

DEREE COLLEGE SYLLABUS FOR: MG 4343 OPERATIONS MANAGEMENT						
(Updated Spring 2021)		UK LEVEL: 6 UK CREDITS: 15 US CREDITS: 3/0/3				
PREREQUISITES:	MG 2003 Management Principles or MG 3034 Managing People and Organizations MA 1008 College Algebra MA 2021 Applied Statistics					
CATALOG DESCRIPTION:	Key elements of operations management as they apply to the production of goods and services offered by manufacturing or service organizations. Topics include nature and context of operations management, product design and process selection design of facilities and jobs, managing the supply chain, and revising the system.					
RATIONALE:	A production/operations system functions to transform inputs to desired outputs. All organizations contain this function. It is important for business administration students of all majors to study it, since the operation function interacts with other organization functions such as marketing, human resources, finance, etc.					
LEARNING OUTCOMES:	As a result of taking this course, the student should be able to:  1. Analyze the challenges and opportunities faced by operations managers and evaluate the value and implications of their operational choices in real life organizational contexts.  2. Analyze and assess contemporary operations management theories and tools that aim at creating synergies among a variety of operational factors and parameters.  3. Apply and evaluate quantitative models to resolve critical operational problems and integrate their outcomes to formulate or assess expert recommendations.					
METHOD OF TEACHING AND LEARNING:	In congruence with the teaching and learning strategy of the college, the following tools are used:  ➤ Lectures, problem solving exercises, model applications, small case studies, the carrying out of a research project and in-class presentation.  ➤ Office hours held by the instructor to provide further assistance to students.  ➤ Use of the Blackboard Learning platform to further support communication, by posting lecture notes, assignment instruction, timely announcements, and online submission of assignments.					
ASSESSMENT:	<table><tr><td colspan="2">Summative:</td></tr><tr><td>First Assessment: Written project (individual; 2,300-2,700 words)</td><td>60%</td></tr></table>		Summative:		First Assessment: Written project (individual; 2,300-2,700 words)	60%
Summative:						
First Assessment: Written project (individual; 2,300-2,700 words)	60%					

	<table border="1" data-bbox="560 191 1414 258"> <tr> <td>Final Assessment: Final examination (Essay form and problem solving)</td><td><b>40%</b></td></tr> </table> <p><b>Formative:</b></p> <table border="1" data-bbox="560 321 1414 388"> <tr> <td>Group Coursework - one in-class diagnostic examination and case study analyses</td><td><b>0%</b></td></tr> </table> <p>The formative coursework aims to prepare students for the major written project and the final examination.</p> <p>The written project tests Learning Outcome 1 The final examination tests Learning Outcomes 2 and 3</p> <p>Students are required to resit failed assessments in this module.</p>	Final Assessment: Final examination (Essay form and problem solving)	<b>40%</b>	Group Coursework - one in-class diagnostic examination and case study analyses	<b>0%</b>
Final Assessment: Final examination (Essay form and problem solving)	<b>40%</b>				
Group Coursework - one in-class diagnostic examination and case study analyses	<b>0%</b>				
