DEREE COLLEGE SYLLABUS FOR: BAN 3333 Business Process Automation	
(New course: Fall 2025)	**UK Level: 5** **UK Credits: 15** **US Credits: 3/1/3**

PREREQUISITES:	CS 1070 Introduction to Information Systems **or** ITC 1070 Information Technology Fundamentals CS 2179 Business Information Systems **or** CS 3051 Business Driven Technology MG 2063 Principles of Operations Management
CATALOG DESCRIPTION:	Business process management; business process modeling techniques; business process mining; theoretical and practical aspects of business process automation; Robotic Process Automation (RPA); implementing Hyperautomation.
RATIONALE:	This course equips students with the necessary skills to design, optimize, and automate end-to-end business processes. Additionally, hands-on practical sessions will enable students to automate processes using Robotic Process Automation and leverage Hyperautomation capabilities. The course aims to develop proficiency in applying various process improvement and automation methods to enhance productivity, reduce costs, and facilitate the digital transformation of an organization's operations.
LEARNING OUTCOMES:	As a result of taking this course, the student should be able to: 1. Analyze complex business processes to recommend appropriate modeling techniques, breakdown points, and areas for improvement. 2. Analyze the execution of an organization's complex operational process by evaluating process mining outputs and findings. 3. Compare and contrast various process automation approaches and theories to determine appropriate applications based on organizational requirements and contextual factors. 4. Design and implement an automated business process workflow incorporating Hyperautomation features.
METHOD OF TEACHING AND LEARNING:	In congruence with the teaching and learning strategy of the college, the following tools are used: ➢ Lectures, class discussions on case studies, flipped classroom, simulation and best teaching and learning practices. ➢ Laboratory hands-on sessions on business process design, business process mining and business process automation tools. ➢ 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:	**Summative**:

First Assessment – In-class exam	20%	Answers to essay questions
Second Assessment – Take-home assignment	30%	A report examining inefficiencies of an existing business process
Final Assessment - Research Project	50%	Literature review, use of a business process automation tool (2,000-2,200 words)

Formative:

Group assignments	0%

	The formative assessment(s) aim to prepare students for the summative ones.

The First Assessment tests Learning Outcome 1.
The Second Assessment tests Learning Outcome 2.
The Final Assessment tests Learning Outcomes 3 and 4.

The final grade for this module will be determined by averaging all summative assessment grades, based on the predetermined weights for each assessment. If students pass the comprehensive assessment that tests all Learning Outcomes for this module and the average grade for the module is 40 or higher, students are not required to resit any failed assessments.

(Guidelines and assessment rubrics are distributed on the first day of classes along with the course outline). |
READING LIST:	REQUIRED READING: • Marlon Dumas, Marcello La Rosa, Jan Mendling, Hajo A. Reijers. Fundamentals of Business Process Management, Springer Berlin, Heidelberg, latest edition, ISBN: 978-3-662-58585-6. RECOMMENDED READING: • Christian Czarnecki, Peter Fettke, Christian Czarnecki, Peter Fettke (2014). Robotic Process Automation. De Gruyter Oldenburg, First Edition, 2021 ISBN: 9783110676693 . • Bharati Mohapatra, Sanjana Mohapatra, Sanjay Mohapatra, Process Automation Strategy in Services, Manufacturing and Construction. Emerald Publishing, First Edition, 2023, ISBN: 978-1-80455-143-1 • Surbhi Jain, The Fundamentals of business process management, Society Publishing, 2023, ISBN: 9781774696804 • Wil M. P. van der Aalst, Process Mining in Action: Principles, Use Cases and Outlook, Springer, First Edition, 2020, ISBN: 978-3030401719 • Wil M. P. van der Aalst, Josep Carmona, Process Mining Handbook, Springer Cham, 2022, ISBN: 978-3-031-08848-3, https://doi.org/10.1007/978-3-031-08848-3 • Jorge Ribeiro, Rui Lima, Tiago Eckhardt, Sara Paiva, "Robotic Process Automation and Artificial Intelligence in Industry 4.0 – A Literature review", Procedia Computer Science, Volume 181, 2021, Pages 51-58, ISSN 1877-0509, https://doi.org/10.1016/j.procs.2021.01.104. • Santos, F., Pereira, R. and Vasconcelos, J.B. (2020), "Toward robotic process automation implementation: an end-to-end perspective", Business Process Management Journal, Vol. 26 No. 2, pp. 405-420. https://doi.org/10.1108/BPMJ-12-2018-0380.
COMMUNICATION REQUIREMENTS:	Use of appropriate academic conventions as applicable in oral and written communications.
SOFTWARE REQUIREMENTS:	• MS-Office 365 applications • Business Process Design Tools • Business Process Mining Tools • Business Process Automation Tools

WWW RESOURCES:	• https://appian.com/learn/topics/process-automation/business-process-automation-explained.html
	• https://powerautomate.microsoft.com/en-gb/business-process-automation/
	• https://blog.processology.net/what-is-business-process-automation-examples-and-benefits
	• 10 Business Process Modelling Techniques | GetSmarter Blog
INDICATIVE CONTENT:	• Introduction to Business Process Management
	• Process Modelling and Design
	• Business Process Mining
	• Business Process Automation
	• Fundamentals of Hyperautomation