

**“Professional Designation in
Logistics and Supply Chain
Management”
(PLS)**

&

**“Certified in Transportation
and Logistics”
(CTL)**

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Glossary

APICS	“The Association for Operations Management” - US-based, non-profit association is developing educational programs for operations and supply chain management professionals since 1957. APICS originally stands for “American Production and Inventory Control Society”.
AST&L®	„American Society of Transportation and Logistics“- US-based, non-profit association founded in 1946 to educate professionals in the area of transportation and logistics.
BSCM	Basics of Supply Chain Management - 1. Module of APICS CPIM
CIRM	Certified Integrated Resource Manager - discontinued APICS certification.
CFPIM	Certified Fellow in Production and Inventory Management - APICS Certification - only awarded by recommendation to highly experienced CPIMs.
CPIM	Certified in Production and Inventory Management - APICS Certification (5 modules)
CPSM	Certified Professional in Supply Management - ISM Certification
CSCP	Certified Supply Chain Professional - APICS Certification
CTL	Certified in Transportation and Logistics - AST&L® Certification (6 modules)
DSP	Detailed Scheduling and Planning - 3. Module of APICS CPIM
ECO	Execution and Control of Operations - 4. Module of APICS CPIM
ISM	„Institute for Supply Management“- US-based, non-profit association founded in 1915 to educate professionals in the area of purchasing and supplier management.
MPR	Master Planning of Resources- 2. Module of APICS CPIM
PLS	“Professional Designation in Logistics and Supply Chain Management” - AST&L® Certification and one module of the AST&L® CTL certification
SCM	Supply Chain Management
SMR	Strategic Management of Resources - 5. Module of APICS CPIM

1. AST&L® - American Society of Transportation and Logistics

ASTL is a professional organization founded in 1946 by a group of industry leaders to insure a high level of professionalism and promote continuing education in the field of transportation and logistics. The CTL (Certified in Transportation and Logistics) Certification Program began in 1948. ASTL also offers the Professional Designation in Logistics and Supply Chain Management (PLS), the Distinguished Logistics Professional (DLP), and the Global Logistics Associate (GLA).

ASTL's mission is to facilitate education and certification in the fields of transportation, logistics, and supply chain management. ASTL's membership of shippers, carriers, educators, students, consultants and third-party logistics individuals are dedicated to continuing education and are committed to raising the professional standards in the industry.

The PMI Production Management Institute GmbH is educational partner for GSCP, the Gesellschaft der Supply Chain Professionals e.V., providing AST&L® certification seminars. The GSCP is doing the administration of AST&L® certification exams and memberships in Germany and Austria.

PMI Production Management Institute GmbH is going to offer AST&L seminars starting 2012 in Germany.

2. „Professional Designation in Logistics and Supply Chain Management“ (PLS) - Basic Certification

The topics addressed within the PLS include those confronting logistics and supply chain managers on a global basis: competitive strategy, customer value and service, logistics costs and performance, responsiveness, lead-time management, collaboration across multiple enterprises, globalization, risk management, integration of supply chain processes, and transforming the logistics organization. The knowledge base represented within the PLS provides the foundation for understanding logistics and supply chain management and prepares the individual for a career in this challenging profession.

The knowledge base for the PLS consists of principles, issues, and practices universally accepted as important in logistics and supply chain management. The content was derived from what leading universities cover in their courses on the subject matter. This material changes as the business community appraises universities regarding current conditions. Needless to say, some areas change more quickly than others.

2.1. Objectives

The objective for the PLS is to enhance the individual's professional understanding of international value-creating networks. The PLS will present issues, challenges, strategies, and practices to assist firms in succeeding in these value-creating networks. Challenges and issues will be explored, to include performance measurement; inventory positioning; lead time management; synchronization of activity between firms; managing international networks; and risk management. Capstone topics include the implementation of the value chain vision among supply chain partners, and challenges to be faced in leveraging this vision into a competitive capability.

Recommended Textbook: Materials for the examination are based extensively on the textbook: Christopher, Martin. *Logistics and Supply Chain Management*, 3rd Edition. Harlow, England: FT Prentice Hall, 2005. ISBN 0-273-68176-1

2.2. Target Group

Professionals in the area of supply chain, distribution, logistics and transportation, which require an overview on supply chain management and logistics to understand the global impact of their decisions. Operations management and supply chain planning is not in focus here, but the activities and dependencies in global supply chain and distribution networks.

