Fold each printed sheet in half lengthwise. The left side of the document will list the term and the right side will list the definition. Tape or staple the open edges of your flashcards. Cut out your flashcards on the solid lines indicated and fold them on the dotted lines.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Advanced planning and scheduling (APS)

Techniques that deal with the analysis and planning of logistics and manufacturing during short, intermediate, and long-term time periods. Describes any computer program that uses advanced mathematical algorithms or logic to perform optimization or simulation on finite capacity scheduling, sourcing, capital planning, resource planning, forecasting, demand management, and others. These techniques simultaneously consider a range of constraints and business rules to provide real-time planning and scheduling, decision support, available-to-promise, and capable-to-promise capabilities.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Artificial intelligence (AI)

Computer programs that can learn and reason in a manner similar to humans. The problem is defined in terms of states and operators to generate a search space that is examined for the best solution.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Big data

Collecting, storing, and processing massive amounts of data for the purpose of converting it into useful information.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Blockchain

A continuously growing list of records, called blocks, which are linked and secured using cryptography. Each block typically contains a cryptographic hash of the previous block, a timestamp, and transaction data. The data in any given block cannot be altered retroactively without the alteration of all subsequent blocks, inherently making it resistant to modification.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Cloud computing

APICS CTSC Learning System © 2024

An emerging way of computing in which data is stored in massive data centers that can be accessed from any computer connected to the internet.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Competitive analysis

APICS CTSC Learning System © 2024

An analysis of a competitor that includes its strategies, capabilities, prices, and costs.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Data mining

APICS CTSC Learning System © 2024

The process of studying data to search for previously unknown relationships. This knowledge is then applied to achieving specific business goals.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Decision support system (DSS)

APICS CTSC Learning System © 2024

A computer system designed to assist managers in selecting and evaluating courses of action by providing a logical (usually quantitative) analysis of the relevant factors.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Deflation

APICS CTSC Learning System © 2024

An ongoing decrease in the overall level of prices.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Digital Capabilities Model (DCM) for Supply Networks

APICS CTSC Learning System © 2024

A reference model for supply chain professionals to guide the development of digital supply networks. The model is designed in a relational manner to help envision and then build the digitally enabled capabilities required to transform linear supply chains into a set of dynamic networks.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Enterprise resource planning (ERP)

APICS CTSC Learning System © 2024

Framework for organizing, defining, and standardizing the business processes necessary to effectively plan and control an organization so the organization can use its internal knowledge to seek external advantages. An ERP system provides extensive databanks of information including master file records, repositories of cost and sales, financial details, analysis of product and customer hierarchies, and historic and current transactional data.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Environmental scanning

APICS CTSC Learning System © 2024

A process used to expose an organization's potential strengths, weaknesses, opportunities, and threats. Many experts emphasize opportunities and threats because the tool is primarily external.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Industry 4.0

APICS CTSC Learning System © 2024

A concept of organizational and technological changes along with value chain integrations and new business models development that are driven by customer needs and mass customization requirements and enabled by innovation technologies, connectivity, and information technology integration.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Inflation

APICS CTSC Learning System © 2024

An ongoing rise in the overall level of prices.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Internet of things (IOT)

APICS CTSC Learning System © 2024

An environment in which objects, animals or people are provided with unique identifiers and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction. This allows objects to be sensed and controlled remotely across existing network infrastructure, creating opportunities for more direct integration between the physical world and computer-based systems.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Machine learning

APICS CTSC Learning System © 2024

Artificial intelligence software that is capable of analysis, self-training, and observation to improve its own performance. It is often used to assist with planning and forecasting.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Macro environment

APICS CTSC Learning System © 2024

The environment external to a business including technological, economic, natural, and regulatory forces that marketing efforts cannot control.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Macroeconomics

APICS CTSC Learning System © 2024

The analysis of the collective behavior of economic actors across an entire economy.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Manufacturing execution systems (MES)

APICS CTSC Learning System © 2024

Programs and systems that participate in shop floor control, including programmed logic controllers and process control computers for direct and supervisory control of manufacturing equipment, process information systems that gather historical performance information and then generate reports, graphical displays, and alarms that inform operations personnel what is going on in the plant currently and what occurred during a very short history into the past. Quality control information is also gathered, and a laboratory information management system may be part of this configuration to tie process conditions to the quality data that is generated. Cause-and-effect relationships can thereby be determined. The quality data at times affects the control parameters that are used to meet product specifications either dynamically or offline.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Master data

APICS CTSC Learning System © 2024

An enterprise's essential core data consisting of basic information needed across the enterprise to conduct business. Describes the core entities of the enterprise, including products, customers, suppliers, sites, and charts of accounts.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
PESTLE analysis

