



Module Syllabus

MIM112 Operations Management

Lecturer:	Santiago Serrate
Term, year:	Winter, 2024
Number of ECTS:	6
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1. Module Description

This unit aims at developing skills and competencies to prepare business students to successfully manage business operations to assess standard and innovative practices in manufacturing and service sectors in the global marketplace. The unit provides conceptual and practical application frameworks of management and analytical tools for operations management. Students will assess and apply strategies focused on improving operational efficiency through cost reductions, increased capital efficiencies, and integration of modern technologies in business operations. In short, they will learn how to bridge the gap between theory and practice by using technologically advanced resources for operating within a global business environment.



NOTE: The content of this module is regulated by the Malta Further and Higher Education Authority (MFHEA).

2. Module Learning Outcomes

Competencies – at the end of the module/unit the learner will have acquired the responsibility and autonomy to:

- a) C.1. Create a research-based diagnosis to problems in operations management by applying critical thinking to decision-making, supported by operations management principles and best practices in business;
- b) C.2. Demonstrate the ability to respond to the fast-changing global production and operation environment and to assess the management of operations within an organization by integrating knowledge about appropriate frameworks, analytical tools, and decision-making strategies in operations management;
- c) C.3. Be accountable and responsible for the original research aimed at evaluating the impact of trends and practices in operations management on key performance indicators and at recommending strategies to improve operational efficiencies and to support organizational change.

Skills – at the end of the module/unit the learner will have acquired the following skills:

- a) S.1. Demonstrate capability in using knowledge and skills to adapt to the fast-changing global production and operation environment by evaluating the overall operations strategy of an organization;
- b) S.2. Configure an organization's processes to effectively and efficiently produce goods and services that enable its value proposition and maintain competitive differentiation;
- c) S.3. Demonstrate specialized knowledge to analyze operating data by applying quantitative tools to explain operating performance, to diagnose performance issues, and to improve operating process performance through enhancements of quality, speed, efficiency, or productivity.

Judgement Skills and Critical Abilities – at the end of the module/unit the learner will have acquired the following judgement skills and critical abilities:

The learner will be able to:

- a) JS.1. Perform critical analysis of the external environment in terms of how its political, economic, social-cultural, and legal dimensions can create constraints on business operations in foreign markets and evaluate the responses of specific organizations to global environment circumstances regarding their operations strategies;



- b) JS.2. Critically analyze the different levels of operational decisions that need to be made by businesses to gain competitive advantage in the global marketplace;
- c) JS.3. Perform critical evaluation of the acceptable levels of quality with incomplete or limited information and make the right operational and strategic decisions to meet customers' needs and expectations

3. Module Topics and Content

Week	Topics and Content	Class Activities	Assessment	Readings
Week 1	<p>Class 1</p> <p>Introduction to Operations Management:</p> <ul style="list-style-type: none"> • Introduction • Definition and Concept • Contextualization <ul style="list-style-type: none"> ○ What is Operations Management? ○ Production Management vs. Operations Management ○ Duties and Responsibilities in Operations Management ○ Operations Management Objectives ○ Operations for Goods and Services • Historical Development <ul style="list-style-type: none"> ○ Chronological Build-up of Operations Management ○ The Evolution of Operations Management ○ Milestones/heritage of Operations Management 	<p>Activity 1: Discussion - Operations Management at Hard Rock Café</p> <p>In groups of 3-4, do research on Hard Rock Café operations management. This is followed by a class discussion.</p> <p>30 minutes</p>		<p>Demeter, K. (2017). <i>Research in Global Operations Management: Some Highlights and Potential Future Trends</i>. <i>Journal of Manufacturing Technology Management</i>, 28 (3). Page 1 till 6.</p>



	<ul style="list-style-type: none"> • Strategy and Operations <ul style="list-style-type: none"> ○ Strategic Value of Operations Management ○ Strategic Operations Management Process • Productivity and Competitiveness <ul style="list-style-type: none"> ○ Production Systems and Different Classification ○ Production of Goods vs. Providing Services ○ The Challenges of Productivity ○ Productivity and the Service Sector ○ What are the Variables of Productivity? 			
	<p>Class 2</p> <p>From Value Chain Management to Supply Chain Management:</p> <ul style="list-style-type: none"> • Objectives • Introduction • A Global View of Operations and Supply Chains <ul style="list-style-type: none"> ○ What is Supply Chain Management and Value Chain? ○ What do Operations Manager and Supply Chain do? • Supply Chain Management <ul style="list-style-type: none"> ○ What are Supply Chains? 	<p>Activity 2: Group Work</p> <p>In groups of 3-4, students are encouraged to match Operational Strategies with the proper companies or services that have successfully employed these strategies.</p> <p>15-20 minutes</p> <p>Refer to section 4.3.2 for more details.</p>	<p>Formative Assessment 1: Case Study 1 (15%)</p> <p>In groups of 3-4, read the assessment in section 4.1.1.</p> <p>To be uploaded individually on the VLE in PDF.</p>	<p>Shen, B., & Chan, H. L. (2017). <i>Forecast Information Sharing for Managing Supply Chains in the Big Data Era: Recent Development and Future Research</i>. <i>Asia-Pacific Journal of Operational Research</i>, 34 (01). Page 1 to 3 "Introduction"</p>



	<ul style="list-style-type: none"> ○ The Strategic Importance of Supply Chains ○ Supply Chain Operations Management ● Strategic Planning, Core Competencies, and Outsourcing <ul style="list-style-type: none"> ○ The Theory of Comparative Advantage ○ Outsourcing ○ Sourcing Strategies ● Creating an Effective Supply Chain. <ul style="list-style-type: none"> ○ Challenges ○ Businesses <p>Summary</p>			
<p>Week 2</p>	<p>Class 3</p> <p>Operations Strategy in a Global Environment:</p> <ul style="list-style-type: none"> ● Objectives ● Introduction ● Developing Missions and Strategies <ul style="list-style-type: none"> ○ Mission ○ Strategy ● Achieving Competitive Advantage Through Operations <ul style="list-style-type: none"> ○ Competing on Differentiation ○ Competing on Cost ○ Competing on Response ● Decision Analysis with and Without Probabilities <ul style="list-style-type: none"> ○ Decision-Making Without Probabilities 	<p>Activity 3: Direct Question and Multiple Choice</p> <p>Students are encouraged to solve a multiple-choice exercise.</p> <p>Refer to section 4.3.3 for more details.</p> <p>20 minutes</p>		<p>Guimarães, L. G., Cimon, Y., & Coelho, L. C. (2016). <i>Dynamic Inventory Management for Large Retail Chains</i>. <i>Bibliothèque et Archives Canada, 2016</i> ISBN 978-2-89524-443-1. Page 1 till 4 Introduction.</p>



