



THE LAURA & ALVIN SIEGAL
LIFELONG LEARNING
PROGRAM

GLOBAL CAREER TRAINING & DEVELOPMENT

PROGRAM OFFERING FOR INDUSTRY PARTNERS

OVERVIEW

CWRU Leadership Team

Brian Amkraut is executive director for the Laura and Alvin Siegal Lifelong Learning Program at Case Western Reserve University and co-founder of the Siegal Office of Global Career Training and Development. Monica Dumitriu is co-founder of the Siegal Office of Global Career Training & Development at CWRU. A development advisory board of global talent is being formed and is comprised of representatives from the community, industry partners and university alumni. The Romich Family Fund, a component fund of the Wayne County Community Foundation and other philanthropic support, generously supports the Global Career Training & Development Program.

Mission

The Siegal Lifelong Learning Program's Global Career Training & Development office is a trusted academic partner for industry leader assessments, training needs and developing global talent. Our program offers non-degree, career enhancement and educational opportunities for non-traditional students working in technology-related careers. We have access to the broad spectrum of university experts in order to customize the best solutions to corporate growth challenges. Our process begins with an initial assessment and Voice of the Customer (VOC) meeting, which allows us to gauge the unique needs, strengths and opportunities for leadership growth. Then, customized solutions are prepared for each client utilizing learning approaches specific to the individual's training needs. Upon completion of each course, participants will receive a certificate of accomplishment from Case Western Reserve University.

GLOBALIZATION PACKAGE FOR U.S. COMPANIES

This series is customized for the growing needs of U.S. companies in understanding and navigating the global marketplace.

Aerospace Industry in China – for U.S. Exporters

The course examines the roles in the Chinese aerospace supply chain, the market outlook for 2016–2030 and the security in China.

Global Aerospace Engineering Marketing and Strategic Supply Chain Management

This course is designed for global companies needing customized training in strategy for engineering, marketing, international sales, project and supply chain management and operational leadership.

Multicultural Awareness & Communications

This curriculum focuses on the psychology of effective communication transcending cultural boundaries. Multi-cultural awareness and communications for global engineering and technical managers are key topic covered. In the context of cultural globalization, what is the impact on your global work teams?

Understanding Chinese Culture and Business Practices

Clients choose a six or 12-hour workshop that is customized and designed for corporate executives to enhance knowledge and awareness of Chinese culture and business practices.

Understanding Global Economic Policies & Trends

This course provides participants with an understanding of current news and world events in the context of economic policy and trends affecting business. This course is a precursor for a deep engagement with industry.

CORPORATE CAREER DEVELOPMENT

This series offers industry partners solutions for enhancing collaboration between work teams, including tools for understanding different communication styles and maximizing team interactions.

Company Culture and Process Improvements

This course is offered as a half-day, full day or week-long customized program for industry partners. Topics include:

- Positive Positioning—peer-to-boss communications and presentations grounded in a positive psychology approach
- Contract Negotiation—a collaborative approach between academic and industry expertise to deliver effective solutions

- Process Improvement—forming cohorts of natural work teams for the company's *high potentials* group, including pre-work and surveys of participants; offering customized project management for high performance teams
- Change Management—work directly with HR staff and CEO to customize solutions for company growth and expansion needs
- Culture of Innovation—how to create and sustain a culture of innovation mindset and motivating people to implement the company vision and mission

Building an Entrepreneurial Culture

This course is offered as a half-day, full day or week-long customized program for industry partners. Topics include:

- Beyond Silicon Valley: How Can Communities Outside of Silicon Valley Grow Their Entrepreneurial Ecosystems
- Entrepreneurial Finance: Understanding the Investment Continuum from Friends and Family to IPO

Importance of Ethical Leadership

Offered in partnership with the Inamori International Center for Ethics and Excellence at Case Western Reserve, this certificate program in ethics provides a two and a-half day immersive introduction to the philosophy, psychology and neuroscience of ethical behavior with practical applications to everyday life. Key ethical issues covered include:

- Major philosophical theories of ethics
- Psychological processes leading to destructive and constructive behaviors
- Influences of context, culture or organizational climate on ethical behavior
- Methods to achieve a better brain balance and promote both ethical character and productivity
- Practical strategies for increasing personal and organizational well-being and avoiding ethical pitfalls, including managing different personality types and organizational roles

Presentation Skills for Engineering and Technical Professionals

This is a two – three hour training held at the company's site or at CWRU. A must-have, hands-on, interactive workshop designed to enhance presentation skills for technical professionals. This course will help you craft and polish your message with professionalism.