<p><b>INDICATIVE READING:</b></p>	<p><b>REQUIRED MATERIAL:</b> Chase and Jacobs. <i>Operations and Supply Chain Management</i>. McGraw-Hill, latest edition.</p> <p><b>RECOMMENDED READING:</b></p> <p><b>BOOKS</b> Anupindi, R., Chopra, S., Deshmuck, S.D., Van Mieghem, J.A. and Zemel, E. (2012). <i>Managing Business Process Flows</i>, 3<sup>rd</sup> edition, Prentice Hall.</p> <p>Krajewski, L.J., Malhotra, M.K. and Ritzman, L.P. (2019), <i>Operations management: Process and Supply Chains</i>, 12<sup>th</sup> ed., Pearson</p> <p>Russell R.S. and Taylor B.W. (2019). <i>Operations Management: Quality and Competitiveness in a Global Environment</i>, 10<sup>th</sup> ed., Prentice Hall.</p> <p>Schroeder, R.G. &amp; Goldstein, S.M. (2018). <i>Operations Management in the Supply Chain: Decisions and cases</i>, 7<sup>th</sup> ed., McGraw-Hill.</p> <p>Slack, N., and Brandon-Jones, A. (2019). <i>Operations Management</i>, 9<sup>th</sup> ed., Pearson</p> <p>Stevenson, W.J. (2018). <i>Operations Management</i>, 13<sup>th</sup> ed., McGraw-Hill.</p> <p><b>ARTICLES</b> Akkermans, H, van Oppen, W, Wynstra, F, Voss, C. (2019). "Contracting outsourced services with collaborative key performance indicators". <i>Journal of Operations Management</i>, Vol. 65, pp. 22– 47.</p> <p>Almeida, J.F.F., Conceição, S.V., Pinto, L.R., Oliveira, B.R.P. and Rodrigues, L.F. (2021), "Optimal sales and operations planning for integrated steel industries". <i>Annals of Operations Research</i>. <a href="https://doi.org/10.1007/s10479-020-03928-7">https://doi.org/10.1007/s10479-020-03928-7</a></p> <p>Bendig, D., Strese, S. and Brettel, M. (2017). "The link between operational leanness and credit ratings". <i>Journal of Operations Management</i>, Vol. 52, pp. 46-55.</p> <p>Bittencourt, V. L., Alves, A.C. and Leao C. P. (2020), "Industry 4.0 triggered by Lean Thinking: insights from a systematic literature review".</p>				

	<p><i>International Journal of Production Research</i>. DOI: <a href="https://doi.org/10.1080/00207543.2020.1832274">10.1080/00207543.2020.1832274</a></p> <p>Blome, C., Paulraj A. and Schuetz, K. (2014) "Supply chain collaboration and sustainability: a profile deviation analysis", <i>International Journal of Operations &amp; Production Management</i>, Vol. 34 No. 5, pp. 639 - 663</p> <p>Caniato, F., Doran, D., Sousa, R. and Boer, H. (2018), "Designing and developing OM research – from concept to publication", <i>International Journal of Operations &amp; Production Management</i>, Vol. 38 No. 9, pp. 1836-1856.</p> <p>Chae, S., Lawson, B., Kull, T. and Choi, T. (2019), "To insource or outsource the sourcing? A behavioral investigation of the multi-tier sourcing decision", <i>International Journal of Operations &amp; Production Management</i>, Vol. 39 No. 3, pp. 385-405.</p> <p>Chahal, H., Gupta, M., Bhan, N. and Cheng, T.C.E. (2020), "Operations management research grounded in the resource-based view: A meta-analysis", <i>International journal of Production Economics</i>, Vol. 230. DOI: <a href="https://doi.org/10.1016/j.iipe.2020.107805">10.1016/j.iipe.2020.107805</a></p> <p>Chandrasekaran, A., Linderman, K. and Sting, F.J. (2018). "Avoiding epistemological silos and empirical elephants in OM: How to combine empirical and simulation methods?". <i>Journal of Operations Management</i>, Vol. 63, pp. 1-5.</p> <p>Chatha, K.A., Butt, I., and Tariq, A. (2015) "Research methodologies and publication trends in manufacturing strategy: A content analysis based literature review", <i>International Journal of Operations &amp; Production Management</i>, Vol. 35 No. 4, pp. 487 - 546</p> <p>Cousins, P., Lawson, B., Petersen, K. and Fugate, B. (2019), "Investigating green supply chain management practices and performance: The moderating roles of supply chain ecocentricity and traceability", <i>International Journal of Operations &amp; Production Management</i>, Vol. 39 No. 5, pp. 767-786.