	<ul style="list-style-type: none"> ○ Decision Analysis with Excel ○ Decision Analysis with OM Tools ○ Decision-Making With Probabilities ● Strategy Development and Implementation <ul style="list-style-type: none"> ○ Key Success Factors and Core Competencies ○ Building and Staffing the Organization ● Global Operations Strategy Options 			
	<p>Class 4</p> <p>Forecasting:</p> <ul style="list-style-type: none"> ● Introduction <ul style="list-style-type: none"> ○ What is Forecasting? ○ The Strategic Importance of Forecasting ○ Types of Forecasts ● The Strategic Role of Forecasting in Supply Chain Management <ul style="list-style-type: none"> ○ Supply Chain Management ○ Quality Management ○ Strategic Planning ● Components of Forecasting Demand <ul style="list-style-type: none"> ○ Time Frame ○ Forecasting Methods ○ Forecasting Process ● Forecast Accuracy 	<p>Activity 4: Practical Session</p> <p>Students are encouraged to work in groups of 3-4 to solve an exercise.</p> <p>Refer to section 4.3.4 for the questions.</p> <p>15 minutes</p>	<p>Formative Assessment 2: Report Deliverable 1 (15%)</p> <p>In groups of 3-4 read the assessment in section 4.1.2.</p> <p>500-800 words</p> <p>To be uploaded individually in PDF on the VLE.</p>	<p>Shen, B., & Chan, H. L. (2017). <i>Forecast Information Sharing for Managing Supply Chains in the Big Data Era: Recent Development and Future Research</i>. <i>Asia-Pacific Journal of Operational Research</i>, 34 (01). Page 5 “Forecast Information” till Page 15 Forecasting Models for Supply Chain in the Big Data Era</p>



	<ul style="list-style-type: none"> ○ Outline ○ Forecasting Error ● Forecasting Approaches <ul style="list-style-type: none"> ○ Overview of Qualitative Methods ○ Overview of Quantitative Methods ● Forecasting in the Service Sector 			
Week 3	<p>Class 5</p> <p>Management Quality and Control:</p> <ul style="list-style-type: none"> ● Quality and Strategy <ul style="list-style-type: none"> ○ What is Quality? ○ Quality and Supply Chain ○ Implication of Quality ○ ISO 9000 International Quality Standards ○ Cost of Quality ○ Ethics and Quality Management ● Quality Management System <ul style="list-style-type: none"> ○ Continuous Improvement ○ TQM and QMS ○ Six Sigma ○ Employee Empowerment ○ Benchmarking ● Quality Tools <ul style="list-style-type: none"> ○ Process Flow Charts ○ Cause and Effect Diagrams ○ Check Sheets and Histograms ○ Pareto Analysis 	<p>Activity 5: Problem-solving Activity</p> <p>Refer to section 4.3.5 for the questions.</p> <p>15 minutes</p>	<p>Formative Assessment 3: Case Study 2 (15%)</p> <p>In groups of 3-4, read the assessment in section 4.1.3</p> <p>500-800 words</p> <p>To be uploaded individually in PDF on the VLE.</p>	<p>Guimarães, L. G., Cimon, Y., & Coelho, L. C. (2016). <i>Dynamic Inventory Management for Large Retail Chains</i>. <i>Bibliothèque et Archives Canada</i>, 2016 ISBN 978-2-89524-443-1. Page 4 till 12.</p>



	<ul style="list-style-type: none"> ○ Scatter Diagrams ○ Process Control Chart and Statistical Quality Control 			
	<p>Class 6</p> <p>Processes and Technology:</p> <ul style="list-style-type: none"> • Process Planning <ul style="list-style-type: none"> ○ Outsourcing ○ Process Selection ○ Process Selection with Breakeven Analysis ○ Process Plan • Four Process Strategy <ul style="list-style-type: none"> ○ Process Focus ○ Repetitive Focus ○ Product Focus ○ Mass Customization Focus • Process Analysis and Design <ul style="list-style-type: none"> ○ Process Flowcharts ○ Time-Function Mapping ○ Value Stream Mapping ○ Steps in Process Innovation • Technology Decision <ul style="list-style-type: none"> ○ Financial Justification of Technology ○ A Technology Primer ○ Summary 	<p>Activity 6: Practical Session</p> <p>The activity is done in groups of 5-6 students.</p> <p>Refer to section 4.3.6 for more details.</p> <p>20 minutes</p>		<p>Hacioglu, U., & Sevgilioglu, G. (2019). <i>The Evolving Role of Automated Systems and Its Cyber-security Issue for Global Business Operations in Industry 4.0. International Journal of Business Ecosystem & Strategy</i> (2687-2293), 1 (1), 01-11. Page 1 to 5.</p>
Week 4	<p>Class 7:</p> <p>Capacity and Constraint Management:</p>	<p>Activity 7: Practical Session</p> <p>Students will work in groups of 5-6.</p>		<p>Hacioglu, U., & Sevgilioglu, G. (2019). <i>The Evolving Role of Automated Systems and Its</i></p>