CORPORATE TECHNICAL TRAINING

Technical training offered covers diverse topics and problem solving in engineering, research and development. Training offerings include:

Advanced Industrial Control and Applied Control Engineering

This course is based on the best-selling books by Professor Mario Garcia-Sanz, *QFT Control Toolbox for Matlab, Quantitative Feedback Theory and Wind Energy Systems: Control Engineering Design*. This course can be scaled from 15–30 hours with a 15-hour minimum. This highly specialized course for industry that can be taken together as a package with Wind Turbine Design and Control training—these two courses are key for industry in the controls areas.

Coding Workshops

Learn to code with a series of “We Can Code It workshops.” These workshops are suitable for participants of all levels in front-end skills used to develop and design websites and provide you with a better understanding of the technology landscape:

- Web Design and Development
- Introduction to Mobile Applications with Javascript
- Web Application Development Using Ruby and Ruby on Rails

Continuous Improvement (CI) Program for Manufacturing Companies

This half-day or full day course presents continuous improvement and advanced engineering concepts to leadership and team members utilizing constructs such as *The Model Plant*, quality and safety assurance and other areas.

Understanding Wholesale Electricity Markets and Electricity Market Simulator

This class is customized to the needs of the industry partner to provide an introductory program for designing and operating in wholesale electricity markets. This class provides hands-on experience in trading electricity within simulated real-world markets. Risk-management and energy-price forecasting with bidding strategies. Multimodal long-term training with cloud access to our market simulator is provided.

Data Analytics Program

This is customized data analytics program offered as half-day or full day training or as extending training for two or four weeks. MondoBrain, a simple and powerful

big data analytic solution to profile and predict risks, customers, transactions and performance, is discussed. MondoBrain leverages in a simple web interface unique non-statistical algorithms, dynamic data visualization and the knowledge of subject matter experts.

Engineering Fundamentals

Offered as two or four-week customized program, this back-to-the basics engineering course encompasses a broad overview of engineering principles in the civil, electrical, mechanical and manufacturing fields. Classes can be held at the company location and the Case Western Reserve campus. In-person attendance is important for competency building.

Industrial Innovation

Innovation is crucial to a manufacturing company's product development and strategy. In this course, a different lens for understanding innovation as the creative use of innovative technologies is postulated.

Introduction to Materials Science

This program is in-depth, week-long training on materials fundamentals, advancements in materials science and new innovative applications.

Internet of Things (IoT) and Emerging Trends

The Internet of Things (IoT) is here and it is a large disruptive force to how business is being done across many industries. This course offers a basic understanding of the IoT trends, where the future is headed and the impact a company's strategy and profits. Includes discussion topics on Cyber Security "How protected is your smart grid" and "Smart Homes of the Future - How will disruptive IoT trends impact your home life and your workload."

Maker Spaces and Industry-University Collaborations

This course covers the emerging trend of maker spaces at universities across the country and how companies can take advantage of this movement to enhance growth and outreach. This course includes an introduction to Case Western Reserve's world-class, maker space—the Larry Sears and Sally Zlotnick Sears think[box].

Special Topics in Aerospace Engineering

This course is offered as a half-day, full day or week-long customized program for industry partners. Topics selection includes:

- Developing new model(s) of entrepreneurship and innovation and sustaining an internal entrepreneurial culture that permeates client engagement and creative problem solving
- Understanding the latest trends in aerospace engineering today, contemporary aerospace, and engineering for today's industry needs
- Developing engineering and design professional skill sets
- Aircraft industry - understanding technical needs and problem solving
- Understanding new trends in big data and data analysis - using sensors to gather data and organizing teams to make intelligent decisions
- Making decisions from an engineering point of view – deciphering and weighing different views on what is important in decision-making models
- How to best leverage the existing supply chain for innovation in the aerospace industry
- Systems engineering course - new techniques in the engineering process
- UAV systems: understanding the latest trends and applications

Tribology Workshop for Manufacturing Companies and Research Centers

This workshop encompasses research on rolling-element fatigue, which is bearing fatigue under different environments including various temperatures and speeds. Fatigue limits the life of bearings, suggesting serious implications to the life of jet engines and the associated costs of replacement.

