



# Kettering GLOBALX

2021-2022  
COURSE CATALOG

A DIVISION OF KETTERING UNIVERSITY



**Taking Learning to  
the Next Dimension**

PROFESSIONAL DEVELOPMENT, CORPORATE TRAINING & CONTINUING EDUCATION

[GLOBALX.KETTERING.EDU](http://GLOBALX.KETTERING.EDU)

810.762.9827



# KETTERING UNIVERSITY

IS A PIONEER OF BOTH FACE-TO-FACE AND ONLINE EDUCATION.

Grounded in a 100+ year legacy, Kettering continues to lead the world of academia with applied learning by providing students with practical ways of melding classroom lessons with real-world experiences and challenges. With programs spanning the entire range of higher education, including baccalaureate degrees, masters level graduate degrees, certificates, and professional development programs, Kettering University is the first choice for a 21st century education.

Kettering GlobalX (KGX) continues this tradition of excellence by bringing the same faculty expertise and quality instructional design of a traditional Kettering University education to corporations, non-profit organizations, community groups, and individuals.

## CORPORATE TRAINING & CONTINUING EDUCATION

Kettering  
**GLOBALX**

### A WORLD-CLASS CURRICULUM DESIGNED FOR WORKING ADULTS

Kettering GlobalX courses are designed for busy working professionals. Learn from respected Kettering University experts, in a variety of specialized disciplines through the modality best suited to your training needs.

Whether in a face-to-face setting, online environment, or a combination of both using a hybrid model, you and your employees can learn, excel and succeed through leveraging practical applications of knowledge.



**KGX addresses the training needs of individuals, organizations, corporations, and community groups by developing comprehensive courses with the same quality as Kettering University's award-winning STEM and business programs.**

**Kettering University's accredited and highly respected academic programs are consistently ranked among the best in the nation:**

- **2021:** Ranked No. 1 Automotive Engineering School in the USA by College Gazette.
- **2021:** Ranked 9th nationally by U.S. News and World Report 'Best in the Midwest.'
- **2021:** Ranked No. 1 Most Popular Online Other Business & Marketing Graduate Certificate Schools in the Great Lakes Region by Business Degree Central.
- **2021:** Designated a "Best in the Midwest" university by the Princeton Review in its "Best Colleges" edition.
- **2020:** Won 3 Telly Awards.
- **2020:** Ranked #32 in Best Online Master's in Business Programs for Veterans by *U.S. News and World Report*.
- **2019:** No. 1 in Michigan and 32nd in the nation (above Princeton and Notre Dame) on lifetime return on investment (ROI), according to 2019 Georgetown University analysis of federal data ranking 4,500 public and private schools nationwide.
- **2019:** Ranked #2 for MS Operations Management "Top 25 Best Value Online Master's in Management" by Value Colleges
- **2019:** Ranked #1 "Best Value Online Engineering Masters' Program" by Value Colleges
- **2019:** Kettering Online MBA named No. 1 online MBA in Michigan by MBACentral.org
- **2018:** Won the Blackboard Catalyst Award for Leading Change
- **2018:** A study by academic economists from Harvard University, MIT, the U.S. Treasury and London School of Economics found Kettering 4th in producing alumni who hold patents – trailing only MIT, CalTech, and Harvey Mudd.



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# Kettering GLOBALX Representative Faculty



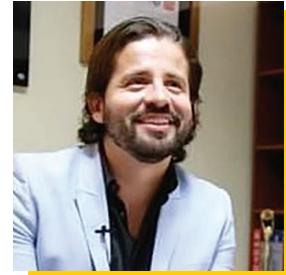
**Dr. Christine Wallace**  
Vice President of Kettering Global

"Kettering GlobalX instructors are highly accomplished faculty, consultants, and industry experts bringing real-world applications of tools, techniques, and learning to organizations and individuals. Each faculty member has unique experience making them experts in their field."



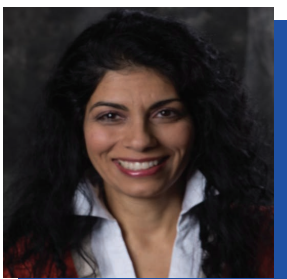
**Robert Nakata**  
Ph.D., MBA

"I believe in maximizing student engagement by making the class as experiential as possible."



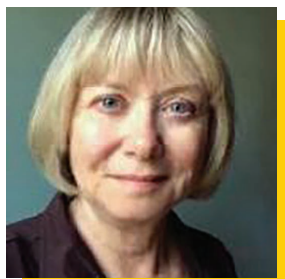
**Juan Gomez**  
MSc, Ph.D

"Knowledge can be communicated, but not wisdom. One can find, live, be fortified, and do wonders through wisdom, but one cannot communicate and teach it."



**Anjali Barnick**  
Ph.D., MA, MBA, BSEE

"My philosophy is anyone is capable of learning anything. It takes patience and dedication, but it is so worth the effort."



**Alice Jarvis**  
Ph.D., B.S.

"Teaching is leading an interactive process where a group of people work together to turn information into knowledge, and help each other prepare to achieve practical goals."



**Gokhan Sarpkaya**  
Ph.D., MBB, PMP

"I focus on offering educational opportunities that integrate ideas and methods with practical applications."



# CORPORATE TRAINING & PROFESSIONAL DEVELOPMENT

## KETTERING GLOBALX

corporate training and professional development programs are designed for and delivered to working professionals through the modality of their choice. KGX develops courses focusing on both soft and technical skills. For example, understanding how to manage a multigenerational workforce, enhancing your interpersonal communication skills, understanding Lean Six Sigma concepts, adopting best practices for strategic operations, or learning a new programming language.



## CUSTOMIZING TRAINING TO MEET THE NEEDS OF YOUR ORGANIZATION

Kettering GlobalX, in cooperation with Kettering University, works with academic instructors and industry leaders from a wide range of disciplines. These life-long educators are dedicated to meeting your organization's training needs. KGX delivers a variety of training topics through a number of modalities; face-to-face at your site or the Kettering campus, online, or a combination of both using a hybrid model.

## KGX TRAINING HIGHLIGHTS:

- Designs tailored and interactive training sessions using a face-to-face, online, or hybrid modality
- Offers technically advanced topics
- Provides access to academic and industry experts
- Allows for customizable course length
- Develops courses for real-world applicability

# CERTIFICATE PROGRAMS

Kettering GlobalX provides tailored, impactful, and applicable certificate programs to organizations and individuals through a range of quality training and personal development topics. These short-term courses are designed to focus on the skills needed to work in a particular industry.



## Master Black Belt Certification Course

Lead the Six Sigma Black Belt culture for your organization by becoming a Master Black Belt. Master Black Belts (MBB) are critical change agents for their organizations.

The six-week course combines two (2) weeks of live online sessions and four (4) additional individual project weeks. The course concludes with an exam. A FREE pre-qualifying exam is required before you begin the Master Black Belt Certification.

**Cost: \$8,500**





## SIX SIGMA CERTIFICATE EXAMS

Take the online Six Sigma Certificate Exams to show the world you are qualified to lead your organization's efforts to streamline their operations. Six Sigma certificates are a recognized and respected credential throughout all industries. Upon successful completion of the exam, professionals receive a certificate issued by Kettering GlobalX. The certificate grants the rights to use the recognition as professional designation.



### Black Belt Certificate Exam

The Kettering GlobalX Six Sigma Black Belt exam is an online 100 question multiple-choice and true/false exam. The exam is non-proctored with a 2-hour allotted time frame. **Cost: \$275**



### Six Sigma Green Belt Exam

The Kettering GlobalX Six Sigma Green Belt exam is an online 50 question multiple-choice and true/false exam. The exam is non-proctored with a 150-minute allotted time frame. **Cost: \$250**



### Six Sigma Yellow Belt Exam

The Kettering GlobalX Six Sigma Yellow Belt exam is an online 25 question multiple-choice and true/false exam. The exam is non-proctored with a 70-minute allotted time frame. **Cost: \$200**

# Master Online Instructor Certification Program



The increasing number of learners taking online courses calls for an ever-increasing pool of qualified instructors to lead them on a meaningful educational journey. Becoming certified as a Master Online Instructor by award-winning Kettering University Online, puts you in a position to maximize your income while working from any place in the world.

Many think becoming an online instructor simply means copying and pasting lecture notes or training manuals into a learning management system. As you progress through the weeks and levels in this program, you realize online teaching is more complex, involving both a specific body of knowledge and a particular skill-set.



## Level 1 - The Basics of Online Education

This course is designed to introduce you to foundational concepts of teaching already prepared courses online. Topics include understanding and communicating effectively with adult learners, facilitating discussion questions, using rubrics, and grading assessments.

**Cost: \$275**

## Level 2 - Certified Online Instructor Engaging Learners, Leveraging Technology, and Ensuring Accessibility

Now that you have a deeper understanding of how to communicate with and assess online learners, it is time to build upon those skills. Learn best practices, tools, and techniques for providing substantive feedback, leveraging various technologies, and creating an inclusive learning environment for engaging and meaningful learning experiences.

**Cost: \$275**

## Level 3 - Master Online Instructor Course Design, Assessment & Adaptation

If you have completed Levels 1 and 2 of this program, you are ready to take prepared material and facilitate a course. After completing this level, you will be ready to design your own courses! Learn how to develop learning outcomes, design engaging and interactive learning experiences, and adapt existing materials for the online environment.

**Cost: \$275**





# PYTHON FOR BEGINNERS

## Part 1 Python Certification Program

The first of three courses in the Python Certification program, this introductory course is designed to familiarize you with the basic syntax and constructs of the Python programming language, as well as the frequently used Python libraries.

**Cost: \$3,000**

## WHAT IS PYTHON?

Python is an interpreted, interactive, object-oriented programming language. It incorporates modules, exceptions, dynamic typing, very high level dynamic data types, and classes. It supports multiple programming paradigms beyond object-oriented programming, such as procedural and functional programming. Python combines remarkable power with very clear syntax. It has interfaces to many system calls and libraries, as well as to various window systems, and is extensible in C or C++. It is also usable as an extension language for applications that need a programmable interface. Finally, Python is portable: it runs on many Unix variants including Linux and macOS, and on Windows.



# Cybersecurity Bootcamp



Our Bootcamp is comprised of 480 hours of best-in-class content delivered part time over 6 months with classes occurring twice a week, for 4 hours each day.

**Cost: \$6,500**

## DEVELOPED

around military training methodologies and hands-on learning, this program is designed to focus on the key skills sought by employers. The Cybint Cybersecurity Bootcamp prepares you not only with technical knowledge, but also with other essential skills necessary for a successful career in cybersecurity.

# 1



ACCELERATED,  
ZERO-TO-HERO  
TRAINING PROGRAM

# 2



CAREER-READY  
SKILLS ALIGNED  
WITH NIST-NICE

# 3



+100 HANDS-ON  
REAL-WORLD  
EXERCISES

## Why Cybersecurity?

With the rate of cyber-attacks reaching record highs, there is an urgent need for workers in cybersecurity. The field has 0% unemployment and forecasts 350% job growth through 2021.

