SUPPLY CHAIN CERTIFICATIONS

Leading organizations—and professionals—understand that certifications deliver stronger teams and more rewarding careers.



SUPPLYCHAIN



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welcome

It's time to get certified

SINCE I TOOK OVER THE HELM OF SCMR in 2013, one of the things that has impressed me is companies like GE and Intel, to name a



few, that have turned to certifications from leading supply chain organizations to bring their teams up to speed and aligned. Similarly, when I attend conferences, I'm struck by the number of supply chain professionals who have turned to certifications to advance their careers.

If you haven't pursued a certification from APICS, ISM, CSCMP, WERC, Next Level Purchasing or one of the leading academic institutions, then this special publication from *SCMR* is for you. In the following pages, I trust we'll make the case for certification, as well as provide what we believe is the most comprehensive listing of recognized certification programs available.

It's time to get certified, and advance your career.

Book Trelileoch

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National industry certifications are closing the skills gap

To reap the full benefits of certifications, industry and academia must continue to enhance their support.

ompanies in manufacturing and closely related materials handling/distribution industries are rightly concerned about the shortage of workers with the higher skills needed in today's technology-driven economy. According to a 2015 Deloitte-Manufacturing Institute Report, 3.5 million manufacturing jobs will need to be filled in the next decade, but two million are expected to go unfilled due to the talent shortage. A 2015 Material Handling and Logistics Industry job report (prepared by APICS, AST&L, MHI and WERC) predicted a shortage of

workers with the specialized skills needed for the industry to keep pace with technological change.

An underlying cause of this skills crisis has long been the misalignment between the skills needed by industry and knowledge provided by the nation's schools. This problem persists: A 2014 Gallup survey showed that 96% of chief academic officers of colleges and universities were confident their schools were preparing students for success in the workplace, but only 11% of business leaders shared that confidence. A *Wall Street Journal* article at the time characterized this survey outcome as the "vast disconnect" between school and work.

For years, one of the strategies that companies have used to communicate their skills needs to the education community is standards-based certifications. MSSC is an example. Formed under the National Skill Standards Act, the MSSC created a large coalition of some 700 companies, 4,000 front-line workers, 15 national trade associations, and 400 educational organizations to develop industry-wide core technical skill standards and related certifications for front-line work in advanced manufacturing and supply chain logistics. Approved officially by the federal Skill Standards Board in 2001, those standards, which MSSC updates annually, formed the substantive foundation for the MSSC Certified Production Technician (CPT) and Certified Logistics Technician (CLT) training and certification programs.

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BY LEO REDDY, CHAIR AND CEO, MANUFACTURING SKILL STANDARDS COUNCIL (MSSC)

The nation's manufacturers have continued this strategy ever since. In 2009, the National Association of Manufacturers (NAM) created a NAM-endorsed Skills Certification System. In 2014, a NAM Board-level Task Force Report on "Overcoming the Manufacturing Skills Gap" called upon the nation's manufacturers to "speak with one voice" by using national standards and certifications as their way to communicate with the nation's schools. The report specifically recommended that manufacturers use MSSC CPT to engage with the nation's secondary schools.

One of the results of this industry focus on industry-recognized certifications is the increasingly rapid use of them in the nation's schools, beginning with secondary schools and into post-secondary, especially at the nation's two-year community and technical colleges. Some of the leading industry certification bodies available nationwide are:

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• Manufacturing: MSSC, NIMS, AWS, SME

• Distribution-Logistics: MSSC, APICS

• IT: CompTIA, Microsoft, Cisco Systems

• Auto Service: ASE

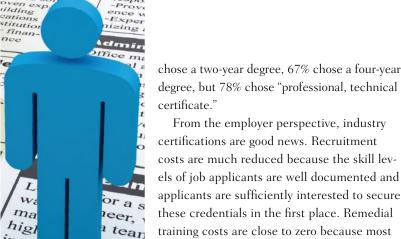
• Construction: NCCER

Petroleum and Gas: API

• Quality Control: ASQ

Another example of the success of these programs is the growing awareness of their effectiveness in helping individuals secure employment in higher-skilled, in-demand, middle-income jobs. Individuals securing full certifications from these organizations are achieving high success rates either in going directly into employment or in continuing on to higher education in the same career pathway. For example, an industry-supported high school program in Wisconsin, GPS Education Partners, embeds MSSC CPT and is experiencing a 92% job placement rate.

Certifications are becoming so successful that the general public is beginning to see them as more effective than college degrees in helping students find productive employment. An October 2016 Pew-Markle Survey asked 5,000 Americans to rate the value of different kinds of education to secure employment in today's economy: 58%



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From the employer perspective, industry certifications are good news. Recruitment costs are much reduced because the skill levels of job applicants are well documented and applicants are sufficiently interested to secure these credentials in the first place. Remedial

tion in math and locating information. Some employers express concern that if they

encourage their workforce to secure certifica-

training costs are close to zero because most

industry certifications require a good founda-

tions, they will migrate to other, higher paying companies. But, our research shows that workers' loyalty to the company increases and turnover rates decline if the company encourages them to get their national industry certifications. When Ben E. Keith Food Distributors opened a state-of-the-art distribution center near Houston and filled most of their operations jobs with holders of the MSSC CLT credentials. they put out a press release expressing surprise at how much this certification motivated their workforce.

Well-established national certifications are increasingly demonstrating the potential to close the skills gap. To reap the full benefits from this solution, industry and academia have to enhance their support. The first requirement for industry is to adopt a "zero cost" recruitment policy. This means that companies need to inform their own recruiters, area schools, state and federal agency offices—and need to include in their job postings—that they will give preference to job applicants with certifications from well-known, thirdparty endorsed or accredited national industry certifications.

For their part, schools need to include certificationrelated courses in their regular course offerings, preferably for credit, and have career counselors brief students on the value of industry certifications in securing higherwage employment and building successful careers. Collective action by employers and schools will provide a much stronger pipeline of higher skilled workers able to keep pace with technological challenge. In helping to close the skills gap, these measures will enhance productivity, economic growth and global competitiveness of the U.S. industrial base.

Here are six supply chain certification trends to watch in 2017—and beyond.

hris Caplice remembers a time when supply chain professionals got the necessary credentials and then proceeded to enjoy their careers without needing much additional education or training. "Those days are gone," says Caplice, executive director of the MIT Center for Transportation and Logistics. "Credentials are no longer a 'one stop and done' kind of thing, like degrees have historically been. Now it's a continual, lifelong learning journey."

As part of that lifelong journey, supply chain professionals are earning certifications, getting credentialed, earning degrees, and taking online courses that help them stay current on specific topics and applications. As the supply chain industry becomes more complex—and as technology, data, analytics and the Internet of Things (IoT) continue to have an impact on the space—that coursework is getting more and more specific.

"The education that's coming out now is smaller, more focused and easier to digest," says Caplice. "Professionals can handle the education at their own pace; you no longer have to devote two to four years to getting credentialed." This is particularly useful for existing professionals who need to get up to speed on modern technologies, applications, processes and strategies. "A lot of people who have been in the field awhile may be bit rusty," says Caplice, "or they may have missed the boat on certain things that have [since] changed."

To help fill those gaps, supply chain certification extends the educational experience beyond traditional college degrees and gives individuals a way to achieve new levels of specialization and expertise. Offered by groups like APICS ("CPIM"), CSCMP ("SCPro") and ISM ("CPSM"), along with most leading academic institutions, certifications provide coursework in areas like internal manufacturing operations, end-to-end supply chains, logistics, transportation and distribution, among others.

Whether they are developing customized

"The education that's coming out now is smaller, more focused and easier to digest, professionals can handle the education at their own pace; you no longer have to devote two to four years to getting credentialed."

programs, tailoring those programs for government use, integrating mobile options into their course offerings or helping existing professionals fill in their knowledge gaps, certifications are playing an increasingly important role in the supply chain education field. Here are six key certification trends that are taking place right now:

Turnkey programs that think "out of the box." Working with CSCMP, Broward College in Fort Lauderdale recently launched a Center for Supply Chain Education. A "turnkey" certification program that colleges, universities and businesses can use to train and certify supply chain professionals, this program extends beyond the typical boundaries of the certification process and essentially "thinks out of the box," according to Leslie Backus, national project director. "This is sort of a 'supply chain in a box' program," says Backus, "that allows schools and businesses to take the developed content and adapt it to their own programs and/or their own needs." If, for example, a firm's supply chain training is already strong in an area like warehousing and inventory management, but is weak on the procurement and demand planning fronts, then the program will pick up where the company has left off. "It can be adapted to the needs of the individual student or employee," Backus adds. "This level of flexibility works well for schools and for individual firms that want to offer an adaptable and relevant supply chain certification."

Certification that targets existing professionals.When MIT launched its MicroMasters in SCM.

it intentionally targeted existing professionals who already possessed undergraduate or graduate degrees, but who needed more professional-level coursework. Officially launched in 2015, the MITx MicroMasters in SCM is offered 100% online and can be completed in roughly 18 months. Zhang Yao, senior manager at online grocer Red-Mart.com, says one of his organization's biggest challenges is finding talented engineers and analysts who have the "right

skills and mindsets," and then training them to design and build the company's supply chain facilities, processes, and systems. "After finishing all the SCx classes, I found that the program provides a broad coverage and helps students see the bigger picture of supply chain management," says Yao. "It [serves] as a perfect foundational course for further development in the supply chain and operations management domain." Yao himself is now responsible for designing and managing RedMart's industrial engineering graduate program, a 12-month in-house program to rotate fresh university graduates through all major areas of the RedMart supply chain process. "I am happy to report that our first batch of rigorously selected applicants will start their training in July," he says, "and selected SCx classes will be an important part of their training program."

Programs that morph to meet user needs. Since its inception in 2002, The University of Alabama in Huntsville's supply chain program has seen a

significant uptick in interest. In many cases, that interest comes from the many different government and industrial entities situated near the college, which offers a graduate degree in supply chain management along with various credit and non-credit supply chain certifications. Jatinder Gupta says the program has been well received by the U.S. Army. "Much of the industry in this region is defenserelated, so we've also included those needs and viewpoints into our overall program in order to accommodate that demand," says Gupta, president of the Decision Sciences Institute, director of the Integrated Enterprise Lab, and an Eminent Scholar of Technology at the university's College of Business Administration. Updated regularly to meet the needs of government and industry, the program now includes a business analytics track that addresses big data, enterprise resource planning (ERP), and IoT. Going forward, Gupta sees supply chain security, governance and disruption as topics that can be addressed through certification. "Other topics that we are looking at, and that aren't currently being

addressed, include supply chains related to situations that are not the usual manufacturing or services (e.g., space exploration and education)," says Gupta, "and living supply chains connected with bio-systems and people."

Education that helps professionals stay relevant and current. In a society that places much emphasis on education, and where many

professionals hold a bachelor's degree (or higher), the question: "Why should I take the time to earn a supply chain certification?" tends to come up a lot. Someone who already holds an MBA or a supply chain degree, for example, hasn't always understood the value of putting a new acronym after his or her name. But Nora Neibergall, SVP of certifications at ISM, says that sentiment is changing as supply chain certifications continue to morph and evolve. "Professionals need to stay current," Neibergall says, "and they need to be able to show that they care enough about their career paths to set themselves apart." Certification not only helps establish that baseline, but most of the offerings also give professionals access to a third party, independently validated certification process. That certification can then be transported from industry to industry, and from country to country, says Neibergall, "to demonstrate the broad spectrum of competencies that one needs to master as a supply chain management professional." She adds that ISM's continuing education requirements also denote that a student has taken the responsibility to learn and grow within his or her job. "Certifications remain relevant in today's world," Neibergall concludes, "because they show that someone is keeping current and staying on top of what they do as professionals."

Certification is paying off. Certifications help professionals "fill in" their skillset and knowledge gaps while also helping them keep current and up-to-date on the latest and greatest supply

chain trends and applications. But do they pay off when it comes to salaries, promotions and job opportunities? According to APICS' most recent data, the answer to that question is a resounding "yes." Of those surveyed, 44% held CPIM designations and 33% have CSCP designations. Individuals holding the CPIM designation received an average of approximately 10% higher compensation compared to those without the designation, according to APICS, and experienced a 77% favorable hiring decision impact (over those job candidates without the certification). Similarly, individuals with a CSCP designation received on average approximately 12% higher compensation than those without CSCP certification and a 76% favorable hiring impact.