	<ul style="list-style-type: none"> • Capacity <ul style="list-style-type: none"> ○ Capacity and Strategy ○ Capacity Considerations ○ Managing Demand ○ Service-Sector Demand and Capacity Management • Determinants of Effective capacity <ul style="list-style-type: none"> ○ Facilities ○ Product and Service Factors ○ Process Factors ○ Human Factors ○ Policy Factors ○ Operation Factors ○ Supply Chain Factors • Measurement of Capacity Planning-Productions and Operations Management <ul style="list-style-type: none"> ○ Capacity Planning in Production and Production Management ○ Capacity Measurement in Operations Management • Design Capacity • System Capacity • Licensed Capacity • Installed Capacity • Rated Capacity • Process of Capacity Planning • Long-term Capacity Strategies • Short-term Capacity Strategies • Bottleneck Analysis and the 	<p>Refer to section 4.3.7 for more details.</p> <p>20 minutes</p>		<p><i>Cyber-security Issue for Global Business Operations in Industry 4.0. International Journal of Business Ecosystem & Strategy (2687-2293), 1 (1), 01-11. Page 6.</i></p>
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	<p>Theory of Constraints</p> <ul style="list-style-type: none"> ○ Bottleneck Analysis and the Theory of Constraints ○ Bottleneck Management 			
	<p>Class 8:</p> <p>Location Strategies:</p> <ul style="list-style-type: none"> • The Strategic Importance of Location • Factors That Affect Location Decisions <ul style="list-style-type: none"> ○ Labor ○ Exchange Rates and Currency Risk ○ Costs ○ Proximity to Markets ○ Proximity to Suppliers ○ Proximity to Competitors • Service Location Strategy • Geographic Information Systems 	<p>Activity 8: Practical Session</p> <p>Students complete tasks in groups of 5-6.</p> <p>Refer to section 4.3.8 for more details.</p> <p>20 minutes</p>	<p>Formative Assessment 4: Case study 3 - Just ERP Just Sofas (JS) (15%)</p> <p>In groups of 3-4, read the assessment in section 4.1.4.</p> <p>500-800 words</p> <p>To be uploaded individually in PDF on the VLE.</p>	<p>Demeter, K. (2017). <i>Research in Global Operations Management: Some Highlights and Potential Future Trends</i>. <i>Journal of Manufacturing Technology Management</i>, 28 (3). Page 6 till 15.</p>
Week 5	No Classes			
Week 6	<p>Class 9:</p> <p>Resource Planning:</p> <ul style="list-style-type: none"> • Material Requirements Planning (MRP) <ul style="list-style-type: none"> ○ When to Use MRP ○ Master Production Schedule (MPS) ○ Product Structure File 	<p>Activity 9: Direct Questions and Response</p> <p>Students will answer the questions in class.</p> <p>Refer to section 4.3.9 for more details.</p> <p>20 minutes</p>		<p>Hacioglu, U., & Sevgilioglu, G. (2019). <i>The Evolving Role of Automated Systems and Its Cyber-security Issue for Global Business Operations in Industry 4.0</i>. <i>International Journal of Business Ecosystem & Strategy</i> (2687-</p>



	<ul style="list-style-type: none"> ○ Item Master File ○ The MRP Process ○ Lot Sizing in MRP Systems ○ MRP Outputs • Capacity Requirements Planning (CRP) <ul style="list-style-type: none"> ○ Calculating Capacity ○ Load Profiles ○ Overloads ○ Load Leveling ○ Relaxing MRP Assumptions • Enterprise Resource Planning (ERP) <ul style="list-style-type: none"> ○ ERP Modules ○ ERP Implementation • Customer Relationship Management (CRM) 			2293), 1 (1), 01-11. Page 7 to 9.
	<p>Class 10:</p> <p>Scheduling:</p> <ul style="list-style-type: none"> • Scheduling Operations <ul style="list-style-type: none"> ○ Scheduling in High-Volume Systems ○ Scheduling in Intermediate-Volume Systems ○ The Importance of Short-Term Scheduling • Loading <ul style="list-style-type: none"> ○ The Assignment Method • Sequencing <ul style="list-style-type: none"> ○ Sequencing Jobs Through One Process ○ Sequencing Jobs Through 	<p>Activity 10: Case Study</p> <p>Students will work in groups of 5-6.</p> <p>Refer to section 4.3.10 for more details.</p> <p>20 minutes</p>	<p>Formative Assessment 5: Report Deliverable 2 (15%)</p> <p>Refer to section 4.1.5 for more details.</p> <p>500-800 words</p> <p>To be uploaded individually in PDF on the VLE.</p>	<p>Shen, B., & Chan, H. L. (2017). <i>Forecast Information Sharing for Managing Supply Chains in the Big Data Era: Recent Development and Future Research</i>. <i>Asia-Pacific Journal of Operational Research</i>, 34(01). Page 18 to 19.</p>



	<ul style="list-style-type: none"> Two Serial Processes ○ Guidelines for Selecting a Sequencing Rule • Monitoring <ul style="list-style-type: none"> ○ Gantt Charts ○ Input/Output Control ○ Assignment Method of Linear Programming • Employee Scheduling <ul style="list-style-type: none"> ○ Automated Scheduling Systems • Summary 			
Week 7	<p>Class 11:</p> <p>Lean Operations and Just in Time:</p> <ul style="list-style-type: none"> ○ Characteristics of Lean Systems ○ Benefits and Risks of Lean Systems ○ The Basic Elements of Lean Production • Lean and Just in Time <ul style="list-style-type: none"> ○ Supplier Partnerships ○ Lean Layout ○ Lean Inventory ○ Lean Scheduling ○ Lean Quality • Building Blocks <ul style="list-style-type: none"> ○ Product Design ○ Process Design ○ Personnel/organizational Elements ○ Manufacturing Planning and Control • Lean Tools	<p>Activity 11: Case Study</p> <p>Students will work in groups of 5-6.</p> <p>Refer to section 4.3.11 for more details.</p> <p>20 minutes</p>		<p>Shahbaz, M. S., & Shaikh, F. A. (2019). Impact of Lean Management Practices on Operational Performance: An Empirical Investigation from Construction Supply Chain of Pakistan. International Journal of Sustainable Construction Engineering and Technology, 10(2), 85-92.</p>



	<ul style="list-style-type: none"> ○ Value Stream Mapping ○ Lean and Six Sigma ○ JIT Deliveries and the Supply Chain ● Transitioning to a Lean System <ul style="list-style-type: none"> ○ Planning a Successful Conversion ○ Obstacles to Conversion ○ A Cooperative Spirit ● Lean Services 			
	<p>Class 12:</p> <p>Maintenance and Reliability:</p> <ul style="list-style-type: none"> ● The Strategic Importance of Maintenance and Reliability ● Reliability <ul style="list-style-type: none"> ○ System Reliability ○ Providing Redundancy ● Maintenance <ul style="list-style-type: none"> ○ Preventive Maintenance ○ Breakdown Maintenance ○ Replacement ○ Increasing Repair Capabilities ○ Autonomous Maintenance ● Total Productive Maintenance ● Example: Comparing Preventive and Breakdown Maintenance Costs 	<p>Activity 12: Debate and Discussion</p> <p>In groups of 3-4, students will debate “How can a manager evaluate the effectiveness of the maintenance function?”</p> <p>Refer to section 4.3.12 for more details.</p> <p>20 minutes</p>	<p>Formative Assessment 6: Report deliverable 3 (15%)</p> <p>In a group of 3-4, read the assessment in section 4.1.6.</p> <p>500-800 words</p>	<p>Shen, B., & Chan, H. L. (2017). <i>Forecast Information Sharing for Managing Supply Chains in the Big Data Era: Recent Development and Future Research</i>. <i>Asia-Pacific Journal of Operational Research</i>, 34 (01). Page 9 till the end.</p>



