, and the chart of accounts - The accounting cycle: journalizing, posting, trial balance, adjusting entries, closing entries, and financial statement preparation - Income statement, balance sheet, statement of cash flows, and statement of changes in equity: structure and content - Ratio analysis and financial statement interpretation: liquidity, solvency, profitability, and efficiency ratios for decision-making	- Explain the accounting equation and the logic of double-entry bookkeeping [Familiarity] - Prepare journal entries and basic financial statements for a simple business entity [Usage] - Analyze the financial position and performance of a firm using its financial statements [Assessment]
Readings : [Weygandt2018]	

Unit 8: Operations Strategy and Process Design (4 hours)	
Competences Expected: ABET-2	
Topics	Learning Outcomes
- Competitive priorities in operations: cost, quality, speed, flexibility, and dependability - Process types: job shop, batch, assembly line, and continuous flow; process selection and product-process matrix - Capacity measurement, capacity planning strategies (lead, lag, match), and bottleneck analysis - Facility layout types (product, process, fixed-position, cellular) and layout efficiency measures	- Describe the main competitive priorities in operations and explain how process type selection reflects strategic objectives [Familiarity] - Apply capacity planning methods and bottleneck analysis to improve throughput in a production system [Usage] - Design a facility layout for a specified production environment and evaluate its efficiency [Assessment]
Readings : [Heizer2020]	

Unit 9: Marketing Mix Strategy (4 hours)	
Competences Expected: ABET-1	
Topics	Learning Outcomes
- Product decisions: product mix, product life cycle, new product development, and packaging - Pricing methods: cost-based, competition-based, value-based, and dynamic pricing; price elasticity - Distribution channel design: direct and indirect channels, channel conflict, logistics, and omnichannel retailing - Integrated marketing communications: advertising, sales promotion, public relations, personal selling, and direct marketing	- Identify the components of the marketing mix and explain how they are integrated to create customer value [Familiarity] - Apply pricing and channel strategies to a specific product/market combination [Usage] - Design an integrated marketing communication plan aligned with a given marketing strategy [Assessment]
Readings : [Kotler2016]	

Unit 10: Human Resource Management (6 hours)	
Competences Expected: ABET-1	
Topics	Learning Outcomes
- Workforce planning, job analysis, recruitment channels, and selection methods (interviews, testing, assessment centers) - Compensation structures (base pay, incentives, benefits) and performance appraisal methods - Training needs assessment, onboarding, career development, and succession planning - Document control and records management: filing systems, correspondence control, document version/traceability, and retention policies supporting HR and administrative functions	- Describe the core HR functions of recruitment, compensation, and training within an organization [Familiarity] - Design a recruitment and selection process for a specified position and organizational context [Usage] - Evaluate an organization's document control and records management practices against administrative best practices [Assessment]
Readings : [DeCenzo2019]	

Unit 11: Corporate Governance (4 hours)	
Competences Expected: ABET-2	
Topics	Learning Outcomes
- Agency theory: principal-agent problem, information asymmetry, moral hazard, and alignment mechanisms - Board of directors: composition, independence, committees, fiduciary duties, and board effectiveness - Corporate governance codes and regulation: Sarbanes-Oxley, OECD Principles, and ESG reporting requirements - ESG and stakeholder governance models: environmental, social, and governance criteria, materiality assessment, and multi-stakeholder accountability	- Explain the agency problem and the governance mechanisms designed to align managerial and shareholder interests [Familiarity] - Analyze the governance structure of a corporation and identify potential weaknesses [Usage] - Evaluate the effectiveness of corporate governance practices against best-practice standards [Assessment]
Readings : [Robbins2017]	

8. WORKPLAN

8.1 Methodology

Individual and team participation is encouraged to present their ideas, motivating them with additional points in the different stages of the course evaluation.

8.2 Theory Sessions

The theory sessions are held in master classes with activities including active learning and roleplay to allow students to internalize the concepts.

8.3 Practical Sessions

The practical sessions are held in class where a series of exercises and/or practical concepts are developed through problem solving, problem solving, specific exercises and/or in application contexts.

9. EVALUATION SYSTEM

***** EVALUATION MISSING *****

10. BASIC BIBLIOGRAPHY