</p> <p>De Regge, M., Gemmel, P. and Meijboom, B. (2019), "How operations matters in healthcare standardization", <i>International Journal of Operations &amp; Production Management</i>, Vol. 39 No. 9/10, pp. 1144-1165.</p> <p>Eyers, D., Potter, A., Gosling, J. and Naim, M. (2018), "The flexibility of industrial additive manufacturing systems", <i>International Journal of Operations &amp; Production Management</i>, Vol. 38 No. 12, pp. 2313-2343.</p> <p>Finne, M. (2018), "Improving university teaching: a professional service operation perspective", <i>International Journal of Operations &amp; Production Management</i>, Vol. 38 No. 9, pp. 1765-1795.</p> <p>Goldratt, E.Y. and Cox, J. (2004) <i>The Goal: A Process of Ongoing Improvement</i>, Gower Publishing Limited</p> <p>Gray, J.V., Esenduran, G., Rungtusanatham, M.J. and Skowronski, K. (2017). "Why in the world did they reshore? Examining small to medium-</p>
--	---

	<p>sized manufacturer decisions". <i>Journal of Operations Management</i>, Vol. 49-51, pp. 37-51.</p> <p>Huang, Y.-Y., and Handfield, R.B. (2015) "Measuring the benefits of ERP on supply management maturity model: a "big data" method", <i>International Journal of Operations &amp; Production Management</i>, Vol. 35 No. 1, pp.2 - 25</p> <p>Kaipia, R., Holmström, J., Småros, J. and Rajala, R. (2017). "Information sharing for sales and operations planning: Contextualized solutions and mechanisms". <i>Journal of Operations Management</i>, Vol. 52, pp. 15-29.</p> <p>Kalaitzi, D., Matopoulos, A., Bourlakis, M. and Tate, W. (2019), "Supply chains under resource pressure: Strategies for improving resource efficiency and competitive advantage", <i>International Journal of Operations &amp; Production Management</i>, Vol. 39 No. 12, pp. 1323-1354.</p> <p>Ketokivi, M., Turkulainen, V., Seppälä, T., Rouvinen, P. and Ali-Yrkkö, J. (2017). "Why locate manufacturing in a high-cost country? A case study of 35 production location decisions". <i>Journal of Operations Management</i>, Vol. 49-51, pp. 20-30.</p> <p>Lee Park, C. and Paiva, E. (2018), "How do national cultures impact the operations strategy process?", <i>International Journal of Operations &amp; Production Management</i>, Vol. 38 No. 10, pp. 1937-1963.</p> <p>Lee, Y.S., Ribbink, D. and Eckerd, S. (2018). "Effectiveness of bonus and penalty incentive contracts in supply chain exchanges: Does national culture matter?" <i>Journal of Operations Management</i>, Vol. 62, pp. 59-74.</p> <p>Letmathe, P. and Rößler, M. (2019), "Tacit knowledge transfer and spillover learning in ramp-ups", <i>International Journal of Operations &amp; Production Management</i>, Vol. 39 No. 9/10, pp. 1099-1121.</p> <p>Martinez, V., Zhao, M., Blujdea, C., Han, X., Neely, A. and Albores, P. (2019), "Blockchain-driven customer order management", <i>International Journal of Operations &amp; Production Management</i>, Vol. 39 No. 6/7/8, pp. 993-1022.</p> <p>Pagell, M. (2021), "Replication without repeating ourselves: Addressing the replication crisis in operations and supply chain management research" <i>Journal of Operations Management</i>. Vol. 67, pp. 105– 115.</p> <p>Piercy, N. and Rich, R. (2015) "The relationship between lean operations and sustainable operations", <i>International Journal of Operations &amp; Production Management</i>, Vol. 35 No. 2, pp. 282 - 315</p> <p>Potter, A, Wilhelm, M. (2020). "Exploring supplier–supplier innovations within the Toyota supply network: A supply network perspective. <i>J Operations Management</i>, Vol. 66, pp. 797– 819. <a href="https://doi.org/10.1002/joom.1124">https://doi.org/10.1002/joom.1124</a></p> <p>Sawik, T. (2020), "A linear model for optimal cybersecurity investment in Industry 4.0 supply chains" . <i>International Journal of Production Research</i>. DOI: <a href="https://doi.org/10.1080/00207543.2020.1856442">10.1080/00207543.2020.1856442</a></p>