Week 8	<p>Class 13:</p> <p>Project Management:</p> <ul style="list-style-type: none"> • The Importance of Project Management • Project Life Cycle • Project Planning <ul style="list-style-type: none"> ○ Elements of a Project Plan ○ Project Return ○ The Project Team ○ The Project Manager ○ Project Risk • Project Scheduling and Control <ul style="list-style-type: none"> ○ Project Control ○ Time Management ○ Cost Management ○ Quality Management ○ Performance Management ○ Communication • Project Management Techniques: PERT and CPM <ul style="list-style-type: none"> • The Framework of PERT and CPM • Network Diagrams and Approaches • Summary 	<p>Activity 13: Project-based Learning Activity</p> <p>Students will work in groups of 3-4.</p> <p>Refer to section 4.3.13 for more details.</p> <p>20 minutes</p>	<p>Salam, A., Panahifar, F., & Byrne, P. J. (2016). <i>Retail Supply Chain Service Levels: The Role of Inventory Storage</i>. <i>Journal of Enterprise Information Management</i>. Page 1 till 7.</p>
	<p>Class 14:</p> <p>Human Resources, Job Design, and Work Measurement:</p> <ul style="list-style-type: none"> • Human Resources and Quality Management • Human Resources Strategy for Competitive Advantage 	<p>Activity 14: Case Study</p> <p>Students will work in groups of 3-4.</p> <p>Refer to section 4.3.14 for more details.</p> <p>20 minutes</p>	<p>Salam, A., Panahifar, F., & Byrne, P. J. (2016). <i>Retail Supply Chain Service Levels: The Role of Inventory Storage</i>. <i>Journal of Enterprise Information Management</i>. Page 7 till 18.</p>



	<ul style="list-style-type: none"> ○ Constraints on Human Resource Strategy ○ Job Classifications and Work Rules • Labour Planning <ul style="list-style-type: none"> ○ Employment-Stability Policies ○ Work Schedules ○ Job Classifications and Work Rules • Job Design <ul style="list-style-type: none"> ○ Labor Specialization ○ Job Expansion ○ Psychological Components of Job Design ○ Self-Directed Teams ○ Motivation and Incentive Systems • Methods Analysis 			
Week 9	<p>Class 15:</p> <p>Chapter 15: Revision:</p> <ul style="list-style-type: none"> • General Recap/what we have learned ○ Operations and Supply Chains ○ Operations Strategy ○ Forecasting and Strategy ○ Management and Quality Control ○ Process and Technology ○ Capacity and Constraint Management ○ Location Strategies 			Operations Management Video Series. Retrieved from https://youtu.be/Hn7V0lcJfQ



	<ul style="list-style-type: none"> ○ Resource Planning ○ Scheduling ○ Lean Operations ○ Maintenance and Reliability ○ Project Management ○ Human Resources ○ Project Management 			
Week 10 & 11	Submission of the Summative Assessment Activity			

4. Module Assessment

The assessment of this Module consists of Formative and Summative assessment activities listed in the table 1 below:

Table 1:

Face-to-Face 100%	
<i>Formative</i>	<i>Summative</i>
16.5 hours	13.5 hours
Set Exercise/Case Study (in groups) - 45%	Report (3000 words) – 100%
Report Formative Submission – 45%	

*Prefinal grade is based on the Formative Assessment activities, and it is not a part of a module final grade. **Students should have over 50 points of the prefinal grade to submit summative assessment activities representing module final grade.***

Table 2:

Formative	Summative
<p>Oral Assessment/ Online Participation: On a weekly basis, students will have to participate in a discussion forum, with questions covering the topics of the week. This will help students to be in contact with different perspectives due to the diversity of participation, as well as to develop proficiency in understanding and applying</p>	<p>Report: Students are encouraged to choose a multinational company.</p> <p>This is a key initiative at the “C” level and recommendations will reach the board of directors. The report should include the following steps:</p> <ul style="list-style-type: none"> ● Strategic Overview; ● Analysis of the Supply Chain;



concepts and developing critical thinking.	<ul style="list-style-type: none"> • Recommendations to improve Operating Processes (Performance Improvement Plan); • Explanation of the expected results of the Performance Improvement Plan regarding Product or Service; • Assessment of the impact on Human Resources, including necessary changes to achieve expected results.
<p>Set Exercise/Case Study: Throughout the unit, students practice the application of knowledge, analytical, problem-solving, or evaluative skills and receive timely feedback. As a result, students will be ready to provide a practical analytical solution to various problems presented in the unit by using skills and knowledge acquired.</p>	
<p>Report Formative Submission: Students must submit a company analysis report of operations, including a Performance Improvement Plan.</p>	
	<p>The recommendations in the report should have the following features.</p> <ul style="list-style-type: none"> • Repeatable – If the learner “fix” three things in a manufacturing plant, (s)he should be able to tackle the “next” three in iteration. • Scalable – If they work in one plant, they should work in all of them. • Replicable – The process for improvement should be repeatable in different, disparate parts of the organization.

The passing grade for the module is 60%.

4.1. Formative Assessment

4.1.1 Formative Assessment 1: Case Study 1 - Strategic Planning, Core Competencies and Outsourcing

Claudia Program Technologies, Inc., has narrowed its choice of outsourcing provider to two firms located in different countries. Program wants to decide which one of the two countries is the better choice, based on risk-avoidance criteria. She has polled her executives and established four criteria. The resulting ratings for the two countries are presented in the table below, where 1 is a lower risk and 3 is a higher risk.

SELECTION CRITERION	ENGLAND	CANADA
Price of service from outsourcer	2	3
Nearness of facilities to client	3	1
Level of technology	1	3
History of successful outsourcing	1	2

The executives have determined four criteria weightings: Price, with a weight of 0.1; Nearness, with 0.6; Technology, with 0.2; and History, with 0.1.



- a) Using the factor-rating method, which country would you select?
b) Double each of the weights used in part (a) (to 0.2, 1.2, 0.4, and 0.2, respectively). What effect does this have on your answer? Why?

4.1.2 Formative Assessment 2: Report Deliverable 1

Choose a company like (Ikea-Disneyland-Toyota -Ford...) and submit the analysis report of operations (1).

Analysis report 1 should include the information's below:

- **Finance operations report:** Budgets-Cost analysis- Capital investments Stockholder requirements- Production and inventory data Capital -budgeting requests- Capacity expansion and technology plans.
- **Marketing:** Product/service availability -Lead-time estimates -Status of order Delivery schedules- Sales forecasts -Customer orders -Customer feedback Promotions. (Refer to chapter 1 -2-3-4).