> **Coming soon: Courses made for mobile consumption.** Staying "connected" without being tethered to a desk, chair or couch has become

a way of life for all professionals, and supply chain specialists are no exception to the rule. Knowing this, nearly all of the certification providers interviewed for this article say that they're working to include more mobile options into their coursework. At APICS, for example, Dean Martinez, EVP and COO, says mobile is becoming an increasingly important aspect of the organization's educational delivery. "We're all looking at how to incorporate mobile technology as part of the training and certification process," he notes. Focused on learning how its educational products are "consumed," the organization recently learned that more than 53% of students are using mobile devices to access and interact with the course content—up from 23% in December of 2016. "That's a 100% increase of use in a six-month period. That's significant," says Martinez, who expects those percentages to continue rising. To accommodate that shift, he says providers will need to start going beyond "mobile friendly" and actually creating content designed for mobile devices. "It sounds like splitting hairs," says Martinez, "but it's a significantly different approach than what we're all used to."

"We're all looking at how to incorporate mobile technology as part of the training and certification process. That's a 100% increase of use in a six-month period. That's significant."

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 & PRAHARSHA SUNKARA

very 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.

ABOUT THE AUTHORS:

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A more complete description of these certifications is available on scmr.com.

Issuing Institute	Certification Name	Eligibility Requirements	Duration for completion	Type of Teaching
Manufacturing Skills Standards Council	Logistics Certification (CLA + CLT)	10th Grade	70 hours	Classroom
Air Force Institute of Technology	Graduate Certificate in Supply Chain Management	Bachelor's Degree Holders	1 year	Classroom/ Online
American Public University	Graduate Certificate in Logistics Management	Open for All	1 Year	Classroom
APICS	APICS Certified in Production and Inventory Management (CPIM) program	Open for All	No duration	Online
APICS	APICS Certified Supply Chain Professional (CSCP) Certification Program	Supply Chain Professionals	No duration	Online
Arizona State University	Supply Chain Management Certificate	Supply Chain Professionals	No duration	Online
California State University at Dominguez Hills	Online Certificate in Purchasing Education and Training	Open for All	No duration	Online
California State University at Dominguez Hills	Online Certificate in Supply Chain Management	Open for All	No duration	Online
California State University at Fullerton	Supply Chain Management	Supply Chain Professionals	1 Year	Classroom
California State University at Long Beach	Global Logistics Specialist Online Professional Designation Program	Supply Chain Professionals	2 Years	Classroom/ Online
Columbus State Community College	Supply Chain Management Certificate	Bachelor's Degree Holders	1 Year	Online
Council of Supply Chain Management Professionals	SCProTM Supply Chain Management Certification Program	Bachelor's Degree Holders	No duration	Classroom
DePaul University	Logistics and Supply Chain Management Certificate Program	Bachelor's Degree Holders	17 Weeks	Classroom
Eastern Michigan University	Graduate Certificate in Supply Chain Mgmt	Bachelor's Degree Holders	1 Year	Classroom
Ferris State University	Advanced Studies in Global Logistics	Open for All	1 year	Classroom
Fontbonne University	Certificate in Supply Chain Management	Open for All	1 Year	Classroom
Georgia Institute of Technology	Distribution Operations Analysis and Design Certificate	Distribution Operations Professionals	6 Years	Classroom
Georgia Institute of Technology	Health and Humanitarian Supply Chain Management Certificate	Government and members of Humanitarian Activities	6 Years	Classroom
Georgia Institute of Technology	Lean Supply Chain Professional Certificate	Supply Chain Professionals	6 Years	Classroom
Georgia Institute of Technology	Strategic Sourcing and Supply Management Certificate	Supply Chain Professionals	6 Years	Classroom

Issuing Institute	Certification Name	Eligibility Requirements	Duration for completion	Type of Teaching
Georgia Institute of Technology	Supply and Demand Planning Certificate	Bachelor's Degree Holders	6 Years	Classroom
Georgia Institute of Technology	Supply Chain Management Certificate	Bachelor's Degree Holders	6 Years	Classroom
Golden Gate University	UG certificate in Operations and Supply Chain Management	Bachelor's Degree Holders	No duration	Classroom
Golden Gate University	Graduate Certificate in Supply Chain Management	Bachelor's Degree Holders	No duration	Classroom
Leheigh University	Supply Chain Management Certificate	Open for All	1 year	Online
Lonestar College System	First Line Logistics Leader Certificate	Bachelor's Degree Holders	1 Semester	Classroom
Loyola University	Essentials of Logistics and SCM	Key Employees and Engineers	1 year	Classroom
Michigan State University	Master Certificate in Supply Chain Management and Operations	Open for All	24 Weeks	Online
MIT Sloan	Executive Certificate in Technology, Operations, and Value Chain Management	Sr. Managers and above	2 Days	Classroom
Next Level Purchasing Association	SPSM Certifications	Open to NLPA members	1 Year	Online
Northeastern University	Supply Chain Management Graduate Certificate	Bachelor's Degree Holders	1 Year	Classroom
Pennsylvania State University	Graduate Certificate in Supply Chain Management	Bachelor's Degree Holders	12 Months	Classroom
Portland State University	Graduate Global Supply Chain Management Certificate	Current MBA and Masters of Business Management Students	Up to 7 Years. Can be completed in as little as 6 months	Online
Portland State University	Certificate in Supply Chain Management	Supply Chain Professionals	3 years	Classroom
Rutgers State University	Supply Chain Management Certificate	Sr. Managers and above	4 Days	Classroom
Shippensburg University	Advanced Supply Chain and Logistics Certificate	Open for All	1 year	Classroom
Sourcing Industry Group (SIG University)	SIG University Certification	Certified Sourcing Professional	12 Weeks	Online
Southern New Hampshire University	Operations and Supply Chain Management Graduate Certificate	Open for All	1 Year	Online
Southern Polytechnic State University	Industrial Engineering Technology Department Certificate of Logistics	Bachelor's Degree Holders	3 years	Classroom/ Online
St. Louis University	Integrated Supply Chain Management Program	Supply Chain Professionals	18 Months	Classroom

Issuing Institute	Certification Name	Eligibility Requirements	Duration for completion	Type of Teaching
Stevens Institute of Technology	Logistics and Supply Chain Analysis Graduate Certificate	Bachelor's Degree Holders	1 Year	Classroom
Syracuse University	Executive Certificate in Supply Chain Management	Key Employees and Engineers	10 Weeks/ course	Online
Towson University	Supply Chain Management Post Baccalaureate Certificate	Open for All	1 year	Classroom
University of Alaska at Anchorage	Undergraduate Certificate in Logistics and Supply Chain Operations	Open for All	2 Years	Classroom
University of California at Los Angeles	Supply Chain Management certificate	Open for All	5 Years	Classroom
University of California at Riverside	Professional Certificate in Purchasing, Logistics and Supply Chain Management	Bachelor's Degree Holders	1 year	Classroom
University of California at San Diego	Certificate in Purchasing and Supply Management	Supply Chain Professionals	No duration	Classroom/ Online
University of Houston at Clear Lake	Purchasing and Supply Chain Management Certificate	Open for All	2 Years	Classroom
University of Indianapolis	Global Supply Chain Management Graduate Certificate	Master's Degree	1 Year	Classroom
University of Michigan - Ann Arbor	Lean Supply Chain and Warehouse Management Certificate	Bachelor's Degree Holders	2 Weeks	Classroom
University of Missouri at St. Louis	Graduate Certificate in Logistics and SCM	Open for All	1 Year	Classroom
University of North Carolina - Greensboro	Supply Chain, Logistics and Transportation Management	Bachelor's Degree Holders	6 months	Online
University of North Florida	Certification in Transportation and Logistics	Supply Chain Professionals	5 Days	Classroom
University of San Francisco	Advanced Professional Supply Chain Management Certificate	Bachelor's Degree Holders	No duration	Online
University of San Francisco	Advanced Professional Sustainable Supply Chain Management Certificate	Bachelor's Degree Holders	No duration	Online
University of Texas at Dallas	Supply Chain Management Certificate	Bachelor's Degree Holders	12 Days	Classroom
Walden University	Global Supply Chain Management Certificate	Open for All	1 Year	Classroom
Washington University at St. Louis	Supply Chain Management Certificate	Open for All	5 Days	Classroom
Institute of Supply Management	Certified Professional in Supply Management (CSMP) Program	Supply Chain Professionals	No Duration	Online
Institute of Supply Management	Certified Professional in Supplier Diversity (CPSD) Program	Supply Chain Professionals	No Duration	Online



Measurin supply chain

Executive-level supply chain positions have gained both prominence and importance for today's global companies. To support this trend, universities and colleges have enhanced their supply chain and logistics degree programs; organizations like APICS and the Institute for Supply Management (ISM) have expanded their certification programs; and training firms offer myriad options to help executives stay current on supply chain trends.

BY BRIDGET McCREA

t wasn't that long ago that supply chain managers worked mainly behind the scenes, stealthily orchestrating the movement of products from the raw material stage to manufacturing/production and right on through to the final delivery of the finished goods. Typically occupied by employees who had

successfully "worked their way up" through the company, these executive-level supply chain positions have over the last few years gained both prominence and importance for today's global companies.

To support this trend, universities and colleges have enhanced their supply chain and logistics degree programs; organizations like APICS and the Institute for Supply Management (ISM) have expanded their certification programs; and training firms offer myriad options to help executives stay current on supply chain trends. These executive education offerings provide executives with the opportunity to hone their skills, upgrade their technology acumen and better understand the inner workings of the modern-day supply chain.

In some cases, the executive education is served up in the traditional classroom setting, but increasingly we're seeing more interest in short sessions (one or two days), online course delivery, or hybrid options that combine the two. The programs can be non-degree-granting, certification-based, or lead to a full-blown degree in supply chain management or other subject. Customized programs that are tailored to the needs of individual companies are also growing in popularity, with most offerings targeted to supply chain professionals that are already employed in managerial and executive roles (or those who aspire to).

The question is, what value do current supply chain professionals gain from executive education and how can they apply these advantages for their companies and in their own careers? In most cases, advanced education can translate into better opportunities for advancement, improved job prospects, more respect or status (as compared to those employees who may not participate in executive education) and even higher salaries. For employers, this type of education supports employee retention while ensuring that executives have the latest, most relevant knowledge and skills they need in order to do their jobs.

In this article, we'll delve further into the true value of executive education for today's supply chain professional, outline some of the key benefits that it offers and hear how providers are stepping up to meet the growing needs of their executive students.

Making your personal stock go up

According to John Caltagirone, the value of supply chain executive education goes beyond just providing better advancement opportunities and salaries. "It's going to make your personal stock go up," says Caltagirone, founding director of the Loyola Business Leadership Hub of Loyola University Chicago. "It will make you more valuable to your employer and that will lead to a stronger career and higher income."

By participating in executive education, Caltagirone says professionals also gain access to networking opportunities that could eventually lead to new career prospects, valuable information sharing and other career-building interactions. "We have about 78 corporate members—most of them large firms like McDonald's and Walgreens—that can't wait to get together and brainstorm challenges and come up with solutions together," says Caltagirone. "They work together to solve inventory problems, address supply chain issues and come up with ways to solve some of their biggest pain points."

In other words, executive education programs not only provide knowledge and nuggets of useful wisdom, they also encourage relationship building, brainstorming and a focus on continuous improvement. "If you're serious about your profession, participating in these programs, getting a degree, attending a workshop or getting a certificate will all give you takeaways that you can use on the job," says Caltagirone.

Caltagirone says executive education is particularly relevant for supply chain executives who may have come from a different side of the business, such as marketing or finance. More and more of these professionals are being "pulled into" positions like VP of supply chain, says Caltagirone, and may need additional education to get them up to speed on the fine points of global and domestic supply chain management.

Finally, Caltagirone says the millennial generation is another good candidate for the additional education, experience and networking the supply chain executive education provides. Not always eager to register for a Master of Science in Supply Chain Management degree or an MBA program, these younger professionals lean more toward bite-sized educational offerings that hit on specific, supply chain-related topics.

