Course Development

Accreditation

National Recycling Coaltion

General

Training and Certification Program Descriptions

The Training and Certification Programs in Recycling and Sustainable Materials Management page of the NRC's website includes information and additional links to programs in the country such as New Jersey, New Mexico, and Pennsylvania, listed below.

NSCB

Accreditation Criteria and Process

This is the accreditation criteria and process for certified sustainable resource management professional training programs from reduce, reuse, recycle to zero waste. Includes Accreditation Background, Accreditation Process, and Accreditation Criteria for the NSCB.

Learning Objectives

This is the accreditation criteria and process for certified sustainable resource management professional training programs from reduce, reuse, recycle to zero waste. Includes Accreditation Background, Accreditation Process, and Accreditation Criteria for the NSCB.

<u>Application for Accrediting Training Programs</u>

This application from the NRC asks for general information as well as organization description and history and Sustainable Resource Management Training Program Summary & History. The application goes on to ask for different program requirements, program administration, student learning outcomes, and application fees.

Accredited Programs

New Jersey

Includes information from the Rutgers website about how you can become a certified recycling professional (CRP). It also includes course offerings in order to get the training to receive a Recycling and Solid Waste Management certificate.

New Mexico

To obtain NMED Solid Waste Facility Operator Certification, applicants must complete a course, score at least 70% on the certification exam offered at the end of each course, and have at least one year of experience operating the type of facility for which certification is sought. State Solid Waste Rules require that public and private solid

waste facilities have certified operators. These courses enable operators to become certified.

<u>Pennsylvania</u>

The Pennsylvania Certification program has been designed to meet the standards of the National Standards Certification Board. To receive the certificate, candidates must complete 4.0 (40 hours) of Continuing Education Units (CEUs) and successfully pass the Certified Recycling Professional examination within a four year time period. Over 70 courses are available. Partnership with The Pennsylvania State University.

Course Descriptions

Introduction to Sustainable Resource Management

West Valley College, CA, 2015. Judi Gregory-instructor

This course will look at upstream practices that reduce waste during the manufacturing and distribution of products, as well as downstream practices to collect, reuse, recycle and compost materials once they have been discarded. Additionally, the course will look at the impacts to the economy and job creation connected to SRM. This introductory course on Sustainable Resource Management covers the 25 principles, or student learning outcomes (SLO's), identified by the National Standards Certification Board of the NRC.

Introduction to Sustainable Resource Management Syllabus

Resource Management and Zero Waste for Communities

Golden West College, CA, 2012. Gregory Warren-Instructor

This course will identify how resource management and zero waste policies and programs are developed within a community, what type of planning and facilities are needed, and how to finance the systems. Students will also review sample zero waste community plans and will discuss different approaches that communities have taken in developing zero waste plans. Students will also learn business recycling tools for local government, best practices for RFPs (Request for Proposals) and contracts, understanding enforcement options, design of resource recovery parks, performance reporting and financial records, Extended Producer Responsibility and Local Producer Responsibility policies and programs, bans, rules and incentives, and developing local markets and uses.

Resource Management and Zero Waste for Communities Syllabus

Waste Management and Recycling

Union College, 2016. Professor Dr. Ashraf Ghaly, P.E.

Introduction to various sources of hazardous, non-hazardous, biodegradable, and non-biodegradable waste materials. Focus areas are landfill systems, geosynthetics, geotextiles, geomembranes, geonets, single clay liner, single geomembrane liner, composite liner

systems, leak detection and leachate collection, removal and treatment of leachate, and

capping and closure systems. The recycling segment will explore natural resources of raw materials including origin and use, and potential and limitation for recycling of materials. Focus on various applications of recycling recyclable and non-recyclable materials. Discussion of methods of manufacture and compositions of such materials will concentrate on advanced industrial applications for the reuse of non-recyclable waste materials. Application areas include production of new materials, materials with superior qualities for special purposes, and materials with high level of resistance against certain environmental conditions. The course will also touch on the political aspect of recycling including consumer attitude and government incentives to encourage recycling. Three class hours and a weekly lab. Prerequisite ENS100 (Introduction to Environmental Studies) or GEO102 (Environmental Geology).