--	--

	<p>Shang, G., Saladin, B., Fry, T., and Donohue, J. (2015): Twenty-six years of operations management research (1985–2010): authorship patterns and research constituents in eleven top rated journals, <i>International Journal of Production Research</i></p> <p>Simpson, D., Meredith, J., Boyer, K., Dilts, D., Ellram, L.M., Leong, G.K. (2015), "Professional, Research, and Publishing Trends in Operations and Supply Chain Management", <i>Journal of Supply Chain Management</i></p> <p>van Hoek, R. (2019), "Exploring blockchain implementation in the supply chain: Learning from pioneers and RFID research", <i>International Journal of Operations &amp; Production Management</i>, Vol. 39 No. 6/7/8, pp. 829-859.</p> <p>Vanpoucke, E. and Ellis, S. (2019), "Building supply-side resilience – a behavioural view", <i>International Journal of Operations &amp; Production Management</i>, Vol. 40 No. 1, pp. 11-33.</p> <p>Zhao, R., Mashruwala, R., Pandit, S. and Balakrishnan, J. (2019), "Supply chain relational capital and the bullwhip effect: An empirical analysis using financial disclosures", <i>International Journal of Operations &amp; Production Management</i>, Vol. 39 No. 5, pp. 658-689.</p>
<b>INDICATIVE MATERIAL:</b> (e.g. audiovisual, digital material, etc.)	<p><b>REQUIRED MATERIAL:</b> N/A</p> <p><b>RECOMMENDED MATERIAL:</b> N/A</p>
<b>COMMUNICATION REQUIREMENTS:</b>	Use of appropriate academic conventions as applicable in oral and written communications.
<b>SOFTWARE REQUIREMENTS:</b>	MS Office
<b>WWW RESOURCES:</b>	<p> <a href="http://www.apqc.org">www.apqc.org</a>  <a href="http://www.juse.org.jp">www.juse.org.jp</a>  <a href="http://www.kaizen-institute.com">www.kaizen-institute.com</a>  <a href="http://www.nist.gov">www.nist.gov</a>  <a href="http://www.toyota.co.jp">www.toyota.co.jp</a>  <a href="http://www.iomnet.org">www.iomnet.org</a>  <a href="http://www.poms.org">www.poms.org</a>  <a href="http://www.opsman.org">www.opsman.org</a>  <a href="http://www.bpmi.org">www.bpmi.org</a>  <a href="http://www.waria.com">www.waria.com</a>  <a href="http://www.outsourcing.com">www.outsourcing.com</a>  <a href="http://www.bptrends.com">www.bptrends.com</a>  <a href="http://www.inventorymanagement.com">www.inventorymanagement.com</a>  <a href="http://www.erpfans.com">www.erpfans.com</a>  <a href="http://www.sapfans.com">www.sapfans.com</a>  <a href="http://www.pmi.org">www.pmi.org</a>  <a href="http://www.quality-foundation.co.uk">www.quality-foundation.co.uk</a>  <a href="http://www.asq.org">www.asq.org</a>  <a href="http://www.quality.nist.gov">www.quality.nist.gov</a>  <a href="http://www.balancedscorecard.org">www.balancedscorecard.org</a>  <a href="http://www.kmmagazine.com">www.kmmagazine.com</a> </p>
<b>INDICATIVE CONTENT:</b>	<ol style="list-style-type: none"> <li>1. Introduction to Operations Management Field</li> <li>2. Operations Strategy and Competitiveness</li> </ol>

	<ol style="list-style-type: none"><li>3. Project Management</li><li>4. Quality Management</li><li>5. Process Analysis</li><li>6. Product Design</li><li>7. Strategic Capacity Management</li><li>8. Facility Location and Layout</li><li>9. Just in Time Production Systems</li><li>10. Forecasting</li><li>11. Aggregate Planning</li><li>12. Inventory Systems</li><li>13. Operations Scheduling</li><li>14. Operations Consulting</li><li>15. Synchronous Manufacturing and Theory of Constraints</li><li>16. Demystifying Industry 4.0: Drivers, enablers, opportunities and challenges</li><li>17. Technologies of Industry 4.0</li></ol>
--	--