"Because of this, we started offering certificates," says Caltagirone. From the experience, students take away specific knowledge and training on topics like global supply chain management, inventory control and purchasing. "So instead of taking 18 courses over an 18- to 24-month period, students can take five courses and earn a certificate," he says.

If your employer values it, go for it

Steve Tracey, executive director for the Penn State Smeal College of Business' Center for Sup-

In most cases, advanced education can translate into better opportunities for advancement, improved job prospects, more respect or status (as compared to those employees who may not participate in executive education) and even higher salaries.

ply Chain Research, says he's come to the simple conclusion about executive education and certification: If your employer values it, then it's probably worth pursuing. But if the company doesn't put an emphasis on such education—or the value it can bring to the organization—then it's purely a personal investment.

"Some employers do value it and some don't," says Tracey. Certifications can be an especially tricky area, namely because these programs center on technical expertise and rarely focus on bigger topics like leadership and strategy. "You can't really develop and educate people on leadership and strategy through a correspondence course," Tracey says. "So where certifications may work for a tenured employee with less than seven years of experience, once you start getting up into the higher levels, that type of education doesn't add that much value."



The value of supply chain executive education also extends to the companies themselves, which can use it to retain their top supply chain employees. A firm that sponsors executives who attend a Master's in Supply Chain program, for example, may ask for a minimum, post-graduation time commitment (of say, three years), thus ensuring that he or she doesn't jump ship once the diplomas are handed out. "The hope, of course, is that the person will stay long after that three years is up," says Tracey, "based on the fact that they invested that money in the employee's degree."

Within companies, Tracey says those that do value ongoing education tend to cast a more favorable light on executives who have made the effort in that area. "If you're working for a large organization, a series of certifications or a master's degree could both be differentiators within that company, particularly when it comes to salary bumps," says Tracey. "However, I think it's rare to find a company today that would hand out a promotion to someone simply because he or she completed an educational program."

To help clear up any ambiguity in this area, Tracey says employers should be very clear about whether they do (or don't) value executive education, including degrees, advanced degrees and certifications. "Have a stated strategy and policy about what these efforts mean within your organization, and communicate it to your employees," says Tracey. "This helps with employee retention and ensures that professionals aren't left guessing as to whether they should put the time and effort into executive education."

Measure the personal ROI first

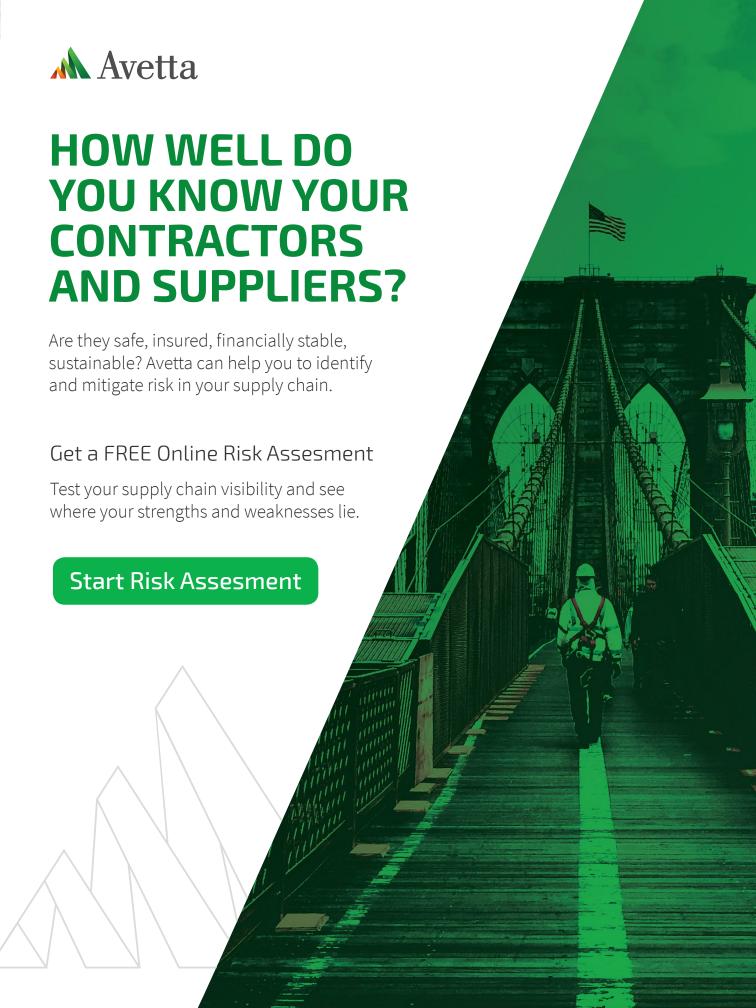
As supply chain itself becomes more and more intertwined with other disciplines, Caltagirone expects the related executive educational offerings to follow suit. "I have a new graphic that I used in class that depicts what the supply chain looks like right now, and it literally includes every-

thing but the kitchen sink," says Caltagirone. "If you make a product, buy a product, move a product or store a product, you're involved with supply chain."

Nick Little, assistant director of executive development programs for Michigan State University's Broad College of Business, concurs, and says demand for executive education is being driven by the fact that neither organizations nor their supply chain professionals can operate in vacuums any longer. "Supply chain executives have to be aware of the 'bigger picture,'" says Little. "And while they don't necessarily have to become experts at everything, they have to at least see how their part fits into the rest of their own companies, and with their suppliers and customers."

Little sees executive education—be it via a degree or a certificate program or a workshop—as a good way for supply chain managers to gain more of that big-picturing thinking and then use it in their own careers. When a warehouse manager learns exactly how his or her activities affect distribution, manufacturing and transportation, for example, the opportunities to gain efficiencies and make continuous improvements across the organization grow exponentially.

But as Tracey pointed out, organizations that want to experience those improvements must be willing to carry the executive education torch, or else employees won't see its value. But that doesn't mean enterprising executives can't use the education to improve their own knowledge banks and skillsets while enhancing their chances of getting a raise, a promotion or a new job. "If you're going to invest the money, time and effort in executive education, make sure you do your own return on investment (ROI) calculations," Tracey advises. "No education is bad; it's always good. As with anything, there is a trade off between time and money invested in the payback you get out of the education."





Universities and Educational Institutions

Arizona State University

W.P. Carey School of Business 480-965-7579

https://wpcarey.asu.edu/

The curriculum for the supply chain certificate is in-depth and driven by best practices and industry benchmarks. Delivered by faculty who teach in our W. P. Carey supply chain programs, including our Master of Science in Global Logistics (MS-GL), the certificate consists of two core courses and your choice of elective tracks, each offering two additional courses. Customize your certificate with a specialization in operation management, supply management, or logistics management.

Auburn University

The Harbert College of Business 334-844-2460 www.auburn.edu

The Harbert College of Business is establishing a SCM research and resource center to facilitate industry engagement. Key capabilities include: conducting annual studies, creating and executing customized development programs, facilitating internship and employment opportunities for students, and driving thought leadership through cutting-edge research.

Bellevue University

800-756-7920 www.bellevue.edu

Bellevue University's in-class and online Master of Business Administration (MBA) places special emphasis on building and practicing the performance skills necessary to achieve measurable success. Leaders with strong decision-making skills who are able to apply learned business concepts effectively are in high demand. This demand is not partial to any particular industry. Bellevue University consults with an advisory board consisting of business leaders with industry insight into trends and needs of the rapidly evolving workplace.

Brigham Young University

801-422-5367 **Marriott School** http://marriottschool.byu.edu

The global supply chain management coursework prepares students for positions in purchasing and supply management, inventory management, logistics/transportation management, and operations management. Career paths also lead to executive-level positions such as chief supply chain officer, chief purchasing officer, chief logistics officer, and chief operations officer. Since many supply chains are

becoming global, there are particularly good opportunities for individuals with international exposure or interest in working for multinational firms.

Central Michigan University

College of Business Administration 989-774-4000

www.cmich.edu

The MBA program at CMU is designed to prepare graduate business students for leadership positions in today's global economy. The program features an active student learning environment with a curriculum that meets the needs of both part-time and full-time students from all over the world. The online MBA degree offers the same content and coursework as the traditional classroom based MBA. CMU's Online MBA program is also AACSB accredited and requires the GMAT examination for admission. The university offers an MBA in Logistics Management, with courses only available online. Most MBA course work is available online through CMU's Global Campus (see www.global.cmich.edu).

Cranfield University

School of Management +44 (0)1234 751122 www.cranfieldmsc.biz/log

Full-time MSc in Logistics and Supply Chain Management Whether you are already a professional in this field or looking to move into this area, this course provides you with the specialist knowledge and skills to further your career. The program was established over 28 years ago and is accredited by The Chartered Institute of Procurement and Supply and The Chartered Institute of Logistics and Transport.

Elmhurst College

630-279-4100 www.elmhurst.edu/scm

Elmhurst College offers an M.S. in Supply Chain Management. The school's SCM program builds on its extensive experience as the only local provider of an undergraduate program in logistics and supply chain management. It also draws on Elmhurst College's location at the geographic center of one of the world's great transportation hubs.

In this program, students gain a sound technical foundation and hone skills that are critical for today's professional: communication, negotiation, team building, information technology, analytical thinking, working in diverse business environments, and sound business decision making. This is a 22-course, 21-month program that incorporates classroom instruction one evening per week.

Georgia Institute of Technology

Executive Master's in International Logistics (EMIL) 404-894-3808

http://www.emil.gatech.edu/

Engineered solutions for optimal results. Gain a global perspective through international immersion and extensive industry engagement. Experience our Global campus yet never miss a beat at work. Take advantage of the opportunity to impact the curriculum. Grow your network with other supply chain leaders while you transform your outlook.

Georgia Institute of Technology

The Supply Chain Leader Development Program **Supply Chain & Logistics Institute** 404-894-2600

www.gatech.edu

The Supply Chain Leader Development Program is a consortium-based certificate program that provides a comprehensive and holistic focus on capability development along multiple dimensions needed to drive supply chain leadership excellence—strategic thinking, operational excellence, business leadership, and application competency. It is a four-course certificate developed to provide participants with both a solid cross-domain understanding of supply chain as well as an opportunity to go deeper in specific domains or techniques of interest. The flexibility of the certificate allows participants to broaden their skills and knowledge base while also achieving a specific noteworthy career accomplishment – obtaining a Georgia Tech Professional Education Certificate. Each course can be applied towards earning a Supply Chain Management Certificate. There are two core courses which are required and then participants choose two electives.

Upcoming executive education courses at Supply Chain & Logistics Institute:

Lean Inbound Logistics (Savannah, GA), Feb 15-16 Supply Chain Project Management: Effectively Managing Transformation Projects, Feb 21-23

Inventory Planning and Management, March 15-17

Golden Gate University

415-442-7800 www.ggu.edu

For those who don't need an MBA degree but do need to update and broaden their professional skills, the graduate Global Supply Chain Management (GSCM) Certificate provides the theories and practices to be successful in this critical area of modern business. Students take two core operations management (OP) courses, two elective OP courses. and two other elective courses, as approved by the program director for a total of 18 units. The two core OP courses cover key strategic, design, tactical, and execution management knowledge. The two elective OP courses allow students to tailor their certificate in GSCM. The two other elective courses allow students to broaden their knowledge either in GSCM or in related areas such as marketing, finance, technology, project management, and international business.

In addition to academic knowledge, students will have the opportunity to create a career plan to accomplish their goals with the support of academic, industry, and alumni advisors.

Illinois Institute of Technology

Industrial Technology and Management 312-567-3650

www.intm.iit.edu

The Industrial Technology and Management Program (INTM) at IIT offers a specialization in Supply Chain Management (SCM) at the undergraduate and graduate levels. The SCM specialization is for students with experience or interest in supply chain activities including transportation and logistics, warehousing, distribution, purchasing/procurement, and export/import management. Supply Chain topics are taught by faculty with professional experience in inventory management, sourcing, sales and operations planning, global transportation systems, and sustainable supply chains.