Waste Management and Recycling Syllabus

Cultures of Waste and Recycling

Oklahoma State University, 2010. Prof. Dorothy Noyes

This course explores the notion of the residual: what is left over, useless, unclassifiable. We will explore the customary management of communal resources, both human and material, in scarce-resource societies. We'll consider processes of symbolic classification through which phenomena can be labelled as out of place or out of phase. We'll examine the creation of waste (and its converse, deprivation) with the codification of custom in modernity, and look at strategies by which waste is recuperated as a matter of necessity, aesthetics, or ideology. We'll look at how different kinds of leftover move in and out of systems of value: for example, the labelling of things as "junk" or "antiques," people as "trash," or ideas as "folklore." Finally, we'll think about the status of residues in social and cultural theory.

Cultures of Waste and Recycling Syllabus

Intro to Recycling Course

Northern California Recycling Association, 2005. Gary Liss, Instructor NCRA offers this course to help train people who would like a quick overview of recycling by presenting an inexpensive three-day course at a convenient location. Intro to Recycling Course Syllabus

Sustainable Operations

Columbia Univ, 2015. Vance A. Merolla, Instructor

In this course, students will work to understand and communicate the importance of incorporating sustainability at each step along the value chain, including product design, procurement, distribution, manufacturing, product/service use and end-of-life disposition. By considering the organization holistically, students will perform analyses of the value chain , including life cycle and cost/benefit analyses, and incorporate effective sustainability strategies into the organizational culture and day-to-day operations. Students will conduct risk assessments and implement risk reduction

measures with overall business goals and stakeholder requirements. In addition to technical sustainability considerations such as climate change, energy, water and waste, students will be able to implement practical sustainability initiatives within operating organizations through innovative change management, culture change and other organizational strategies. Importantly, students will be challenged to think concretely about making choices and balancing elements of the triple bottom line in an overall business context.

PDF

Oregon State Program

Recycling 101 is an online, eight-part, self-paced course created in partnership with the Association of Oregon Recyclers. Modelled after Oregon's Master Composter class. \$65 fee to apply.

American University

Below is a list of courses related to sustainability and zero waste, including possible study abroad opportunities,

<u>Sustainability - Finance</u> <u>American University Module</u>

University of Maryland

Includes internship as well as student project opportunities Click here

University of Central California

Course outline found online includes possible field trips, major topics, and case studies Site Home

Course Development

Understanding Environmental Literacy in America: And Making it a Reality Kevin J. Coyle, J.D. - National Environmental Education & Training Foundation, 2004 Includes report of what ten years of NEETF/Roper research and related studies tell us about how to achieve environmental literacy in America.

Understanding Environmental Literacy Report

Contact Kevin Coyle for more information: coyle@neetf.org

Fundraising

The Chronicle of Philanthropy

The Chronicle of Philanthropy is an independent news organization that has been serving leaders, fundraisers, grant makers, and others involved in the philanthropic enterprise for more than 25 years. It offers a robust advice section to help nonprofit workers do their jobs as well as one of the biggest listings of career opportunities. The Chronicle updates its website throughout the day and appears 12 times per year in print.

Subscribe

Get free daily or weekly email updates
Site Home

The Non-Profit Times

Stay informed, catch latest trends in the nonprofit space. Free E- Newsletters Subscribe

The Foundation Center

Established in 1956, Foundation Center is the leading source of information about philanthropy worldwide. Through data, analysis, and training, it connects people who want to change the world to the resources they need to succeed. Foundation Center maintains the most comprehensive database on U.S. and, increasingly, global grantmakers and their grants — a robust, accessible knowledge bank for the sector. It also operates research, education, and training programs designed to advance knowledge of philanthropy at every level.

