

# The Educational Society for Resource Management

certifies that *Roger P. G. Thijs*

has successfully completed the testing requirements of the  
Curricula and Certification Council and is hereby recognized as

*Certified in Production and Inventory Management*

in witness whereof we have set our hands on July 17, 2004

*Jeffrey W. Raynes*  
Jeffrey W. Raynes, CAE

Executive Director and Chief Operating Officer

*Arnold E. Kennedy*

Arnold E. Kennedy, CFPIM, CIRM, Jonah  
President

C|PIM

# Certified in production and inventory management

## Why CPIM Certification?

Personnel responsible for production, logistics, purchasing or inventory perform better when they understand the functions of operations planning and control. Integrating these functions is essential for achieving maximum efficiency.

The 'Certified in Production and Inventory Management' (CPIM) program is recognized as the international standard for individual assessment in the field of production and inventory management. Initiated by APICS in 1973, it provides a solid basis for individuals and organizations to evaluate their in depth knowledge of this evolving field.

The mission of the CPIM program is to educate individuals in the concepts, tools and terminology used in the operation functions. The certificate offers candidates an official recognition for their efforts and expertise while providing companies with a guarantee of high level logistics proficiency.

**The APICS CPIM certificate is known around the world as a Standard for Excellence in Production and Inventory Control!**

APICS organizes CPIM exams in 40 countries. More than 67000 professionals graduated as CPIM, including more than 500 certified persons in Belgium.

## The CPIM program: an overview

The CPIM program consists of 5 individual modules:

### ■ Entry module:

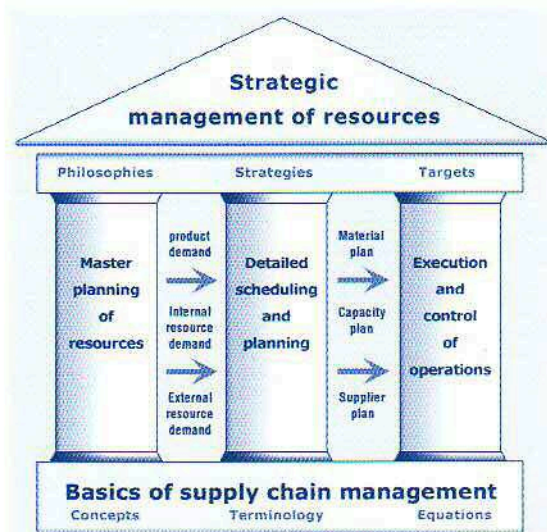
**Basics of Supply Chain Management:** terminology and basic concepts related to managing the complete flow of materials from suppliers to customers.

### ■ Business process modules:

**Master Planning of Resources, Detailed Scheduling and Planning, Execution and Control of Operations:** available methodologies and techniques to drive processes and the application of these techniques.

### ■ Capstone module:

**Strategic Management of Resources:** choosing the appropriate methodologies and techniques for specific needs and an appreciation for the integrated nature of operations.



## How can I obtain this international certificate?

To receive the CPIM designation, candidates must pass an exam for each module. These exams are administered in paper-and-pencil format using multiple-choice questions.

Candidates who pass the entry module receive the **Certificate of Basics of Supply Chain Management**.

Candidates who pass all five exams attain the status of **Certified in Production and Inventory Management**.

## Module 1: Basics of Supply Chain Management

This module covers basic concepts in managing the complete flow of materials that represents a supply chain from suppliers to customers. It introduces supply chain concepts and emphasizes basic terminology, but it also covers relationships among activities in the supply chain.

The Basics of Supply Chain Module is divided into four major areas

### ■ Business wide Concepts:

- Manufacturing Strategies
- Manufacturing Resource planning (MRP II)
- Just in Time (JIT)
- Total Quality Management (TQM)

### ■ Determining and managing customer demand:

- Demand Management
- Sources of Demand
- Forecasting Management
- Distribution Requirements Planning

### ■ Design, management and control of the transformation process:

- Design of information systems
- Planning systems
- Execution and Control
- Performance Measurements

### ■ Managing the supply activity:

- Inventory
- Purchasing
- Physical Distribution System

Basics of Supply Chain Management covers a solid overview of the concepts, tools and terminology specific to production and inventory management. Besides being the entry module for the CPIM candidates, this module is also the ideal introduction course for individuals, working in adjacent functional areas (purchasing, information systems, engineering, ....).