2.3. Exam

The examination is designed to cover different facets of logistics and supply chain management. The material represents the common base of knowledge that should be familiar to all logistics and supply chain professionals working in the field.

The exam consists of 100 multiple choice questions. The exam is scheduled to last up to four hours. Candidates may not refer to their study materials during the exam (i.e., the exam is a “closed book, closed notes” exam).

The AST&L® exam dates are aligned with the APICS exam dates, both certification exams for either AST&L® and APICS are administered in Germany and Austria by GSCP (Gesellschaft der Supply Chain Professionals e.V.) - www.gscp.eu

2.4. Recertification

The PLS designation requires recertification every five years. Requirements are attending a related conference, education program or completing a CTL module.

2.5. Content Outline

Logistics and Competitive Strategy

Supply Chain Management vs. Logistics
Competitive Advantage
Supply Chain vs. Value Chain
Mission of Logistics Management
Supply Chain and Competitive Performance
Competitive Environment

Logistics and Customer Value

Marketing-Logistics Interface
Delivering Customer Value
Customer Service Defined
Impact of Stock outs
Customer Service-Customer Retention
Market-Driven Supply Chains
Customer Service Objectives
Customer Service Priorities
Service Standards

Logistics Cost and Performance

Logistics and Profitability
Logistics and Shareholder Value
Logistics Cost Analysis
Total Cost Analysis
Logistics Costing
Customer Profitability
Product Profitability
Activity Based Costing

Creating the Responsive Supply Chain

Push-Pull Supply Chains
JIT
Agility
Responsiveness

Strategic Lead-Time Management

Time-Based Competition
Lead Time
“Pipeline” Management
Lead Time Gap

Supply Chain Synchronization

Extended Enterprise/Virtual Supply Chain
Information in the Virtual Supply Chain
Implications of the Virtual Supply Chain
Quick Response Logistics
Quick Response Production
System Dynamics
Collaboration
Vendor Managed Inventory

Managing the Global “Pipeline”

Globalization
Global Visibility
Global Organization
Local to Global Roll-Up

Managing Supply Chain Risk

Supply Chain Vulnerability
Supply Chain Risk Profiles
Managing Supply Chain Risk
Robust Supply Chains

Supply Chain Integration

The Logistics Vision
Traditional Organizations
The Logistics Organization
Logistics as Change Agent
Benchmarking

The Era of Network Competition

New Organizational Paradigm
Supply Networks
Future Supply Chains
Business Transformations
Implications of Transformations for Logistics
Supply Chain Orchestration
3PL-4PL

2.6. Education Dates & Venue 2012

Education: 15. - 17. February 2012
Location: Frankfurt (Holiday Inn City-South)
Target Exam: 17. March 2012
Seminar Fee: 1.590 €

Education: 10. - 12. September 2012
Location: Hamburg (Renaissance Hamburg Hotel)
Target Exam: 15. September 2012
Seminar Fee: 1.590 €

3. Certified in Transportation and Logistics (CTL) - Advanced Certification

3.1. Objectives

AST&L®'s® CTL Certification Program is the core of the Society. This program offers the designation of CTL (Certified in Transportation and Logistics) to candidates who demonstrate their understanding of the fundamentals of the profession through the successful completion of three modules of required study material, as well as three elective modules. The Society's modules and associated examinations are prepared by a Board of Examiners consisting of Certified Educator Members within AST&L®. It is possible for candidates to receive waivers on the basis of education. All CTL candidates must be members of AST&L® and have a bachelor's degree or three years of professional experience.

The CTL designation may be used just as similar recognitions are employed in accounting, insurance, medicine, law, and other professions. Either the full expression or the initials may be used after the individual's name on business cards, stationery, etc. The CTL credential remains valid with active membership in AST&L®.