With plentiful opportunities and competitive compensation, an accelerated Cybersecurity Bootcamp is the best way to gain the skills necessary to fill these positions.

**This Bootcamp prepares you to begin your career in cybersecurity with entry-level jobs such as:**

- CYBER DEFENSE ANALYST
- CYBER INCIDENT RESPONDER
- CYBER FORENSICS ANALYST
- NETWORK OPERATIONS SPECIALIST
- CYBER INFRASTRUCTURE SUPPORT SPECIALIST





# Our Cybint BOOTCAMP INCLUDES:

## Accelerated Learning

The Bootcamp was developed with the principle of “everything you need to know, and *only* what you need to know,” in mind. Our accelerated learning methodology and streamlined curriculum allows instructors to focus on teaching you the specific skills necessary for today’s competitive job market.

## Blended Model

Our unique blended model combines the best of both in-person and self-paced learning. Our Bootcamp is led by a facilitator whose role is to support your experience, while our online platform supports your ability to learn and practice during the day and at your own pace. Lastly, the cohort-based concept provides a supportive community environment, maximizing engagement.

## Hands-On Skills Training

To ensure you get to practice what you learn, we have developed over 60 unique labs and over 100 different exercises. Technical skills, frameworks, and tools are taught through hands-on exercises in a safe virtual environment.

## CAREER SERVICES AND SUPPORT

Essential soft-skills training, from teamwork to interview preparation, is embedded throughout the program. Upon graduation, you can also connect to a global alumni network and community!

**Plus** After you graduate, you will have continued access to Cybint’s online learning platform, which includes content updates covering emerging cyber threats and tools.





## TECHNICAL TRAINING & PROFESSIONAL DEVELOPMENT CREDIT



### INDIVIDUALS INTERESTED IN EARNING ACADEMIC CREDIT:

Courses for Kettering University's baccalaureate and master's level degree programs provide 40 hours of instruction, per course during an academic term.

Working professionals who have successfully completed 40 or more hours of professional development instruction in a particular content area are eligible to earn Kettering University course credit which they can apply towards completing a graduate level certificate.

For example, completing 40 hours of professional development in the NVH area can qualify for a graduate course credit for MECH 643.



### INDIVIDUALS INTERESTED IN EARNING ACADEMIC CREDIT TOWARD A CERTIFICATE:

Individuals interested in earning academic credit towards a Technology Leadership Certificate have an opportunity to do so. This can be achieved by successfully completing three courses at the 500 or 600 level in one of the following areas:

Computer Engineering, Computer Science, Electrical and Computer Engineering, Electrical Engineering, Industrial and Manufacturing Engineering, or Mechanical Engineering.





# Alternative Energy & Sustainability



## LI-ION BATTERIES AND EMERGING SOLAR CELLS AND THE APPLICATION OF NANOMATERIALS

### Course Overview

This one-day course is designed to introduce you to batteries and photovoltaic cells and the new generation of materials under development for these energy devices. Topics highlighted are Li-ion batteries and new generation photovoltaic devices such as dye-sensitized solar cells, perovskite solar cells, and the applications of nanomaterials in these devices.

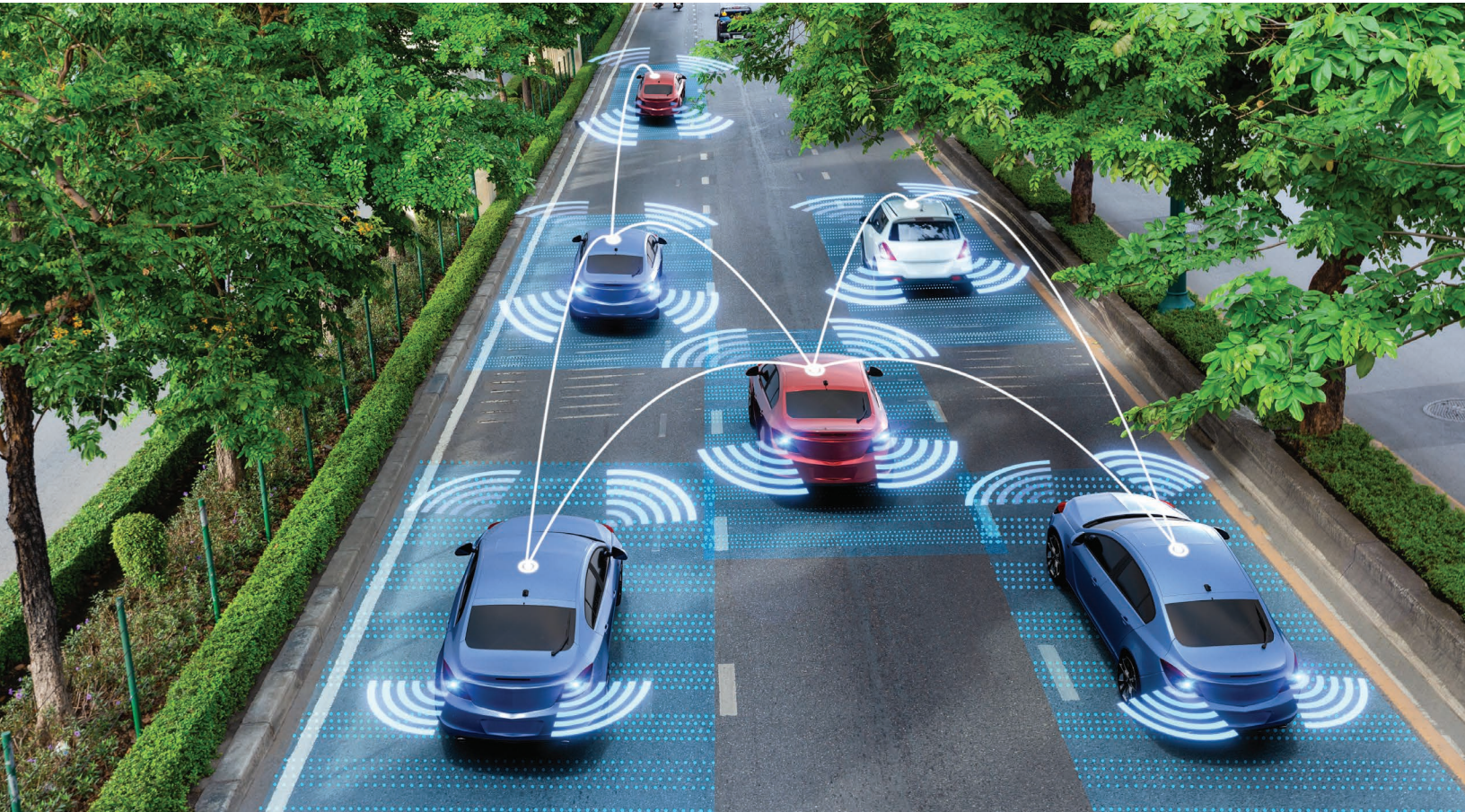
### Course Objectives and Outcomes

- Describe the major components, materials, and principles of operation of Li-ion batteries
- Describe the advantages and challenges of using nanomaterials in Li-ion batteries
- Describe the major components, materials, and operation principles of emerging solar cells including dye-sensitized solar cells and perovskite solar cells
- Describe the advantages and challenges of emerging solar cells
- Describe the advantages and challenges of using nanomaterials in emerging solar cells

After successfully completing the course, participants earn 7 hours of Professional Development (PD) credit and a certificate of participation.

**Cost: \$750**

# Autonomous & Connected Vehicles



## CONNECTED VEHICLES & FUTURE INTELLIGENT TRANSPORTATION SYSTEMS

### Course Overview

The goal of this two-day course is to provide participants with fundamental knowledge of connected vehicles to help them properly understand connected vehicle technology, as well as wireless technology for future intelligent transportation systems (ITS).

After successfully completing the course, participants earn 16 hours of Professional Development (PD) credit and a certificate of participation.

**Cost: \$1,500**

### Course Objectives and Outcomes

- Understand current V2X standards and technologies in the U.S.
- Learn about the scope and major findings from recent connected and automated vehicle research
- Learn about the future intelligent transportation system and its key technologies: edge computing and 5G
- Gain insight into both fully-automated and partially-automated vehicle technologies and challenges, including their human factor issues and testing/evaluations



# Autonomous & Connected Vehicles



## ADVANCED TOPICS IN AUTONOMOUS VEHICLES & DRIVING

### Course Overview

This three-day course is designed to provide both theoretical and practical background on advances in the design and development of autonomous vehicles. Participants focus on the important practical aspects of autonomous driving through lecture, assignments, and lab projects.

This course is the first of four short courses designed to familiarize learners with automated driving, advanced topics in the design of autonomous cars, connected vehicles and in-car communication, and automotive cybersecurity.

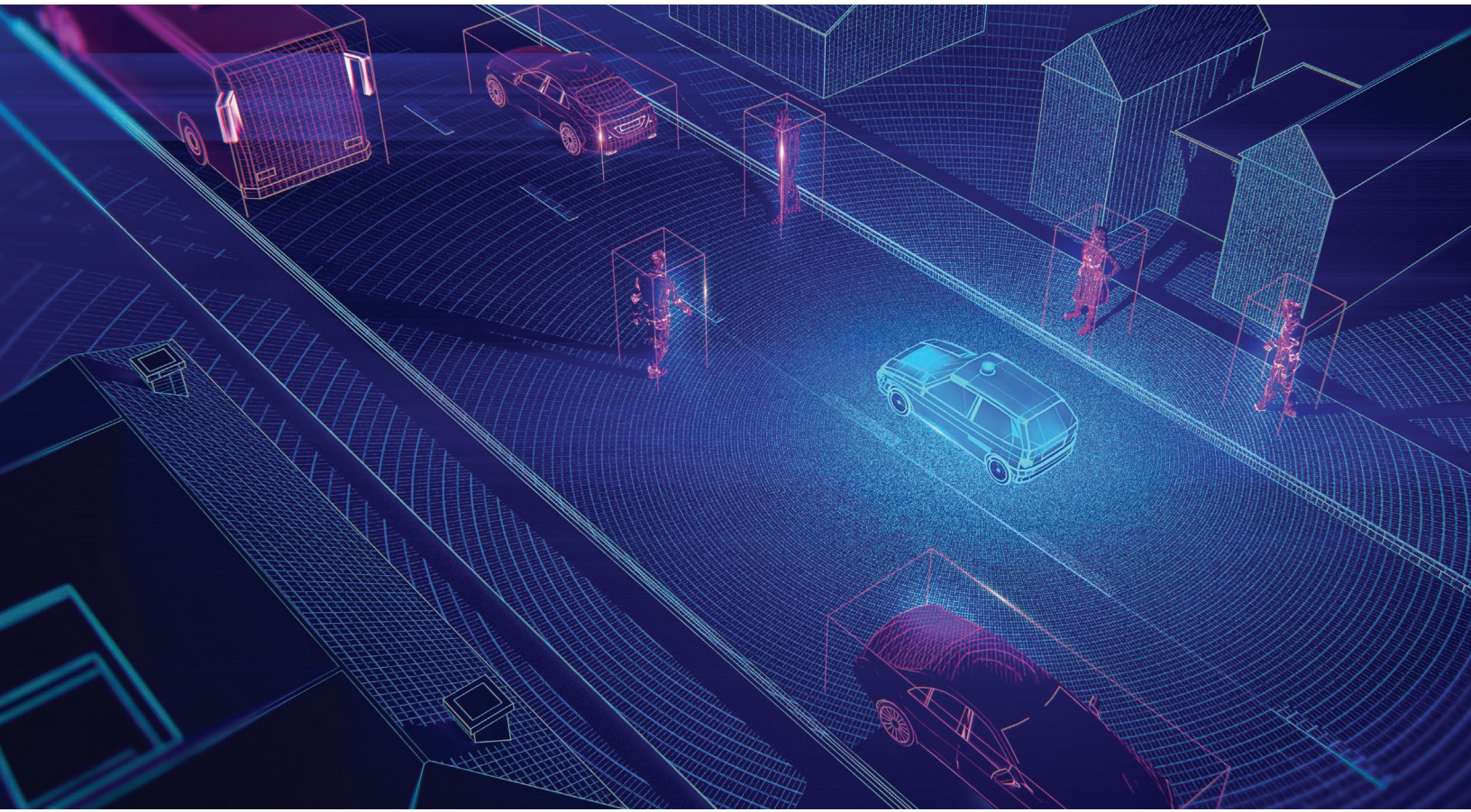
After successfully completing the course, participants earn 24 hours of Professional Development (PD) credit and a certificate of participation.