Indiana University

Kelley School of Business 812-855-8100

https://kelley.iu.edu/

If your work involves purchasing, manufacturing, transportation, or consulting—take your career further with a Master of Science in Global Supply Chain Management. Complete your degree in one to five years. With the ultimate flexibility of Kelley Direct you can advance your education around your schedule. This 30-credit-hour graduate degree program offers the skills you need to be an effective manager who understands the business processes critical to the modernday supply chain of information and material, and how to use technology to manage that flow.

Loyola University Chicago

Quinlan School of Business 312-915-6574 www.luc.edu

Supply chain management involves the complex challenges of moving goods globally—on time and on budget—to ensure they arrive when and where they should. The Master of Science in Supply Chain Management (MSSCM) program focuses on the major areas of the industry, such as purchasing, transportation, logistics, distribution, and warehousing. Whether you are a career changer or a veteran in the industry, our curriculum will help you become a leader in the supply chain community. Quinlan's program is the only one offered by an accredited business school in Illinois.

Massachusetts Institute of Technology (MIT)

MIT Center for Transportation & Logistics 617-324-6564

scm.mit.edu

Today's companies are realizing the importance of the supply chain as a revenue generator. It's not just a cost of doing business. In order to remain competitive in the global marketplace, senior executives must completely transform their

business approach and conventional supply chain practices. and embrace new capabilities that drive more value. How can you leverage the latest supply chain tools, practices, and capabilities to ensure that your company is poised to adapt in this rapidly changing environment and not be left behind? You can start by learning from the best at MIT. Upcoming executive education courses include Supply Chain Executive Education, which will be held January 17-20, 2017 at the MIT Center for Transportation and Logistics.

Michigan State University

Eli Broad College of Business 517-355-8377 http://supplychain.broad.msu.edu/

The Master of Science in Supply Chain Management (MSSCM) degree is a unique graduate program providing specific deeper knowledge of supply chain practices and technologies in a structure that allows it to be completed while students are working full time. Firms are interested in individuals who have sound business skills, decision-making capabilities, and a solid understanding of the latest technology applications. In supply chain, the search widens for professionals who understand business alignment and value creation, who are aware of social and environmental responsibility, and who value risk management. MSU Supply Chain graduates understand real-world strategies and have been taught the tactics employed by leading practitioners around the world.

North Carolina State University

Supply Chain Resource Cooperative Poole College of Management 919-513-4488 www.mat.ncsu.edu

Today's supply chain management industry requires professionals who can integrate and optimize all the steps required to produce the right amount of the right product or service and deliver it to the end user at the right time. The interdisciplinary role of supply chain management spans logistics, distribution, purchasing, manufacturing, inventory management, marketing, and product development. It involves diverse skills and knowledge, along with multicultural and global perspectives.

Northeastern University

D'Amore-McKim School of Business 617-373-2000

www.damore-mckim.northeastern.edu/

The Supply Chain Management program benefits include: Develop an integrative management approach critical in supporting supply chain cost and service improvements. Learn how different supply chain practices, strategies, and decisions can converge to tackle domestic and global supply chain challenges. Acquire an understanding of contemporary challenges, international trade, and development issues that affect the design of international supply chain systems. Gain valuable insights from professors who are thought leaders

in the field. Apply the course credits acquired through the Certificate toward the Online MBA, pending admittance into the program.

Northwestern University

Kellogg School of Management 847-467-7000

www.kellogg.northwestern.edu/execed

Taught by leading authorities on management, strategy, marketing, and decision sciences, Supply Chain Management: Strategy and Planning for Effective Operations offers an interdisciplinary approach to managing supply chains and leading effective operations. Faculty present state-of-the-art models and real-world case studies on managing facilities, inventories, transportation, information, outsourcing, strategic partnering, and more. You will learn effective strategies for managing logistics and operating complex networks. You'll develop new skills for integrating your supply chain into a coordinated system. You'll gain practical tools for increasing service levels and reducing costs. And you'll be inspired to redesign your operations for peak performance.

The Ohio State University

Fisher College of Business 614-292-0331

http://fisher.osu.edu/centers/scm/executiveeducation

The Supply Chain Management Program focuses on how to implement The Global Supply Chain Forum framework. The framework is comprised of eight essential cross-functional, cross-firm business processes. Examples are provided on how they have been implemented by major corporations. These processes must be applied cross-functionally and with key customers and suppliers in order to create the maximum value for customers, shareholders, and other stakeholders. The seminar includes a session on the GSCF partnership model that is being used to structure more than 100 business relationships, including Coke and Cargill, and Wendy's and Tyson, which was the basis for a Harvard Business Review article. Also there is a session on the collaboration framework that is being used by restaurant chain Bob Evans Farms (and other companies) to realize the value of collaboration in real tangible terms.

Penn State University

Smeal College of Business 814-863-0448

www.smeal.psu.edu/psep

The Supply Chain Management Concentration enables you to accommodate organizational and supply chain goals for profitability, asset utilization, customer service, and systems flexibility. Upcoming events at the Executive Center, University Park Campus include Building a Sustainable Supply Chain: Practical Tools for Reducing Cost and Risk, May 9, 2017.

Rutgers University

Rutgers Business School 973-353-5185

www.business.rutgers.edu/scmms

Supply Chain networks are constantly evolving, expanding, and becoming more complicated. Globalization, product proliferation, super competitors, mergers & acquisitions, outsourcing, and sophisticated new technology have all raised the dependence and inter-dependence of organizations across a supply chain on one another. In response to this new age of complexity, more attention is being placed on building resilient organizations. Learn why the ability to bounce back from disruptive events with minimum disruption to operational effectiveness is critical to your organization's success.

Saint Louis University

John Cook School of Business 314-977-3800

http://business.slu.edu/

The John Cook School of Business Center for Supply Chain Management trains and educates on the various tools and activities of the supply chain (supplier relationships, purchasing management, operations and inventory management, logistics and transportation, quality measurement, and information technology) through programs, events, publications, and interacting with corporate supply chain professionals. The Center for Supply Chain Management Systems provides management training seminars on the best practice application within the global supply chain management field to improve the financial performance of organizations; actively supports academic and curriculum development in the area of global supply chain management for the area colleges and universities; and engages in advanced research on application tools in the supply chain management field.

Stanford University

Graduate School of Business 650-723-3341

www.gsb.stanford.edu/exed

How can you coordinate and control a supply chain that spans continents? When does outsourcing make sense? How can you leverage emerging economies to accelerate product development? And how can you ensure customer happiness? Questions like these require thinking beyond logistics and cost trimming. Questions like these need a big picture, global approach—the kind taught in Strategies and Leadership in Supply Chains.

Syracuse University

Whitman School of Management 315-443-3751

www.whitman.svr.edu/scm

Supply chain managers very often hold the key to corporate profitability. Economists and employers single out supply chain management for its strong growth potential. Home to the nation's first supply chain program (established in 1919).

the school's Supply Chain Management program is well attuned to the needs of this dynamic specialty. Whitman offers an undergraduate degree program and an MBA degree program in Supply Chain Management.

Texas A&M University

Mays Business School 979-845-1216

mays.tamu.edu/supply-chain-consortium/

Mays Business School's supply chain group is comparable in size and stature to the nation's most prestigious supply chain programs. We recognize that engaging the corporate community in mutually beneficial partnerships will be critical to our continued growth and success. Toward that end, we formed the Texas A&M Supply Chain Consortium.

The World Academy

855-496-8394

www.theworldacademy.com

Topics covered in classes and workshops include all phases of Import/Export logistics and compliance including hazardous materials (HAZMAT), letters of credit, harmonized tariff schedules, INCOTERMS, and other topics needed to compete in today's global trade arena, such as customer service, sales, and sales management classes. A full list of webinars and workshops can be found on the Academy's website.

The University of Alabama

College of Continuing Studies Tuscaloosa, AL 205-348-6222

http://training.ua.edu/supplychain/

The Supply Chain and Logistics Certificate Program centers on the fact that inventories are the largest single asset for many organizations. This investment must be vigorously managed. If the managers who have responsibility for overseeing these critical resources have state-of-the-art information and techniques, they can save an organization time, money, and make a positive impact on customer service and the bottom line.

The University of Alabama — Bama By Distance

Manderson Graduate School of Business (205) 348-0089 or 800-467-0227 http://bamabydistance.ua.edu/

When you earn your degree online from The University of Alabama, you do more than earn a degree. You join a worldwide network of alumni who do more than graduate — they lead. Through the online Master of Science in Operations Management, you will learn from the same professors who teach on campus and develop skills in analytical decisionmaking and business operations. A decision analytics track is also available for students interested in SAS/SPSS.

University of Arkansas

Sam M. Walton College of Business 479-575-5949

www.waltoncollege.uark.edu

Graduates of the Supply Chain Management (SCM) program will find themselves in exciting and diverse roles in organizations where they will manage activities, such as planning and forecasting, purchasing, sales, transportation, storage, and distribution, which are required for the efficient flow of goods and services between the points of their creation and their ultimate consumption or disposition. Beyond faculty expertise in these areas, our students benefit from the College's Supply Chain Management Research Center, which connects students to industry executives leading to job opportunities, internships, or other support.

University of Denver

Daniels College of Business 303-871-3416 http://daniels.du.edu/

The Supply Chain Roundtable at the University of Denver's Daniels College of Business has welcomed well-known executives from throughout the Rocky Mountain region and around the country. The Supply Chain Roundtable gives Daniels students an opportunity to meet with top professionals through our speaker series, networking events, out-ofclassroom projects, and internships while giving speakers a chance to meet the students and market their companies.

University of Maryland

R.H. Smith College of Business 301-405-3063

www.rhsmith.umd.edu

The Supply Chain Management Center is dedicated to conducting research and education designed to further the discipline of supply chain management. The Center operates under a single strategic vision for supply chain management: the collaborative, real-time, end-to-end, risk-tolerant supply chain.

University of Michigan

Ross School of Business 734-763-1396

http://michiganross.umich.edu/programs/master-ofsupply-chain-management

Students in our Ross School's Master of Supply Chain Management Program (MSCM), learn from Ross' worldrenowned faculty in operations and management science, as well as top-ranked researchers in all business disciplines.

University of Michigan

Tauber Institute for Global Operation 734-647-1333 www.tauber.umich.edu

The Tauber Institute for Global Operations is a premier multi-

disciplinary operations program of the University of Michigan. Its mission is to be the recognized leader in operations through knowledge generation, innovative education, and impacting practice. A top-ranked business and engineering school, it offers students a cross-learning environment covering operations management and related areas, thereby deepening their knowledge and preparation to solve problems leaders face.

University of Minnesota

Carlson School of Management 612-625-0027

https://carlsonschool.umn.edu/

Carlson Executive Education helps leaders, teams, divisions, and organizations step-up and thrive in today's "new normal." Focused on transformation and partnership, the school offers accelerated custom programs or "open" programs that build networks and feature peer-to-peer collaboration. Its programs are infused with action learning, industry executives, networking opportunities, and tools/frameworks to apply immediately at work. The school also offers a number of Certificates of General Management Excellence and Certificates of Distinguished Leadership and Business Administration.

Upcoming programs of interest to supply chain professionals include:

Leading Business Analytics January 18-20 & February 17, 2017

Carlson Advanced Leadership Program Mondays: March 6- April 24

University of San Diego

School of Business 619-260-4860

www.sandiego.edu/business

The flexible online format of the University of San Diego's Master in Supply Chain Management program allows students to learn at their own pace and still work regular hours. This means students can immediately apply every new innovative strategy they learn directly to their jobs. Classes are web-based and students get face-to-face time with faculty and classmates during the university's five on-campus interactive sessions. Students also have access to the school's Supply Chain Management Institute, where they can further their professional development by attending workshops that expose them to the latest trends in areas like transportation strategies, strategic sourcing, and risk management.

Supply Chain Management Institute

619-260-4894

http://www.sandiego.edu/business/centers-of-excellence/supply-chain-management-institute/

Helping achieve more cohesive Supply Chain Management business acumen among students, faculty, and industry, The Supply Chain Management Institute in the School of Business Administration is wholly invested in supporting

SBA's mission to develop more globally minded, responsible leaders. It regularly researches and updates the curriculum and creates advanced learning opportunities to help students gain relevant supply chain management knowledge that is aligned with industry needs.

