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MANAGEMENT REVIEW



SUPPLY CHAIN EXECUTIVE EDUCATION

What's the right combination?

As supply chain executive education continues to evolve, the options available to companies are expanding and becoming more personalized than ever.

BY BRIDGET McCREA, CONTRIBUTING EDITOR

Executive education has never been a one-size-fits-all resource, but with the advent of online learning, the proliferation of certification options and other new delivery methods, it has become even more personalized and targeted. This makes sense in a world where everyone from the kindergartener to the high schooler to the grad school student is learning via more differentiated, tailored means.

In supply chain, executive education is typically served up in the traditional classroom setting, online or via a hybrid approach that blends the two. The end game is usually an advanced degree, certification or completion of non-degree courses, depending on the individual's or team's needs. Along with open enrollment courses, institutions and organizations also develop customized education that's designed with specific companies in mind.

Evolving approaches

Meant to appeal to a wide range of professionals who are at different stages in their careers, supply chain executive education is both wide and varied. In some cases, executives benefit most from a hybrid or “blended” approach that incorporates two or more educational delivery options. A supply chain professional that attends a three-day intensive course on a college campus, for example, may also benefit from one or more certification courses. The same professional may want to take one or two online courses to get up to speed on specific topics (i.e., supply chain analytics or supply chain finance) at a later date.

“Every company approaches supply chain executive education differently, but there are definitely some models that repeat themselves time and time again,” says Nora P. Neibergall, senior vice president at the Institute for Supply Management. For example, she says companies put their employees through certification programs to help those executives “level up” and get on common ground, stay engaged, and do something for themselves. “They also use executive education to get members of their teams up to the same baseline,” says Neibergall, “and ensure that everyone has the same core knowledge and is speaking the same language.”

What those companies should understand is that not every type of executive education is right for everyone, and that there are myriad options to choose from—not all of which will align well with the company’s or the supply chain team’s mission. This is an important consideration in an era where organizations want to see real results and payouts from their investments. “Because post-certification metrics are getting more and more important,” states Neibergall, “every company has to develop a way to measure progress, but not all of them have figured out how to do that.”

Finding the right mix

At the Center for Transportation and Logistics at the Massachusetts Institute of Technology, supply chain executive options include four-day to five-day open enrollment courses that cover a variety of different topics. Students come into the classroom for this learning, which today features more case studies, simulations and “action learning” than it did in the past (when it

was largely lecture-based). It also offers a degree program known as the MITx MicroMasters, and custom courses, the latter of which are online-based and take about 20 weeks to complete.

“We’re tailoring the content to the company’s learning objectives and what they want their employees to come away with in terms of gained knowledge,” says Katie Date, manager, Corporate & SCALE Network Outreach. More recently, the institution began offering a series of courses in conjunction with a corporate partner that includes online education and live events (one-hour to two-hour online sessions where an MIT researcher leads a specific topic that correlates with the online content that was delivered over the prior three weeks to four weeks).

“The researcher presents a lecture, and then peppers in a discussion and/or different learning techniques that invite student participation,” says Date. She says these custom options differ from the open-enrollment MicroMasters courses because they’re personalized and can be offered to up to 100 students at a time (versus tens of thousands of MicroMasters’ students). “We can create a course that is specifically tailored to the organization’s learning objectives,” she says, “and then monitor these students hyper-vigilantly to make sure that they’re all understanding concepts before we move on to the next concept.”

Content contextualization

Michigan State University has also been honing its executive education offerings, but in a different way. According to David Frayer, assistant dean for executive development programs, the institution is emphasizing individual learning pathways and content contextualization. Both cater to the individual executive, with the latter focusing on the importance of delivering supply chain management knowledge within a specific context.

“Companies are telling us that they want their employees to understand the best in supply chain, but that the knowledge needs to be set within the context of their businesses,” says Frayer. In responding to that demand, MSU is creating programming that allows students to contextualize information in a way that makes the most sense to them.

“We’re creating learning objects that can be delivered either online or face-to-face, and that factor in specific industries,” Frayer explains. For example, a chief procurement officer (CPO) working within a specific business, business model and/or business strategy, needs to know how those elements translate into supply chain strategy. Or, the company that has global locations may need learning content that incorporates those international models into a single, unified learning experience for its executives.

Frayer admits that offering this level of content contextualization isn’t easy, but says MSU is up to the task. “It’s both a huge challenge and a huge opportunity, and it’s where we’re investing a lot of our time right now,” he says. “We’re moving very fast and hard on both the content contextualization and individualized learning pathways.”

The full market basket

As companies gain a clearer picture of what they want from their executive education investments, and as providers find ways to meet and exceed those needs, the discipline as a whole will continue to evolve. At Penn State, for example, Steve Tracey, executive director for the Center for Supply Chain Research, says more companies are asking for virtual education—an option that works for some students, but isn’t for everyone.

“There are a lot of success stories out there and the technology is getting better, but virtual learning isn’t good for everything,” says Tracey. “Just like in-person education is not a one-size-fits-all, online learning isn’t either. The best approach is really a mix of the different delivery options.”

