Production AI Brief Outline Spring 2025

Date (mod)	Domain (%)	Topic	Cloud Complement	I/T*	Wt %	Module Due**
1/21 (1)	Foundation (5)	Project Statement	Deploy Student VM	T	5	2
	Data (25)				25	
1/28 (2)		Data Selection and Rationale	Storage Account	I	5	3
		Data Ingest - both archival and real time	Cloud Storage Types and Features	I	5	3
2/4 (3)		Data Cleanup and Analytics Pipeline	ML Studio	I	10	4
2/11 (4)		Data Persistence	DataBase Systems Mongo, Redis, SQL (DB Deployment Assignment)	I	5	4
	Model (35)				35	
2/18 (5)		Model Candidates Selection (minimum 2)	Azure AI Systems (Mini-Research-Paper)	I	10	5
2/25 (6)		Model Performance Determination	App Service Website Basic React App	I	5	6
		Model Resource Use Determination		I	5	6
3/4 (7)		Model Selection, Inference Export, and Governance	Deploy Function App	I	15	7
	System (15)				15	
3/11 (8)		System Scalable Architecture and Jira setup	Deploy Azure Container Registry	T	5	8
3/18		**SPRING BREAK**				
3/25 (9)		Integrated Distributed System with Inference analytic	Deploy Kubernetes	T	5	9
4/1 (10)		System Monitoring	IoT Messaging	T	5	10
	Deployment (15)				15	
4/8		Containerization	VM Deployment Agent	T	5	11

4/8 (11)						
4/15 (12)		Orchestration and Deployment		T	10	12
4/22 (13)		Model Drift and Update		T	5	13
4/29 (14)	Final (5)	Presentation		**T**	**5**	14

* Individual (60%) or Team (40%)

** Due at end of the module - except for the project statement, all deliverables include a jupyter notebook overview and python code files preferable organized by class