University of San Francisco

415-422-5555

www.usanfranonline.com/ism

With companies trying to cut expenses, operate more efficiently, and reduce their environmental footprint, sustainability and supply chain management (SCM) have become critical fields worldwide. Gain cutting-edge skills from U.S. Newsranked University of San Francisco, as renowned instructors guide you toward a three-course Advanced Professional Supply Chain Management Certificate through the convenience of video-based e-learning.

University of Southern California

USC Marshall School of Business 213-740-9000

https://www.marshall.usc.edu/dscm

The Optimization and Supply Chain Management Program is offered by the Marshall School of Business in partnership with the Viterbi School of Engineering. The program offers individuals opportunities to expand their knowledge of the rapidly expanding uses of technology in the management of global supply chains. The program focuses on teaching the necessary knowledge and skills in areas like product introduction; strategic procurement; outsourcing; logistics and distribution; information technology and its role in managing global supply chains; and supply chain optimization. The certificate may be completed on either a full- or part-time basis. Most classes applicable to the program are offered during both daytime and evening hours. Many of the ISE courses included in the curricula are available online.

University of Tennessee

College of Business Administration 865-974-5001

http://supplychain.utk.edu

For more than 50 years, University of Tennessee faculty have played a major role in the supply chain arena, conducting innovative research, publishing leading-edge findings, writing industry-standard textbooks, and creating the manual to which companies successful in supply chain management adhere. We offer comprehensive supply chain management/logistics programming across the entire educational spectrum, as well as customized solutions to fit your specific needs.

University of Washington

Department of Civil & Environmental Engineering 206-221-6407

www.supply-chain-transportation.uw.edu/overview/

The Master of Supply Chain Transportation and Logistics degree is designed to give students a solid foundation in the core competencies of transportation and logistics as it relates to supply chain management. The two practicums provide graduates with the opportunity to apply the knowledge they have acquired to a specific, contemporary business problem that they define. Students must successfully complete seven required courses and two practicums, for a total of 43 credits. Students are expected to complete the program within 24 months.

University of Washington

Supply Chain Transportation and Logistics Master's Program 206-221-6407

http://www.supply-chain-transportation.uw.edu/

The online Master of Supply Chain Transportation & Logistics program focuses on the complex challenges that face industry professionals today. The program delivers advanced skills and best practices in a variety of disciplines, including finance, sustainability, and performance management. The program is grounded in quantitative principles and emphasizes using data to inform decision-making. The curriculum features a balance of engineering and business courses.

University of Wisconsin-Madison

Grainger Center 608-262-1550

http://bus.wisc.edu/centers/grainger-center-for-supply-chain-management

The Grainger Center for Supply Chain Management has been developing supply chain leaders in an academic-industry partnership since being founding in 1991 by the Grainger Foundation of Lake Forest, Illinois. Grainger Center students acquire deep expertise as the result of interdisciplinary curriculum, renowned faculty, and the learning opportunities experienced through interaction with supply chain executives.

University of Wisconsin-Superior

Center for Continuing Education 715-394-8101

www.uwsuper.edu

The Center for Continuing Education is committed to the "Wisconsin Idea," which provides access to university resources for citizens of all ages within the college's community. It has partnerships with schools, government, business, foundations and non-profit organizations, and provides access to an array of learning options. With several program areas for credit or non-credit, and dozens of certificate programs, the university provides the education to advance in your current career, or explore new paths in life.

Walden University

1-866-492-5336

www.waldenu.edu

Seminar in Global Supply Chain Management- as globalization integrates all regions of the planet, business has become multinational and multimodal. Regardless of the role-manufacturers, retailers, or service providers—doing business globally requires a thorough understanding of how products,

services, and information products develop from ideas to deliverables. In studying global supply chain management, students learn about the systems required to identify sources of people and material as well as ways to ensure that the supply chain conforms to the highest expected business standards anywhere in the world. Students investigate potential opportunities for new research in the field and share their findings through a presentation.

Washington University- St Louis

Olin Business School 314-935-9494

https://olin.wustl.edu/

The Master of Science in Supply Chain Management (MSSCM) degree at Washington University's Olin Business

School equips graduates to stand out in this exciting career field

This STEM (Science, Technology, Engineering, and Mathematics) designated program brings together industry collaboration and faculty renowned for their work in risk management and supply chain research to create one of the most sought-after supply chain management degrees in the nation. The MSSCM program consists of 36 hours graduate-level course credit, typically completed in three semesters. Working professionals in the St. Louis area can pursue the program on a part-time basis, and begin taking classes in the fall or spring semester.



PROFESSIONAL ASSOCIATIONS

APICS

1-800-444-2742 www.apics.org

APICS is the leading professional association for supply chain and operations management and the premier provider of research, education, and certification programs that elevate supply chain excellence, innovation, and resilience. APICS Certified in Production and Inventory Management (CPIM) and APICS Certified Supply Chain Professional (CSCP) designations set the industry standard.

ASQ American Society for Quality

800-248-1946

www.asq.org

ASQ certification is a formal recognition by ASQ that an individual has demonstrated a proficiency within, and comprehension of, a specific body of knowledge. Nearly 250,000 certifications have been issued to dedicated professionals worldwide. ASQ's certifications include the Certified Supplier Quality Professional and the Manager of Quality/Organizational Excellence. The organization also provides training courses for quality professionals of all experience and skill levels.

CSCMP

(Council of Supply Chain Management Professionals)

630-574-0985

http://cscmp.org/

The Council of Supply Chain Management Professionals (CSCMP) provides you and your organization with the education, research, connections, and professional growth you

need to meet the demands of a constantly changing marketplace. Our member benefits are designed for supply chain professionals passionate about their careers and the supply chain profession. Council of Supply Chain Management Professionals members receive practical, "how to" solutions on the industry's current hot topics from receiving member exclusives such as publications, professional education, online benefits, networking opportunities, and cutting-edge research.

ISM

(Institute for Supply Management)

480-752-6276

http://www.ism.ws/

With more than 48,000 active members worldwide, ISM is the largest global organization dedicated to advancing the practice of procurement and supply management. ISM is the leader in supply chain, driving value to its members with its two widely renowned certifications, the Report On Business®, countless educational resources, and extensive networking events around the globe.

Next Level Purchasing Association

412-294-1990

http://www.nextlevelpurchasing.com/

The Next Level Purchasing Association can help transform you from an average buyer to a procurement superstar. As the official source of prestigious SPSM® Certification, we can provide you with the procurement training and certification you need to rank among the most valued procurement professionals on the planet.

NITI

(National Industrial Transportation League)

703-524-5011

http://www.nitl.org/

Career advancement, meeting new challenges, and taking advantage of the latest opportunities and trends require today's freight transportation professional to be up to date on the latest developments. The League has a proven track record of providing educational forums, which meet all these needs. From seminars on critical emerging issues, to webinars on best practices in every aspect of supply chain management, the League's constantly evolving education program for Members is an industry leader

SIG

(The Original Executive Sourcing Network)

904-310-9560

www.sig.org

SIG Global Summits are three-day events that are packed with the latest best practices, cost-cutting strategies, innovative processes, and risk-mitigation approaches. Through CPO roundtables, general sessions, workshops, breakout sessions, and networking events, you'll hear from industry thought leaders, discover the latest best practices, and have the opportunity to network with like-minded professionals facing similar challenges. Events planned include:

• SIG Global Executive Summit – March 13-16 – Amelia Island, FL

TRB

(Transportation Research Board)

202-334-2934

http://www.trb.org

Transportation practitioners, researchers, public officials, and other professionals need credible, high-quality information and research results to address the transportation challenges of the 21st century. The Transportation Research

Board engages professionals worldwide in a broad range of interdisciplinary, multimodal activities to lay the foundation for innovative transportation solutions.

VICS

(merged with GS1 US)

609-620-0200

www.vics.org

In today's omni-channel retail world, consumers are in control. They expect accurate, immediate product information and access to products. Quite simply: they will move on, if they can't find the products they want when they want them. The Apparel and General Merchandise Industry is most concerned with improving inventory accuracy, supply chain visibility, and speed-to-market capabilities to satisfy consumer demands, while still addressing requirements around business process efficiencies and product safety.

WERC

(Warehousing Education & Research Council)

630-990-0001

https://www.werc.org

WERC offers resources that help distribution professionals stay at the leading edge including educational events, performance metrics for benchmarking, practical research, expert insights, and peer-to-peer knowledge exchange. WERC members are from companies across the gamut whose focus is on warehousing and distribution.



Accenture Academy

312-842-5012

www.supplychainacademy.com

The Accenture Academy supply chain curriculum offers hundreds of courses covering supply chain fundamentals. product innovation and lifecycle management, supply chain planning, sourcing and procurement, manufacturing, logistics, and customer service management. We integrate these supply chain-specific courses with the specialty skills and broader business management capabilities needed to help the supply chain workforce become more versatile business professionals.

Vantage Partners

888-547-8852

http://www.vantagepartners.com/

At Vantage Partners, we advise chief procurement officers, lead supply chain transformation initiatives, support development of category strategies, design and implement supplier relationship management programs, advise on high-stakes supplier negotiations, and provide a range of training solutions to procurement leaders and professionals.





Supply Chain Council's SCOR Professional (SCOR-P) certification program, which focuses on establishing in-depth knowledge of the SCOR model and methods.

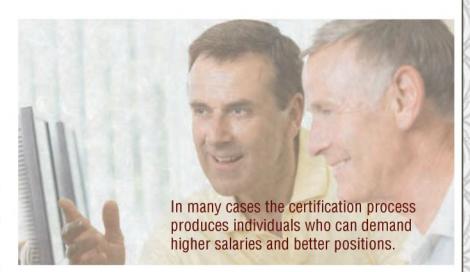
Seen as a viable middle ground between a full-blown college degree and the more basic certificate programs (which are not to be confused with certifications, as you'll read later in this article), certifications fill a void for executives who need enrichment in specific areas—or who want to add designations like CPM, CPIM, CSCP, CPP, CPPM, and CIPM after their names.

Kathleen Hedland, CSCMP's director of education and research, says the SCPro came about after several years of research and discussion. Hedland sees the offering as a viable alternative for executives who are looking to earn educational credit hours without having to sign up for a degree program. It's particularly useful for supply chain managers who are currently employed, and who would rather take a validated test than go through the time and expense of a regular classroom and/ or virtual degree program.

"We went through a rigorous process of validating all of the test questions for the SCPro," says Hedland, who notes that the test is designed not to test functional expertise (like so many certifications do), but rather the student's knowledge of the true, end-to-end supply chain. "The goal is to test and validate the executive's understanding of the entire supply chain and how each function within the chain impacts the next."

Earning Dividends

Going through the supply chain certification process is about more than just putting a few letters after your name on your email signature line. Through the professional certification process, individuals gain knowledge, experience, and skills to perform a specific job. When the coursework is completed the student must earn a passing grade on an exam



that is accredited by an association or organization that oversees and upholds the standards for that particular profession or industry.

In many cases the certification process produces individuals who can demand higher salaries and better positions, at least in the supply chain space. According to Jean McHale, spokesperson for the Institute for Supply Management (ISM), many graduates are indeed leveraging their certifications into dividends in the workplace.

ISM, which offers the Certified Professional in Supply Management (CPSM), Certified in Supply Management (CSM), and Certified Professional in Supplier Diversity (CPSD), in its most recent salary survey found that the average salary for supply chain professionals armed with one or more such credentials was \$102,498, versus \$98,740 for those who had no such credentials.

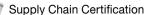
While the average salary for respondents holding the CPSM designation declined 13 percent in 2011 compared to the previous year, the individuals surveyed earned 8 percent more on average last year compared to those without credentials. According to McHale, supply chain management professionals with a CPSM earned an average salary of \$107,534, compared with \$99,740 for those who lacked a designation.

Other credentials also yielded higherthan-average salaries. For example, the income for individuals holding a CPSD was \$125,356, a 9 percent increase over 2010, when the average was \$115,000. Finally, the CPM, a recertification-only credential program earned its holders \$103,664, up 2 percent from \$101,840 in 2010.