It’s also a mix of both credit and non-credit education, Tracey adds, in order to get both internal and external viewpoints on key topics, trends and challenges. “Particularly for large organizations,” Tracey concludes, “you really need a combination of in-class education and virtual offerings to get the full market basket and the best solution for the organization.”

Robots and gamification

Looking ahead, the academics and experts interviewed for this article expect supply chain education to align with what’s going on in the supply chain itself, with automation, robotics and even gamification all playing more important

roles in future executive education offerings.

The Association for Supply Management (ACSM), for example, regularly identifies trends that it expects to affect the profession. Then, it digs down into those trends to figure out what knowledge and skillsets supply chain professionals will need to be able to adapt to and embrace those changes.

Right now, Peter Bolstorff, executive vice president, corporate development, says ACSM is looking closely at how supply chain managers are using more bots to support their forecasting, pricing and replenishment planning activities. He sees this as a trend that will logically affect executive education in the near future. “The bots aren’t replacing planners, but [they’re] certainly repositioning what a planner does,” he says.

“Likewise, you have robots entering the warehouse and manufacturing environments, where they are changing the nature of the work,” Bolstorff continues, “so we’re constantly trying to be on the leading edge of understanding how these shifts are applied to the profession, and how we can keep current with our body of knowledge.”

Shay Scott, executive director of the University of Tennessee’s Global Supply Chain Institute, concurs, and says that as technology continues to evolve, so too does the executive education that’s associated with it. For instance, the program recently integrated gamification from a coursework standpoint with the goal of making the learning more “fun and more natural” for students. It’s also using simulation exercises to bring the course content into real life, and leveraging synchronous technology (i.e., real-time communication between two people) for mediated exchanges in the context of executive education.

Inundated with information, supply chain executives need help making sense of it all; developing the frameworks and processes to manage it; and then applying their newfound knowledge in a way that provides value for their companies. Scott sees this as further proof that the “sage on stage” instructional approach—where the dispenser of knowledge speaks from behind a lectern—no longer exists. That presents both opportunities and challenges for educational institutions like the University of Tennessee. “It’s a fast-paced, changing world,” says Scott, “and we’re having a lot of fun in it.” ☺☺



Supply chain management certifications offered by professional organizations and universities

There are more offerings than ever for supply chain professionals looking to improve their skills and further their careers.

BY MALINI NATARAJARATHINAM AND PRAHARSHA SUNKARA

Every company that delivers a product or service has a supply chain management department. With the increase in the complexity of supply chains, all companies are looking for people who can be good managers and lead the supply chain with minimal issues. Certifications in SCM can be a great boost for anyone who aspires to a career in this field. The aim of this article is to expand upon the available recognized SCM certifications in the United States and to aid budding supply chain executives in their efforts to keep abreast of this rapidly changing area.

Indeed, many professional institutions, universities, colleges and even companies are expanding their education programs, including certifications, in the area of supply chain management. The focus of these courses is not just on traditional supply chain disciplines, such as inventory management and the fundamentals of procurement, but also to address collaboration skills, strategic planning, work culture and information technology, to name a few.

Given the number of options, choosing a certification is highly dependent on the expectations of the individual, his or her experience and career expectations. For instance, for someone with a global perspective, the APICS certifications are recognized across the globe, while university-offered certifications are better recognized in the United States compared to other parts of the world.

In the following pages, we present details on the certifications offered by professional organizations such as APICS, CSCMP and ISM, along with certificate programs available at more than 40 universities and academic institutions. The aim is to provide a basic understanding of the type of certifications available as well as information the eligibility requirements, expectations and requirements for completion of the certificate program. Please keep in mind that information on certification programs is subject to change. We highly recommend that readers check the respective certification program Websites before making a final decision.

PROFESSIONAL ASSOCIATIONS

ASCM (Association for Supply Chain Management)

With over 45,000 members and more than 250 global partners, ASCM is the global leader in supply chain learning, transformation, innovation and leadership. The organization offers three certifications and one endorsement for individuals and one certification for corporate: APICS Certified in Production and Inventory Management (CPIM), APICS Certified Supply Chain Professional (CSCP), APICS Certified in Logistics, Transportation and Distribution, APICS Supply Chain Operations Reference Professional (SCOR-P) and the ASCM Enterprise Certification.

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APICS Certified in Production and Inventory Management (CPIM)

APICS CPIM is recognized worldwide as the standard of professional competence in production and inventory management. Candidates learn the basics of production and inventory management, such as the required terminologies, concepts, demand planning and management, procurement, scheduling, continuous improvement and related areas. CPIM is a recognized addition to the profile of anyone looking to advance a career in supply chain management; it is almost a necessity for individuals whose day-to-day activities involve working in production and inventory management, operations, supply chain management, procurement, purchasing and materials management departments.

