PennState | LAW, POLICY, AND ENGINEERING

LEAP for PIT

Micro-credential Program

LEADERSHIP Micro-credential Course Outline

Introduction
LEAP for Public Interest Technology
Meet your Instructors – Leadership
Leading AI Efforts
AI for Non-profit Organization Leaders

Module 1 | Inclusive Leadership for Non-profit Organizations
1.1 | Inclusive Leadership Overview
1.2 | Inclusive Leadership
1.3 | Communication
1.4 | Negotiation
1.5 | Activity - Tolerance for Ambiguity
Quiz | Module 1
Module 1 References/Resources

Module 2 | Emotional Intelligence for Organizational Leaders
2.1 | Emotional Intelligence Overview
2.2 | Emotional Intelligence and Leadership
2.3 | Emotional Intelligence (EI)
2.4 | Your Brain on Emotions
2.5 | Building EI
2.6 | EI and Conflict
2.7 | Managing Conflict
2.8 | Activity - Keirsey Test
Quiz | Module 2
Module 2 References/Resources

Module 3 | Strategic Planning for Non-profit Organizations
3.1 | Strategic Planning Overview
3.2 | Artificial Intelligence (AI) and Nonprofit's Mission and Goals
3.3 | The Basics of Strategic Thinking and Planning
3.4 | Strategic Plan Development: Situation Analysis
3.5 | Strategic Plan Development: Vision & Mission
3.6 | Strategic Plan Development: Values
3.7 | Activity - Organizational Strategy
Quiz | Module 3
Module 3 References/Resources

Module 4 | Applying Change Models to Projects or Organizations
4.1 | Managing Change Overview
4.2 | What Is Change?
4.3 | Awareness of Change

4.4 | Bottom-up or Top-down?
4.5 | Culture and Skills Needed for Change
4.6 | Types of Change Models
4.7 | Leading and Managing Change
4.8 | Activity - Concept Mapping
Quiz | Module 4
Module 4 References/Resources

Module 5 | Ethical Issues for Non-profit Organizations
5.1 | Ethical Issues Overview
5.2 | Ethics in Leadership
5.3 | Organizational Ethics
5.4 | Common Ethical Dilemmas
5.5 | Personal Ethics and Values
5.6 | Ethical Decision-Making Process
5.7 | Activity - Values Reflection
Quiz | Module 5
Module 5 References/Resources
Course Completion/ Evaluation survey

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Micro-credential Program

ENTREPRENEURSHIP Micro-credential Course Outline

Introduction
LEAP for Public Interest Technology
Meet your Instructor - Entrepreneurship
Entrepreneurship

Module 1 | Intra(Entre)preneurship Fundamentals
1.1 | The Entrepreneurial Mindset Overview
1.2 | Intrapreneurship
1.3 | Entrepreneurial mindset
1.4 | Be a Champion for your Idea
1.5 | Entrepreneurship in Public Interest Technology
1.6 | Activity - Entrepreneurial Mindset
Quiz | Module 1
Module 1 References/Resources

Module 2 | Value Proposition for Non-profit Organizations
2.1 | Value Proposition and Customer Discovery Overview
2.2 | Social Entrepreneurship
2.3 | Value Proposition
2.4 | Customer Discovery
2.5 | Activity - Value Proposition
Quiz | Module 2
Module 2 References/Resources

Module 3 | Innovation for Non-profit Organizations
3.1 | AI and Entrepreneurship Innovation Overview
3.2 | Human Centered Design and Societal Problems
3.3 | PIT Entrepreneurial Examples
3.4 | Design Thinking - Innovative Design Defined
3.5 | Innovation and Problem-Solving
3.6 | Structured Problem-Solving Models
3.7 | Activity - Problem Solving Model
Quiz | Module 3
Module 3 References/Resources

Module 4 | Marketing for non-profit organizations
4.1 | Marketing Overview
4.2 | Bootstrapping and Public Funding
4.3 | Funding Source Basics
4.4 | Pitching Your Idea
4.5 | Activity - Create Your Pitch
Quiz | Module 4
Module 4 References/Resources
Course Completion/ Evaluation survey