In addition to those salary enhancements, certification programs allow for a more flexible learning environment in large part because of the online component. Robert Novack, associate professor of supply chain and information systems at Penn State's Smeal College of Business in University Park, Pa., says being able to work at your own pace over a series of modules and exams online is especially attractive for professionals who are working full time.

"Whereas a graduate supply chain program is lock-step, takes a bit longer to complete, and is more expensive," says Novack, "a certification option provides more flexibility and longer completion timelines."

According to Abe Eshkenazi, CEO at APICS, certification programs also allow executives to select options that are most germane to their current roles—or for those that they aspire to move into. As an example, he points to APICS' Certified Production Inven-





tory Management (CPIM), which makes students "functional experts" in production inventory management and planning, and organizational forecasting.

One of APICS' more recent programs, the Certified Supply Chain Professional (CSCP) certification, is focused on the end-to-end supply chain—from raw materials through disposal, recycling, and/or reuse. Designed for senior-level executives, the CSCP "helps individuals gain a broader span of control of the entire supply chain," says Eshkenazi, "and has become an industry standard for executives with cross-functional responsibilities within that supply chain."

Making the Distinctions

They may just be a few letters apart, but "certifications" and "certificates" are really two very different options in the supply chain education space.

A certification indicates the completion of structured coursework over a period of time and a series of exams. In certain cases, it may also entail a final presentation (either live or virtual) in front of a group to demonstrate knowledge of the materials. Completion of the certification program usually leads to a professional credential such CPSM (Certified Professional in Supply Management, ISM) or CSCP (Certified Supply Chain Professional, APICS).

A certificate broadly indicates that the individual has completed some type of educational experience. It could be as basic as a trade show seminar or a more structured online certificate program such as those being offered by Penn State, Georgia Tech, Arizona State, and other major universities. A certificate program generally does not bestow a professional credential.

With any type of certification or certificate offering, Eshkenazi cautions supply chain managers to be wary of anything that's not supported by ample content, testing, and activities. Before signing up, ask questions like: What

underlying content supports the program? What kind of content supports the exam? What will I be tested on? How will I demonstrate my competency and understanding of the course principles? How do I know that I'm being tested on the appropriate level of competency and/or application?

If the educational provider can't give you the answers you're looking for, says Eshkenazi, then it may be a waste of time. "There's really no magic to coming up with a certificate or even a certification—anyone can do it," Eshkenazi states. "The key is to do your homework in advance to ferret out the options that make the best use of your time and that help you advance professionally."

Leveraging Certifications in the Workplace

All of the education in the world isn't worth much if the experiences and knowledge can't be leveraged in the workplace. As ISM has already determined via its annual salary surveys, those individuals holding certifications do earn more than their counterparts. The question is, how does one go about leveraging the educational experience into job promotions, raises, and other types of advancements?

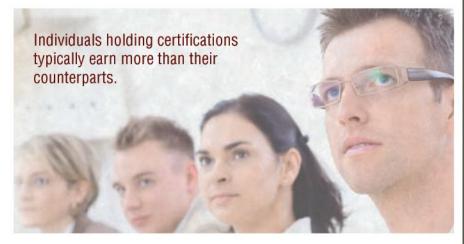
Eshkenazi of APICS says a good way to answer that question is by looking at online job postings to find out what

employers are asking for. Also investigate what types of certifications are considered critical for advancement in your firm. One way to do this is to look up the ladder to see what credentials those above you have after their names. "It's great to have a certification," says Eshkenazi, "but if the employment community doesn't recognize it as something of value, then it's not a necessity."

Penn State's Novack sees certifications as a "quick and fairly easy" way to boost your continuing education resume without having to spend an excessive amount of time or money. "Anytime you can get a professional designation after your name it's definitely worth it," says Novack, who also advises supply chain managers to figure out which credentials their employers—or prospective employers—value before embarking on any program.

"If your company doesn't value your effort and the credentials that you earn, then there isn't much value to getting those letters after your name," says Novack. "You'll just be spending money to boost your ego and to be able to say that you earned those letters, but it's not necessarily going to help you get anywhere in your job."

Bridget McCrea is a freelance writer specializing in logistics and supply chain management. She can be reached at bridgetmc@earthlink.net.





UNIVERSITIES AND EDUCATIONAL INSTITUTIONS

Arizona State University

W.P. Carey School of Business 480-965-7579

www.wpcarey.asu.edu/exec

The Center for Executive and Professional Development at the W. P. Carey School of Business offers a range of credit and non-credit professional development programs, including comprehensive certificate programs in supply chain management. The next scheduled program is the Professional Certificate in Supply Chain Management, beginning September 3, 2012.

Auburn University

334-844-4000 www.auburn.edu

Auburn's School of Business offers an undergraduate major in supply chain management. Focus includes transportation, logistics, and operations management.

Brigham Young University

Marriott School http://marriottschool.bvu.edu

University offers a BS in Global Supply Chain Management. Coursework is designed to prepare students for managerial positions in manufacturing and service industries in the areas of purchasing, operations, logistics, customer service, and supply chain management.

Cranfield University

School of Management 44-011-1234-758102 www.cranfieldmsc.biz/log

University offers an MSc in Logistics and Supply Chain Management. Two modes of study are offered: Full time programs (11 months) and Executive (part-time) programs, which are 2-year modular programs.

Georgia Institute of Technology

Executive Masters in International Logistics (EMIL) 404-385-7306 http://www.emil.gatech.edu/ The Executive Master's in International Logistics & Supply Chain Strategy program prepares executives to face key global logistics and supply chain issues by teaching them to design creative logistics solutions while expanding their network of international government, industry and academic contacts. This 18-month program keeps employees on the job while teaching them practical techniques for decreasing logistics costs and improving supply chain efficiencies. Participants experience real-world results by learning best practices from world-leading experts in EMIL's five two-week residences (both in-person and distance learning) at key locations around the globe.

Georgia Institute of Technology

Supply Chain and Logistics Institute (SCL) 404-894-2343

www.pe.gatech.edu/scl-scmr

The Georgia Tech Supply Chain & Logistics Institute offers a comprehensive curriculum in Lean Supply Chain Operations, Warehousing, and



Supply Chain Certification

Transportation. Courses are taught by world-renown Georgia Tech Faculty in the Global Learning Center in Atlanta. Dates for the 2012 Lean Supply Chain Series as well as the 2012 Supply Chain Management Series courses are listed on the SCL website. The Institute also runs industry outreach program and global research centers.

Golden Gate University

Edward S. Ageno School of Business 415-442-6500 www.ggu.edu

Golden Gate University offers undergraduate and graduate certifications in operations and supply chain management.

Indiana University

Kelley School of Business 877-785-4713 www.kd.iu.edu

Kelley Direct at Indiana University offers an MS in Global Supply Chain Management. This online graduate program can be completed in 15 months.

Massachusetts Institute of Technology (MIT)

Center for Transportation and Logistics 617-258-7267 http://ctl.mit.edu/

Every January and June, CTL delivers its late-breaking supply chain and logistics education and research to executives via "Supply Chain Management: Driving Strategic Advantage." This intensive five-day course features a comprehensive array of management simulations and case studies, interactive lectures and discussion sessions, and presentations by distinguished lecturers.

CTL also regularly partners with organizations to provide customized executive education experiences to individual enterprises and consortia. Custom courses give organizations the opportunity to direct intensive efforts at specific issues crucial to

company goals, including business continuity strategy, scenario planning, and competitive alignment.

Michigan State University

Broad College of Business 517-355-8377

www.bus.msu.edu/supplychain/

MSU offers an undergraduate major in supply chain management, two MS programs and two PhD programs in SCM. The school also offers an MBA with supply chain concentration. Executive education programs include a range of open enrollment seminars; customized logistics seminars for organizations; the Logistics in Supply Chain Management Annual Seminar; and the Annual Purchasing and Supply Chain Management Executive Seminar.

North Carolina State University

College of Management 919-515-5560 www.mgt.ncsu.edu

N.C. State offers undergraduate studies in Operations & Supply Chain concentration. The university's Supply Chain Resource Cooperative also provides a wealth of educational resources.

Northeastern University

College of Business Administration 866-890-0347 x3510 www.cba.neu.edu

Northeastern offers an MBA degree with supply chain concentration, plus a Certificate program in SCM. Also offers an online MBA degree program with an emphasis in Operations and Supply Chain Management (via five specialized, elective courses).

Northwestern University

Kellogg School of Management 847-467-7020 www.kellogg.northwestern.edu/ execed

Northwestern offers the Supply Chain Management — Strategy and Planning for Effective Operations program.

The Ohio State University

Fisher College of Business 614-292-0331

http://fisher.osu.edu/centers/scm

Fisher College of Business offers undergraduate, masters, and Ph.D. programs in logistics. Fisher College also offers a weeklong executive education program in supply chain management. The program is based on the eight essential business processes that comprise the Global Supply Chain Forum (GSCF) Supply Chain Management framework, It also includes a session on the GSCF partnership model that is being used by major corporations to structure relationships with key customers and suppliers. Visit website for more information. Upcoming sessions:

- September 10-14, 2012 Columbus, Ohio
- October 15-19, 2012 Cranfield, England

Penn State University

Smeal College of Business 814-865-3435 www.smeal.psu.edu/psep

Upcoming supply chain executive education programs include:

- Achieving Supply Chain Transformation September 10 - 12, 2012
- Aligning Strategy, Leadership, and Culture: Keys to Competitive Advantage September 16 – 21, 2012
- Designing and Leading Competitive Supply Chains September 16 - 21, 2012
- Global Supply Chain Strategy & Risk Management September 24 – 27, 2012
- Essentials of Supply Chain Management October 08 - 12, 2012



Rutgers University

Rutgers Business School 973-353-5226

www.business.rutgers.edu/scmms

The Department of Supply Chain Management and Marketing Sciences (SCMMS) at Rutgers Business School offers a range of academic programs including a PhD in SCMMS, an MBA Concentration in Supply Chain Management and an undergraduate major in SCMMS. Rutgers also offers executive education programs based on current topics and trends. Also offered is a Supply Chain Management Certification Program for business professionals.

Stanford University

Graduate School of Business 650-724-6301 www.gsb.stanford.edu/exed

The Graduate School of Business is offering a new program "Strategies and Leadership in Supply Chains." Program is designed for executives who have strategic responsibilities for SCM, manufacturing, operations, logistics, distribution, or procurement.

Syracuse University

Whitman School of Management 315-443-3751 www.whitman.syr.edu/scm

The Whitman School offers B.S., MBA, and PhD programs in Supply Chain Management. Focus areas: demand management, inventory control, risk sharing, supply chain planning, information flows, transportation, production management, and global b-to-b marketing. Six Sigma training also offered.

Texas A&M University

Mays Business School 979-845-1616 www.business.tamu.edu

The Mays Business School offers a Supply Chain Management major as part of its BBA in Information & Operations Management.

The World Academy

908-354-7746 www.theworldacademy.com

The Academy provides training programs and seminars in all phases

of export/import logistics, hazardous materials (HAZMAT), letters of credit, communications, harmonized tariff schedules, and INCO terms. Upcoming sessions:

- Negotiating Global Supply Chain Costs...Competitive Freight and Logistics - 1 day
- November 2, 2012
 Tampa, Florida
- December 14, 2012, Quad Cities

University of Arkansas

Sam M. Walton College of Business 479-575-6142 www.waltoncollege.uark.edu

The Marketing and Logistics
Department at Walton College offers
a B.S. in Business Administration
(Transportation and Logistics Major)
and a B.S. in International Business

(Logistics Concentration). Also operates the SCM Research Center and RFID Research Center.

University of Denver

303-871-4702

www.du.edu/transportation

The ITI (International Transportation Management) Executive Masters Program from the University of Denveroffers a rigorous curriculum and a hands-on approach for developing advanced management skills for transportation and supply chain professionals. This is an 18-month program with five, one-week Denver residencies and a travel seminar to an internal location. Applications are being accepted for classes beginning in October of 2012.

University of Maryland

R.H. Smith College of Business 301-405-2189 www.rhsmith.umd.edu

The R.H. Smith College of Business offers executive education programs through the Supply Chain Management Center.