Candidates must pass two exams within three years to earn the APICS CPIM certification

- CPIM Part 1
- Module 1 — Basics of Supply Chain Management
- CPIM Part 2
- Module 1 — Strategic Management of Resources
- Module 2 — Master Planning of Resources
- Module 3 — Detailed Scheduling and Planning
- Module 4 — Execution and Control of Operations

There are a number of resources available to help candidates study for the Part 1 and Part 2 exams. apics.org/cpim provides tips to aid exam preparation and to tackle the questions asked during the exam.

Candidates must pass two computer-based 150-question exams to become certified.

To maintain the APICS CPIM certification status, candidates must earn a total of 75 points every five years. Failure to maintain may lead to the suspension of CPIM credentials and also require a candidate to re-take all of the exams.

APICS Certified Supply Chain Professional (CSCP)

The APICS CSCP certification was launched in 2006. Since then, more than 25,000 professionals from nearly 100 countries have earned this designation.

APICS CSCP certification distinguishes a candidate as an industry expert in the field of supply chain

management. It is one of the most widely recognized certification programs and is also the most sought-after designation by many employers. APICS CSCP exams are offered at locations around the world.

The program focuses on improving a professional's expertise in the field of global supply chain management in areas such as customer relations, information technology enablement, logistics and international trade.

To be eligible for the APICS CSCP, one must have:

- three years of business-related experience;
- bachelor's degree; and
- CPIM, CFPIM, CIRM, SCOR-P, C.P.M., CSM or CPSM designations.

The APICS CSCP exam consists of three modules, which must be mastered for certification.

- APICS Supply Chain Management Fundamentals
- Supply Chain Strategy, Design and Compliance
- Implementation and Operations

There are a number of resources available to help candidates study for these modules. apics.org/acsp provides tips to aid exam preparation and to tackle the questions asked during the exam.

To maintain the APICS CSCP certification status, candidates must earn a total of 75 points every five years. These points can be earned by continuing education, publications and service to the operations management profession. Failure to maintain may lead to the suspension of CPIM credentials and also require a candidate to re-take all of the exams.

APICS Certified in Logistics, Transportation, and Distribution (CLTD)

The APICS Certified in Logistics, Transportation and Distribution (CLTD) designation assesses individuals based on a comprehensive body of knowledge, best practices and standards. Earning the CLTD credential validates a professional's expertise in the logistics, transportation and distribution.

Launched in 2016, this program features a single computer-based exam developed around new courseware, self-study and instructor-led education opportunities.

The APICS CLTD program consists of eight modules critical to the logistics industry, including:

- Logistics and Supply Chain Overview
- Capacity Planning and Demand Management
- Order Management
- Inventory and Warehouse Management
- Transportation
- Global Logistics Considerations
- Logistics Network Design
- Reverse Logistics and Sustainability

The APICS website (www.apics.org) provides many resources on the CLTD Learning System to help individuals prepare for the exam.

To apply for the APICS CLTD, submit an eligibility application two weeks prior to registration. The eligibility application must include:

- 3 years related business experience, or
- Bachelor's degree or the international equivalent, or
- CSCP, CPIM, CFPIM, CIRM, SCOR-P, CTL,

C.P.M., CSM OR CPSM designations

In order to maintain the certification, designees must abide by the APICS Code of Ethics, which can be found on the APICS website (www.apics.org/cltd). Additionally, an individual must earn a total of 75 maintenance points and apply for maintenance every 5 years. These points can be earned by continuing education - presentations, publications, and educational development - service to the operations management profession, and/or professional membership. If the credentials are not maintained, the certificate will be suspended. Each additional year of suspension, up to 5 years, requires additional professional development point in order for the certification to be reinstated. After 5 years of suspended credentials, the candidate will be required to take the exam again.

APICS Supply Chain Operations Reference – Professional

APICS SCOR-P model helps supply chain professionals manage and measure the performance of a global supply chain using the SCOR model. Widely recognized, the SCOR-R endorsement enables professionals to increase the performance of their supply chains using the knowledge gained in SCOR model.

The APICS SCOR-P endorsement enables candidates to standardize performance metrics, create best practices

that affect supply chain performance, and the management of critical supply chain resources. In order to be eligible for this certification, candidates must have five years of experience working in supply chain management. APICS conducts three days of training for the APICS SCOR-P exam. While attendance at the training sessions is not a pre-requisite to taking the exam, candidates are required to purchase the SCOR course in order to attend the exam.

After purchasing the SCOR course, the candidate will receive an e-mail with a Notice to Schedule (NTS) the exam date. This NTS is valid for six months

ASCM Enterprise Certification

The ASCM Enterprise Certification is the industry's first and only corporate supply chain designation that measures social responsibility, economic sustainability, and ecological stewardship. This program aims to empower organizations to reach goals, improve results, and be more competitive in today's global business world. This unique designation incorporates Supply Chain Operations Reference (SCOR) content and all certification bodies of knowledge.