Benefits of the CTL program:

- Understanding of key strategies for improving customer relationships
- Knowledge of how to increase the efficiency of supply chain operations
- Development of analytical skills necessary to identify ways to improve transportation, supply chain, and logistical processes

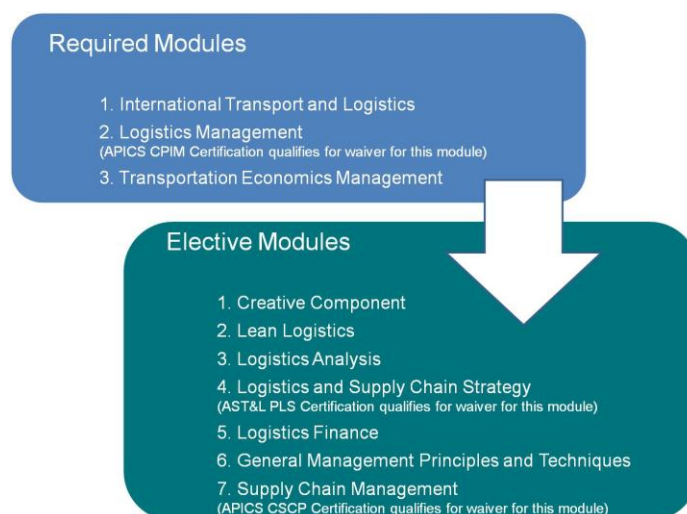
3.2. Target Group

ASTL began the CTL Certification Program in 1948, and is known as the premier credential in the transportation/logistics industry. The exam modules are constantly revised to keep with the needs of transportation logistics professionals. To qualify an individual must be an active member of ASTL and have earned an undergraduate degree or have at least three years of professional experience.

3.3. Exam

The examination is designed to cover different facets of logistics and supply chain management. The material represents the common base of knowledge that should be familiar to all logistics and supply chain professionals working in the field.

The certification program includes three required modules as well as three elective modules. All modules must be successfully completed by exam or waiver. There is a four-hour time limit to complete the exam, although it may be completed in a shorter time period. A score of 70% or higher is required to pass the exam; a candidate who scores below the required 70% may take the exam again. The exams generally consist of objective and/or problem-type questions in a multi-choice format.



Candidates may complete the required modules in any order. The Board of Examiners strongly suggests that the three required modules be completed prior to the three elective modules. The average preparation time is 20 – 40 hours per modules, dependent on experience and prior education.

The AST&L® exam dates are aligned with the APICS exam dates, both certification exams for either AST&L® and APICS are administered in Germany and Austria by GSCP (Gesellschaft der Supply Chain Professionals e.V.) - www.gscp.eu

3.4. Exam Fees

- PLS exam: 350€ + VAT
- Any CTL exam: 280€ + VAT
- Exam waivers (e.g. for APICS CPIM or CSCP): 60€ + VAT

3.5. Required Modules:

3.5.1. Transportation Economics and Management (Module 1)

The Transportation Economics and Management module has three primary areas of emphasis:

- (1) application of demand, cost, and pricing principles to transportation;
- (2) the operating, service and financial characteristics of the various modes and types of transportation; and
- (3) managerial issues in transportation.

The objectives for the transportation economics and management module provide an understanding of:

- The relationship and cost trade-offs occurring between transportation and other logistics functions;
- How the operating and service characteristics of each mode affect cost, performance, and the products moved;
- The economic principles that provide a foundation for transportation costing and pricing;
- Shipper and carrier strategies employed to reduce costs and improve performance.

3.5.2. Logistics Management (Module 2)

“Logistics is that part of supply chain management that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services, and related information between the point of origin and point of consumption in order to meet customers’ requirements.” (Council of Supply Chain Management Professionals) The Logistics Management module explores the different facets of this definition and has the following objectives:

- Understanding the functions comprising logistics, how these functions interact, and how logistics can be managed as a system to reduce total cost;
- Recognizing how logistics affects customer service, corporate performance and competitive advantage;
- Identifying the key logistics processes that span multiple enterprises and how managing logistics as a supply chain process creates values for the end-user and all key stakeholders;
- Developing effective strategies for logistics managers to improve corporate performance while simultaneously increasing customer service.

3.5.3. International Transportation and Logistics (Module 3)

The International Transportation and Logistics module provides the foundation required for understanding the logistics processes required in moving goods and people across international boundaries, the transportation modes used in such movement, and current logistics issues in the global environment. This module has the objectives of:

- Understanding the key differences between domestic and international logistics and how these differences affect logistics practice and performance;

- Developing and evaluating different strategies to effectively manage logistics processes on a global basis;
- Recognizing the role and importance played by the many key logistics intermediaries that facilitate global trade.

3.6. Elective Modules:-

In addition to the three required modules, each candidate must select three elective modules from the four elective modules that are described below.