4.1.3. Formative Assessment 3: Case Study 2- Quality Management at State University

As a result of several years of severe cuts to its operating budget by the state legislature, the administration at State University has raised tuition annually for the past five years. Five years ago, getting an education at State was a bargain for both in-state and out-of-state students; now it is one of the more expensive state universities.

An immediate repercussion has been a decline in applications for admission. Since a portion of state funding is tied to enrollments, the State has kept its enrollments at a constant level by going deeper into its pool of applications, taking some less-qualified students. The increase in the cost of a state degree has also caused legislators, parents, and students to be more conscious of the value of a state education—that is, the value parents and students are receiving for their money.

This increased scrutiny has been fueled by numerous media reports about the decreased emphasis on teaching in universities, low teaching loads by faculty, and the large number of courses taught by graduate students. This, in turn, has led the state legislature committee on higher education to call for an “outcomes assessment program” to determine how well State University is achieving its mission of producing high-quality graduates.

On top of those problems, a substantial increase in the college population is expected this decade. Key members of the state legislature have told the university administration that they will be expected to absorb their share of the additional students during the next decade. However, because of the budget situation, they should not expect any funding increases for additional facilities, classrooms, dormitory rooms, or faculty. In effect, they will be expected to do more with their existing resources. The state already faces a classroom deficit, and faculty have teaching loads above the average of its peer institutions. Legislators are fond of citing a study that shows that if the university simply gets all the students to graduate within a four-year period or reduces the number of hours required for graduation, they can accommodate the extra students.

This entire scenario has made the university president, Fred McMahan, consider retirement. He has summarized the problems to his administration staff as “having to do more, better, with



less.” One of the first things he did to address these problems was to set up several task forces made up of faculty and administrators to brainstorm a variety of topics. Among the topics and problems these task forces addressed were quality in education, educational success, graduation rates, success rates in courses (i.e., the percentage of students passing), teaching, the time to graduation, faculty issues, student issues, facilities, class scheduling, admissions, and classroom space. Several of the task forces included faculty from engineering and business. These individuals noted that many of the problems the university faced would benefit from the principles and practices of a quality-management approach. This recommendation appealed to Fred McMahan and the academic vice president, Anne Baker.

Discuss in general terms how a quality philosophy and practices might be instituted at State University.

4.1.4. Formative Assessment 4: Case Study 3 - Just ERP

Just ERP Just Sofas (JS) had begun the year full of promise with a new facility, restructured manufacturing process, and high hopes for its new ERP system. Most of the domestic furniture manufacturers had long since gone overseas, but JS believed being close to the customer gave it a competitive edge. The workers had rallied behind President Ruffner’s idea of guaranteed four-day deliveries on customer orders. And for a while, the promo had worked. Then orders began pouring in and the scheduling system imploded. It was for just such a case that Ruffner had sought out an ERP system—to automatically handle customer orders, factory schedules, and supply chain coordination as demand varied.

Ruffner had carefully chosen the ERP software package used by all the large corporations he knew of, reasoning that if successful companies had chosen this vendor, who was he to choose otherwise. Implementation had proceeded carefully as well, one might say painstakingly slow, as the IT staff started with the finance module and worked down through sales and marketing, order fulfillment, production planning, MRP, capacity planning, and finally scheduling. The scheduling module was still having the kinks worked out and the bill of materials file had not been updated to the current catalog offerings, but everything else seemed to be working fine.

Ruffner had included statements about the ERP system in his earnings reports for the past three quarters, noting that “productivity wanes as new IT system is being implemented,” “earnings down as company adjusts to new ordering system,” and “scheduling glitch causes backlog of customer orders.” For this quarter, he was trying to put a more positive spin on “only 5% of orders shipped on time due to incomplete jobs waiting for materials that were not ordered as they should have been.” He supposed a more innocuous “new scheduling system still not up to speed” would suffice. What Ruffner really wondered was if the company could survive another year like this one.

1. What capabilities of an ERP system would be useful for a company like Just Sofas
2. Describe the environment under which the ERP system was being implemented. Was due diligence conducted in choosing the ERP vendor?
3. Does Ruffner understand the relationship between strategy and operations? Why or why not?
4. What problems contributed to the disappointing results of the ERP system? How would you suggest that Just Sofa proceed next year?

4.1.5 Formative Assessment 5: Report Deliverable 2

Continue the analysis report 1 and include the information’s below:



Human Resources report: Hiring/recruiting- Training -Legal requirements- Union contract negotiation- Personnel needs- Skill sets- Performance evaluations -Job design- Work measurement.

Supplier: Orders for materials-production schedules -quality requirements- design/performance specs- material availability-quality data- delivery schedules- designs. (You can refer to chapters 5-6-14).

4.1.6 Formative Assessment 6: Report Deliverable 3

For the company you choose in the formative assessment 1, write a report for the **Performance Improvement Plan**. *Improvement plan should include the information below:*

Training and Resources: If any training or resources are needed for the employee to reach their goals, include them in the plan.

Timeline - State the timeline of the plan, including how long the employee must reach improvement goals, how often the manager will be checking in on progress, and when the final review of outcomes will take place.

4.2. Summative Assessment- Report

Task

During this module you have learned how Operations is one of the primary functions of a firm. This Business field is all about designing, analyzing, and improving the whole transformation process, including procurement, production, distribution, warehousing, and retailing. The main objective is to create a competitive advantage for the enterprise.

Choose a company like (Ikea-Disney land-Toyota -Ford) and:

1. Briefly outline the Business Organization that you chose. (5 points)
2. What is the strategic overview of the company you chose? (5 points)
3. Submit the analysis report of operations. (5 points)
4. Specify its main activities – while highlighting their nature from an operation management perspective (e.g., the production of (a) good(s) or the delivery of service(s), forecasting, purchasing, distribution, scheduling, etc.). (7 points)
5. Briefly describe the company's main Process Management. (7 points)
6. Briefly analyze the supply chain of the company. (7 points)
7. Specify the Main added value that results from their output. (7 points)
8. How can the company improve its operation processes (Performance improvement plan)? Please explain the expected results of the performance improvement plan. (6 points)
9. Highlight their strong points and gaps in their operations Management Process (if any). (5 points)
10. Specify if it has been impacted by innovation or technology (as well as one other major factor – if any). (6 points)



11. Indicate what should change in the Operations Management Process of the chosen firm. (6 points)
12. Outline the company's capacity planning-related:
 - Condition?
 - Constraints?
 - Strategy? (10 points)
13. Suggest a capacity enhancement factor (how can the company's capacity be enhanced?). (8 points)
14. What tools discussed in the chapter might be employed to enhance the company's training and performance efforts? Why? (8 points)
15. What are your recommendations for the company to improve their management of human resources? (8 points)

Objectives

Students will identify the operation's nature, the management process, strategy, and operations management for the company.