**Cost: \$2,250**

### Course Objectives and Outcomes

- Understand Robot Operating System (ROS), cloud platforms, client systems and algorithms in autonomous driving technology
- Examine applications of AI, machine learning, and deep learning in simulated environments
- Design vehicles in the simulation environment
- Develop simulated sensors and equip simulated vehicles with them
- Design scenarios with various actors
- Describe variables related to automated driving in the simulation environment
- Capture requisite data from simulated scenarios
- Develop models and evaluation procedures using deep learning algorithms





## COMPUTER VISION FOR INDUSTRIAL APPLICATIONS

### Course Overview

Professionals taking this course are exposed to fundamental theories and models used in computer vision, and introduced to methods for collecting and processing data from visual sensors. Participants also study state-of-the-art visual recognition systems and the tools for expediting developments of computer vision applications.

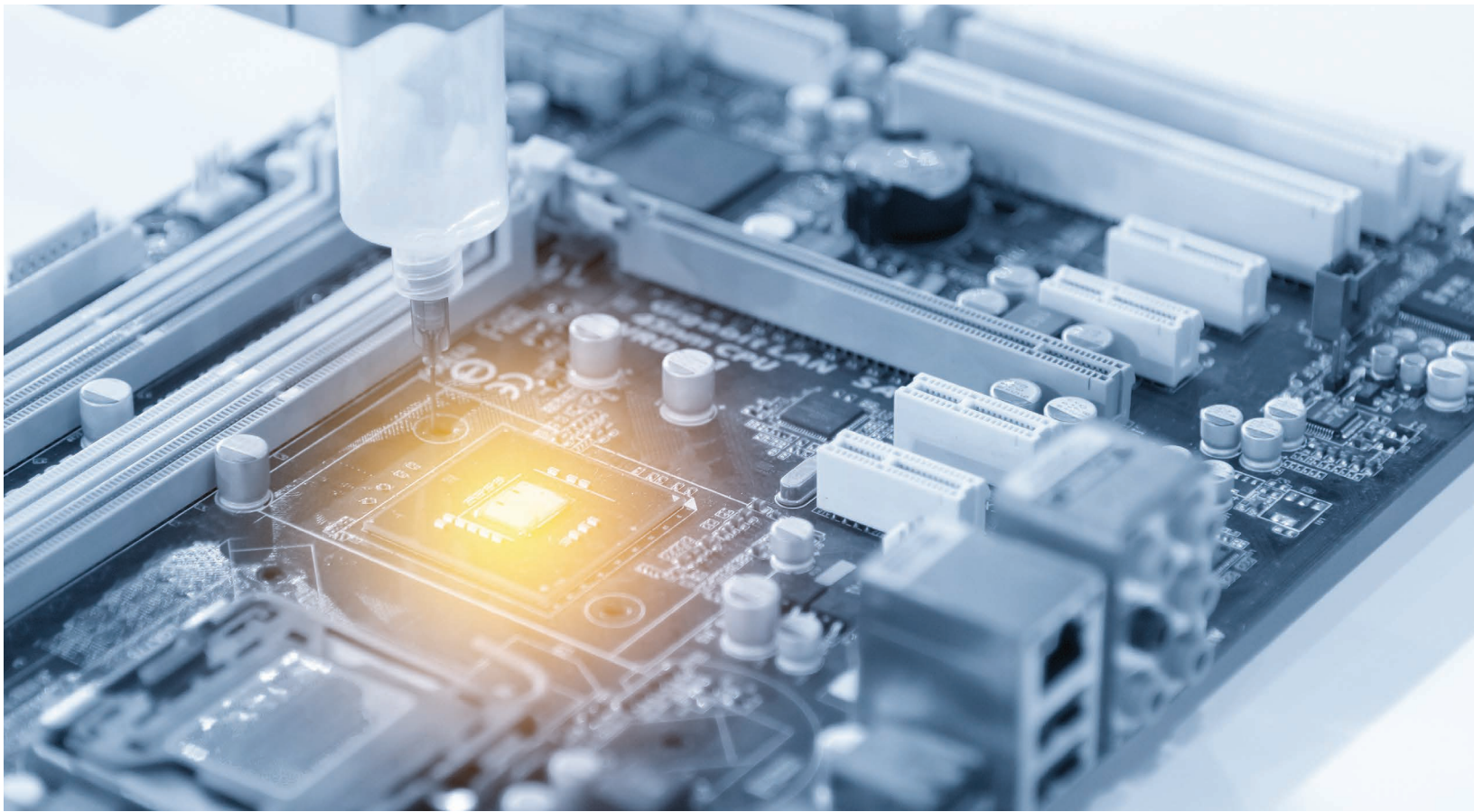
After successfully completing the course, participants earn 21 hours of Professional Development (PD) credit and a certificate of participation.

**Cost: \$2,250**

### Course Objectives and Outcomes

- Demonstrate a practical understanding of the basic theories and models in computer vision
- Explain up-to-date technical trends in computer vision systems
- Examine collecting and processing data from visual sensors
- Develop skills for using tools designed to expedite developments of computer vision applications
- Understand general procedures for developing computer vision applications
- Acquire practical skills for building computer vision applications





## EMBEDDED SYSTEMS SOFTWARE 1

### Course Overview

This course is designed for beginners and introduces them to embedded software development by using popular and easily accessible open-source microcontrollers and software tools. Participants write programs using the C programming language, process inputs received from users and sensor devices, and generate outputs back to the user and actuator devices.

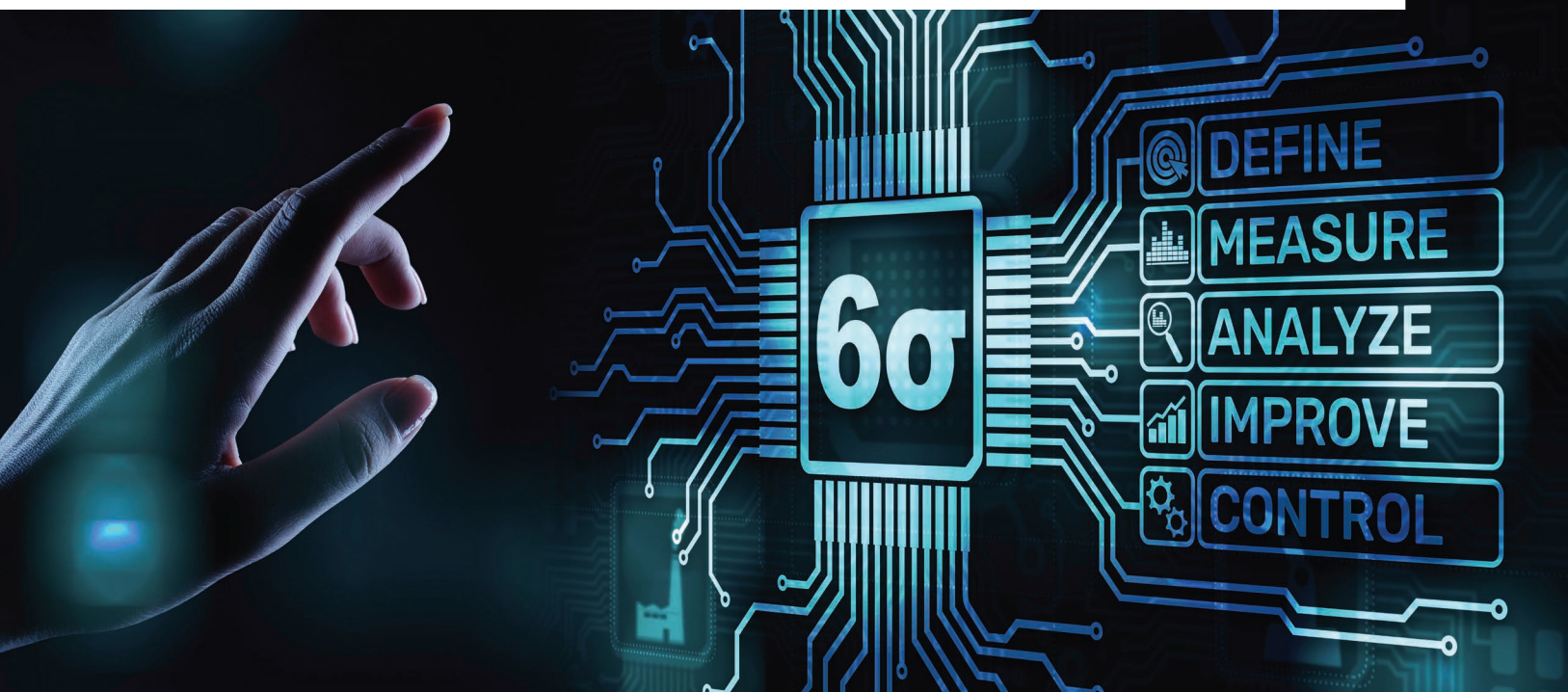
After successfully completing the course, participants earn 12 hours of Professional Development (PD) credit and a certificate of participation.

