

## Summer, 2017 Capstones

### ECOSYSTEM THINKING

- Anna Moehagan* Lawnscares 2.0: Catalyzing an American Movement in Sustainable Lawn Use
- Cyrus Western* Declining Mule Deer Populations in Wyoming:  
Identifying & Assessing 'Shovel Ready' Solutions
- Erica Gardner* Pollinator Decline and Global Micronutrient Deficiency
- Marguerite Collins* Evaluating Program Performance for Natural Resource Management Programs  
(New South Wales, Australia): Opportunities for Increased Quantification
- Paulette Laurent* Mexico's "WindRush" vs. Sustainable Wind Farming:  
Harvesting Rights of Indigenous Communities
- Meghana Dutta* Balancing Bangalore's Population Growth, Water Consumption & Sewage I  
Intrusion: Effecting Policy Response via Public Engagement

### RENEWABLE CONTEXTS

- Ahmad Antar* Light at the End of the Tunnel in Lebanon's Electricity Crisis?  
A Feasibility Assessment of Rooftop Solar
- Jeff Sloan* Solving for Zero: Proving the Business Case for Net-Zero Housing in California
- Patrick Supple* Valuation of Sustainable Buildings and their Components:  
Consumer Willingness-to-Pay and its Drivers
- Evan Welch* Achieving Circular Solar:  
How Can Solar Panels Be Prevented From Overflowing Our Landfills?
- Wei-Jen Yip* Electrifying Scooters!

### LATERAL THINKING

- Clay Gervais* Sustainable Dubai:  
Methods for Enhancing Reductions of Carbon Emissions
- Emma Cohen* Doggy Bag Nation: How America's Love of Takeout is  
Gobbling up Resources and Choking the Planet
- Bradford Castro* Down the Drain: Carbon Offsets Revisited
- Barbara Porco* Sustainability Accounting Toolkit: Principles of Financial Accounting

## Fall, 2017 Capstones

### APPLYING LIFE CYCLE ASSESSMENT WITHIN THE CIRCULAR ECONOMY

**Manuel Cassas** Designing Defense Products for Recovery and Resource Efficiency: Aircraft Carrier Acquisition by the US Navy

**Darcy Williams** A Wasteful Courtesy? Rethinking The Superior Court of Pennsylvania's "Courtesy Copy" Briefing Requirements Using A Comparative LCA

**Yehia Khalil** Comparative Environmental and Human Health Evaluations of Thermolysis & Solvolysis Recycling Technologies of Carbon Fiber Reinforced Polymer Waste

**Nicole Wilson** Improving Development Models In Emerging Textile Markets: Analyzing Key Social & Environmental Performance Indicators of Ethiopia's Cotton Production

### MARINE SYSTEMS: STRESSORS & RESILIENCE

**Perry Dripps** Using the Hudson River to Teach Systems Thinking to K-12 Students

**Michelle Gardner** The Effect of Increased Atmospheric CO<sub>2</sub> Concentrations on Coccolithophore Abundance and Calcification Rates

### LAND USE CHANGE: KEY DRIVERS & RESPONSES

**Laura Hanrahan** Food System Sustainability: The Role of Production Scale

**Fran Blanchard** "Paying for Nature" – Possible Transitions to a Self-Funding Model for Private Land Trusts in Massachusetts

**Lael Pascual** The Pup Poop Problem: Sustainable Solutions to Dog Waste Management

### RE-THINKING THE FUTURE OF ENERGY

**Yaima Roldan Casillas** Changing the Rules of the Game: How Energy Storage Could Change Massachusetts' Electricity Future

**Ben Elsener** "Flattening the Duck" to Enable a More Efficient, Cleaner Grid: A Smart Home Algorithm Demonstrating Value in Utility Reform

## Spring, 2018 Capstones

### **MARINE SYSTEMS CONSERVATION**

- C. Leanne Cowley* Coastal Adaptation in Massachusetts:  
Streamlining Permitting for 'Living Shoreline' Strategies
- Donna Hazard* Ocean Conservation Support:  
Reimagining Corporate Rationale & Practice
- Kimberly Malkoski* Implementing Marine Protected Areas: An Analysis of Best  
Management Practices for Caribbean Island Marine Resources

### **CREATING *EX SITU* SUSTAINABLE DEVELOPMENT**

- Robert Cronkleton* The 21<sup>st</sup> Century Mayflower: Operationalizing Sustainability for  
Earth-Mars Supply Chain Missions
- William C. Denman* Redeveloping Contaminated Properties: Contrasting How  
Environmental Cleanup Programs Support Redevelopment
- Michael Balluff* East Tennessee Aquaculture Feasibility Analysis
- Kirk-Patrick Caron* Environmental, Social, & Governance Metrics  
Impact on Investment Returns

### **NEXT GENERATION SUSTAINABLE HOUSING**

- Brennan Molina* Low-Income, High Output: To What Extent Does Chapter 40B  
Hinder Massachusetts Climate Goals?
- Jason Morse* Sick Building Syndrome Re-emergence in Massachusetts:  
Air-tight Homes, Uninformed Occupants
- Priscila Rut Ra* Reducing the Strain on the Buenos Aires Electricity Grid:  
Rooftop Solar Potential Assessment & Peak-Shaving Analysis

### **NEW VANGUARDS IN SUSTAINABILITY EDUCATION**

- Zara Wasi Islam* Improving Health, Safety, & Environmental Compliance Standards  
in a Bangladeshi Garment Producing Factory
- Jeff Overton* Community College Sustainability Curricula:  
Design Challenges for an Introductory Course
- Carlos Villamil* Renewing Undergraduate Industrial Design Curricula:  
Introduction to Sustainable Design