3.6.1. The Creative Component (Module 4)

Transportation and logistics professionals are increasingly called upon to communicate in a myriad of formal and informal ways. The evolving complexity of the field, the development of electronic information systems, technological innovations, and the development of different management structures and styles calls for creative communications skills. The Creative Component supports these requirements by:

- Exploring and examining an area of professional interest in-depth;
- Obtaining extensive knowledge in area related to the individual's professional field;
- Providing an opportunity to develop and display communications skills through either a formal research paper, an informal research project, or by analyzing a case;
- Applying analytical and communication skills in this area;
- Obtaining feedback and guidance from a leading academic in transportation and logistics.

The candidate must write an original, documented paper of 3,000 to 5,000 words in length on a special aspect of traffic, transportation, logistics or distribution management. Grading will be on a pass-fail basis. The candidate must submit the title and outline to be reviewed and approved by the Examiner. The subject should be one with which the candidate is familiar by virtue of employment, or one in which he/she is particularly interested or specifically qualified to write. A work-related case study would be a good choice for many candidates. It is recommended that the paper thoroughly cover a narrow subject, rather than superficially treat a "broad" one.

Masters or Doctoral Theses: The Society will accept a copy of a candidate's thesis as a qualifying submission if it directly addresses a facet of transportation, logistics, or supply chain management. The candidate must submit the title and outline to be reviewed by the Examiner to substantiate that the paper directly relates to the thrust of AST&L® research papers. Upon acceptance of the outline, the candidate then submits a copy of the actual thesis to AST&L®.

3.6.2. Logistics Analysis (Module 5)

The Logistics Analysis module focuses on developing analytical skills and their application to transportation, logistics and supply chain management. The objectives for the Logistics Analysis module include:

- Understanding the techniques available for modeling logistics and supply chain systems
- Analyzing logistics and supply chain systems by using several operations research techniques
- Designing a supply chain network that achieves customer service or cost objectives
- Forecasting and determining inventory requirements for dependent and independent inventory systems and across multiple echelons of supply
- Simulating and optimizing network processes commonly encountered in logistics and supply chain management

3.6.3. Supply Chain Management (Module 6)

"Supply chain management is the integration of key business processes from end user through original suppliers that provides products, services, and information that add value for customers and other stakeholders." (Global Supply Chain Forum 2000). This CTL module explores the key processes comprising the supply chain and the strategies managers have employed to collaborate with trading

partners to increase the value created and gain a competitive advantage. The specific objectives for this module include gaining an understanding of:

- The differences between logistics and supply chain management;
- The key processes comprising the supply chain and their interrelationships;
- The management components and their effect on supply chain management;
- The strategies, tactics, tools and techniques that have been demonstrated to be the most effective in implementing supply chain management.

3.6.4. Logistics and Supply Chain Strategy (Module 7)

This CTL module satisfies the requirement for a professional designation in logistics and supply chain management. The purpose of the PLS is to recognize individuals that have completed a course of study examining the strategies for improving logistics and supply chain operations and are seeking to apply this knowledge within their profession. The designation is granted to individuals that have successfully passed a comprehensive examination and completed an undergraduate college degree from an accredited academic institution or four years of professional experience. The objectives of the logistics and supply chain strategy module include understanding the:

- Supply chain concept;
- Approaches employed to obtain a competitive advantage through supply chain management;
- Techniques employed to improve the performance and efficiency of supply chains;
- Effect of interdependent activities and firms on overall performance and behavior;
- Approaches for measuring performance in the supply chain;
- Strategies for managing the supply chain;
- Different inventory management approaches employed in the supply chain;
- An understanding of the trade-offs made in managing supply chain activities;
- Issues involved in managing supply chain processes;
- Role of logistics management and its effect on supply chain performance

3.6.5. General Management Principles and Techniques (Module 8)

The General Management Principles and Techniques module promotes a fundamental understanding of four key business areas: accounting, finance, marketing, and information systems. This module stresses the application and use of these concepts in transportation and logistics management. Within this context, the objectives for the general management module include understanding:

- The interrelationships between general management concepts and the transportation/logistics function;
- Basic accounting concepts and elements, and the accountant's role in providing information to both internal and external users;
- Financial statements and comprehending the firm's financial positioning of assets, liabilities, and owners' equity within its business strategy;
- Accounting statements and developing additional data to support management decision-making;
- Financial ratios, cost of capital, inventory fundamentals, and strategies for managing the cash conversion cycle;
- How marketing contributes to improved performance in the marketplace;
- The critical role of marketing in organizations including organizational buying, demand forecasting, and marketing/distribution strategies for different stages of the product life cycle;
- How an information system is designed and its data requirements;

The applications of information systems in areas such as electronic data interchange, artificial intelligence, and expert systems.