**Cost: \$1,500**

### Course Objectives and Outcomes

- Describe the main building blocks of embedded systems
- Explain the basic components of electronic circuit components
- Describe the architecture of embedded microcontrollers
- Write embedded C programs to perform basic functions
- Describe the use of basic digital logic functions
- Apply program control constructs commonly used for software implementation
- Write embedded programs for handling digital and analog input/output interfacing
- Implement programs to interact with sensors, actuators, and application users
- Use wireless communication for embedded applications

# Lean Principles and Six Sigma



## What Is Six Sigma?

The term Six Sigma refers to a set of quality-control tools that businesses can use to eliminate defects and improve processes to help boost their profits. It was developed by a scientist in the 1980s while he was working at Motorola.

Six Sigma is a statistical- and data-driven process that works by reviewing limit mistakes or defects. It emphasizes cycle-time improvements while reducing manufacturing defects to no more than 3.4 occurrences per million units or events. This means that an error generally occurs with a six-standard deviation event from the mean because only 3.4 out of a million events along a bell curve would fall outside of six standard deviations.

**“Coming together is a beginning. Keeping together is progress. Working together is Success.”**

**Henry Ford**  
Founder of the  
Ford Motor Company





## APPLICATIONS OF ENGINEERING OPTIMIZATION

### Course Overview

The main focus of this course is the applicability of optimization to a variety of different applications, including use for product design, reduction of weight, material and cost, and how it can be applied to control topics. Learners examine how to properly formulate an optimization problem, including the objective and constraints, and how to use the built-in optimization capabilities of existing software programs to solve them. Participants formulate and solve a sample problem in an area of their interest.

After successfully completing the course, participants earn 10 hours of Professional Development (PD) credit and a certificate of participation.

**Cost: \$1,500**

### Course Objectives and Outcomes

- Identify uses of optimization in design, control, and cost reduction
- Describe differences between continuous and discrete optimization
- Formulate an optimization problem in standard form
- Solve a simple optimization problem using industry-standard software

# Lean Principles and Six Sigma



## QUALITY (LEAN) SIX SIGMA

### Course Overview

The focus of this three-day course is on Industrial Applications of Statistical Quality Control Assurance and the factors measuring quality assurance. Additional topics include how to identify abnormalities and provide techniques for solving root cause of these abnormalities and recommendations for implementing resolutions. This course is ideal for professionals motivated to improve their quality processes and/or those interested in become Green Belt certified.

After successfully completing the course, participants earn 24 hours of Professional Development (PD) credit and a certificate of participation.

**Cost: \$2,250**

### Course Objectives and Outcomes

- Define quality and contributing factors
- Ability to calculate the probability of an event
- Demonstrate ability to analyze statistical data
- Examine effects of debt, equity, and dividend policies on firm valuation
- Implement techniques to identify abnormalities in a production system
- Use Modern Root Cause Analysis and problem solving techniques to determine issues and their causes
- Propose recommendations and plans for implementing resolutions
- Propose a containment and recovery plan if necessary
- Demonstrate a clear understanding of Statistical Process Control (SPC)
- Demonstrate the ability to convey your understanding of the course material to management



# Lean Principles and Six Sigma



## LEAN PRODUCT AND PROCESS DEVELOPMENT

### Course Overview

This course is designed to introduce the principles and practices of Lean Product and Process Development (LPPD). The evolution of LPPD is explained from source materials to the present discipline with respect to Lean thinking.

This course is designed for practitioners of new product/service development in any industry or sector.

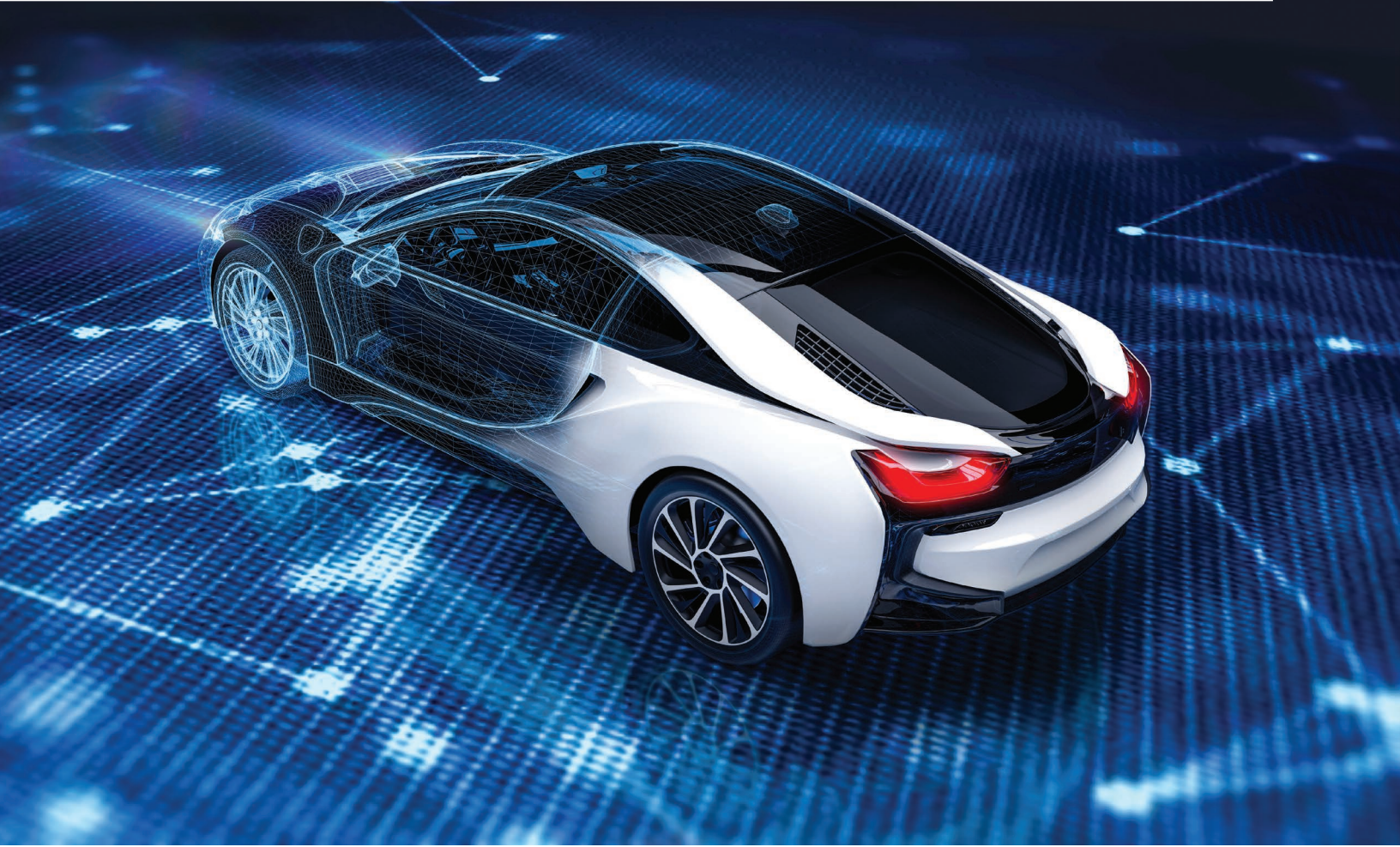
After successfully completing the course, participants earn 20 hours of Professional Development (PD) credit and a certificate of participation.

**Cost: \$2,500**

### Course Objectives and Outcomes

- Outline the background and evolution of LPPD
- Summarize the principles of LPPD with respect to Lean
- Identify the key elements of leadership in LPPD
- Practice principles of Creating Value for Customers
- Practice principles of Creating Flow for Speed to Market
- Practice principles of Creating Knowledge to Innovate
- Identify the key elements of Pursuit of Perfection



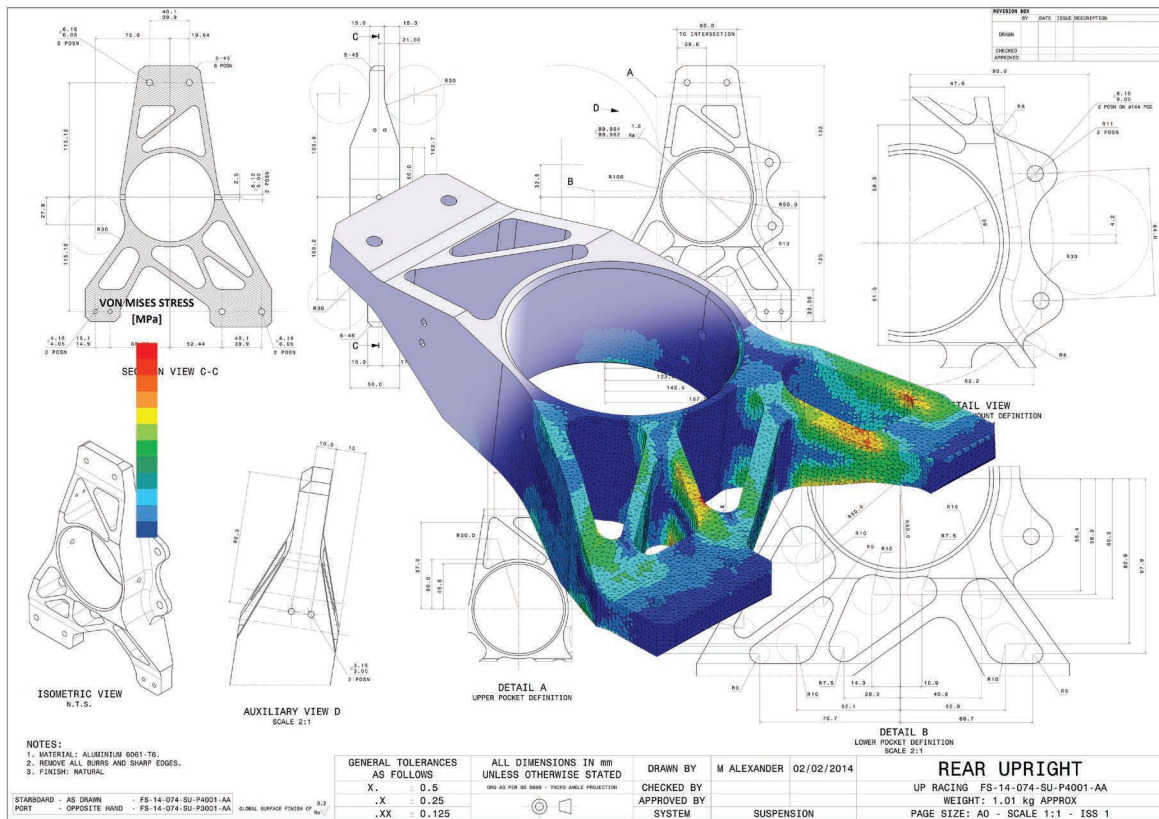


*Make your workplace into showcase that can be understood by everyone at a glance. In terms of quality, it means to make the defects immediately apparent. In terms of quantity, it means that progress or delay, measured against the plan, and is made immediately apparent. When this is done, problems can be discovered immediately, and everyone can initiate improvement plans.*

**Taiichi Ohno, Father of Lean Manufacturing**

|





## APPLICATIONS OF ENGINEERING OPTIMIZATION

### Course Overview

This course introduces learners to the applicability of optimization to a variety of different applications, including its use for product design, reduction of weight, material, and cost, and how it can be applied to control topics. Participants examine how to properly formulate an optimization problem, including the objective and constraints, and how to use the built-in optimization capabilities of existing software programs to solve them. Learners formulate and solve a sample problem in an area of their interest.