Site Home

GrantStation

GrantStation.com, Inc. (GrantStation) offers nonprofit organizations, educational institutions, and government agencies the opportunity to identify potential funding sources for their programs or projects as well as resources to mentor these organizations through the grantseeking process.

GrantStation provides access to a searchable database of private grantmakers that accept inquiries and proposals from a variety of organizations; federal deadlines; links to state funding agencies; and a growing database of international grantmakers. In addition, GrantStation publishes two newsletters highlighting upcoming funding opportunities, the weekly GrantStation Insider, which focuses on opportunities for U.S. nonprofit organizations, and the monthly GrantStation International Insider, which focuses on international funding opportunities.

Site Home

Grants.gov

A system that provides a centralized location for grant seekers to find and apply for federal funding opportunities. Today, the Grants.gov system houses information on over 1,000 grant programs and vets grant applications for federal grant-making agencies. Site Home

Grant Watch

Current subscribers include: nonprofits, 501c3 organizations, universities, hospitals, government agencies, schools, community based organizations, religious institutions, research institutions and some small businesses and individuals. GrantWatch does not give grants.

Click here to visit GrantWatch.com

EPA Environmental Education (EE) Grants

Under the Environmental Education Grants Program, EPA seeks grant proposals from eligible applicants to support environmental education projects that promote environmental awareness and stewardship and help provide people with the skills to take responsible actions to protect the environment. This grant program provides financial support for projects that design, demonstrate, and/or disseminate environmental education practices, methods, or techniques. Since 1992, EPA has distributed between \$2 and \$3.5 million in grant funding per year, supporting more than 3,600 grants.

EPA Grants Site

Instructor Qualifications

University of Colorado

David Ciplet – Assistant Professor

<u>Biography and Background</u>

ENVS 3525-003 Waste and Global Justice

Abstract: "We all contribute to the problem of waste, but its impacts are often hidden out of sight. From plastics cluttering the oceans, to health hazards associated with electronic waste, to climate changing emissions from landfills and incinerators, waste is global in its reach and inequitable in its consequences. As an issue intricately linked to the organization of global and local economies, it provides a window into systems of inequality and efforts to achieve a more just and sustainable world. Through in-depth discussion, readings, writing, film, role-plays, guest speakers, and multi-media projects, we will explore the causes and consequences of waste, and the opportunities for transformative change. The course is intended for upper level undergraduate students committed to understanding environmental problems in their full complexity."

Sierra College, Roseville

Gary Liss - Founder of the National Recycling Coalition

<u>Biography and Background</u>

Richard Anthony

<u>Biography and Background</u>

Introduction to Zero Waste the Foundation for Resource Management

This workshop is intended to provide a solid foundation of understanding the broad features and issues of zero waste, the foundation to resource management. The impetus in the industry is towards zero waste management, and practitioners need to know and understand the history, technology, socio-economics, communications, ecology, and application of zero waste principles to real world problems of wasting. Zero Waste Businesses are leading the way for Zero Waste and have diverted over 90% of their waste from landfill and incineration. Zero Waste Communities have adopted

Zero Waste goals and plans to implement those goals. Join us to understand how Zero Waste can be a key part of community and business sustainability plans and help contribute to reducing greenhouse gases and global cooling.

Matthew Cotton

Introduction to Organics Management and Composting

Introduction to Organics Management & Composting is designed as an introduction to the organic components of the waste stream and how to manage them. Over 50 percent of what is landfilled is generally comprised of organic materials and may be appropriate for composting or other diversion. There are important differences in the collection, processing and economics of organic materials (leaves, grass, brush, food scraps, etc.) and inorganic materials (i.e., bottles and cans). Concepts to be covered include the organic components of the waste stream, the basics of separating and collecting organics, the basic principles of composting, and markets for diverted organic materials. The course will cover the importance of beneficial reuse of organics, reasons for diverting organics, principles and practices of composting, and other organic waste diversion methods, and a review the major markets or diverted organics.