Supply Chain Certification

University of Michigan

Ross School of Business 734-763-7804 http://execed.bus.umich.edu/

The Ross School offers a one-year Master in Supply Chain Management degree. Also offers an executive education course in Supply Chain Design and Execution for Global Markets.

University of San Diego

Supply Chain Management Institute 619-260-4600 www.sandiego.edu/scmi

Program emphasizes a community of learners, limits class size, and incorporates company-related projects to give participants an educational experience relevant to their specific career objectives. Classes for this 36-unit program cover SCM and Logistics, Supply Chain Systems, Global SCM, and World Class Supply Management. Offerings include a Master of Science in Supply Chain Management (MS-SCM) and a Graduate Certificate in Supply Chain Management (GC-SCM).

University of San Francisco

800-609-4196 www.usanfranonline.com/ism

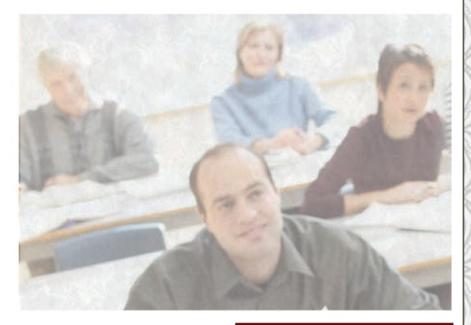
USF offers an online interactive Master Certificate program for Supply Chain Management.

University of Tennessee

College of Business Administration 865-974-5001

http://supplychain.utk.edu

The school's Integrated Supply Chain Management Program helps participants develop a better understanding of the complexities and interrelationships among the supply chain areas of demand planning, customer relationship management, operations, logistics, lean management, and resource/ financial management. The program is composed of six, two-and-one-



half day courses. Taught by UT's internationally renowned faculty. these courses consistently have been ranked among the best in the field. Courses are offered up to twice per year. The school also offers graduate and undergraduate degrees in supply chain management.

University of Wisconsin-Madison

Executive Education Center 608-441-7357 http://exed.wisc.edu/supplychain

- Supply Chain Leadership August 22-24, 2012
- Supply Chain Optimization September 10-11, 2012
- Supply Chain Collaboration November 5-6, 2012

Walden University

866-492-5336 www.waldenu.edu

The University offers online management programs including a PhD in Applied Management and Decision Science, an MBA, M.S., and B.S. in Information Systems and a B.S. in Business Administration.

PROFESSIONAL ASSOCIATIONS

APICS

800-444-2742 www.apics.org

APICS offers two certification programs, national and regional conferences, online events, and self-study programs.

CSCMP (Council of Supply Chain **Management Professionals**)

630-574-0985 http://cscmp.org/

CSCMP's global conference brings together thousands of supply chain professionals from all over the world to exchange ideas and share knowledge. Also conducts local roundtables across the country and the globe and offers a variety of supply chain Webinars, CSCMP's Online University offers members and potential members easy access to the latest in logistics and supply chain management. Upcoming events include:



- Growing Your Business with Supply Chain Management July 23 - 24, 2012 Lombard, Illinois
- CSCMP Annual Global Conference 2012 September 30-October 3, 2012 Atlanta, Georgia

ISM (Institute for Supply Management)

480-752-6276 http://www.ism.ws/

ISM offers certification programs, seminars, professional development services, and online courses for the supply management professional. It also features an annual Conference and Educational Exhibit and provides in-depth research on supply management topics through affiliation with CAPS Research.

NITL (National Industrial Transportation League)

703-524-5011 http://www.nitl.org/

The League represents shippers in their dealings with various regulatory bodies. Provides educational forums, annual conferences, and industry exhibitions through an annual TransComp event.



 05th Annual Meeting & TransComp Exhibition November 10-14, 2012 Anaheim, California

SIG (Sourcing Interests Group)

530- 582-8600 http://www.sourcinginterests.org

SIG provides summits, global regional conferences, and web-based learning to enable members to network and build relationships.

Supply Chain Council

202-962-0440 http://www.supply-chain.org/

Through the Supply Chain World conference, the Council provides a forum for supply chain and business executives to identify opportunities to improve financial and supply chain performance. Presents a benchmarking database by which companies can compare their supply chain performance to others; also offers training in the SCOR model. Upcoming events include:

- Executive Summit North America September 18-20, 2012 Indian Wells, California
- Supply Chain World Europe October 21-23, 2012 Madrid, Spain

TRB (Transportation Research Board)

202-334-2000 http://www.trb.org

TRB is one of six major divisions of the National Research Council. This agency offers conferences, workshops, research, and e-sessions to the transportation community.

VICS

(609) 620-4590 www.vics.org

Organization provides online education, workshops and a 3-day certification program. Collaborative Planning, Forecasting, and Replenishment (CPFR®) is an initiative that highlights the importance of collaboration and the benefits of a demand driven supply chain. An Introduction to CPFR e-Education is designed to introduce students to CPFR concepts and demonstrate the benefits and synergy of CPFR with other company initiatives such as category management and sales and operations planning.

WERC (Warehousing Education & Research Council)

630-990-0001 https://www.werc.org

WERC is a professional organization focused on warehouse management and its role in the supply chain.
WERC offers seminar, conference sessions, e-learning opportunities and webcasts.

PRIVATE FIRMS

Accenture

Supply Chain Academy www.supplychainacademy.com

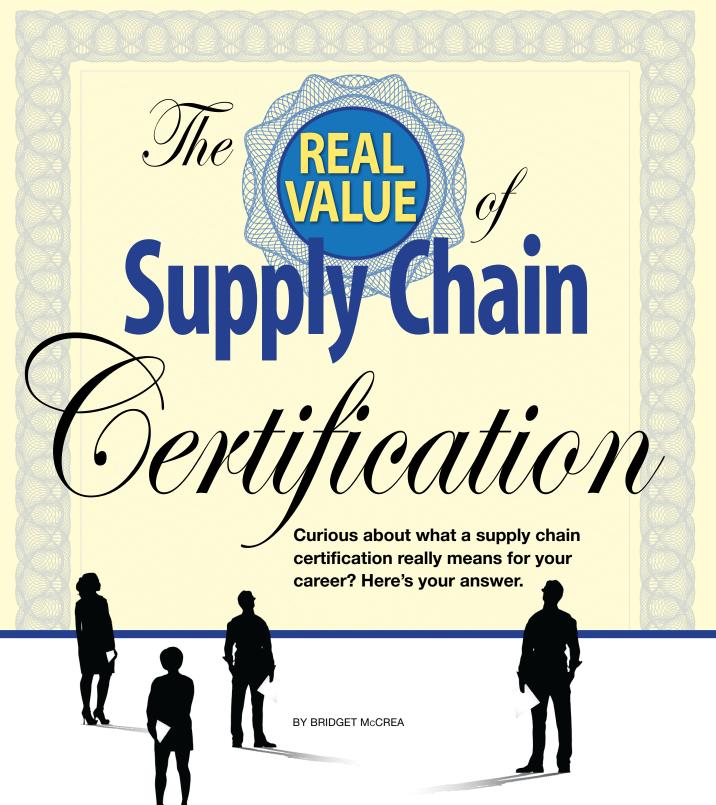
The Supply Chain Academy offers over 400 online courses across many of the functional areas of the supply chain. Classes are presented via online self-study, virtual classroom sessions, or through instructor-led delivery.

Next Level Purchasing

412-294-1991

www.nextlevelpurchasing.com

Next Level Purchasing offers a variety of certification programs tailored to procurement professionals. It also runs the ProcureCon educational conferences.



s the executive director for the Center for Supply Chain Research at Penn State University's Smeal College of Business, Steve Tracey fields a lot of questions from students who want to know if supply chain certifications are really worth the time, trouble, cost and effort. This line of questioning is so common that Tracey has developed a series of Powerpoint slides highlighting certifications offered by APICS, ISM and CSCMP, and providing insights into which pupils would be best



"Certificates are focused and fast, when someone wants to improve in all facets of his or her job, then a master's in supply chain management or industrial distribution is probably more applicable. But when that person wants a quick and focused learning experience, then certification is a good option."



suited for each of those offerings. And, for this issue of Supply Chain Management Review, we are publishing a comprehensive listing of supply chain certification offerings on scmr.com compiled by Malini Natarajarathinam and Praharsha Sunkara of Texas A&M University.

But even with that information consolidated into a svelte, five slide presentation, Tracey says whether students actually derive value from the certification experience comes down to the individual person and his or her employer (or prospective employer). "It really depends on who you work for because some companies value certification more than others," says Tracey. In some cases, for example, a designation may be a differentiator on your resume. In others, your company will reimburse you for the money spent taking the certification sources. And if the stars align in your favor, Tracey says, upon completion you may even get a promotion or a raise out of the deal.

"Before you sign up, figure out if it's going to benefit you and or your firm, and whether your employer is going to put a value on the fact that you've completed this type of coursework," says Tracey. "And while no education is 'bad,' in a sense that we should always be learning, in some cases you may just be getting a certification for your own personal benefit."



The evolution of supply chain certification

What started out years ago as a way to enhance the supply chain professional's career beyond traditional college degrees and hands-on job experience has become a way for individuals to achieve new levels of specialization and expertise. Currently, the three major players in the supply chain certification space are APICS ("CPIM"), CSCMP ("SCPro") and ISM ("CPSM"). Using instructor-delivered self-study, study guides, content manuals and anywhere from three to five exams, these organizations provide coursework in areas like internal manufacturing operations, end-to-end supply chains, logistics, transportation and distribution.

Natarajarathinam, an associate professor in Texas A&M's department of engineering technology and industrial distribution, believes that certification programs add value by helping professionals "differentiate and establish themselves as experts in focused areas." Because they can pick topics or subject areas to focus on, students in these programs can gain experience and get accredited "fairly quickly" using a certification program versus a full-blown college degree offering. "Certificates are focused and fast," says Natarajarathinam. "When someone wants to improve in all facets of his or her job, then a master's in supply chain management or industrial distribution is probably more applicable. But when that person wants a quick and focused learning experience, then certification is a good option."

As Tracey points out, supply chain certifications can also translate into higher salaries—depending on the employer. "Gut-feel tells me that if you do have a certification, it should put you in a better [position] for promotion," adds Nicholas Little, assistant director of executive development programs of Michigan State University's Eli Broad College of business, "and with that promotion would

come increased salary, hopefully. It should also make you more employable, if for any reason you need to change your job, so there's an insurance policy aspect to this as well."

Filling a gap

Initially developed as a corollary for the supply



chain baccalaureate and advanced management degrees that didn't exist at the time, supply chain certification started out as a way for professionals to beef up their technical knowledge on related topics. With the proliferation of college supply chain programs over the last decade, certifications now provide value by enhancing students' existing

GE benefits from APICS certification

hen Lorenzo Romagnoli f V took the reins of the GE Oil & Gas' materials management organization, he knew that he had a big challenge in front of him. He had to demonstrate the strategic impact of the organization, while at the same time improving the customer experience as measured by KPIs. Romagnoli was also leading a team that historically hadn't invested much in training and professional development.

Romagnoli knew that GE's strong legacy of investing in employee development was just as important as the company's commitment to applying proven best practices to achieve business results. "In order to declare success, we needed a program that was truly scalable-able to span cultures, languages and regions," Romagnoli says. "We had to align with a partner that could help us deploy industry standards that could deliver repeatable results."

To get there, GE Oil & Gas needed a supply chain and operations management authority with documented standards and best practices. These standards would serve as the training foundation across the multi-generational change program. APICS' body of knowledge, training and

certification served as the foundation that would help GE Oil & Gas Turbomachinery Solutions business achieve its goals.

GE Oil & Gas committed to the CPIM certification program, covering all five of its learning modules with multiple course waves running throughout the year. The CPIM program was ideal for three important reasons: CPIM courses and tests are based on the industry-proven APICS Operations Management Body of Knowledge; the CPIM designation is a desirable professional certification and contributes value to individual professional development; and the CPIM path provides a benchmark for the organization to measure training effectiveness and, ultimately, return on training investment.

With the certification, there are also five tests aligned to the CPIM learning modules that must be passed-not only to validate the knowledge obtained but also to earn the CPIM designation. Also, because APICS CPIM is globally represented, GE Oil & Gas could measure employee-testing performance against APICS global averages-another way to benchmark program performance.