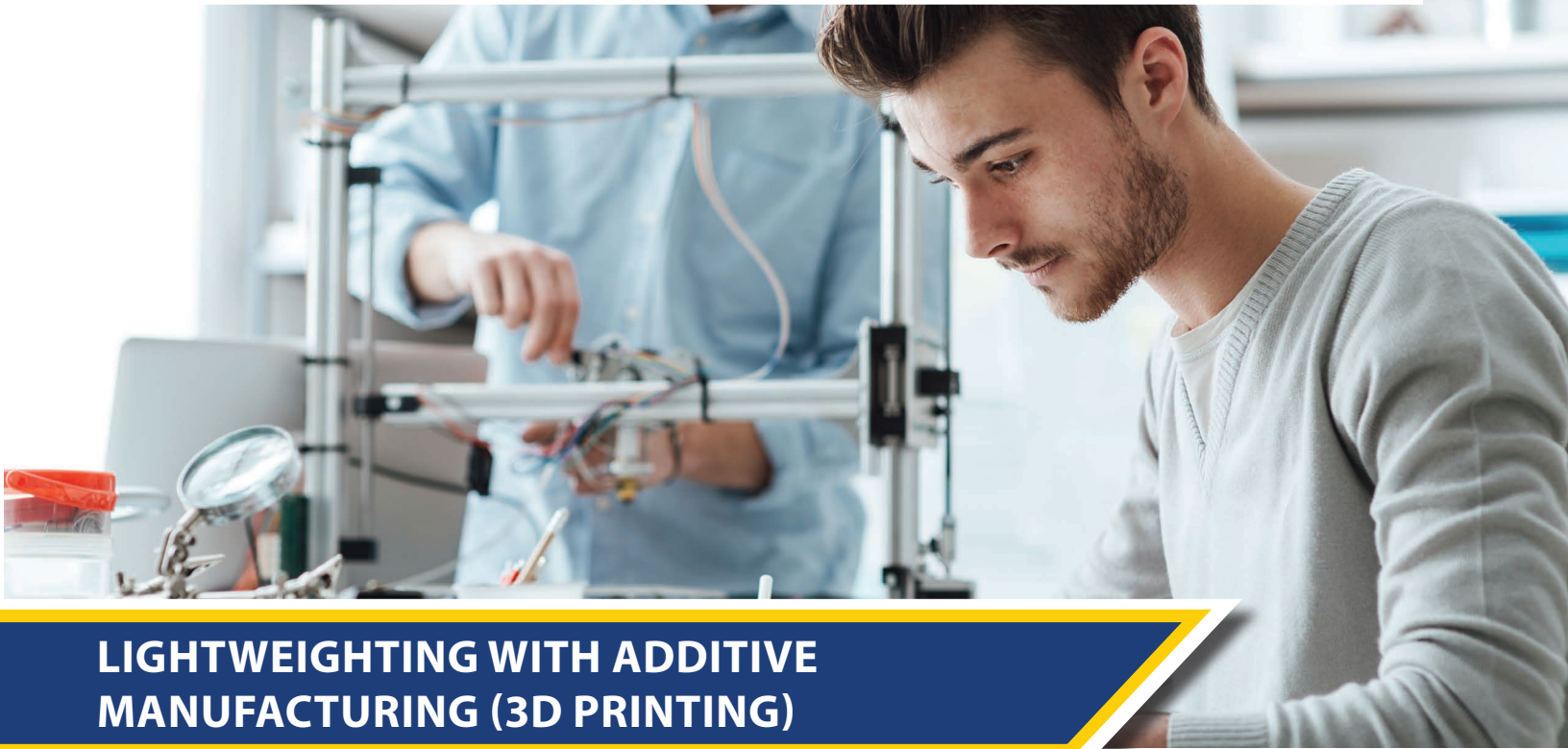
After successfully completing the course, participants earn 10 hours of Professional Development (PD) credit and a certificate of participation.

**Cost: \$2,250**

### Course Objectives and Outcomes

- Identify uses of optimization in design, control, and cost reduction
- Describe the difference between continuous and discrete optimization
- Formulate an optimization problem in standard form
- Solve a simple optimization problem using industry-standard software

# LIGHTWEIGHTING



## LIGHTWEIGHTING WITH ADDITIVE MANUFACTURING (3D PRINTING)

### Course Overview

The Lightweighting with Additive Manufacturing course is designed to introduce the fundamental principles of Additive Manufacturing (AM), popularly known as 3D Printing, and its application as a lightweighting tool.

This course is hands-on and focuses on factors manufacturers should consider when incorporating AM to complement traditional manufacturing operations.

Hands-on lab activities provide participants with an opportunity to learn about the safety, design freedom, material selection, and lightweighting capabilities of polymer and metal additive manufacturing processes.

Participants use professional CAD/CAM/Slicing software and hardware to manufacture 3D parts during the lab sessions. Professionals preparing for the SolidWorks or SME Additive Manufacturing certification find this course helpful.

After successfully completing the course, participants earn 18 hours of Professional Development credit and a certificate of participation.

**Cost: \$2,500**

### Course Objectives and Outcomes

- Identify applications such as lightweighting for which AM technologies are advantageous in existing manufacturing processes
- Determine suitable build orientation and support strategies to produce quality parts
- Describe and compare AM-specific post-processing techniques
- Recognize AM-related safety concerns
- Communicate AM-related concepts to team members, employees, customers, and suppliers using appropriate terminology and technology
- Explain the fundamental components and principles of the AM production cycle
- Describe AM design and manufacturing principles required to produce lightweight, material - and energy-efficient parts and structures



# LIGHTWEIGHTING AND JOINING OF AUTOMOTIVE BODY IN WHITE (BIW) STRUCTURES

## Course Overview

Weight-reduction, or lightweighting, has been on the mind of every automaker for the past few years in an effort to save weight and increase fuel economy or battery life.

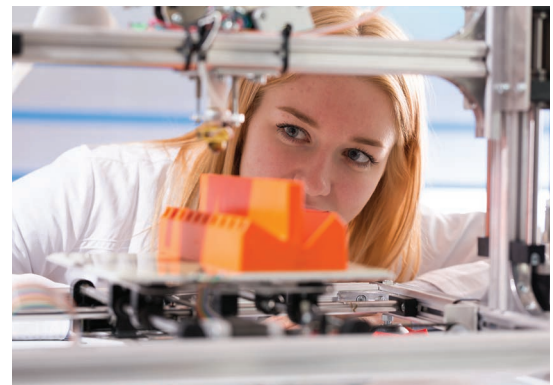
This three-day course is designed to address these challenges and offer solutions by using lightweighting technologies for body in white (BIW) structures. Further details about using different grades and forms of steel and aluminum alloys for the body in white components and the role of composite materials are covered.

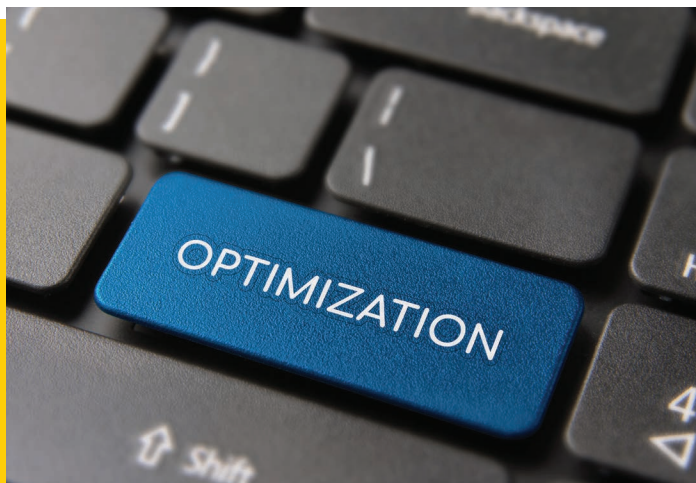
After successfully completing the course, participants earn 24 hours of Professional Development (PD) credit and a certificate of participation.

**Cost: \$2,250**

## Course Objectives and Outcomes

- Define the basics of engineering design, design for functional performance, design for reliability, design for sustainability and life cycle assessment
- Develop an understanding of the concepts of selection and properties of lightweight materials, and their applications in automotive industries – metallurgical differences, stiffness, rigidity, resilience, and toughness
- Develop an understanding of traditional and non-traditional manufacturing processes (such as machining, bulk forming, casting, forging, foam, hydroforming, roll-forming, 3D printing, etc.) of modern steel, aluminum and plastics and composites
- Develop an understanding of failure and protection of materials and assemblies due to corrosion and other defects
- Develop an understanding of the basic joining technologies of steel, aluminum and other dissimilar materials
- Develop a basic knowledge and confidence of aluminum and composites applications and design guidelines in automobile industry (such as carbody structures, etc.)
- Perform simple research on the topics covered and communicate them effectively to the class in a presentation
- Communicate effectively with BIW designers, CAE analysts, manufacturing engineers and suppliers at work





## APPLICATIONS OF ENGINEERING OPTIMIZATION

### Course Overview

The focus of this course is the applicability of optimization to a variety of different applications, including its use for product design, reduction of weight, material, and cost, and how it can be applied to control topics. Participants examine how to properly formulate an optimization problem, including the objective and constraints, and how to use the built-in optimization capabilities of existing software programs to solve the problem. Learners formulate and solve a sample problem in an area of their interest.

After successfully completing the course, participants earn 10 hours of Professional Development (PD) credit and a certificate of participation.

**Cost: \$1,500**

### Course Objectives and Outcomes

- Identify uses of optimization in design, control, and cost reduction
- Describe the difference between continuous and discrete optimization
- Formulate an optimization problem in standard form
- Solve a simple optimization problem using industry-standard software

## FINANCIAL MANAGEMENT FOR TECHNICAL PROFESSIONALS

### Course Overview

This course is designed to provide an overview of financial management with an emphasis on decision-making. Learners are introduced to practical tools for making financial decisions and accurate valuation. Additional topics include foundational principles as well as statistical and strategic issues faced by technical professionals.

After successfully completing the course, participants earn 21 hours of Professional Development (PD) credit and a certificate of participation.

**Cost: \$2,250**

### Course Objectives and Outcomes

#### Analyze Financial Statements

- Read and describe the content of corporate financial statements
- Calculate and analyze a comprehensive set of financial ratios to evaluate a company's performance in terms of liquidity, asset management, solvency, profitability, and value creation to shareholders
- Describe the limitations of financial ratio analysis

#### Evaluate Capital Investments

- Apply time value of money techniques to calculate the present and future values of cash flows
- Estimate cash flows, risk, required returns, and value of capital projects
- Utilize capital investment decision criteria to evaluate capital projects

#### Evaluate and Manage Financing Decisions & Value Creation

- Examine the effects of debt, equity, and dividend policies on firm valuation
- Evaluate alternative sources of capital for short-term and long-term financing
- Estimate the cost of capital
- Manage the organization's capital structure



# LEAN APPLICATIONS



## LEAN PRODUCT AND PROCESS DEVELOPMENT

### Course Overview

This three-day course is design to introduce learners to the principles and practices of Lean Product and Process Development (LPPD). The evolution of LPPD is explained from the source materials to the present discipline with respect to Lean Thinking.