Earning the Enterprise Certification can help your organization:

- Gain a competitive advantage through showcasing economic, ecological, and ethical supply chain practices
- Demonstrate transparency to prospective customers and consumers
- Ensure suppliers align with your organization's values
- Manage accountability to support your organization's ethical standards
- Embrace a culture of social responsibility
- Showcase your supply chain excellence

Evaluations of the ethical practices of an organization's supply chain include the review of the supply chain for: anti-corruption and anti-trust, codes of conduct, confidentiality of information, human rights and labor practices, intellectual property and patents, and responsible marketing and sales engagement.

Evaluations of the economic practices of an organization's supply chain include the review of the supply chain for: business integrity and company reputation, board and



corporate leadership, enterprise risk and crisis management, materiality index, responsible tax, supply chain strategy and differentiated operating models.

Evaluations of the ecological practices of an organization's supply chain include the review of the supply chain for: circular economy, climate strategy, energy, water and waste, material usage, and product life-cycle stewardship.

Additional information can be found on ascm.org/enterprise

CSCMP's SCPro Supply Chain Management Certification Program

The SCPro Supply Chain Management Certification is offered by the Council of Supply Chain Management Professionals (CSCMP).

SCPro certification is a three-level certification process that validates a professional's ability to assess business challenges and effectively implement improvements in the area of supply chain management.

Level One. Level one certification consists of eight modules and demonstrates a solid foundation of knowledge in all areas of supply chain management. In order to complete this level, candidates are required to have a bachelor's degree or four years of relevant work experience.

Level Two. Level two certification covers the analysis and application of supply chain challenges. In order to be eligible for level two, candidates must have a bachelor's degree and three years of work experience or, alternatively, seven years of work experience along with level one certification.

Level Three. Level three certification requires candidates to perform hands-on analysis within a working environment and to create a detailed project plan that generates results such as increase in ROI, cost reductions and improvements. In order to be eligible for level three, a candidate should have a bachelor's degree and five years of work experience or, alternatively, nine years of work experience along with level one and level two certifications.

Candidates with all three levels of certification can demonstrate to an employer that they are well versed with the most important concepts required to manage today's supply chains.

The Hackett Institute's Certified Enterprise Analytics Professionals

The Certified Enterprise Analytics Professional program, delivered via a dynamic e-learning platform, offers comprehensive training and development in the area of advanced analytics. The program is designed to build the analytics knowledge of business professionals at all levels and within multiple functional areas. Professionals will improve their mastery of the analytics techniques and tools necessary to effectively analyze, predict and influence business performance.

While this program is currently offered to organizations seeking to improve the skills of its teams, it will soon be available to individuals.

Information can be found on the Hackett Institute website www.thehackettgroup.com/certified-enterprise-analytics-professionals/.

ISM's Certified Professional in Supply Management (CPSM) Program

With nearly 45,000 members worldwide, the Institute for Supply Management is one of the largest global organizations focused on improving procurement and supply management. ISM has certified nearly 60,000 procurement professionals in more than 30 countries worldwide.

The Supply Management Program helps candidates become experts in critical areas of supply chain management such as sustainability, strategic sourcing and forecasting. The eligibility requirements for this exam are:

- three years of experience in supply chain management with a bachelor's degree or equivalent;
- five years of supply chain management experience without a bachelor's degree; and
- successfully pass three CPSM exams.

In order to earn this certification, candidates must complete in order the following three exams.

- **Exam 1:** Foundation of Supply Management
- **Exam 2:** Effective Supply Management Performance
- **Exam 3:** Leadership in Supply Management

Preparation resources for this certification can be found on the ISM Website (instituteforsupplymanagement.org).

ISM's Certified Professional in Supplier Diversity (CPSD) Program

The Supplier Diversity Program (CPSD) is best for professionals who participate in the development of supplier diversity initiatives. The eligibility requirements for this exam are:

- pass the CPSD exam;
- Exam 1 for CPSD is waived if the candidate has CPSM certification;
- five years of experience in the area of supplier diversity or supply chain management;
- a bachelor's degree and three years of experience in the area of supplier diversity or supply chain management.

Preparation resources for this certification can be found on the ISM Website (institutehorsupplymanagement.org).

Next Level Purchasing Association NLPA SPSM Certifications

The Next Level Purchasing Association (NLPA) currently offers three certification levels that are open to supply chain professionals who are members of the NLPA. A fourth level is expected to be available in 2017.

The SPSM program covers essential procurement skills and consists of six online purchasing courses and an exam that focuses on the most effective purchasing and supply management techniques, tactics, and strategies. Candidates have up to one year to complete the program, but it can be completed in less time.

Level 2, or the SPSM2 certification, is open to individuals who have earned the SPSM certification and covers global procurement management. The program consists of four online procurement courses and an exam.

Level 3, or the SPSM3 certification, is available to individuals who have earned the SPSM and SPSM2 certifications. The program is designed to help professionals master the skills to collaborate with other departments leading to even better results and a greater bottom-line impact. The program consists of four online procurement courses and an exam.

Level 4 will cover social responsibility and strategic supplier diversity practices.

Information is available on the NLPA website (www.nextlevelpurchasing.com).