Renewable Energy: Wind turbine Design and Controls Engineering

This course introduces multidisciplinary wind turbine design concepts and advanced control-engineering strategies to develop optimum wind turbine systems. It includes theory, computer aid design problems and wind tunnel experiments. The course is based on the bestselling book, *Wind Energy Systems. Control Engineering Design* (CRC, 2012), by Mario Garcia-Sanz and Constantine H. Houppis. This course can be scaled from 15–30 hours with a 15-hour minimum. This highly specialized course for industry that can be taken together as a package with Wind Turbine Design and Control training—these two courses are key for industry in the controls areas.

INDEX: Faculty and Staff Bios Including:

Brian Amkraut received a BA from Columbia University and a PhD from New York University. Amkraut is the founding executive director of the Laura and Alvin Siegal Lifelong Learning Program and co-founder, Siegal Office of Global Career Training and Development at CWRU. Amkraut served on the faculty of Jewish history at Oberlin College and Siegal College. Amkraut's published articles address the impact of changing technologies on contemporary Jewish life.

Michael L. Chan is an expert in Lean Enterprise, Six Sigma and Process Optimization. Mike Chan has over 39 years of experience serving in various roles in Industrial and Manufacturing Engineering, as Lean Manufacturing Master, Nissan North America Lift Truck Corporation, Director Lean Education, AlliedSignal Aerospace (Honeywell), Director Lean Enterprise Rockwell Automation Inc., VP of Manufacturing Sino Swearingen, Lean Focus LLC – President and Owner, Lean Enterprise and Six Sigma Expert World Wide Deployments (20 years) and Management and Engineering experience (19 years).

Donald Deptowicz is an expert in Lean Engineering/Advanced Manufacturing and Additive Manufacturing. Don Deptowicz has over 39 years of experience serving in various roles in Aerospace and Automotive, as Director of Technical Excellence PCC Airfoils, LLC, General Director of Customer Satisfaction Delphi Electronics and Safety, Chief Engineer/lean Sensei Delphi Harrison Thermal Systems Division, Corporate Director of Technical Excellence AlliedSignal, Product Center Engineering Manager Pratt & Whitney, F119 Engine Hot section Program Manager Pratt & Whitney, Manager of Engineering and Technology Integration Pratt & Whitney.

Sarah de Swart holds a BA from Harvard University and a PhD in organizational behavior from CWRU. De Swart is Interim Director of University Center for Innovation in Teaching and Education (UCITE) at CWRU. She works as an organizational and communications consultant, individual coach, and team facilitator with more than 20 years' experience in the areas of personal and professional development.

Tracy Dickinson is a Senior Human Resource (HR) expert with a Master's Degree in HR and Labor Relations from the University of Michigan-Dearborn, and a B.A. Psychology from Miami University in Ohio. Tracy Dickinson's experience includes working with organizations such as

KeyBank, The Cleveland Clinic Health System, Ernst & Young, LLP, HR Business Partner and others.

William Doll is a lawyer with a doctorate in sociology and a former feature writer and theater critic for *The Plain Dealer* in Cleveland. For over 20 years he has lead his own communications, research and speechwriting firm. Since 2007 he has been a Presidential fellow in Case Western Reserve's SAGES program, teaching courses in public speaking and the media, public relations and American culture.

Monica Dumitriu holds a BS in Management, BA in French and MBA from CWRU. Monica Dumitriu is strategy consultant, co-founder, Siegal Office of Global Career Training and Development at CWRU. She has over 15 years' experience as an analyst and management advisor with a proven track record and in-depth industry experience serving manufacturing and aerospace companies.

Mario Garcia-Sanz is the Director of the Control and Energy Systems Center at Case Western Reserve University. In 2009 Mario came to CWRU as the Inaugural Milton and Tamar Maltz Endowed Chair Professor in Energy Innovation. He has over 25 years of experience working with industry, defense and space agencies he has developed many patents, papers and best-selling books about advanced commercial control solutions, including the design of multi-megawatt wind turbines, satellites with flexible structures and flying in formation, large radio telescopes, waste-water treatment plants and power systems.