3.6.6. Logistics Finance (Module 9)

The Logistics Finance module promotes a fundamental understanding of the costing and revenue models used to monitor, evaluate, and control modern supply chain and logistics systems. This module emphasizes the application and use of these concepts in transportation and logistics management. Within this context, the objectives for the logistics finance module include understanding:

- Why logistics finance is important.
- How logistics finance models are designed.
- The variety of logistics revenue and costing models that is currently in practice.
- The contexts in which the various applied models are efficient and effective, as well as the contexts in which certain models do not achieve results.
- The sources of data and collection techniques necessary to use the models.
- The history of logistics finance and the rationale of revenue versus cost based systems.
- The strategic and functional uses of logistics finance information.
- How to calculate basic numerical values used in the majority of models.

3.6.7. Lean Logistics (Module 10)

The Lean Logistics module examines the application of lean principles to the function and activities of logistics management. While much focus is directed to the application of lean in manufacturing operations, the principles of this process improvement method find ready use in logistics. Lean logistics identifies opportunities to reduce costs, smooth operations, and better serve customers by addressing the many wastes found in inbound and outbound inventory flows. This module examines these wastes and provides tools for identifying and addressing logistics problems. Focus is directed on reducing logistics costs, improving logistics service, and removing impediments and bottlenecks to efficient, effective operations. The objectives of this module include:

- Introduction of lean principles and practices;
- Application of lean principles to inbound and outbound aspects of logistics activity;
- Recognition of the cost-service trade-offs found in logistics,
- Improved coordination between logistics management and the other functional areas of the company; and
- Understanding logistics' contribution toward the pursuit of the lean enterprise and improved supply chain operations.

3.7. Summary Textbooks

Module	Topic	Textbook	
1	Transportation Economics and Management	Transportation: A Supply Chain Perspective, 7th edition 7; John J. Coyle, Edward J. Bardi, and Robert A. Novack; Thompson-Southwestern Publishing; 978-0-324-78919-0.	
2	Logistics Management	Supply Chain Management, A Logistics Perspective, 8th edition; John J. Coyle, Edward J. Bardi, and C. John Langley Jr.; Thompson-Southwestern Publishing; 978-0324007510. Includes student CD-ROM .	
3	International Transportation and Logistics	International Logistics, Edition 3; Pierre David and Richard Stewart; Atomic Dog Publishing; 978-1-111-46498-1 Online material access key included with purchase .	
5	Logistics Analysis	Business Logistics Supply Chain Management, 5th edition; Ronald H. Ballou; Prentice Hall; 978-0131076594. Includes Logware CD Package.	
6	Supply Chain Management	Supply Chain Management – Processes, Partnerships, Performance, Edition 3; Douglas M. Lambert; Editor Copyright; 978-0975994931 .	
7	Logistics and Supply Chain Strategy	Logistics and Supply Chain Management: Creating Value-adding Networks, 3rd edition; Martin Christopher; London, UK: Pitman Publishing; 978-0273681762.	
8	General Management Principles and Techniques	Understanding Business 8th Edition; Nickels, McHugh and McHugh; McGraw-Hill Irwin; 978-0073105970. A Student Assessment & Learning Guide to accompany Understanding Business [Paperback] Barbara Barrett may be purchased separately.	
10	Lean Logistics	Lean Six Sigma Logistics Robert Martichenko J. Ross Publishing, 2005, ISBN: 1-932159-36-3.	

3.8. Recertification

The CTL credential remains valid with active membership in AST&L®.

3.9. Education Dates & Venue 2012

Module 7 (Logistics and Supply Chain Strategy), which is the AST&L® PLS Certification will be offered in Germany in 2012 (see point 2.6. in this brochure).

All remaining modules are currently self-study only. The textbooks listed in Section 3.6 are covering the exam content.

Public seminars for the CTL program in 2012 are currently in development.