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LEAP for PIT

Micro-credential Program

ARTIFICIAL INTELLIGENCE (AI) Micro-credential Course Outline

Introduction
LEAP for Public Interest Technology
Meet your Instructor - Artificial Intelligence
Artificial Intelligence

Module 1
1.1 | Overview
1.2 | Interview with Edward Lada
1.3 | Machine Learning
1.4 | Data
1.5 | Data Science
1.6 | What AI Can and Can't Do
1.7 | Deep Learning
1.8 | AI for Non-Profits
Quiz | Module 1
Module 1 References/Resources

Module 2
2.1 | Artificial Intelligence
2.2 | Interview with Dr. Jen Wagner
2.3 | AI or Analytics
2.4 | The Real Estate Marketplace Example
2.5 | Supervised Learning
2.6 | Unsupervised Learning
2.7 | Areas to Implement AI
Quiz | Module 2
Module 2 References/Resources

Module 3
3.1 | Data
3.2 | Interview with Daren Coudriet
3.3 | Data Strategy
3.4 | Open Data
3.5 | Evaluating Data
Quiz | Module 3
Module 3 References/Resources

Module 4
4.1 | AI Workflows
4.2 | Business Driven AI Innovation
4.3 | Discovery - Scouting for AI Opportunities
4.4 | Prioritization – Evaluating AI Projects
4.5 | Validation – Analyzing Risks

4.6 | Deconstructing an AI Product
4.7 | AI Team
4.8 | Workflow
Quiz | Module 4
Module 4 References/Resources

Module 5
5.1 | Overview of Assuring Success
5.2 | Real World Example
5.3 | Project Pitfalls
5.4 | Anki
5.5 | IBM Watson in Oncology
5.6 | Avoiding Pitfalls
Quiz | Module 5
Module 5 References/Resources

Module 6
6.1 | Overview of Case Studies
6.2 | Real World Example
6.3 | Ada Health
6.4 | CENTURY Tech
6.5 | Activity
Quiz | Module 6
Module 6 References/Resources
Course Completion/Evaluation survey

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LEAP for PIT

Micro-credential Program

POLICY Micro-credential Course Outline

Introduction
LEAP for Public Interest Technology
Meet your Instructor - Policy

Module 1
1.1 | Policy for PIT Introduction
1.2 | What is Public Interest?
1.3 | How Can AI Help Public Interest Groups Inform and Influence Public Policy
1.4 | How to Identify Your Policy Question
1.5 | Activity - Develop Your Policy Question
Quiz | Module 1
Module 1 References/Resources

Module 2
2.1 | Understanding the Nature and Accessibility of Data
2.2 | Public Data
2.3 | Data Quality
2.4 | Activity - Identify Your Data Set
Quiz | Module 2
Module 2 References/Resources

Module 3
3.1 | How Public Interest Organizations (PIOs) can Implement AI Methods
3.2 | Partner Organizations
3.3 | Working with Partner Organizations
3.4 | Activity - Identify Your Partners
Quiz | Module 3
Module 3 References/Resources

Module 4
4.1 | Analyzing Public Data
4.2 | Assessing Effectiveness of Public Policies
4.3 | Assessing Efficiency of Public Policies
4.4 | Assessing Equity of Public Policies
4.5 | Activity - Develop Your Analysis
Quiz | Module 4
Module 4 References/Resources

Module 5
5.1 | Developing Your Findings, Conclusions, and Recommendations - Part One
5.2 | Developing Your Findings, Conclusions, and Recommendations - Part Two
5.3 | Activity - Develop Your Policy Pitch

Quiz | Module 5
Module 5 References/Resources

Module 6
6.1 | Communicate Your Results
6.2 | Communication Options
6.3 | Dissemination Strategies
6.4 | Activity - Develop Your Communication and Dissemination Plan
Quiz | Module 6
Module 6 References/Resources
Course Completion/ Evaluation survey