Because of its fundamental character the Basics of Supply Chain module is the only one which leads to a separate module certificate. Candidates who pass this exam receive the **Basics of Supply Chain Management Certificate**.

Knowledge of the material in this module is a prerequisite for the other CPIM modules, which cover similar topics but in much greater depth.

## Module 2: Master Planning of Resources

Master Planning of Resources explores processes used to develop sales and operations plans. It identifies and assesses internal and external demand and forecasting requirements. It also addresses concepts and methodologies for managing projected and actual demands from distribution networks and external customers. The module focuses on producing achievable master schedules which are consistent with business policies, objectives, and resource constraints. The course presents methods for integrating sales and operations plans, demand forecasts, and customer demand into a specific master schedule. It focuses on developing and validating a plan of supply.

### ■ Demand Management:

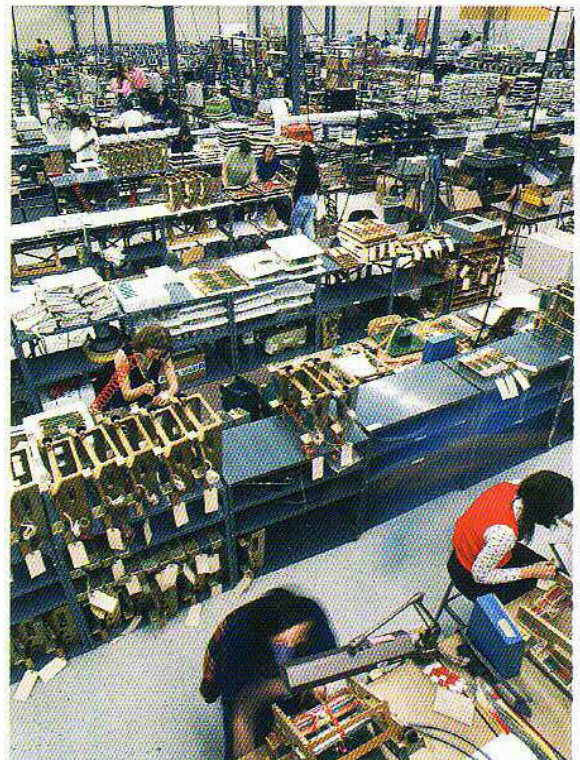
- Distribution Networks
- Forecasting Demand
- Recognizing and Processing Actual Demand

### ■ Sales and Operations Planning:

- Data required to support aggregate planning
- Developing a sales and operations plan
- Validating a resource plan

### ■ Master Scheduling:

- Developing and validating the master schedule
- Using and implementing the master schedule
- Measuring the effectiveness of the planning tool



## **Module 3: Detailed Scheduling and Planning**

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This course focuses on the various techniques for material and capacity planning. It includes detailed descriptions of material requirements planning (MRP), capacity requirements planning (CRP), inventory management practices and procurement and supplier planning. New techniques are discussed, including material-dominated scheduling and processor-dominated scheduling, which are applicable to process industries and other mature production environments.

### ■ **Planning material requirements to support the master schedule:**

- Techniques and practices of inventory management
- Information used in the material planning process
- Mechanics of detailed material planning process
- Maintaining the validity of the material plan
- Interactions with other systems

### ■ **Detailed Capacity planning:**

- Information used in detailed capacity planning
- Characteristics of detailed capacity planning
- Uses of detailed capacity planning process
- Measuring the performance of the capacity planning
- Interactions with other systems

### ■ **Planning procurements and external sources of supply:**

- Suppliers relationships
- Techniques for supplier partnerships
- Measuring the performance of the supplier

## **Module 4: Execution and Control of Operations**

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This module explains the principles and techniques for scheduling and controlling production and process operations. It presents techniques for evaluating performance and collecting data for effective feedback. It also addresses the execution of quality initiatives and continuous improvement plans.

### ■ **Prioritizing and Sequencing Work to be Performed:**

- Scheduling techniques
- Bottleneck Management
- Queue Management
- Preventive maintenance

### ■ **Executing Plans and Reporting Activities:**

- Push systems
- Pull systems
- Transaction reporting
- Customer-Supplier communication
- Controlling and handling inventories
- Quality initiatives
- Implementing continuous improvement plans
- Eliminating waste

### ■ **Evaluating Performance and Providing Feedback:**

- Evaluating quality management processes
- Monitoring supplier performance
- Evaluating the performance of production operations
- Cost management processes

## **Module 5: Strategic Management of Resources**

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Explores the relationship of existing and emerging processes and technologies to manufacturing strategy and the functions related to operations planning and control.