Sourcing Industry Group (SIG University) SIG University Certification

The SIG University certification is focused on implementing methodologies and best practices in the areas of strategic sourcing, outsourcing, governance, risk and compliance. A 12-week course is currently available for Certified Sourcing Professionals, with online courses being added for Certified Sourcing Executives and Certified Governance and Risk Professionals. The curriculum is offered to people at all levels in their sourcing careers who seek training opportunities. Each certification level consists of modules with interactive lessons and end-of-unit assessments. Each certification is valid for five years and was developed utilizing leading online best practices enhanced with relevant real-world experiences.

Information is available on the SIG University website (<http://sig.org/sig-university>).

CERTIFICATIONS OFFERED BY UNIVERSITIES

Apart from professional organizations, nearly 40 U.S. universities—and possibly more—have launched certification and degree programs in the field of supply chain management. The basic information on certifications is discussed below.

Air Force Institute of Technology Graduate Certificate in Supply Chain Management

This certification provides candidates with a graduate level education in the fundamentals of supply chain management with special emphasis on Department of Defense and Air Force applications. In order to be eligible for this program, candidates should have a bachelor's degree or equivalent with an overall GPA of 3.0 or higher. The curriculum consists of five graduate level courses, a total of 17 credits along with a non-credit business math review course. Candidates take one course every quarter and courses are offered once every year. Courses are available via video teleconferencing, online or in the classroom.

American Public University Graduate Certificate in Logistics Management

This graduate level certification provides the skills and knowledge required to excel in supply chain management and logistics. Eligible candidates are expected to have a bachelor's degree or equivalent. Candidates complete 18 credits hours, or six courses, to achieve this certification over a period of 12 months. While the program is taught in the classroom, an online version may be available on request.



Arizona State University **Supply Chain Management Certificate**

The Supply Chain Management Certificate at Arizona State University provides in-depth knowledge of industry best practices and benchmarks. This certification is ideal for professionals who have at least two to three years of experience in supply chain management. It consists of two core courses and a choice of elective tracks. Candidates can customize their certificate with a specialization in operations management, supply management and logistics management. Courses do not count toward academic credit but do qualify for 4.5 continuing education units (CEU's). These can be applied towards CPCP certification, CPM re-certification and APP re-accreditation program. The course is delivered online and can be completed in less than six months.

California State University at Dominguez Hills **Online Certificate in Purchasing Education and Training**

This certificate provides a broad level education on the principles of purchasing and procurement management. It is ideal for professionals who are currently working in the area of supply chain management and quality assurance, as well as those anticipating a career change. Courses are offered via online trimesters each year. Courses start in January, April and September. Each course is 13 weeks long. In order to obtain the certification, candidates must complete a total of five required courses with a GPA of 2.5 or better.

Online Certificate in Supply Chain Management

This certificate provides a broad level education on the principles of supply chain management. It is ideal for professionals who are currently working in the areas of production and inventory control, manufacturing, quality assurance, purchasing and procurement as well as those anticipating a career change. Courses are offered via online trimesters each year. Courses start in January, April and September. Each course is 13 weeks long. In order to obtain the certification, the candidate must complete a total of five required courses with a GPA of 2.5 or better.

California State University at Fullerton **Supply Chain Management Certificate**

The Supply Chain Management Certificate gives candidates the opportunity to learn how to handle and manage various activities within the area of supply chain management. This certificate is ideal for professionals who have prior experience working in the field of supply chain management as well as those anticipating a career change. Candidates are required to complete a total of six courses in order to earn the certification. The certification can be completed within a period of one year; upon completion of the requirements, candidates are also awarded 12 Continuing Education Units (CEUs). The program is taught in the classroom, but an online version might be available on request.

California State University at Long Beach **Global Logistics Specialist Online Professional Designation Program**

This certification provides candidates with an insider's view of transportation and supply chain management. Offered through the Center of International Trade and Transportation, it is the only program that offers the Global Logistics Specialist designation. This certificate is ideal for professionals who have prior experience working in the field of supply chain management as well as those anticipating a career change. Candidates are required to complete a total of five courses and an online capstone project within two years in order to earn the certification. All modules are available online and the designation can be completed within one year.

Columbus State Community College **Supply Chain Management Certificate**

The Supply Chain Management Certificate provides candidates the opportunity to learn about the planning and management of integrated supply and demand management processes across companies, both domestic and international. Anyone who aspires to a career in supply chain management can pursue this certification. The program is completely online and requires candidates to complete 6 courses in one year.

DePaul University

Logistics and Supply Chain Management Certificate Program

The Logistics and Supply Chain Management Certification Program provides candidates with an overview of the critical aspects of supply chain management by not just taking the internal operations of a company into consideration, but by also including the supplier and end customer in the picture. This certificate is ideal for professionals who have prior experience working in the field of supply chain management or consulting and with experience with ERP systems. Completing the online 17-week course also prepares candidates for the APICS CSCP certification.