APICS CTSC Learning System © 2024

An analysis of the political, economic, social/ethical, technological, legislative, and environmental factors in the external environment of an organization that can affect performance. This analysis often is used in conjunction with a SWOT (strengths, weaknesses, opportunities, threats) analysis. It aids organizations in determining the environment in which they operate.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Portfolio

APICS CTSC Learning System © 2024

In project management, a collection of projects that are grouped to facilitate management. They are not necessarily interdependent.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Process capability index

APICS CTSC Learning System © 2024

The value of the tolerance specified for the characteristic divided by the process capability. There are several types, including the widely used Cpk and Cp.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Program

APICS CTSC Learning System © 2024

In project management, a coordinated set of related projects, usually including ongoing work.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Project

APICS CTSC Learning System © 2024

An endeavor with a specific objective to be met within predetermined time and dollar limitations and that has been assigned for definition or execution.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Quality function deployment (QFD)

APICS CTSC Learning System © 2024

A methodology designed to ensure that all the major requirements of the customer are identified and subsequently met or exceeded through the resulting product design process and the design and operation of the supporting production management system.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Responsive demand-supply matching (RDSM)

APICS CTSC Learning System © 2024

The ability to sense demand exceptions; target revenue opportunities; and resolve supply challenges through planning of constrained resources (material, labor, and equipment capacity) and the allocation of supply across the network to best meet demand aligned with the business strategy.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Smart contracts

APICS CTSC Learning System © 2024

A self-executing contract with the terms of an agreement between a buyer and a seller written into lines of blockchain code. These contracts use technology to automatically ensure that contract terms are met. If a new action, transaction, or other information is added to the blockchain—or decentralized digital ledger of the agreement—that does not match the terms of the agreement already included in the blockchain, the information will be rejected, thus ensuring that all parties adhere to the contract.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Smart operations

APICS CTSC Learning System © 2024

A highly responsive, adaptive, digitized, and connected function integrated into the digital supply network that synchronizes all aspects of production and operations. This function drives significant performance and safety improvements in production, particularly in regard to quality and maintenance, repair, and overhaul.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Supply chain control towers

APICS CTSC Learning System © 2024

A centralized hub that provides an integrated, complete view of data across the end-to-end supply chain. The system allows the supplier to see the requirements and inventory levels at the customer's site, enhances the ability to get accurate information about supply location and availability, and highlights any potential excess inventory. Similarly, it helps the customer easily identify supply and demand variations and take necessary actions to return excess inventory.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Supply chain event management (SCEM)

APICS CTSC Learning System © 2024

A term associated with supply chain management software applications, in which users have the ability to flag the occurrence of certain supply chain events to trigger some form of alert or action within another supply chain application. SCEM can be deployed to monitor supply chain business processes such as planning, transportation, logistics, or procurement. It can also be applied to supply chain business intelligence applications to alert users to any unplanned or unexpected events.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Voice of the customer (VOC)

APICS CTSC Learning System © 2024

Actual customer descriptions in words for the functions and features customers desire for goods and services.

Module 2
Section A: Select Supply Chain Transformation Drivers

Term
Warehouse management system (WMS)

APICS CTSC Learning System © 2024

A computer application system designed to manage and optimize workflows and the storage of goods within a warehouse. It often interfaces with automated data capture and enterprise resource planning systems.

Module 2
Section B: Assess Supply Chain Current State

Term
Gap

APICS CTSC Learning System © 2024

The difference between the actual performance level and the expected performance level.

Module 2
Section B: Assess Supply Chain Current State

Term
Gap analysis

APICS CTSC Learning System © 2024

A tool designed to assess the differences between a service that is offered and customer expectations.

Module 2
Section C: Conceptualize the Future-State Supply Chain Operating Model

Term
Brainstorming

APICS CTSC Learning System © 2024

A technique that teams use to generate ideas about a particular subject. Each person on the team is asked to think creatively and write down as many ideas as possible. The ideas are not discussed or reviewed until after the session.

Module 2

Section C: Conceptualize the Future-State Supply Chain Operating Model

Term

What-if analysis

APICS CTSC Learning System © 2024

The process of evaluating alternate strategies by answering the consequences of changes to forecasts, manufacturing plans, inventory levels, and so forth.

Module 2

Section D: Identify Initiatives to Address Gaps

Term

Discretionary dependencies

APICS CTSC Learning System © 2024

Dependencies that are based on best practices; could be done in a different order or in parallel with another project but at higher risk because the best practice is being overridden.