This course is designed for practitioners of new product/ service development in any industry or sector. After successfully completing the course, participants earn 20 hours of Professional Development (PD) credit and a certificate of participation.

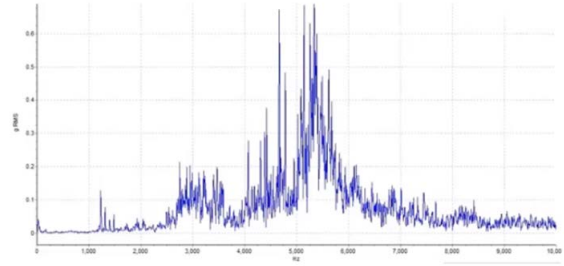
**Cost: \$2,250**

### Course Objectives and Outcomes

- Outline the background and evolution of LPPD
- Summarize the principles of LPPD with respect to Lean principles
- Identify the key elements of Leadership in LPPD
- Practice principles of Creating Value for Customers
- Practice principles of Creating Flow for Speed to Market
- Practice principles of Creating Knowledge to Innovate
- Identify the key elements of Pursuit of Perfection

## Fourier Transforms

	Continuous Time Continuous Time Fourier Transform	Discrete Time Discrete Time Fourier Transform
aperiodic	$x(t) = \int_{-\infty}^{+\infty} X(f) e^{j2\pi ft} df$	$x[n] = T \int_{-\frac{1}{2T}}^{\frac{1}{2T}} \bar{X}(f) e^{j2\pi fnT} df$
	$X(f) = \int_{-\infty}^{+\infty} x(t) e^{-j2\pi ft} dt$	$\bar{X}(f) = \sum_{n=-\infty}^{+\infty} x[n] e^{-j2\pi fnT}$
periodic	$\bar{x}(t) = \sum_{k=-\infty}^{+\infty} X_k e^{j2\pi k f_0 t}$	$x_n = \frac{1}{N_0} \sum_{k=0}^{N_0-1} X_k e^{j2\pi \frac{kn}{N_0}}$
	$X[k] = \frac{1}{T_0} \int_{-\frac{T_0}{2}}^{\frac{T_0}{2}} \bar{x}(t) e^{-j2\pi k f_0 t} dt$	$X_k = \sum_{n=0}^{N_0-1} x_n e^{-j2\pi \frac{kn}{N_0}}$



## EXPERIMENTAL MODAL ANALYSIS

### Course Overview

Learners are introduced to an overview of the fundamentals of experimental modal analysis as well as advanced techniques of structural dynamics. Topics include frequency response function (FRF), numerical technologies for signal processing, and modal analysis.

After successfully completing the course, participants earn 18 hours of Professional Development (PD) credit and a certificate of participation.

**Cost: \$1,500**

### Course Objectives and Outcomes

- Explain the principle of modal analysis, the frequency response function
- Prepare the test setup to obtain resonant frequencies and mode shapes of a structure
- Apply appropriate signal processing tools to process time domain data and obtain FRFs
- Conduct an impact hammer modal test
- Perform shaker test using a single shaker and multiple shakers
- Perform correlation between the test data and finite element mode shapes
- Extract modal parameters from given FRFs

## VIBRATION

### Course Overview

The trajectory of this course begins with the foundations of simple vibrating objects and builds to an in-depth explanation of vibration of multiple degree of freedom systems and structural vibration; including how to use accelerometers to measure vibration of structures.

After successfully completing the course, participants earn 14 hours of Professional Development (PD) credit and a certificate of participation.

**Cost: \$1,500**

### Course Objectives and Outcomes

- Analyze vibration of Single Degree of Freedom (SDOF) systems, including determining natural frequencies, characteristics of damped motion, amplitude and phase of driven motion
- Model and analyze a variety of mechanical and electrical systems that exhibit oscillations
- Select appropriate vibration isolation models to reduce vibration of some components of a system
- Analyze Multiple Degree of Freedom (MDOF) systems, including simple structures
- Analyze and interpret results of accelerometer measurements of vibration





## ACOUSTICAL MEASUREMENTS

### Course Overview

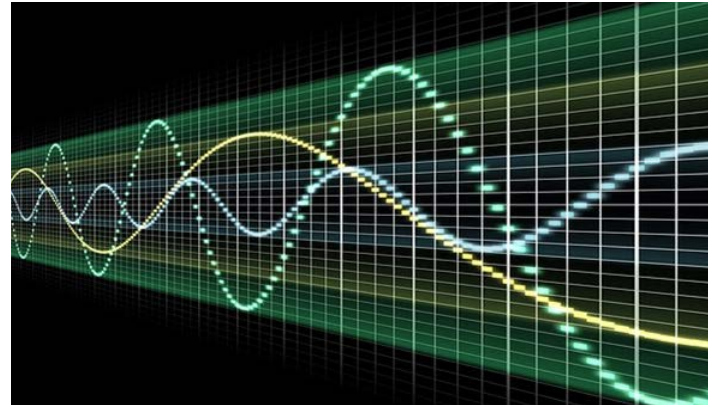
This course is designed for professionals new to NVH and acoustics. Examples are used to convey fundamental knowledge, and participants use hands-on analysis to illustrate both the theory and application of canned software. Additional topics include microphone selection, calibration and use, spectra and octave analysis, physics of wave behavior in noise problems, and an introduction to sound intensity and sound power measurements.

After successfully completing the course, participants earn 14 hours of Professional Development (PD) credit and a certificate of participation.

**Cost: \$1,500**

### Course Objectives and Outcomes

- Select an appropriate microphone for acoustical measurements, and perform a field calibration to set the microphone sensitivity
- Analyze microphone signals and interpret the results with linear or logarithmic scales for amplitude
- Select appropriate parameters for spectral analysis and n-th octave band analysis, and interpret the results (using linear and logarithmic frequency scales)
- Compare directivity of a source with monopole, dipole, and line array models
- Measure sound intensity of a source and visualize results in a vector map



## INTRODUCTION TO NVH: BASIC CONCEPTS, THEORIES, AND TRENDS

### Course Overview

This 3-day course is designed to introduce participants to the basic concepts, theories, and trends of NVH. One third (1/3) of automotive quality complaints are related to NVH, and NVH aspects must be analyzed and addressed during product design stage before production. Additional topics include design for NVH, theoretical NVH background, mathematical models, basics of mechanical vibration and acoustics and trends in automotive NVH.

After successfully completing the course, participants earn 24 hours of Professional Development (PD) credit and a certificate of participation.

**Cost: \$2,250**

### Course Objectives and Outcomes

- Explain the fundamental concepts and importance of NVH
- Explain the theoretical background of NVH
- Describe the mathematical models of NVH
- Describe the basics of mechanical vibration
- Describe the basics of acoustics
- Apply knowledge to design of mechanical systems
- Demonstrate effective communication and teamwork skills through technical presentations and reports in course projects

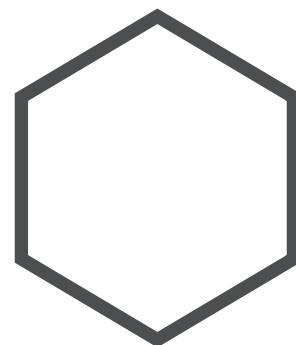


# ACADEMIC CERTIFICATIONS

## THE 12-CREDIT

graduate Kettering University Online certificate programs, or non-credit KGX certificates, are designed to deliver specialized skills to professionals who are currently in — or desire to enter — a management position. Students may complete an online graduate certificate as a self-contained credential or as part of an online master's degree program at Kettering University Online.

- Affordable Tuition
- 100% Online
- Can stand alone as a graduate certificate or as part of a master's degree
- Classroom learning to your job







## MODERN BUSINESS PRACTICES CERTIFICATE

### Overview

Designed for the manager or aspiring manager, those needing to enhance their communication skills, work with a diverse population or how to navigate in a union environment, or have to go from the manufacturing floor to the boardroom with presentations and communications.

Why earn your Modern Business Practices graduate certificate? People leave *managers*, not companies. Having solid communications skills, understanding diversity, being able to manage millennials and multi-generational teams is vital to success in today's workplace.

### Courses

- **MGMT 620**  
Business Communication and Presentation
- **MGMT 621**  
Diversity, Equity and Inclusion in the Workplace

Plus one of the following:

- **MGMT 622**  
Organized Labor and Management Relations
- **MGMT 649**  
Leadership and Ethics



## GLOBAL LEADERSHIP CERTIFICATE

### Overview

Designed for professionals to more effectively and better compete in our increasingly global economy, this three-course online graduate certificate in Global Leadership delivers the international know-how to lead cross-cultural teams in the delivery of products and services around the world.

Why earn your Global Leadership Graduate Certificate? Markets no longer live within national boundaries, and leaders need to rethink their sourcing and resource strategies for a globalized market. Earning a Global Leadership Certificate from Kettering University Online helps professionals understand how to lead in a global economy and do so with skill and ethical considerations.

### Courses

- **BUSN 689**  
Organizational Behavior
- **MGMT 649**  
Ethics and Leadership
- **MGMT 679**  
Leadership





## HEALTHCARE MANAGEMENT CERTIFICATE

### Overview

Designed for professionals who wish to take a leadership role within their healthcare organizations, this three-course online graduate certificate in Healthcare Management applies an engineering and Lean focus to examine and to streamline processes within a healthcare setting. A broader look at healthcare management provides a working knowledge of organizational, financial and policy issues to optimize performance and streamline the process for patients. All of this is accomplished through an approach that allows students to apply the techniques and tools practiced in the online classroom to their profession immediately.

**Why earn your Healthcare Management Graduate Certificate?**  
Typically, professionals have deep knowledge in their field or discipline. In the constantly changing world of healthcare, it has become necessary to go beyond discipline knowledge. By applying trusted and well-established Lean concepts in healthcare, all consumers of healthcare can benefit from more effective and efficient services.

### Courses

- **IME 656**  
Engineering for Healthcare Systems
- **HMGMT 609**  
Healthcare Management

Plus one of the following:

- **IME 676**  
Lean Six Sigma
- **MGMT 669**  
Supply Chain Operations



## OPERATIONS MANAGEMENT CERTIFICATE

### Overview

Designed for professionals who wish to improve operations in their organizations, this three-course online graduate certificate in Operations Management examines proven techniques to maximize production efficiency, reduce risk and improve quality. All of this is accomplished through an approach that allows students to apply the techniques and tools practiced in the online classroom to your profession immediately.

