



Innovation and Sustainable Management Silicon Valley 2018

UEAN Academic Program in Presidio Graduate School

Note to Students: Please fill out pre-work questionnaire described on pp.6-7 prior to your first class on Monday morning, December 3, 2018. This will not be turned in as an assignment. Its contents are for your own use in the class discussion with Prof. Ron Nahser on Monday morning and follow-up on Friday morning.

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Presidio Program Topics

Session 1: Program Introduction: Describing the Bigger Story that Belongs to Each of Us

(Prof. Dwight Collins)

In this session, we review and examine key insights from the study of the evolution of our human culture and from the exciting new discipline of Big History. These two topics underscore how human instincts position us favorably to practice triple bottom line decision making. They define the grand story of which we are each a part and provide us with sources of hope for a transition to doing business sustainably on our planet.

Session 2: Introduction to the Arc of Pragmatic Inquiry

(Prof. Ron Nahser)

This session addresses the students' practice of learning from their own experience – and the foundational importance of values driving strategies - so as to be a highly effective sustainable management practitioner. Each student begins by taking note in the Pre-work of his or her career and organization strategic directions and the values that are driving them. On Friday, Dec. 7, the student returns to the 5 questions to consider if any of the insights he or she gained through the week have caused them to change the way they think about their career direction.

- Students are asked to fill out a Pre-work questionnaire in which they articulate their career aspirations and update this as appropriate as they learn about the topics presented by Presidio. This assignment is for the students' own use. It will not be turned in.

Session 3: Exploring Sustainable Leadership: Responding to Technical and Adaptive Challenges

(Prof. Mary Kay Chess)

In this session, we build on concepts considered in the Introduction to the Arc of Pragmatic Inquiry. We know that globally and locally, we live in complex environments and we face equally complex and gnarly issues on a daily basis. Sustainable leaders consider both technical solutions as well as adaptive approaches for these challenges. They understand the difference between the two approaches and leverage innovation and continual learning. Sustainable leaders are also required to be curious while remaining in ambiguity for a period of time. We'll explore this leadership model in some depth and provide communication and discernment tools to deepen the understanding of this sustainable leadership model used in leading organizations and communities.

Session 4: Sustainable Business Operations Management

(Prof. Dwight Collins)

In this seminar segment, we introduce the function of Business Operations Management through the lens of sustainability. We begin with a brief review of the traditional sub-disciplines of Operations

Management such as managing production and service capacity, selecting production processes and locating facilities, managing quality, scheduling production and distribution, and optimizing the supply chain. We examine the role of well-known existing specialized business management disciplines such as Total Quality Management (TQM), and Lean Management systems as vehicles for improving the sustainability of the business. We refer to this class of sustainability management principles and tools as Sustainable Operations Management 1.0. For the most part, these approaches reduce unsustainability of the business operation rather than create sustainability. Other well-known tools of operations management that we address in this context are decision support systems, the Toyota Production System, inventory optimization, and hierarchies of business planning.

Case studies: Panasonic

Session 5: Innovation for Sustainable Development

(Prof Dariush Rafinejad)

We discuss the innovation ecosystem and the enabling roles of technology, financial capital, public policy and organizational leadership. We introduce the students to the characteristics of the entrepreneurial ecosystem in Silicon Valley. We review the process of innovation, product development and commercialization. This seminar explores the concept of economic, environmental and social sustainability, and the challenges facing humanity on a global scale. Sustainable development and risk management are posited as innovation opportunities for the entrepreneurs and corporate executives.

Case studies: Prius, Chevy Volt

Session 6: Managing Operations with Industrial Ecology Principles and Tools

(Prof. Dwight Collins)

This seminar introduces the exciting new business operations management discipline of Industrial Ecology, which is the study of material and energy flows through industrial systems. We position this discipline as a systems thinking framework for managing not to reduce unsustainability but to create sustainability such that humans and **all life are able to flourish on the planet**. We call this Sustainable Operations Management 2.0. We discuss a number of principles of industrial ecology, looking at how these have been demonstrated in a number of companies in recent years, as well as new ways they might be implemented. We also explore tools of industrial ecology such as Life Cycle Assessment, Enterprise Carbon Accounting, and Material Flow Analysis.

Case studies: Turning End of Life Product Reprocessing into a Profit Center at Cisco, A Tale of Three Bins at Sabre Holdings

Session 7: Identifying and Implementing “Cross sector Solutions”

(Prof. Donna LaSala)

This section addresses the topic of society’s most complex problems that call for what we call at Presidio “Cross sector solutions.” These solutions often call for the formation of public-private partnerships to address the complex interactions of our public and private sectors. Topics covered within this section include public sector finance, information management in the public sector, the interactions between evolving technology and public policy, and policy evaluation.