To date, GE Oil & Gas has enrolled more than 150 employees from

cross-functional teams related to the Turbomachinery Solutions business in the CPIM program. "The APICS CPIM program has really stood out at GE-employees are lining up to be a part of it. It is a real pride point to be invited to participate each year," says Romagnoli. "We found a body of knowledge and program that works, and now we intend to replicate it."

Abe Eshkenazi, CEO at APICS, says that since initiating the APICS certification program, GE's on-time delivery increased to 95% (from 65%) and that its capacity utilization has increased by 30-40%. "That translates into more output and the same footprint for the factory," he explains. "Additionally, [GE's] satisfaction of delivery-from what was promised to actual delivery-also increased. They attributed that to CPIM; they did nothing differently other than to train their staff on CPIM."

Even more interesting is the fact that the individual who introduced GE to the CPIM training is now heading up the company's global supply chain operations. "This is a real-life example of how someone wanted to upgrade his team's skills," says Eshkenazi, "and wound up [discovering] a program that's now embedded throughout GE."

APICS has conducted its own research and found that individuals with CPIM designations have received an average of 14% higher compensation, as compared to those without the designation. Eshkenazi says the designations also have an 83% favorable impact on hiring decisions when compared to those without certification.

> academic educations. "The expectation is that students already have a core foundation in supply chain," says Abe Eshkenazi, CEO at APICS, "and that they now want to separate themselves from the supply chain talent pool by enhancing their professional skills and reputations with one or more certifications."

> As individuals get these certifications, Eshkenazi says they are recognized in their profession for having achieved a higher level of learning for that specific field. And while at least some of the value comes in the form of personal satisfaction and achievement, he says the portability of a certification (i.e., you can take it with you from one employer to the next) gives it more meaning. And, perhaps more importantly, it demonstrates your commitment to a field of practice.

> For example, APICS has conducted its own research and found that individuals with CPIM designations have received an average of 14% higher compensation, as compared to those without the designation. Eshkenazi says the designations also have an 83% favorable impact on hiring decisions when compared to those without certification.

"Similarly, those with the CSCP designation have also received approximately 12% more in compensation over those without the certification, along with an 81%

> favorable impact on hiring decisions compared to job candidates without this credential," Eshkenazi adds. "Certification holders for both programs have a proven understanding of key organizational skills needed for developing more streamlined operations for their employer."



Along with the professional organizations that offer certification programs, numerous institutions of higher education have developed their own versions of the supply chain certificate or designation. "Those certifications rely on the brand name and familiarity that people have for the educational institutions

themselves," Little points out. "For example, a number of universities offer a selection of 100% online courses available for people to mix-and-match when they want to fill in 'gaps' in their supply chain knowledge."

At Michigan State, those online courses fall under the institution's master's level program offerings. The student who has studied within a specific area of supply chain management, for example, can round out that education by taking courses that support his or her future career aspirations.

In the future, Little sees the potential for these college-based offerings to include a short exam that once passed—would allow the student to transfer into a full credit program. This is already a common practice in Europe, he notes, but it has yet to take hold domestically. "I don't think many U.S. universities have gotten to that stage yet," he notes, "but there's definitely potential for that to happen in the future."

Eshkenazi, who notes that APICS will introduce a new logistics, transportation and distribution certification in mid-2016, sees this new entrant as yet another way for a broader base of supply chain professionals to gain knowledge and set themselves apart in the field. "There's

been a significant gap in the marketplace for logistics, transportation, and distribution, and no designation [available] to these individuals," he explains. "Logistics is the fastestgrowing supply chain field, and our new designation will fill a significant gap in the marketplace for that content area."



Supply Chain Management Certifications Review

asked with making sure their companies' goods and services reach the end customer, supply chain departments can be found in every organization that delivers products and services. Today's all-encompassing supply chains include manufacturers and suppliers plus product development, customer service, finance, logistics, operations, distribution and other departments that play a role in getting the product or service to the end customer. Collectively, these entities help ensure a constant flow of information and products across the supply chain.

With the increase in the market standards, the growing complexity of the supply chains, and the growth of e-commerce, all organizations need professionals to effectively lead and manage their supply chains. Supply chain management certification programs help these professionals develop their skills while keeping them abreast of their rapidly evolving discipline.

Rewind just a few years, and most organizations were focused on what was happening during production rather than how the end product actually reached the customer. Few companies spent time understanding supply chain activities—an oversight that resulted in highly ineffective supply chains that had a direct, significant and negative impact on customer satisfaction levels.

The landscape today is much different. The supply chain has become a key focus and has created a need for related talent, skill sets and job experience. Put simply, recruiting proper talent is the need of the hour. Today's companies are facing the tough challenge of recruiting the right people for supply chain management positions—a goal that's been

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difficult to achieve and that won't get any easier to attain in the future.

To bridge the supply chain talent gap, numerous professional institutions, universities, colleges and companies are expanding their degree programs, online courses and certifications in the area of supply chain management. These courses focus not only on traditional supply chain management, but also on collaboration skills, strategic planning, communication, work culture, finance, global operations and information technology, to name a few.

To choose the right certification, consider your current level of experience and career direction. The APICS certifications, for example, are recognized worldwide, while the university offered certifications are more prominent in the United States compared to other parts of the world. In the chart below, we highlight three professional organization certifications and 39 university offered certificate programs. Our goal with this research was to provide a basic understanding of the type of certifications available and highlight the eligibility, expectations and requirements for the completion of the certificate program.

A more complete description of these certifications is available on scmr.com.

Issuing Institute	Certification Name	Eligibility Requirements	Duration for completion	Type of Teaching
Manufacturing Skills Standards Council	Logistics Certification (CLA + CLT)	10th grade	70 hours	Classroom
Air Force Institute of Technology	Graduate Certificate in Supply Chain Management	Bachelor's degree holders	1 year	Classroom/ Online
American Public University	Graduate Certificate in Logistics Management	Open for all	1 Year	Classroom
APICS	APICS Certified in Production and Inventory Management (CPIM) program	Open for all	No duration	Online
APICS	APICS Certified Supply Chain Professional (CSCP) Certification Program	Supply chain professionals	No duration	Online
APICS	APICS Certified in Logistics, Transportation and Distribution (CLTD) program	Open for all	No duration	Online
Arizona State University	Supply Chain Management Certificate	Supply chain professionals	No duration	Online
California State University at Dominguez Hills	Online Certificate in Purchasing Education and Training	Open for all	No duration	Online
California State University at Dominguez Hills	Online Certificate in Supply Chain Management	Open for all	No duration	Online
California State University at Fullerton	Supply Chain Management	Supply chain professionals	1 Year	Classroom
California State University at Long Beach	Global Logistics Specialist Online Professional Designation Program	Supply chain professionals	2 Years	Classroom/ Online
Columbus State Community College	Supply Chain Management Certificate	Bachelor's degree holders	1 Year	Online
Council of Supply Chain Management Professionals	SCProTM Supply Chain Management Certification Program	Bachelor's degree holders	No duration	Classroom
DePaul University	Logistics and Supply Chain Management Certificate Program	Bachelor's degree holders	17 Weeks	Classroom
Eastern Michigan University	Graduate Certificate in Supply Chain Mgmt	Bachelor's degree holders	1 Year	Classroom
Ferris State University	Advanced Studies in Global Logistics	Open for all	1 year	Classroom
Fontbonne University	Certificate in Supply Chain Management	Open for all	1 Year	Classroom
Georgia Institute of Technology	Distribution Operations Analysis and Design Certificate	Distribution operations professionals	6 Years	Classroom
Georgia Institute of Technology	Health and Humanitarian Supply Chain Management Certificate	Government and members of humanitaian activities	6 years	Classroom

Issuing Institute	Certification Name	Eligibility Requirements	Duration for completion	Type of Teaching
Georgia Institute of Technology	Lean Supply Chain Professional Certificate	Supply chain professionals	6 years	Classroom
Georgia Institute of Technology	Strategic Sourcing and Supply Management Certificate	Supply chain professionals	6 years	Classroom
Georgia Institute of Technology	Supply and Demand Planning Certificate	Bachelor's degree holders	6 years	Classroom
Georgia Institute of Technology	Supply Chain Management Certificate	Bachelor's degree holders	6 years	Classroom
Golden Gate University	UG certificate in Operations and Supply Chain Management	Bachelor's degree holders	No duration	Classroom
Golden Gate University	Graduate Certificate in Supply Chain Management	Bachelor's degree holders	No duration	Classroom
Leheigh University	Supply Chain Management Certificate	Open for all	1 year	Online
Lonestar College System	First Line Logistics Leader Certificate	Bachelor's degree holders	1 semester	Classroom
Loyola University	Essentials of Logistics and SCM	Key employees and engineers	1 year	Classroom
Michigan State University	Master Certificate in Supply Chain Management and Operations	Open for all	24 weeks	Online
MITx (MOOC)	MicroMaster's Credential in Supply Chain Management	None - open enrollment	Self paced - typically 24 months	Online using the edX Platform
MIT Sloan	Executive Certificate in Technology, Operations, and Value Chain Management	Sr. Managers and above	2 days	Classroom
Northeastern University	Supply Chain Management Graduate Certificate	Bachelor's degree holders	1 year	Classroom
Pennsylvania State University	Graduate Certificate in Supply Chain Management	Bachelor's degree holders	12 months	Classroom
Rutgers State University	Supply Chain Management Certificate	Sr. Managers and above	4 days	Classroom
Shippensburg University	Advanced Supply Chain and Logistics Certificate	Open for all	1 year	Classroom
Southern New Hampshire University	Operations and Supply Chain Management Graduate Certificate	Open for all	1 year	Online
Southern Polytechnic State University	Industrial Engineering Technology Department Certificate of Logistics	Bachelor's degree holders	3 years	Classroom/ Online
St. Louis University	Integrated Supply Chain Management Program	Supply chain professionals	18 months	Classroom
Stevens Institute of Technology	Logistics and Supply Chain Analysis Graduate Certificate	Bachelor's degree holders	1 year	Classroom

Issuing Institute	Certification Name	Eligibility Requirements	Duration for completion	Type of Teaching
Syracuse University	Executive Certificate in Supply Chain Management	Key employees and engineers	10 weeks/ course	Online
Towson University	Supply Chain Management Post Baccalaureate Certificate	Open for all	1 year	Classroom
University of Alaska at Anchorage	Undergraduate Certificate in Logistics and Supply Chain Operations	Open for all	2 years	Classroom
University of California at Los Angeles	Supply Chain Management cer- tificate	Open for all	5 years	Classroom
University of California at Riverside	Professional Certificate in Purchasing, Logistics and Supply Chain Management	Bachelor's degree holders	1 year	Classroom
University of California at San Diego	Certificate in Purchasing and Supply Management	Supply chain professionals	No duration	Classroom/ Online
University of Houston at Clear Lake	Purchasing and Supply Chain Management Certificate	Open for all	2 years	Classroom
University of Indianapolis	Global Supply Chain Management Graduate Certificate	Master's degree	1 year	Classroom
University of Michigan - Ann Arbor	Lean Supply Chain and Warehouse Management Certificate	Bachelor's degree holders	2 weeks	Classroom
University of Missouri at St. Louis	Graduate Certificate in Logistics and SCM	Open for all	1 year	Classroom
University of North Carolina - Greensboro	Supply Chain, Logistics and Transportation Management	Bachelor's degree holders	6 months	Online
University of North Florida	Certification in Transportation and Logistics	Supply chain professionals	5 days	Classroom
University of San Francisco	Advanced Professional Supply Chain Management Certificate	Bachelor's degree holders	No duration	Online
University of San Francisco	Advanced Professional Sustainable Supply Chain Management Certificate	Bachelor's degree holders	No duration	Online
University of Texas at Dallas	Supply Chain Management Certificate	Bachelor's degree holders	12 days	Classroom
Walden University	Global Supply Chain Management Certificate	Open for all	1 year	Classroom
Washington University at St. Louis	Supply Chain Management Certificate	Open for all	5 days	Classroom

A more complete description of these certifications is available on scmr.com.