**Why earn your Operations Management Graduate Certificate?**  
Professionals typically have a strong understanding of their specific discipline; however, they encounter challenges when it comes to operational effectiveness. Earning a graduate certificate in Operations Management from Kettering University Online helps professionals develop solutions for challenges in scheduling, sourcing, logistics, quality control, technology implementation and more.

### Courses

- **IME 661**  
Operations Management
- **MGMT 609**  
Technology Management
- **MGMT 619**  
Project + Change Management





## SUPPLY CHAIN MANAGEMENT LEVEL I AND LEVEL II CERTIFICATE

### Overview

Designed for professionals who wish to enhance their supply chain management skills, this three-course online certificate in Supply Chain Management builds knowledge and expertise in sourcing goods and consumer delivery. All of this is accomplished through an approach that allows students to apply the techniques and tools practiced in the online classroom to your profession immediately.

**Why earn your Supply Chain Management Certificate?**  
Professionals typically have deep knowledge of their field or discipline. In an increasingly global and fast-moving marketplace, it has become necessary to go beyond discipline knowledge in order to operate strategically within dynamic networks. Earning a graduate certificate in Supply Chain Management helps professionals develop solutions for strategic procurement, complex logistics and managing the customer relationship.

### Courses

#### Supply Chain Management Level I Certificate

- SCM 610 Foundations in Supply Chain Management
- SCM 611 Collaboration in Supply Chain
- SCM 612 Customer Relationship Management

#### Supply Chain Management Level II Certificate

- **SCM 613**  
Chain Logistics
- **SCM 614**  
Procurement and Risk Management
- **SCM 615**  
Supply Chain Planning

# PROFESSIONAL DEVELOPMENT COURSES



# KGX

**Professional Development courses are delivered primarily through an online environment. These self-paced courses allow learners to complete coursework independently, within a timeframe suitable to their schedule. Professional development courses may include pre-recorded lecture content and video, visuals, and/or text, knowledge checks, quizzes, simulations, and other interactive elements designed to enhance the learning experience. Learners receive a certificate of completion.**



## Accounting

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### Maximize Profit, Minimize Loss: Managerial Accounting Concepts

Learn basic accounting terminology and how to make better financial decisions based upon the interpretation of accurate financial data.

**Duration: 2 weeks      Cost: \$99**

## Business

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### Leveraging Cultural Factors in Foreign Markets

Identify, understand, and respect cultural differences to create successful business relationships in foreign markets.

**Duration: 2 weeks      Cost: \$99**

### Explaining, Predicting and Influencing: Understanding Organizational Behavior

Learn how to create an environment in which your managers and your employees are motivated, creative, positive, and working to their potential.

**Duration: 4 weeks      Cost: \$149**

### Cultivating Customer Relationship Management

Learn to anticipate customer needs as well as streamline business processes to build the kind of business which makes customer loyalty a priority.

**Duration: 2 weeks      Cost: \$99**

### Stagnant or Strategic Thinking?

Have your thinking and plans become stagnant? Stagnation leads to a lack of growth and development for both you and your organization. Utilize an intentional and rational thought process to creatively solve complex problems.

**Duration: 2 weeks      Cost: \$99**

### Better B2B: Building Best Practices

Understand the benefits of building business-to-business relationships and how it can impact your company's bottom line.

**Duration: 2 weeks      Cost: \$99**

### Team Dynamics: Perception, Personality, & Motivation

Leading a team successfully requires an understanding of each member's personality, motivation, and perception of conflict to help the team achieve the organizational goals.

**Duration: 4 weeks      Cost: \$149**

### Everyone Matters: Diversity, Equity and Inclusion in the 21st Century

Explore the scope of diversity, equity, and inclusion and its impact on building and maintaining productive, professional relationships.

**Duration: 2 weeks      Cost: \$99**

### Organized Labor: Best Practices for Managers

Best practices in organized labor management include strategies for hiring, managing, and retaining an effective workforce and working appropriately between union employees and management.

**Duration: 4 weeks      Cost: \$149**

### The Art and Science of Effective Tech Managers

There is both an art and a science to planning, organizing, implementing, and monitoring the technology necessary for a business's success. Learn the top ten tips for effective technology management.

**Duration: 2 weeks      Cost: \$99**

### Power Up Your Project Management

Apply the fundamentals of project management to improve resource allocation, maintain costs, motivate teams, avoid scope creep, and achieve project goals.

**Duration: 4 weeks      Cost: \$149**

### Cultivating Effective IT Teams

Evaluate the qualities and best practices of high-performing IT teams and apply them to increase your team's performance in meeting organizational goals.

**Duration: 2 weeks      Cost: \$99**

### Operations Management: Lead the Way to Success

Learn the keys to successful operations management and the impact key strategies can make for your organization.

**Duration: 4 weeks      Cost: \$149**

### Stocks, Bonds and Markets . . . Oh, my!

Understand different stock market products, investment options, and dividends, as well as assess your ability to tolerate financial risk.

**Duration: 2 weeks      Cost: \$99**

# PROFESSIONAL DEVELOPMENT COURSES



## Communication

### Choose the Channel, Mold the Message

The channel you choose (email, phone call, text, or meeting) to deliver a message greatly impacts how receivers interpret and respond to that message.

**Duration: 2 weeks    Cost: \$99**

### Designing Effective Presentations

Create memorable and effective presentations through the application of different organizational patterns, design components, interactive opportunities and aesthetics.

**Duration: 2 weeks    Cost: \$99**

### Find Your Voice

Integrate assertive communication techniques to express yourself, and ask for what you need or want, in both your personal and professional lives.

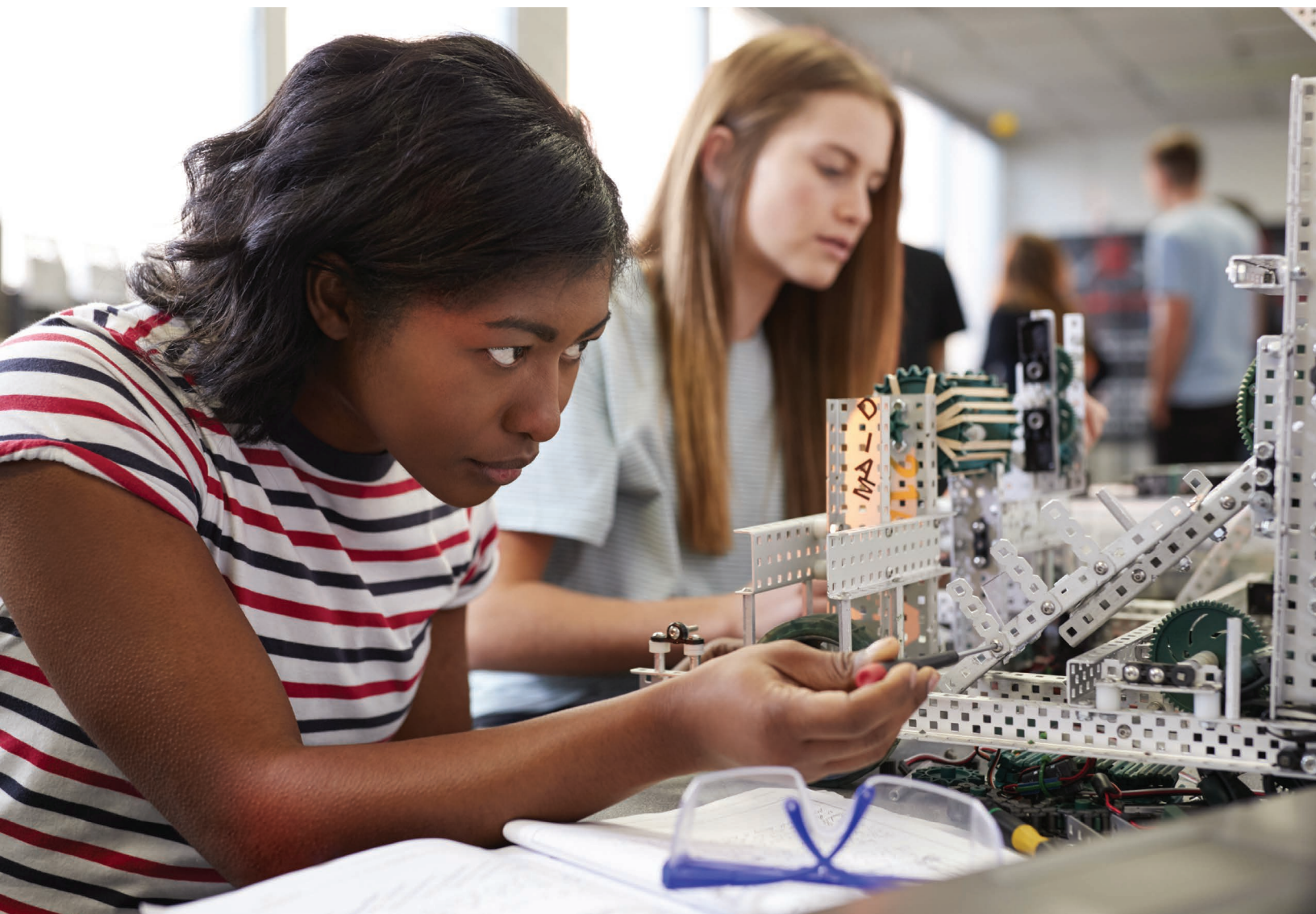
**Duration: 2 weeks    Cost: \$99**

### Inclusive Communication

Refine the way you communicate by using inclusive language, understanding concepts of non-verbal communication, and how to create an environment in which all contributions are valued.

**Duration: 2 weeks    Cost: \$99**





## Technology

### Digging for Data: Data Mining and Information Retrieval

Examine concepts and processes of data mining and ways to apply data analysis to inform business decisions.

**Duration: 2 weeks**    **Cost: \$99**

### Don't Get Lost in the Clouds! Understanding Cloud Computing

Move your company or organization to the Cloud. Discover why Cloud computing services can be more cost efficient and effective to share resources, store data, and access applications.

**Duration: 2 weeks**    **Cost: \$99**

### Big Data – Big Brother

BIG Data refers to the large volume of information that is collected every day as we access the Internet and our smart phones. Understanding how and what data is collected on each and every one of us and how that data can and should be used.

**Duration: 2 weeks**    **Cost: \$99**

### Cybersecurity: Protecting Digital Data

Is your digital data vulnerable? Evaluate your personal digital settings to maintain data security and prevent your personal information from being hacked.

**Duration: 2 weeks**    **Cost: \$99**

### Excel with Excel: Tips and Tricks

If you already understand the basics of Excel, but would like to learn some "cool tricks" to use it more efficiently, this course is for you!

**Duration: 2 weeks**    **Cost: \$99**



# PROFESSIONAL DEVELOPMENT COURSES



## Lean and Six Sigma

### Lean Principles for Your Life

Be more organized and productive by implementing a Lean philosophy.

**Duration: 2 weeks**      **Cost: \$99**

### The DMAIC Process

Examine the DMAIC (Define-Measure-Analyze-Improve-Control) process as an important tool for problem-solving to improve quality and reduce defects.