Module 2

Section D: Identify Initiatives to Address Gaps

Term

Mandatory dependencies

APICS CTSC Learning System © 2024

Dependencies that are inherent in the nature of the activities or are regulatory or contractual requirements.

Module 2

Section F: Develop and Iterate Preliminary Transformation Business Cases

Term

Break-even analysis

APICS CTSC Learning System © 2024

A study of the number of units or amount of time required to recoup an investment.

Module 2
Section F: Develop and Iterate Preliminary Transformation Business Cases

Term
Break-even point

APICS CTSC Learning System © 2024

The level of production or the volume of sales at which operations are neither profitable nor unprofitable; the intersection of the total revenue and total cost curves.

Module 2
Section F: Develop and Iterate Preliminary Transformation Business Cases

Term
Contribution margin

APICS CTSC Learning System © 2024

An amount equal to the difference between sales revenue and variable costs.

Module 2
Section F: Develop and Iterate Preliminary Transformation Business Cases

Term
Cost-volume-profit analysis

APICS CTSC Learning System © 2024

The study of how profits change with various levels of output and selling price.

Module 2
Section F: Develop and Iterate Preliminary Transformation Business Cases

Term
Current ratio

APICS CTSC Learning System © 2024

Current assets divided by current liabilities.

Module 2

Section F: Develop and Iterate Preliminary Transformation Business Cases

Term
Discounted cash flow

APICS CTSC Learning System © 2024

A method of investment analysis in which future cash flows are converted or discounted to their value at the present time. The net present value of an item is estimated to be the sum of all discounted future cash flows.

Module 2

Section F: Develop and Iterate Preliminary Transformation Business Cases

Term
Economic value added (EVA)

APICS CTSC Learning System © 2024

In managerial accounting, the net operating profit earned above the cost of capital for a profit center.

Module 2

Section F: Develop and Iterate Preliminary Transformation Business Cases

Term
Net working capital

APICS CTSC Learning System © 2024

The current assets of a firm minus its current liabilities.

Module 2

Section F: Develop and Iterate Preliminary Transformation Business Cases

Term
Payback period

APICS CTSC Learning System © 2024

The period of time required for the stream of cash flows resulting from a project to equal the project's initial investment.

Module 2

Section F: Develop and Iterate Preliminary Transformation Business Cases

Term

Residual income

APICS CTSC Learning System © 2024

The net operating income that an investment center earns above the minimum required return on its operating assets.

Module 2

Section F: Develop and Iterate Preliminary Transformation Business Cases

Term

Return on investment (ROI)

APICS CTSC Learning System © 2024

A relative measure of financial performance that provides a means for comparing various investments by calculating the profits returned during a specified time period.

Module 2

Section F: Develop and Iterate Preliminary Transformation Business Cases

Term

Time value of money

APICS CTSC Learning System © 2024

The cumulative effect of elapsed time on the money value of an event, based on the earning power of equivalent invested funds.

Module 2

Section G: Perform Post-Approval Tasks

Term

Cause-and-effect diagram

APICS CTSC Learning System © 2024

A tool for analyzing process dispersion. It is also referred to as the Ishikawa diagram (because Kaoru Ishikawa developed it) and the fishbone diagram (because the complete diagram resembles a fish skeleton). The diagram illustrates the main causes and sub-causes leading to an effect (symptom).

Module 2
Section G: Perform Post-Approval Tasks

Term
Fishbone analysis

APICS CTSC Learning System © 2024

A technique to organize the elements of a problem or situation to aid in the determination of the causes of the problem or situation. The analysis relates the effect of the environment to the several possible sources of the problem.

Module 2
Section G: Perform Post-Approval Tasks

Term
Five whys

APICS CTSC Learning System © 2024

A common practice in total quality management that involves asking "why" five times when confronted with a problem. By the time the answer to the fifth why is found, the ultimate cause of the problem is identified.

Module 2
Section G: Perform Post-Approval Tasks

Term
Gantt chart

APICS CTSC Learning System © 2024

The earliest and best-known type of planning and control chart. It is especially designed to show graphically the relationship between planned performance and actual performance over time. Used for (1) machine loading, in which one horizontal line is used to represent capacity and another to represent load against that capacity, or (2) monitoring job progress, in which one horizontal line represents the production schedule and another parallel line represents the actual progress of the job against the schedule in time.

Module 2
Section G: Perform Post-Approval Tasks

Term
Nominal group technique

APICS CTSC Learning System © 2024

A technique, similar to brainstorming, used by teams to generate ideas about a particular subject. Team members are asked to silently come up with as many ideas as possible and write them down. Each member is then asked to share one idea, which is recorded. After all the ideas are recorded, they are discussed and prioritized by the group.