Full Bio: http://cesc.case.edu/ProfMarioGS_bio.htm

Michael Goldberg earned a BA from the Woodrow Wilson School of Public and International Affairs at Princeton University, MA in International Relations from the School of Advanced International Studies (SAIS) at Johns Hopkins University and MBA from The Wharton School at the University of Pennsylvania. Michael Goldberg is an experienced venture capitalist and international business leader whose teaching is focused on the fields of entrepreneurship and early stage finance. Goldberg is an Assistant Professor in the Department of Design and Innovation at the Weatherhead School of Management, Case Western Reserve University.

Full Bio: <http://weatherhead.case.edu/faculty/Michael-Goldberg/>

Michael Heil is an experienced aerospace engineer and research and development leader. In his over 40-year career, he served as President of the Ohio Aerospace Institute, on the faculties of the Air Force Academy and Air Force Institute of Technology, and in leadership roles at two Air Force acquisition centers, four defense laboratories, a test center, a major command staff, and the Office of the Secretary of Defense.

Anthony Ian Jack earned a BS in Psychology and Philosophy from Oxford University, a PhD in Experimental Psychology from University College London and trained in Neuroscience at Washington University in St Louis Medical School. He has been Principal Investigator of the Brain, Mind and Consciousness Laboratory since 2007 and Research Director at the Inamori International Center for Ethics and Excellence since 2014.

John Orlock is the Samuel B. and Virginia C. Knight Professor of Humanities. After joining the CWRU faculty in 1989, Professor Orlock served ten years as the head of the Department of Theater and Dance, during which time he was instrumental in establishing the successful MFA graduate program collaboration with the Cleveland Play House. Professor Orlock's plays have been produced at such major regional theaters as the Oregon Shakespeare Festival; The Cleveland Play House; Alley Theatre, Houston; Cricket Theatre, Minneapolis; Arizona Repertory Theatre; the North Carolina Shakespeare Festival.

Paul Schroeder is Visiting Assistant Professor in the Department of Political Science at CWRU. Paul brings a remarkable blend of practical experience, academic training, and wisdom into the classroom. He earned his Ph.D. from Ohio State in Chinese Politics in 1987, writing his dissertation on regional power in the Chinese political system. Before embarking on his Ph.D. studies, he was a journalist covering police, city, county and state government for several Ohio newspapers. While doing his dissertation research, Paul represented the State of Ohio Department of Development in Wuhan, China. He then joined the staff of the National Committee on U.S. — China Relations in New York, managing programs in law and economics.

Mark Sniderman is an Executive in Residence, Adjunct Professor, Economics at CZWRU. Mark earned his PhD, University of Wisconsin-Madison in 1983, MS, University of Wisconsin-Madison in 1974, and his BA, Case Western Reserve University in 1972. Mark Sniderman's academic and professional interests are focused on macroeconomics and financial regulation, especially the roles played by central banks. He is currently studying the unconventional monetary policies being employed by central banks in the wake of the global financial crisis, as well as their newer responsibilities for promoting financial stability. Sniderman came to Case after a career with the Federal Reserve Bank of Cleveland, culminating in his position as Executive Vice President and Chief Policy Officer.

Christine Tovee graduated from the school of Engineering Science at the University of Toronto with a concentration in Aerospace Engineering. Then, she attended the Massachusetts Institute of Technology for her Masters in Aeronautics and Astronautics working on a NASA space shuttle experiment. She has 15 years of experience in the aerospace and defense industries in Europe and North America working in engineering management and also technology, research and innovation.

INVESTMENT

Pricing varies and is based on the content experts' experience, specific training needs of the customer and overall duration of the course. Proposals are provided upon request.

LOCATION

Courses are offered at the company site or on the Case Western Reserve campus in Cleveland or at partner locations throughout Northeast Ohio.

CONTACT

For more information and to schedule an initial assessment, contact Monica Dumitriu, at 216.630.1724 or mxd2@case.edu.

LEARN MORE

case.edu/lifelonglearning/workforce-development/