**Duration: 4 weeks**      **Cost: \$149**

### Lean In: Improving Business Systems with Lean Principles

A Lean system is focused on reducing and eliminating waste by providing structure and guidance.

**Duration: 2 weeks**      **Cost: \$99**

### Quality Assurance in the Workplace

Rise to a new standard by developing skills in quality assurance; reducing error, as well as meeting engineering standards and specifications by applying principles of Lean and Six Sigma.

**Duration: 4 weeks**      **Cost: \$149**



## Engineering and Engineering Technology

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### Start Your Engines: Machine Drives for Electric Vehicles

Learn the basics of machine drives and the cutting-edge technology used in electric vehicles.

**Duration: 2 weeks    Cost: \$99**

### AI: Paving the Road for Autonomous Driving

Autonomous vehicles take driving to the next level by using sensors, cameras, artificial intelligence and more to navigate the highways. The details of this course will introduce you to the basic concepts in the engineering of autonomous vehicles.

**Duration: 4 weeks    Cost: \$149**

### Meet Your Car's "Brain": Understanding Automotive Control Systems

Explore the fundamental principles of control systems.

**Duration: 4 weeks    Cost: \$149**

### Fundamentals of Mobile Robotics

Take a look at the future of mobile robotics—intelligent integrated mechanical, electrical, and computerized systems functioning in the physical world will impact the future of mobility for all of us.

**Duration: 4 weeks    Cost: \$149**

## Statistics

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### Descriptive Statistics

Learn to understand the basics of statistical terminology and how it is used.

**Duration: 2 weeks    Cost: \$99**

### Statistically Speaking

Facilitate your ability to make competent business decisions informed by statistical evidence.

**Duration: 2 weeks    Cost: \$99**

## Healthcare

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### The Politics of Healthcare Management

Gain an overview in how politics impacts healthcare and healthcare decision-making.

**Duration: 2 weeks    Cost: \$99**

### Quality Improvement in Healthcare Management

Quality improvement initiatives are important in healthcare. Learn key strategies to aid in the efficient and effective quality improvement in health management.

**Duration: 4 weeks    Cost: \$149**

## Personal/Professional Development

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### Nailing Networking: Crafting a Powerful Personal Pitch

Promote yourself and your ideas by creating a powerful personal pitch.

**Duration: 2 weeks    Cost: \$99**

### Design Dynamic Remote Workshops

Keep your remote audience's attention by creating engaging, interactive, and memorable workshops.

**Duration: 2 weeks    Cost: \$99**

### How to Be An Innovative Thinker

Lack creativity? Discover strategies to inspire “outside-of-the-box” thinking to create innovative strategies and solutions.

**Duration: 2 weeks    Cost: \$99**

### Resolving Conflict

Resolve conflicts and disputes at work and in your personal life by employing key skills and strategies.

**Duration: 4 weeks    Cost: \$149**

### Key Concepts to Instructional Design

Develop a deeper understanding of key concepts of instructional design to create well-organized and memorable learning experiences.

**Duration: 2 weeks    Cost: \$99**

# PROFESSIONAL DEVELOPMENT COURSES



## Supply Chain

### Supply Chain Risks and Mitigation

Examine the top five risks in any kind of supply chain and ways to mitigate those risks to protect your business operations.

**Duration: 2 weeks**    **Cost: \$99**

### The Supply Chain Scorecard

Learn how to develop a supply chain scorecard to evaluate the quality of potential vendors.

**Duration: 4 weeks**    **Cost: \$149**

### The Art of Effective Vendor-Client Relationships

Build a successful career in the supply chain industry by understanding how to initiate and maintain professional relationships with vendors and clients.

**Duration: 2 weeks**    **Cost: \$99**



## HR Related

### Upskilling and Reskilling

Evaluate methods to upskill or reskill employees to align with current organizational goals and leverage future growth opportunities.

**Duration: 4 weeks      Cost: \$149**

### Accurately Assessing Soft Skills: Hiring the Right Person for the Job

Elevate your candidate selection process with techniques to identify critical skills beyond a candidate's resume. Learn how to ask the right questions to find the right employee.

**Duration: 4 weeks      Cost: \$149**

### Measuring and Evaluating Training

Successful organizations have education and training programs which include measuring and evaluating components for continuous improvement.

**Duration: 2 weeks      Cost: \$99**

### Overcoming Skill Gaps or Mismatches

Learn how to evaluate employee skill gaps and identify training needs to maintain an effective and efficient workforce.

**Duration: 2 weeks      Cost: \$99**

### Conducting Effective Meetings

Conduct your next meeting with a results-oriented focus using proven strategies for planning and delivering in-person and virtual meetings.

**Duration: 2 weeks      Cost: \$99**

### The Art of Managing the Virtual Interview

Master the art of conducting professional and effective virtual interviews to gain insight to a candidate's suitability for a position.

**Duration: 2 weeks      Cost: \$99**

### Ace the Virtual Interview

Master the art of effectively showcasing your skills, experience, and personality in a virtual job interview.

**Duration: 2 weeks      Cost: \$99**



### Implicit Bias

Understanding how implicit bias is exhibited in our lives and how it impacts our decision-making is vital to assessing our own bias. The focus of this course provides approaches to aid in recognizing bias and finding ways to mitigate the risks impacting equitable care and treatment by healthcare professionals.

**Duration: 2 hours      Cost: \$25**

### Implicit Bias Refresher

Refreshing your knowledge and insights regarding implicit bias will be the focus of this refresher training.

**Duration: 1 hour      Cost: \$25**

### Perfecting Performance Evaluations

Design and deliver performance evaluations that positively influence an employee's behavior and outcomes.

**Duration: 2 weeks      Cost: \$99**

# Kettering GLOBALX



## Lunch & Learn

The Lunch & Learn sessions are less formal and less structured than other KGX courses. The main benefit of a Lunch & Learn is the time it takes to complete the session. Within an hour, you can walk away with a tool or technique which you can immediately put into practice.

Many of these sessions are a minimal cost or no cost. The topics are designed to inspire participants to delve deeper into the subject matter by taking another KGX course.

For more information on Lunch & Learn sessions, visit the KGX website at [globalx.kettering.edu](http://globalx.kettering.edu)





## Career Development Skills

### Revamp Your Resume: Get the Job You Deserve

Make the most of your experience by learning how to highlight and stand apart from the crowd through your resume.

**Cost: \$25**

### Need a Job? Social Media Profiles Can Help!

Build your personal brand by showcasing your knowledge and skills on social media.

**Cost: \$25**

### How to Shine in an Interview: Interview Tips and Techniques

Tools and techniques to get the job. Maximize your interview skills.

**Cost: \$0**

### Reach Out to Grow Your Career: The Value of Professional Networking

Making yourself relevant in today's economy is vital to success. Professional networking is imperative in today's job market.

**Cost: \$0**

### Managing Your Time and Energy

Learn how to maximize your ability to leverage both your time and energy to be more productive at work and more relaxed at home.

**Cost: \$0**

### Write to Your Audience

Know your audience. Identifying your target audience is the first step to creating a memorable message. Learn how to craft messages to inform, entertain, or persuade an audience.

**Cost: \$25**



## Communication

### Listen Up: Hone Your Listening Skills

Active listening strategies to improve your personal and professional communication.

**Cost: \$0**

### Words Matter: The Power of Persuasion

Use your words to motivate and influence others. Provide messaging that makes a difference.

**Cost: \$25**

### Create Compelling Slides

Create presentations with effective, compelling slides and interactive options.

**Cost: \$25**

### Managing Conflict

The way we perceive conflict informs how we navigate our way towards resolution. Learn to understand the difference between the myths and facts of conflict.

**Cost: \$50**



## Engineering Management

### It Only Takes 10: Traits of Effective Engineering Managers

Learn the traits of effective engineering managers and the difference these traits can make on your job.

**Cost: \$25**



## Finance

### Manage Your Money: 10 Quick Tips

Learn to manage your personal financial situation by examining your spending and saving habits. Learn how simple changes in managing your money can help overcome financial stress and help achieve your money goals.

**Cost: \$50**



## Health and Wellness

### Sitting is the New Smoking: Get Moving!

How many hours a day do you sit at a desk? How many hours a day do you drive? How many hours a day do you watch TV? Learn ways to optimize sitting time to positively impact your health.

**Cost: \$0**

### Mindful Meditation

Are you stressed and anxious? Apply mindful meditation to achieve a more content and peaceful existence.

**Cost: \$0**

### Meditation and Mindfulness at Work

Becoming more focused, effective, and efficient in your life can be impacted by your ability to focus. Learn how meditation can impact your mindfulness on the job.

**Cost: \$0**

### Leave Your Comfort Zone

See things from a new perspective by challenging yourself to step out of your comfort zone and find ways to achieve unbridled success.

**Cost: \$0**



## Leadership

### Maximizing Your Leadership Strengths

Identify your leadership style. Understand the characteristics of positive leadership and how to maximize your leadership strengths and skills.

**Cost: \$25**

### Trustworthy Leadership: Ethics Matter

Successful leaders are guided by an ethical code. As such, they set a positive example, engender loyalty, and build trust in their personal and professional relationships.

**Cost: \$25**



# Lunch & Learn



## Technology

### Artificial Intelligence in Today's World

Whether or not you realize it, you are using artificial intelligence every day. Siri, Alexa, and personalized recommendations on your social media channels exist because of artificial intelligence.

**Cost: \$25**

### The Dark Side of Social Media: Think Before You Post

Understand the benefits and pitfalls of using social media and the long-term consequences it may have on your personal and professional lives.

**Cost: \$25**

### Trustworthy Tech: Ethics and IT

Considering the ethical consequences of decisions regarding technology has become a flashpoint in today's society.

Examine ethical issues surrounding the use of Information Technology in our lives.

**Cost: \$25**

### What is the Internet of Things?

Explore the Internet of Things (IoT) in everyday life and see how they are changing the way you work, shop, and play.

**Cost: \$25**



# Kettering GLOBALX

A DIVISION OF KETTERING UNIVERSITY

"The only thing worse  
than training  
employees and losing  
them is to not train  
them and keep them."

—Zig Ziglar

## ABOUT KGX

KetteringGlobalX (KGX) is the corporate training and professional development division of Kettering University.

KGX provides tailored, impactful and applicable training to organizations and individuals through a range of quality topics.



### VIRTUAL LEARNING

100% Online Designed with  
your busy schedule in mind



### LEARN FROM EXPERTS IN THE FIELD

Practical applications of  
knowledge and learning



### ENHANCE YOUR CAREER

Learn - Excel - Succeed

"Never before in the history of  
the modern world has the need  
for up-skilling and reskilling been  
more important to success. We  
can choose to be dinosaurs or we  
can choose to adapt and change  
to become a whole new species."

Dr. Christine M. Wallace  
Vice President, Kettering Global

PROFESSIONAL DEVELOPMENT, CORPORATE TRAINING & CONTINUING EDUCATION  
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