Seminar Teaching Schedule

Date	Time	Session	Faculty	Tot hrs
Monday, 12/3/18	8:00 - 9:15 am	Program Introduction	Dwight Collins	1.25
	9:15 - 10:30 am	Learning & the Arc of Pragmatic Inquiry	Ron Nahser	1.25
	10:30 - 10:45 am	Break		0.25
	10:45-12:00 pm	Sustainable Leadership: Technical & Adaptive Challenges	Mary Kay Chess	1.25
	12:00-1:00 pm	Lunch		1.00
Tuesday, 12/4/18	8-10 am	Sustainable Business Operations Management	Dwight Collins	2.00
	10-10:15 am	Break		0.25
	10:15-11:45 pm	Sustainable Business Operations Management	Dwight Collins	1.50
	11:45-1:00 pm	Reception/Lunch		1.25
Wednesday, 12/5/18	8-10 am	Innovation for Sustainable Development	Darius Rafinejad	2.00
	10-10:15 am	Break		0.25
	10:15-12:00 pm	Innovation for Sustainable Development	Darius Rafinejad	1.75
	12:00-1:00 pm	Lunch		1.00
Thursday, 12/6/18	8-10 am	Identifying and Implementing "Cross Sector Solutions"	Donna LaSala	2.00
	10-10:15 am	Break		0.25
	10:15-12:00 pm	Managing Operations with Industrial Ecology Principles & Tools	Dwight Collins	1.75
	12:00-1:00 pm	Lunch		1.00
Friday, 12/7/18	8-10 am	UEAN Student Challenge Project	Dwight Collins,	2.00

		Presentations	Dariussh Rafinejad	
	10-10:15 am	Break		0.25
	10:15-12:00 pm	Learning & Arc of Inquiry - 2	Ron Nahser	1.75
	12:00-1:00 pm	Lunch		1.00



What's my interest in Innovation and Sustainable Management?

**What do I hope to learn this week?
What impact might it have on my career?**

Pre-work - Your Career Direction

Please take a few moments prior to the first Presidio Graduate School class to think about and answer the questions below.

While you are focused on your specific "*sustainable digital business plan*", this Pre-work will be useful during the week to give you a larger context or frame to help you reflect on and evaluate your career direction relative to sustainable development.

It is a baseline - a hypothesis. At the end of the week, we will meet and examine these questions again to see what you have learned. Our experience in working with this framework is that you may be surprised and challenged by what you learn and even change your career direction and project ideas.

We start with your thinking about the need you see in society and the market, and the challenges you see in meeting these needs. Then write down what ideas you have for how you might do your part toward meeting those needs. In other words, how would you define your career path as you see it now?

Your Values

We are also asking you to evaluate your personal and organization values – why you believe Sustainable Development is important.

We will discuss your Pre-work at the first class, so please bring this work with you for discussion. (You will NOT need to submit it.)

I look forward to working with you at the first and final class days!

(Hint: Write quickly your best thoughts, answers, hunches, dreams, intuitions.)

WHAT DOES SOCIETY AND BUSINESS NEED TO BE SUSTAINABLE?

1. As you move forward, what society and market need, problem, issue or opportunity do you see which you might address and solve through your career?

WHAT MUST BE OVERCOME - YOUR CHALLENGE

2. What challenge, competitors, question, barrier, concern, problem, mindsets, or issue do you face in meeting this need? We call this your Challenge/question. (Be aware of your own constraints as well as competitive social and market pressures.)

YOUR PRELIMINARY CAREER OR PROJECT IDEA

3. What is your best answer to your Challenge/question now? What are your initial ideas for career paths to meet the needs? Do you have a specific project you plan to or are working on? (This is the heart of Sustainable Development Strategy)

YOUR VALUES - WHY YOU ARE INTERESTED IN SUSTAINABILITY?

4. WHAT ARE YOUR VALUES: How are your beliefs, goals, purpose, values and vision guiding why you are thinking about your career and project?

WHAT ARE NEXT STEPS

5. What are the next career steps based on your initial answers, you will take, or are taking now?

Presidio Summer School Faculty Bios



Dariush Rafinejad, PhD, *Provost*

Education

PhD, Mechanical Engineering, University of California, Berkeley
MSc, Mechanical Engineering, University of California, Berkeley

Bio

Dr. Rafinejad has had over 30 years of experience as a senior executive in high-tech industries in Silicon Valley. He was a Corporate Vice President at both Applied Materials and Lam Research, both multi-billion dollar semiconductor equipment companies. Prior to PGS, he was Associate Professor, Consulting at Stanford University. He has also served as adjunct faculty at Haas Business School at Berkeley and Dean of Management at Menlo College in Atherton, California. Dr. Rafinejad is the founding CEO of Blue Dome Consulting serving high tech companies in the U.S. and China to develop product innovation and organizational leadership capability. He has authored several publications including two books on product innovation. His recent book was published in 2017 and is titled: Sustainable Product Innovation – Entrepreneurship for Human Well-Being.

Courses

SUS6090: Sustainable Products and Services
SUS8502: Sustainable Energy Management



Dwight Collins, PhD, *Professor Emeritus*

Education

PhD, Operations Research, Cornell University
MS, Operations Research, Cornell University
BS, Engineering Physics, Cornell University

Bio

Dwight Collins is one of the founding faculty members of Presidio Graduate School. He teaches sustainable operations management and co-founded Presidio's Experiential Learning Program.