For maximum comprehension of course content students should be familiar with the information and concepts presented in the other CPIM modules before taking this course.

### ■ **Aligning the Resources with the Strategic Plan:**

- Competitive market issues
- Factors affecting required facilities
- Structure of the supply chain
- Choices of information technology
- Organizational design and human resources policies

### ■ **Configuring and Integrating the Operating Processes to Support the Strategic Plan:**

- The priority planning processes
- The capacity planning processes
- Design and development processes
- Cost management processes

### ■ **Implementing change:**

- Evaluating and managing projects
- Measuring organizational performance
- Managing change in an organization



# CPIM Primary References

The primary references are a complete set of texts, including the indispensable *CPIM Exam Content Manual*, which are invaluable to your certification education. CPIM candidates may select an individual reference or purchase the series for each module at a discounted rate.

Stock #	Publication		Nonmember	APICS Member
<b>CPIM Certification Series</b>				
09600	CPIM Certification Series (includes one copy of each of the following materials)		\$1,468.75	\$1,095.24
<b>All Modules</b>				
01102	APICS Dictionary (10th ed.)		\$45.00	\$24.30
09051	CPIM Exam Content Manual		\$36.00	\$23.40
<b>Basics of Supply Chain Management (suggested prerequisite)</b>				
09205	Basics of Supply Chain Management Practice Questions		\$28.00	\$18.20
03813	Introduction to Materials Management (5th ed.)		\$96.00	\$73.92
09601	Series CPIM—Basics of Supply Chain Management*		\$111.60	\$82.91
<b>Master Planning of Resources</b>				
05001	Master Planning of Resources Reprints		\$45.00	\$29.25
09209	Master Planning of Resources Practice Questions		\$28.00	\$18.20
03442	Distribution Planning and Control (2nd ed.)		\$152.00	\$76.00
03406	Manufacturing Planning and Control Systems (5th ed.)		\$65.00	\$50.05
03390	Master Scheduling in the 21st Century**		\$29.99	\$29.99
03160	Sales and Operations Planning		\$38.95	\$29.99
03838	Sales Forecasting**		\$29.99	\$29.99
09602	Series CPIM—Master Planning of Resources*		\$237.12	\$237.12
<b>Detailed Scheduling and Planning</b>				
05003	Detailed Scheduling and Planning Reprints		\$45.00	\$29.25
09211	Detailed Scheduling and Planning Practice Questions		\$28.00	\$18.20
03127	Integral Logistics Management (2nd ed.)		\$74.95	\$57.71
03813	Introduction to Materials Management (5th ed.)		\$96.00	\$73.92
03807	World Class Supply Management: Text and Cases (7th ed.)		\$107.19	\$96.47
09603	Series CPIM—Detailed Scheduling and Planning*		\$316.03	\$248.00
<b>Execution and Control of Operations</b>				
05009	Execution and Control of Operations Reprints		\$45.00	\$29.25
09212	Execution and Control of Operations Practice Questions		\$28.00	\$18.20
03601	Capacity Management		\$40.95	\$33.58
03114	Just-in-Time: Making It Happen		\$55.00	\$42.35
03406	Manufacturing Planning and Control Systems (5th ed.)		\$65.00	\$50.05
03606	Quality Planning and Analysis (4th ed.)		\$117.50	\$105.75
09604	Series CPIM—Execution and Control of Operations*		\$316.31	\$251.26
<b>Strategic Management of Resources</b>				
05011	Strategic Management of Resources Reprints		\$45.00	\$29.25
09213	Strategic Management of Resources Practice Questions		\$28.00	\$18.20
05015	Harvard Business Review Strategic Management of Resources Readings		\$75.00	\$48.75
03471	Managerial Accounting (10th ed.)		\$108.44	\$97.60
03286	Operations Strategy**		\$78.67	\$64.57
03488	Project Management: A Managerial Approach (5th ed.)		\$109.95	\$84.66
03466	Supply Chain Optimization		\$34.95	\$26.91
09605	Series CPIM—Strategic Management of Resources*		\$430.65	\$344.59

\*Each series contains the references listed in that module, including reprints for modules that have reprints.

\*\*New to series

Due to publishers' costs, all prices and materials are subject to change.

APICS The Association for Operations Management

has conferred upon

Roger P G Thijs, CPIM

the lifetime designation of

Certified in Production and Inventory Management



Chief Executive Officer





Chair of the Board