Guidelines

- The report is to be typewritten.
- No more than 3000 words.
- The report can be divided into sections that are relevant to each question's main idea.
- APA referencing to be used throughout.

Evaluation rubric:

Criteria	Identification and main issue	Analysis	Solution	Research	APA structure and format
0 to 20 pts	Identify and understand a few of the issues of the business organization, strategic, report analysis, capacity planning.	Incomplete and no analysis for the management process, gaps, change of operation management process.	Not appropriate, reasonable, and pedagogically recommendation for the company to improve their managing human resource - how can the company's capacity be enhanced?	Incomplete research and links to many materials while highlighting the nature of operations: production of goods, forecasting, purchasing, distribution, scheduling.	Many errors and lack of organization.
25 to 45 pts	Identify and understand some of the business organization, strategic, report analysis, capacity planning.	Superficial/no analysis for the management process, gaps, change of operation management process.	Little appropriate/ reasonable and pedagogically recommendation for the company to improve their managing human resource - how can	Limited research and documented into the issues with clearly documented links to the course text while highlighting	There are more than occasional errors.



			the company's capacity be enhanced?	the nature of operations: production of goods, forecasting, purchasing, distribution, scheduling.	
50 to 75 pts	Identify and understand most of the business organization, strategic, report analysis, capacity planning.	Thorough analysis of the management process, gaps, change of operation management process.	Appropriate/ reasonable and pedagogically recommendation for the company to improve their managing human resource - how can the company's capacity be enhanced?	Good research documented into the issues with clearly documented links to the course text while highlighting the nature of operations: production of goods, forecasting, purchasing, distribution, scheduling.	Good skills level in formatting and organizing material with few formatting errors.
80 to 100 pts	Identify and understand the business organization, strategic, report analysis, capacity planning.	Well-documented the management process, gaps, change of operation management process.	Well-documented reasonable and pedagogically appropriate recommendation for the company to improve their managing human resource - how can the company's capacity be enhanced?	Excellent research into the issues with clearly documented links to the course text while highlighting the nature of operations: production of goods, forecasting, purchasing, distribution, scheduling.	Writing is free of errors/no more than 3 000 words, meets all APA standards, divided into sections. Formatting is excellent.

4.3. Class Activities

4.3.1 Class Activity 1:

In week one, will give an example of an enterprise to talk about operations management. Instructor can discuss Operations Management with students for a company like "Operations Management at Hard Rock Café."

4.3.2 Class Activity 2: Group Work - Relate to Operations and Supply Chains

Match operational strategies with the proper companies or services that have successfully employed these strategies in the table below:



OPERATIONS STRATEGY	COMPANY OR SERVICE
After sale service	3M
Customization	Domino Pizza
Fast and reliable delivery	Easy Jet, Ryanair
High quality	Euro Disney
Innovation	Fast Food Restaurant, Couriers
Location	Lexus, Five-Stars Hotels
Low cost	PCs
Product feature	Rolex
Rapid innovation	Supermarkets, Banks, ATMs
Responsiveness (short processing time)	Tailor
Service	Toyota

4.3.3 Class Activity 3: Direct Question

1- An ideal mission statement is sufficiently descriptive when:

a) Identifies the firm's products/services b) Identifies the markets it is trying to serve c) Specifies the buyer requirements it pursues to satisfy d) Provides the firm's own identity e) All of the above.

2- Core competencies are those strengths in a firm that include:

a) specialized skills. b) unique production methods. c) proprietary information/knowledge. d) things a company does better than others. e) all the above.

3-Outsourcing can improve a firm's effectiveness when:

a) An operation can be performed better and/or more cheaply by an outsider b) It allows concentration on core activities c) It reduces the firm's exposure risk d) It creates potential future competition e) All of the above

4.3.4 Class Activity 4: Practical Session

A manufacturing company has monthly demand for one of its products as follows:
Develop a three-period moving average forecast and a three-period weighted moving average forecast with weights of .50, .30, and .20 for the most recent demand values, in that order.
Calculate MAD for each forecast and indicate which would seem to be most accurate.



Month	Demand
February	520
March	490
April	550
May	580
June	600
July	420
August	510
September	610

4.3.5 Class Activity 5: Group Problem-solving Activity

How can a university control the quality of its output?

What are the solutions?

Work in groups of 3-4 and solve this problem.

4.3.6 Activity 6: Practical Session

Texloy Manufacturing Company must select a process for its new product, TX2, from among three different alternatives. The following cost data have been gathered:

	PROCESS A	PROCESS B	PROCESS C
Fixed cost	\$10,000	\$40,000	\$70,000
Variable cost	\$5/unit	\$2/unit	\$1/unit

For what volume of demand would each process be desirable?

4.3.7 Activity 7: Practical Session

Sara James Bakery has decided to increase its facilities by adding one additional process line. The firm will have two process lines, each working 7 days a week, 3 shifts per day, 8 hours per shift, with effective capacity of 300,000 rolls. This addition, however, will reduce overall system efficiency to 85%.

Compute the expected production with this new effective capacity

4.3.8 Activity 8: Practical Session

Ching-Chang Kuo is considering opening a new foundry in Denton, Texas; Edwardsville, Illinois; or Fayetteville, Arkansas, to produce high-quality rifle sights. He has assembled the following fixed-cost and variable-cost data:



LOCATION	FIXED COST PER YEAR	PER-UNIT COSTS		
		MATERIAL	VARIABLE LABOR	OVERHEAD
Denton	\$200,000	\$.20	\$.40	\$.40
Edwardsville	\$180,000	\$.25	\$.75	\$.75
Fayetteville	\$170,000	\$1.00	\$1.00	\$1.00

- Graph the total cost lines.
- Over what range of annual volume is each facility going to have a competitive advantage?
- What is the volume at the intersection of the Edwardsville and Fayetteville cost lines?

4.3.9. Activity 9: Open-ended Question

How can the ERP systems from two different companies converse?

4.3.10 Activity 10: Case Study

America Reads & America Counts America Reads & America Counts (ARC) is a nonprofit organization that matches college students with public schools who need support in developing literacy and math skills in the classroom. University students receive federal work study funds for working one-on-one with at-risk children, normally for 10 hours a week in 2-hour increments. The program is most popular in urban areas where there is a large concentration of college and university students.