Georgia Institute of Technology

Distribution Operations Analysis and Design Certificate

This certification equips professionals in distribution operations with the necessary skills for facility operations and improvements. It is ideal for professionals who have prior experience in distribution operations. A classroom-based program, candidates are required to complete three core courses and one elective within a span of six years.

Health and Humanitarian Supply Chain Management Certificate

This certificate is designed for professionals in non-governmental organizations (NGOs), industry and government who take active participation in Health and Humanitarian activities. Courses are designed to provide the necessary skills to improve decision-making processes, response operations planning and system design. A classroom-based program, candidates are required to complete three core courses within a span of six years.

Lean Supply Chain Professional Certificate

The Lean Supply Chain Professional Certificate provides candidates with the skills in problem identification, root cause analysis and problem solving. Upon completion of the program, candidates will be equipped to develop, lead and implement lean principles within a supply chain. This certificate is ideal for professionals who have experience in supply chain management and are looking for opportunities to expand their knowledge. Courses are available in the

classroom and online and require candidates to complete 3 core courses within a span of six years.

Strategic Sourcing and Supply Management Certificate

This certificate is designed to empower sourcing, planning and procurement professionals to lead their companies through the complexities, risks and rewards of a global sourcing environment. The program is classroom-based and requires candidates to complete three core courses within a span of six years.

Supply and Demand Planning Certificate

This certificate provides candidates with an understanding of the important techniques and components related to integrated supply chain planning. The certification is ideal for professionals who have prior experience in the area of supply chain management, ranging from engineers up to the chief financial officer. This is a classroom-based program that requires candidates to complete three core courses and one elective within a span of six years.

Supply Chain Management Certificate

The Supply Chain Management Certificate gives candidates a cross-domain understanding of how to handle and manage various activities within the area of supply chain management. The certificate is ideal for professionals who have prior experience working in the field of supply chain management as well as those anticipating a career change. It is classroom-based and requires candidates to complete two core courses and two electives within a span of six years.

Golden Gate University

Graduate certificate in Global Supply Chain Management

The Global Supply Chain Management certificate is ideal for anyone who possesses a bachelor's degree and is looking for opportunities in the area of supply chain management. Courses are offered in the classroom and online. To earn this certificate, candidates are required to complete two core operations management courses, two elective operations management courses and two other elective courses. The elective operations management courses allow candidates to tailor their certificate.



Lonestar College System

First Line Logistics Leader Certificate

The Logistics Leader Certificate prepares graduates for employment opportunities in the area of supply chain management, materials management, inventory management and distribution. The certificate is ideal for professionals who have prior experience working in the field of supply chain management as well as those anticipating a career change. Courses are classroom-based and candidates are required to complete five courses within a semester.

Loyola University Chicago

Supply Chain Fundamentals Certificate

The Supply Chain Fundamentals Certificate is a graduate-level, five-course certificate that delivers an essential foundation in supply chain management. It provides the skills central to effective end-to-end supply chain management, and indispensable insights for today's supply chain professionals. The certificate is designed for current supply chain professionals who need to enhance their knowledge base. It also offers a specialization for students who are currently pursuing a graduate business degree, and a complement for MBA graduates who want to retool or enhance their resume.

Customized Educational Programs

Loyola's custom educational programs are designed for organizations, and not individuals. Though the Loyola Business Leadership Hub, the Executive and Professional Education Center team designs and delivers a training solution and professional development certificates with an organization's needs in mind. The training programs are fully customized to the audience in content, format and delivery, and focus on issues that concern a specific business. The portfolio of programs includes competitive supply chain strategy, risk management, leadership development, project management, change management, finance for the non-finance manager and online marketing for executives. Other programs can be developed.

Michigan State University

Master or Advanced Master Certificate in Supply Chain Management and Operations

Michigan State University offers 3-Course Master Certificates in Advanced Procurement Management, Global Supply Chain Management, Supply Chain Management and Logistics, Supply Chain Management and Operations, Supply Chain Management and Procurement and Integrated Supply Chain Management. The school also offers 5-Course Advanced Master Certificates in Supply Chain Management and Procurement and Integrated Supply Chain Management. Offered online, classes are available on the participant's schedule through an interactive and customizable learning experience. Upon completion, candidates will be able to identify key elements of manufacturing planning and control systems and develop leadership skills that will ensure continuous improvement. The certificate is ideal for professionals who have prior experience working in the field of supply chain management as well as those anticipating a career change.

MIT

Executive Certificate in Technology, Operations and Value Chain Management

This executive certificate provides an opportunity for non-technical executives and tech-savvy managers to learn how to model and solve problems faced by companies within the current rapidly evolving technologies and global networks. The program is ideal for professionals who currently hold a position of senior manager or higher within a company. Candidates are required to complete four courses. The courses are classroom based and are two to five days in duration.

