



SHARDA
UNIVERSITY
Beyond Boundaries



**SHARDA SCHOOL OF
ENGINEERING &
TECHNOLOGY**



COURSE

Inventory Management

(VAT 107)

VALUE ADDED
COURSE BROCHURE-30 HRS
2024-25

ABOUT THE UNIVERSITY

Sharda University is a leading Educational institution based out of Greater Noida, Delhi NCR. A venture of the renowned Sharda Group of Institutions (SGI), The University has established itself as a high quality education provider with prime focus on holistic learning and imbibing competitive abilities in students.

ABOUT SCHOOL

Sharda School of Engineering and technology is an open platform for diverse voices where teaching runs parallel to the real world and students are groomed to join the global workforce. SSET is distinguished as one of the top-ranked engineering schools in India. The students at SSET benefit through the professional grooming of renowned faculty and industry experts having experience of tackling pressing engineering problems. Students discover their passion in one of the various offered Engineering majors at the School of Engineering and technology.

ABOUT DEPARTMENT

The Department of Computer Science and Applications strives to equip faculty and students with all the computing resources needed to address a wide range of scientific, technological, and socially complex problems. The department imparts technical education for designing quirky technological applications and innovations. The department grails to become a center of excellence and impart knowledge to intellectual professionals so as to equip them with the requisite skills as per Industry standards. The department aims to foster an innovative research environment by providing a supportive, amiable, and challenge-based learning culture. The department utilizes high-performance computing equipment and facilities to impart state-of-the-art technical knowledge to students and instill a desire to pursue lifelong learning. To emerge as a world-class department, we focus on innovative research and quality learning in computer science applications that prepares entrepreneurs and professionals to lead the social, economic, and technical development of society. The department enjoys the full patronage of the Chancellor, Vice-Chancellor, Pro-Vice-Chancellor, and the director of the School of Engineering (SET) where it is housed presently.

VALUE ADDED COURSE (VAC)

The Value added Education Courses aim to provide additional learner centric graded skill oriented training, with the primary objective of improving the employability skills of students.

PURPOSE OF VALUE ADDED COURSE

VACs are pertinent instructional strategies designed to close knowledge gaps in students and provide them a competitive edge in the Job market. The courses' well-defined offspring VACs make them incredibly helpful for enhancing students' employability quotient by developing a variety of competencies. It aids students' in laying the creative groundwork for a passion project.(computers project, quantitative analytics,etc) aside from their occupation courses offering characteristics that can assist in transforming their enthusiasm into occupation. The course will cover the fundamentals of problem visualization from the standpoint of queue management in scenarios related to industrial or facility management. Course will provide basic approach of visualization of problem from Game theory perspective from industrial or facility management scenario.

COURSE SCHEDULE

Unit	Content	Duration
1	Introduction to Inventory Management	2 h
2	Inventory terms and definitions	2 h
3	ABC/VED classification	2 h
4	EOQ model concept	2 h
5	Inventory models without shortage	2 h
6	Inventory models with shortage	2 h
7	Reorder Level usage	2 h
8	Lead time and effects	2 h
9	Inventory Model with lead time	2 h
10	Finite production concept	2 h
11	Eoq model with finite production	2 h
12	EOQ model with shortages	2 h
13	Usage of inventory management applications	2 h
14	Applications under inventory management domains	2 h
15	Writing of simple applications in inventory management domain	2 h
Total		30 h

Data Analytics Using AWS Course Coverage (Total Hours: 30)

School: SSET	Batch : 2022-26
Program: B.Tech IT	Current Academic Year: 2024-25
Branch:	Semester: III

1. Course Code	VAT107	
2. Course Title	Inventory Management	
3. Credits	Non Credit	
4. Contact Hours (L-T-P)	30 Hours	
Course Type	Value added course	
5. Course Objective	Course will provide basic approach of visualization of problem from Inventory Management perspective from industrial or facility management scenario.	
6. Course Outcomes	CO1: Understanding of inventory terms and definition and importance in industry CO2: Understanding deterministic demand model of inventory with economic order quantity. CO3: Understanding lead time and reorder level CO4: Understanding finite production rate models CO5: Software applications usage in practical industrial aspect Co6: Creating simple applications for quantitative solutions for inventory Management	
7. Course Description	This course will cover an overview of quantitative solutions to problems from inventory management perspective	
8. Outline syllabus		CO Mapping
Unit 1	Introduction to Inventory Management	
A	Introduction to Inventory Management	CO1
B	Inventory terms and definitions	CO1, CO2
C	ABC/VED classification	CO1, CO2, CO3
Unit 2	Deterministic Inventory Models	
A	EOQ model concept	CO1, CO2
B	Inventory models without shortage	CO1, CO2
C	Inventory models with shortage	CO1, CO2
Unit 3	Inventory Models with Lead Time and Reorder Level	
A	Reorder Level usage	CO1, CO3
B	Lead time and effects	CO1, CO3
C	Inventory Model with lead time	CO1, CO3
Unit 4	Finite production rate models	
A	Finite production concept	CO1, CO4
B	Eoq model with finite production	CO1, CO4
C	EOQ model with shortages	CO1, CO4
Unit 5	Software Applications	
A	Usage of inventory management applications	CO1, CO5, CO6
B	Applications under inventory management domains	CO1, CO5, CO6
C	Writing of simple applications in inventory management domain	CO1, CO5, CO6
Mode of examination	Jury/Practical/Viva	

References

1. K.Sharma, Operations Research – Theory and Applications, MacMillan India, 2009.
2. D.Sharma, Operations Research – Theory, Methods and Applications, Kedarnath Ramnath, 15 th Edition.
3. Hillier, Frederick & Lieberman, Introduction to Operations Research Concepts and Cases, 8 th Edition, TMH, 2008