For one university alone in the New York City area, 1000 students are placed each semester in more than 100 elementary and secondary schools. Placement must consider the academic calendar, changing class schedules, travel distances from schools, student skills (e.g., bilingual) and preferences (grade levels, etc.), and school needs. The process of matching students with schools can take one to two months, by which time applicants may have found other employment and the process must be repeated. Currently, the administrator uses an Excel spreadsheet to organize the relevant data, but the assignment process is manual. ARC wants you to review their scheduling process and develop a quantitative model that would improve the speed and quality of assignments. Sample data is given below for your analysis. Assign one student to each school.

1. Assign students to schools such that travel time is minimized.
2. Assign students to schools such that preferences are maximized.
3. Assign students to schools such that both travel time and preferences are considered.
4. How would you incorporate different priorities on needs or preferences?

4.3.11. Activity 11: Case Study

Lean Operations at Alaska Airlines

Alaska Airlines operates in a land of rugged beauty, clear lakes, spectacular glaciers, majestic mountains, and bright blue skies. But equally awesome is its operating performance. Alaska Airlines consistently provides the industry's number one overall ranking and best on-time performance. A key ingredient of this excellent performance is Alaska Airlines' Lean initiative. With an aggressive implementation of Lean, Ben Minicucci, Executive VP for Operations, is finding ever-increasing levels of performance.



He pushes this initiative throughout the company with: (1) a focus on continuous improvement, (2) metrics that measure performance against targets, and (3) making performance relevant to Alaska Airlines' empowered employees. With leadership training that includes a strong focus on participative management, Minicucci has created a seven-person Lean Department.

The department provides extensive training in Lean via one-week courses, participative workshops, and two-week classes that train employees to become a Six Sigma Green Belt. Some employees even pursue the next step, Black Belt certification.

A huge part of any airline's operations is fuel cost, but capital utilization and much of the remaining cost is dependent upon ground equipment and crews that handle aircraft turnaround and maintenance, in-flight services, and customer service. As John Ladner, Director of Seattle Airport Operations, has observed, "Lean eliminates waste, exposes non-standard work, and is forcing a focus on variations in documented best practices and work time." Lean is now part of the Alaska Airlines corporate culture, with some 60 ongoing projects. Kaizen events (called "Accelerated Improvement Workshops" at Alaska Airlines), Gemba Walks (called "waste walks" by Alaska Airlines), and 5S are now a part of everyday conversation at Alaska Airlines. Lean projects have included:

- ◆ Applying 5S to identify aircraft ground equipment and its location on the tarmac.
- ◆ Improving preparation for and synchronization of the arrival and departure sequences; time to open the front door after arrival has been reduced from 4.5 to 1 min.
- ◆ Redefining the disconnect procedure for tow bars used to "push back" aircraft at departure time; planes now depart 2–3 minutes faster.
- ◆ Revising the deicing process, meaning less time for the plane to be on the tarmac.
- ◆ Improving pilot staffing, making Alaska's pilot productivity the highest in the industry. Every 1% improvement in productivity leads to \$5 million savings on a recurring basis. Alaska Airlines has achieved a 7% productivity improvement over the last five years.

Another current Lean project is passenger unloading and loading. Lean instructor Allison Fletcher calls this "the most unique project I have worked on." One exciting aspect of deplaning is Alaska's solar powered "switchback" staircase for unloading passengers through the rear door (see photo). Alaska is saving two minutes, or nearly 17%, off previous unloading time with this new process. Alaska Airlines' Lean culture has made it a leader in the industry.

Discussion Questions:

1. What are the key ingredients of Lean, as identified at Alaska Airlines?
2. As an initial phase of a kaizen event, discuss the many ways passengers can be loaded and unloaded from airplanes.
3. Document the research that is being done on the aircraft passenger-loading problem.

4.3.12. Activity 12: Debate and Discussion

How does machine design contribute to either increasing or alleviating the maintenance problem?

4.3.13. Activity 13: Project-based Learning Activity

Select an everyday "project" you are familiar with such as a class project, preparing a meal, making a pizza, or repairing your car. Develop a list of the activities, a CPM/PERT network (with



time estimates) and a work breakdown schedule for the project.

4.3.14. Activity 14: Case Study: The “People” Focus: Human Resources at Alaska Airlines

With thousands of employees spread across nearly 100 locations in the United States, Mexico, and Canada, building a committed and cohesive workforce is a challenge. Yet Alaska Airlines is making it work. The company’s “people” focus states: While airplanes and technology enable us to do what we do, we recognize this is fundamentally a people business, and our future depends on how we work together to win in this extremely competitive environment. As we grow, we want to strengthen our small company feel.

We will succeed where others fail because of our pride and passion, and because of the way we treat our customers, our suppliers, and partners, and each other. Managerial excellence requires a committed workforce. Alaska Airlines’ pledge of respect for people is one of the key elements of a world-class operation.

Effective organizations require talented, committed, and trained personnel. Alaska Airlines conducts comprehensive training at all levels. Its “Flight Path” leadership training for all 10,000 employees is now being followed by “Gear Up” training for 800 front-line managers. In addition, training programs have been developed for Lean and Six Sigma as well as for the unique requirements for pilots, flight attendants, baggage, and ramp personnel.

Because the company only hires pilots into first officer positions—the right seat in the cockpit, it offers a program called the “Fourth Stripe” to train for promotion into the captain’s seat on the left side, along with all the additional responsibility that entails (see exterior and interior photos of one of Alaska Airlines’ flight simulators on the opening page of this chapter). Customer service agents receive specific training on the company’s “Empowerment Toolkit.”

Like the Ritz-Carlton’s famous customer service philosophy, agents have the option of awarding customers hotel and meal vouchers or frequent flier miles when the customer has experienced a service problem. Because many managers are cross-trained in operational duties outside the scope of their daily positions, they can pitch in to ensure that customer-oriented processes go smoothly. Even John Ladner, Director of Seattle Airport Operations, who is a fully licensed pilot, has left his desk to cover a flight at the last minute for a sick colleague. Along with providing development and training at all levels, managers recognize that inherent personal traits can make an enormous difference.

For example, when flight attendants are hired, the ones who are still engaged, smiling, and fresh at the end of a very long interview day are the ones Alaska wants on the team. Why? The job requires these behaviors and attitudes to fit with the Alaska Airlines team—and smiling and friendly flight attendants are particularly important at the end of a long flight.

Visual workplace tools also complement and close the loop that matches training to performance. Alaska Airlines makes full use of color-coded graphs and charts to report performance against key metrics to employees. Twenty top managers gather weekly in an operations leadership meeting, run by Executive VP of Operations, Ben Minicucci, to review activity consolidated into visual summaries.