MITx (MOOC)

MicroMasters® Program in Supply Chain Management

Gain expertise in the growing field of supply chain management through an innovative online program consisting of five courses and a final comprehensive exam. The MicroMasters Credential is an advanced,

professional, graduate-level foundation in all aspects of supply chain management. Learners who earn the Micro-Masters credential can then apply for an accelerated, on campus, master's degree program at MIT or other top universities. It represents the equivalent of 1 semester's worth of coursework at MIT and covers all aspects of supply chain analytics, design, technology, dynamics and end-to-end supply chain management. Access to the videos, problems and other materials is free and open to anyone while certification requires a nominal fee.

Northeastern University **Supply Chain Management Graduate Certificate**

The Supply Chain Management Graduate certificate is for professionals who wish to advance their careers in supply chain management as well as those anticipating a career change. Candidates must complete three core courses and two elective courses while maintaining a 3.0 GPA in order to earn this certificate. The certification can be completed in two semesters.

Penn State University **Graduate Certificate in Supply Chain Management**

The Graduate Certificate in Supply Chain Management provides candidates with the ability to develop supply chain solutions for their organizations while gaining an understanding of domestic and global supply chain networks. The certificate is designed for working logistics professionals; professionals with backgrounds in engineering, science and liberal arts are also accepted into the program. Courses are classroom-based and require candidates to complete four courses. The program can be completed in a span of two semesters.

Professional Certificates

In addition to the graduate certificate program, Penn State offers Professional Scholar and Executive Scholar certifications in seven areas: Strategy and Organizational Performance, Supply Chain Operations, Supply Chain Management, Supply Chain Leadership, Strategy and Organizational Performance—Emphasis

in Supply Chain, Supply Chain Leadership—Emphasis in Organizational Performance, and a Custom Certificate. Participants choose from a curriculum of 16 short courses, offered twice year, with more courses in development. Professional Scholars earn any two professional certificates; Executive Scholars earn any three professional certificates.

Portland State University **Graduate Global Supply Chain Management Certificate**

Portland State's online master-level certificate is designed for current MBA and Master of International Management students to expand upon their business knowledge; the certificate is also an excellent stand-alone credential for those currently working in supply chain. The university has partnered with the region's top employers, including Boeing and Nike, to develop an integrated supply chain program for today's global supply chain professionals. The program consists of three required core courses and one additional elective. All courses can be transferred into the master's degree program.

Certificate in Supply Chain Management

The SCM certificate program is a class-room based program designed to help supply chain professionals expand their knowledge base with relevant, practical curriculum that builds your skills in this dynamic field. All of our courses are taught by experienced SCM industry professionals. The program consists of four required core courses and two electives. The program can be completed in two terms. Courses can be taken individually or can be applied to a certificate within a three-year limit. Courses completed outside of the three-year limit will need to be retaken to qualify for certificate completion.

Rutgers State University **Supply Chain Management Certificate**

The Supply Chain Management certificate program covers the major aspects of supply chain management such as sourcing, procurement, logistics and operations. Candidates learn how to execute a supply chain management



plan in today's competitive world. This certificate is ideal for higher-level managers and directors who have at least five years of managerial experience. A three-day program, participants are required to complete assigned readings and case studies by the end of the program.

Shippensburg University **Advanced Supply Chain and Logistics Certificate**

The Advanced Supply Chain and Logistics Certificate is designed for working professionals who aim to gain an understanding in the area of supply chain management and logistics as well as those anticipating a career change. The program is also ideal for individuals who have prior experience in engineering, science and liberal arts. The candidate is required to complete six courses. Courses are classroom-based and can be completed within a period of one year.

Southern New Hampshire University **Operations and Supply Chain Management Graduate Certificate**

This certificate is designed to introduce candidates to key supply chain concepts, strategies and processes, such as inventory control, warehouse management, transportation and procurement. This certification is ideal for professionals in the area of supply chain management and quality assurance, as well as those anticipating a career change. Courses are offered online and are available throughout the year. Candidate must complete four core courses and two electives.

Southern Polytechnic State University **Industrial Engineering Technology Department Certificate of Logistics**

This certificate program provides training on current trends in supply chain management and improves the skills and knowledge of candidates. Applicants must have a high school degree or GED and have been out of high school for at least five years or have earned at least 30 credits from an accredited institution with a minimum 2.1 GPA. Candidates are required to

complete seven courses. Courses are offered in the classroom and online and can be completed within a period of four to six semesters.

St. Louis University **Integrated Supply Chain Management Program**

The Integrated Supply Chain Management Program offers comprehensive management development tools and techniques for supply chain management professionals. The certificate is ideal for professionals who have at least three years experience in the functional areas of supply chain management. Each of the required seminars are offered twice a year. Candidates must complete all the seminars within a period of 18 months.

Stevens Institute of Technology **Logistics and Supply Chain Analysis Graduate Certificate**

The Logistics and Supply Chain Analysis Graduate Certificate focuses on the theory and practice of designing and analyzing supply chains. This certificate is ideal for working professionals looking for opportunities to expand their knowledge, especially in the areas of transportation and inventory control. Courses are offered in the classroom and online. Candidate are required to complete four courses.

Syracuse University **Executive Certificate in Supply Chain Management**

The Executive Certificate in Supply Chain Management can be earned by completing any five of the following courses.