Prior to joining Presidio Graduate School, Dwight directed Aspen Technology's Strategic Planning Practice, which provided strategic planning optimization consulting services to senior executives. Common goals included planning acquisitions, divestitures, post-merger capacity rationalization, production consolidation and distribution network redesign. Clients included BP Chemicals, NOVA Chemicals, Borden Chemicals and Abbott Labs. Prior to this, Dwight founded a Semiconductor Industry Practice at Chesapeake Decision Sciences through which he was instrumental in devising strategic enterprise planning and customer order promising systems for several semiconductor companies including IBM Microelectronics, LSI Logic and Cypress Semiconductor. In this time frame, Dwight also implemented supply chain optimization capabilities for Shaw Industries, the largest carpet producer in the US, and chemical company Rohm & Haas.

Earlier in his career, Dwight worked as a Senior Operations Analyst at Exxon Corporation, a Senior Consultant at the Logistics Management Institute (LMI) (a Washington, D.C. think tank) and as Captain in the US Air Force. Dr. Collins is a member of INFORMS (Institute for Operations Research and Management Science).

Courses

SUS6220: Operations and Supply Chain Management



Donna LaSala, MPA, *Program Director and Professor*

Education

MPA, University of San Francisco
BS, Policy Analysis and Economics, Cornell University

Bio

Donna LaSala is a strategic, results-oriented practitioner with over 28 years of experience leading public, private, and non-profit organizations. Most recently, she served as COO/CIO at Goodwill Industries, CIO/IT Director at City of Berkeley, and CEO of the Triple Bottom Line Institute (TBLi), where she spearheaded the development of multisector financial, environmental, and social justice programs. She is an alumna of the Senior Executives in State and Local Government program at Harvard University and the International Labor Relations Diversity & Inclusion program at Cornell University.

Prof. LaSala is known at PGS for encouraging students to develop “analyst/activist” skills for leadership across business, government, and civic society, as well as for introducing students to a range of contacts and guest speakers from her professional network of small/large nonprofits, academic institutions in seven countries, and dozens of government agencies. She is a passionate advocate for harnessing the power of education for financial, environmental, and social sustainability, with specific focus on gender and race equity, income/wealth mobility, ethical frameworks for performance measurement, data analysis, and business intelligence, broadening civic participation, prison reform, and workplace certification programs.

Courses

MSS6200: Civic Leadership, Diversity & Systems Thinking
MSS6300: Multisector Solutions and Sustainable Partnerships
MSS6340: Capstone: Fieldwork Implementation Practicum



Mary Kay Chess, PhD, Faculty Lead: Leadership and Organizational Systems Integration

Education

PhD, California Institute of Integral Studies
MSW, Specialization in Gerontology, West Virginia University
BA, Specialization in Gerontology, Edinboro University

Bio

Dr. Chess has a long-standing commitment and passion for extending responsive healthcare to individuals in rural and urban communities. Through her leadership and consultation in business and government, she facilitates organizational stakeholders in considering and designing entrepreneurial responses to healthcare shared services and networks. For the past twelve years, Mary Kay has also focused on preparing leaders to work creatively and effectively in complex systems through MBA courses in organizational change and transformation, innovative teamwork, personal development, and sustainable practices.

Courses

LRD6100: Personal Development and Communication
LPD6513: Leadership & Personal Development 3
LPD6514: Leadership & Personal Development 4



F. Byron (Ron) Nahser, PhD, *Provost Emeritus*

Education

PhD, American Pragmatic Philosophy, DePaul University
MBA, Northwestern University's Kellogg School of Management
MA, Religious Studies, Loyola Chicago/Mundelein College
BA, University of Notre Dame

Bio

Executive Director for CORPORANTES, Inc., an outgrowth of The Nahser Agency/Advertising, Dr. Nahser is also Director, Urban Sustainable Management Programs, and a Senior Fellow, Institute for Nature and Culture at DePaul University's Department of Environmental Science and Studies.

He is Professor of Pragmatic Philosophy and Ecological Economics, Center for Confucian Entrepreneurship and East Asia Civilizations, Zhejiang University, Hangzhou, China; and also He lectures and consults with business and academic audiences in the US and internationally on business values, vision, marketing strategy, branding, social responsibility and integrative sustainable management.

In addition to numerous articles and book chapters, he is the author of *Learning to Read the Signs: Reclaiming Pragmatism for the Practice of Sustainable Managements* and *Journeys to Oxford: Nine Pragmatic Inquiries into the Practice of Values in Business and Education*, the compilation of his lectures at Oxford University's Department of Educational Studies. He has developed a values-driven strategy inquiry method based on the American Pragmatism philosophy ([Pragmatic Inquiry](#)) which has been used by more than 100 organizations and thousands of participants.

He is a Fellow of the World Business Academy, Curator of the Willis Harman Archive, the Founding Partner of the Oxford Leadership Academy in USA, and Strategic Advisor to the UN Principles for Responsible Management Education (PRME) Secretariat.

Courses

SUS6145: Integrative MBA Capstone