Key metrics are color-coded and posted prominently in every work area. Alaska’s training approach results in empowered employees who are willing to assume added responsibility and accept the unknowns that come with that added responsibility.

Discussion Questions:

1. Summarize Alaska Airlines’ human resources focus in your own words.



2. Why is employee empowerment useful to companies such as Alaska Airlines?
3. What tools discussed in the chapter might be employed to enhance the company's training and performance efforts? Why?

5. Module Requirements

A. Core Readings List

- 1) Antony, J., Snee, R., & Hoerl, R. (2017). Lean Six Sigma: Yesterday, Today and Tomorrow. *International Journal of Quality & Reliability Management*, 34(7).
- 2) Demeter, K. (2017). Research in Global Operations Management: Some Highlights and Potential Future Trends. *Journal of Manufacturing Technology Management*, 28(3).
- 3) Guimarães, L. G., Cimon, Y., & Coelho, L. C. (2016). Dynamic Inventory Management for Large Retail Chains. Bibliothèque et Archives Canada, 2016 ISBN 978-2-89524-443-1
- 4) Hacıoglu, U., & Sevgilioglu, G. (2019). The Evolving Role of Automated Systems and Its Cyber-security Issue for Global Business Operations in Industry 4.0. *International Journal of Business Ecosystem & Strategy* (2687-2293), 1(1), 01-11.
- 5) Heizer, J; Render, B.; & Munson, C. (2019). *Operations Management: Sustainability and Supply Chain Management (13th ed.)*. Pearson.
- 6) Operations Management Video Series. Retrieved from <https://youtu.be/Hn7V0lclJfQ>
- 7) Salam, A., Panahifar, F., & Byrne, P. J. (2016). Retail Supply Chain Service Levels: The Role of Inventory Storage. *Journal of Enterprise Information Management*.
- 8) Shahbaz, M. S., & Shaikh, F. A. (2019). Impact of Lean Management Practices on Operational Performance: An Empirical Investigation from Construction Supply Chain of Pakistan. *International Journal of Sustainable Construction Engineering and Technology*, 10(2), 85-92.
- 9) Shen, B., & Chan, H. L. (2017). Forecast Information Sharing for Managing Supply Chains in the Big Data Era: Recent Development and Future Research. *Asia-Pacific Journal of Operational Research*, 34(01).

B. Supplementary Reading List

- 1) Al-Dhaafri, H. S., & Bin Yusoff, R. Z. (2013). The Effect of Total Quality Management, Enterprise Resource Planning and the Entrepreneurial Orientation on the Organizational Performance: The Mediating Role of the Organizational Excellence – A Proposed Research Framework. *International Journal of Business Administration*, 4(1), 66-85.
- 2) Ferdows, K. (2018). Keeping Up with Growing Complexity of Managing Global Operations. *International Journal of Operations & Production Management*, 38(2).
- 3) Jagoda, K., Kiridena, S., & Lin, X. (2016). Alternative Operations Strategy Processes: Do They Matter? *Production Planning & Control*, 27(9), 740-752.
- 4) Kasemsap, K. (2018). Applying Lean Production and Six Sigma in Global Operations. *In Operations and Service Management: Concepts, Methodologies, Tools, and Applications* (pp. 582-612). IGI Global.
- 5) Leon, H. C. M., & Calvo-Amodio, J. (2017). Towards Lean for Sustainability: Understanding the Interrelationships Between Lean and Sustainability from a Systems Thinking Perspective. *Journal of Cleaner Production*, 142, 4384-4402.
- 6) Mittal, M., & Shah, N. H. (Eds.). (2016). *Optimal Inventory Control and Management Techniques*. IGI Global.
- 7) Moyano-Fuentes, J., Maqueira-Marín, J. M., Martínez-Jurado, P. J., & Sacristán-Díaz, M. (2020). Extending Lean Management Along the Supply Chain: Impact on Efficiency. *Journal of Manufacturing Technology Management*.
- 8) Singh, M., & Rath, R. (2019). A Structured Review of Lean Six Sigma in Various Industrial sectors. *International Journal of Lean Six Sigma*.

C. General Rules for Submitting Written Assignments



Prior to the assessment and grading, all homework assignments submitted via Virtual Learning Environment (VLE) are checked for plagiarism with the software embedded to the system. Before turning in the first assignment, each student must familiarize themselves with the Plagiarism Handbook in the VLE.

Written assignments should be typewritten and will only be marked and graded if they are submitted via VLE by the requested time. **Late submissions will not be accepted under any circumstances!** *Being virtually absent shall not be an accepted excuse for not submitting the required homework for the following session.*

Technical issues: The VLE system works functionally well and technical issues almost non-existent. Failure to submit the assignment on a timely basis is typically a result of a misuse of the VLE instructions or simply a missed deadline.

In case a student experiences issues with the submission of a particular assignment, an email should be sent before the submission deadline to the lecturer (with a copy to the Academic Coordinator) along with the screenshot of the technical issue. Each case will be thoroughly investigated, and the ultimate decision will be made by the Academics Department whether the homework should be accepted for evaluation and grading.

B. Attendance

80% attendance is compulsory. Students who miss more than 20% of classes without a justified reason (e.g., medical certificate) will automatically fail the module.

All appointments, including regular medical appointments, should be scheduled outside of class time, as any absence will affect the participation component of the module evaluation. If you are ill and you cannot attend a class, you will need to fill in the Absence Excuse form and provide a valid certificate from a credible medical institution. Under no circumstances is the lecturer involved in consideration of absence excuses. This responsibility lies with the Academic Coordinator and the Academic Committee. Please refer to the **Academic Policies and Student Guidelines** for further information.

Students who are late (not more than the first 10 minutes) will be allowed to enter the classroom upon the consideration of a lecturer meaning that if a lecturer started the class and believes that those arriving late may disturb the class, he/she has a right not to allow any late students to enter the classroom. Students over 10 minutes late should NOT be allowed into the classroom until the next break. In case the student is not allowed to enter the classroom in the first part of the class or is late more than 10 min, then the attendance will be rated at **50%** or a half class. This margin of time is not applicable after the mid-class break, i.e., students coming late or not returning after the break, will not be allowed into the class and/or will get documented only 50% of presence. Continuous late arrivals by a student gives the lecturer the right to dismiss that student from their class, with a failing grade.

Note: *As entering in the middle of a class session disrupts the entire class and is regarded as disrespectful, students should strictly adhere to the rules. Arriving late or leaving early will be noted and the total time of absences will be calculated by applying the same corresponding rules for continuous tardiness.*