- Introduction to Supply Chain
- Six Sigma Black Belt
- Supply Chain Systems
- Project Management
- Fundamentals of Sourcing
- Lean Manufacturing and Lean Champion

Each course is roughly 10 weeks long. All programs have been designed for working professionals, from engineering up to the president of a company.

Towson University

Supply Chain Management Post Baccalaureate Certificate

The Supply Chain Management Certificate provides candidates with a competitive advantage in analyzing and controlling the activities and trends within a supply chain. The certificate is open to anyone who wishes to learn more about the field of supply chain management. Successful candidates can continue on to the Master's program. Candidates must complete 15 credits or five courses. Courses can be taken in the evenings and can be finished within a year.

University of California at Riverside

Professional Certificate in Purchasing, Logistics and Supply Chain Management

This certificate integrates the concepts of purchasing, logistics and supply chain management in one program. It is designed to help professionals develop their skills and capabilities in these areas and is offered in collaboration with the Institute of Supply Chain Management. The certificate is ideal for professionals who have prior experience working in the field of supply chain management as well as those anticipating a career change. In order to earn this certificate, candidates must complete three required courses and three elective courses. Classroom-based courses can typically be completed within a period of nine months to one year.

University of California at Los Angeles

Supply Chain Management certificate

The Supply Chain Management certificate offers training and tools to help manage the critical aspects of supply chain management, logistics, purchasing and inventory management. It is open to anyone who wishes to learn more about the field of supply chain management. Courses are offered online and candidates are required to complete six mandatory courses and two electives with a grade of "C" or better. Courses have to be completed within five years.

University of California at San Diego

Certificate in Purchasing and Supply Management

The certificate in Purchasing and Supply Chain Management provides the practical information and techniques needed to solve real supply chain issues. This certificate is ideal for professionals who have prior experience working in the field of supply chain management as well as those anticipating a career change. Courses are classroom-based and require candidates to complete three mandatory courses and six elective courses. Designed for working professionals, courses can typically be completed within a period of one year.

University of Michigan - Ann Arbor

Lean Supply Chain and Warehouse Management Certificate

This certification program provides a comprehensive approach to developing lean supply chain and logistics systems that help tackle strategic and tactical challenges. It is ideal for professionals who have prior experience working in the field of supply chain management as well as those anticipating a career change. A two-week-long classroom program, candidates are required to complete two online exams.

University of Missouri at St. Louis

Graduate Certificate in Logistics and Supply Chain Management

This certificate is designed to provide a focused and intensive study on the important areas of supply chain management and logistics. It is open for anyone who wishes to learn more about the field of supply chain management. Candidates are required to complete six courses. The courses are all classroom based.

University of North Florida

Certification in Transportation and Logistics

This certification helps candidates identify best practices in costing, pricing, cost reduction and productivity improvements. Recognized internationally, the CTL certification is ideal for professionals who have



experience working in the transportation and logistics industry. Those seeking this certificate are required to have a four-year degree or at least three years of experience in the area of transportation and logistics. Candidates are required to complete five modules. All modules are classroom based.

University of San Francisco **Advanced Professional Supply Chain Management Certificate**

The Advanced Professional Supply Chain Management Certificate helps candidates understand the relationship between a company, the components of its supply chain and the role of the supply chain manager. The certificate is open for anyone who wishes to learn more about the field of supply chain management. Candidates are required to complete three courses, which are offered online.

Advanced Professional Sustainable Supply Chain Management Certificate

The Advanced Professional Sustainable Supply Chain Management Certificate helps candidates identify regulatory and sustainability issues within an organization and its supply chain. This certificate is ideal for professionals who have prior experience working in the field of supply chain management as well as those anticipating a career change. Candidates are required to complete three courses, which are offered online.

University of Texas at Dallas **Supply Chain Management Certificate**

The Supply Chain Management Certificate helps professionals create value, provide solutions and excel in effective and real world

decision-making. The certificate is open to anyone who wishes to learn more about the field of supply chain management. Candidates are required to complete four modules (eight days on campus and four days online).

Washington University in St. Louis **Supply Chain Management Certificate**

The Boeing Center at Washington University's Olin Business School offers a robust portfolio of professional training courses and certificate programs designed to accelerate your career to the next level. The center offers ten-day Management Certificates in two different tracks designed to indicate that the participant has acquired knowledge of the leadership, strategy and skills necessary to become an effective manager of people and teams. The center also offers four six-day Skill Certificates in a variety of topics designed to provide participants with the knowledge and skills necessary for career advancement. Participants can also customize their areas of interest from a menu of a la carte training courses. A la carte courses are two days each, and currently include operational execution, successful project management, business model innovation and lean process management. ☞☞

Editors note: The preceding list of supply chain management certifications was originally authored in 2015 by Praharsha Sunkara, who was then a graduate student at Texas A&M University, under the guidance of Malini Natarajarathinam. The list has been updated and expanded annually by the editors of Supply Chain Management Review on an annual basis since its original publication date.