Heidi Sanborn

Susan Collins

Introduction to Extended Producer Responsibility

This course will cover a brief description of EPR systems worldwide, how EPR Policy is Evolving in California, CIWMB's Framework Policy Guidance document and Strategic Directive #5, key Elements of an End-of-Life System, financing systems: true EPR versus Advanced Disposal Fees, analyze the California Bottle Bill System Using the Framework of the Key Elements, analyze the California E-waste System Using the Framework of the Key Elements, source Reduction in Major Grocery Store Chain , roles and responsibilities of all parties in an EPR system, tools for Local Government, Haulers and others, incorporating EPR into procurement decisions and educating the public about the issue, plus a review of tools and materials on CPSC web site.

Joan Edwards

Construction Debris Best Management Practices

This workshop will consist of a brief overview of potential C&D diversion opportunities through source reduction, reuse, recycling and composting, a discussion of barriers that hamper C&D diversion and a summary of strategies to increase C&D recycling as well as processing infrastructure and markets for select C&D materials through policies and programs. This workshop will also cover handling of disaster debris management. The workshop will be supported by packets of materials distributed to workshop participants and every effort will be made to tailor each workshop to reflect local conditions as well as specific attendee interests and concerns.

Quizzes and Exams

Imagine Tomorrow

Ten question, multiple choice recycling quiz, with sources

Recycling Quiz

LEED v4 Green Associate FreePractice Exam

This

LEED Green Associate v4Practice Exam was developed in conjunction with Green Strep Education.com

and online LEED Exam TrainingWorkshops. Includes green design, construction and operations across sustainability professions (not just recycling and waste management)

http://www.greenstepeducation.com/GreenStep%20Free%20LEED%20v4%20Practic...

Other Training Programs

Summary of other training programs

A list from the NRC's website explaining the courses and programs listed below. The list includes additional links and information about these programs.

Duke University

Duke achieved its first-ever "zero waste" gameday Nov. 14 against University of Pittsburgh, diverting 94 percent of recyclable and compostable materials from trash. With 30,241 in attendance at the game, roughly 30 large trash bags were all that was needed to handle waste that day. Almost 11,100 pounds of recyclables and compost were collected.

Green University

GreenEducation.US is a web-based, online Learning Management System (LMS) designed to increase the availability of environmental education and professional development programming to the greater population. Through its innovative online instruction and cutting edge experts GreenEducation.US is able to deliver modularized training that meets the needs of all training schedules.

Oregon State Program

Learn about the larger issue of consumption, from how much waste we generate to how it's managed in your community. Take this first course in our Recycling 101 series and gain the knowledge to choose your learning path in waste reduction.

Portland State University - BioCycle

Community Environmental Services, part of Portland State University, trains and employs students to offer zero waste management services to companies, institutions and public agencies.

Santa Monica College Recycling and Resource Management Program

Provides information about three certificates that provide high quality training to enable students the opportunity of obtaining desirable employment in the green jobs sector. Includes contact information, prerequisites, financial assistance, and the ability to register for these certificates.

Seven Generations Ahead (SGA)

As landfills reach capacity, Seven Generations Ahead (SGA) promotes planning and implementation that moves communities toward the goal of generating zero waste. SGA works with schools, municipalities, businesses and community organizations to provide training and support for all steps of the zero waste path, from conducting waste assessments to acquiring funding to guiding strategy implementation.

Solid Waste Association of North America (SWANA)

SWANA Certification is recognized by numerous states as the standard for solid waste employees. Being SWANA Certified enhances your resume and distinguishes you as a leader in your profession.

SWANA offers solid waste training and education throughout North America for facility policy-makers, managers, owners and operators, and industry consultants. SWANA Certification is recognized by numerous states.

<u>US Composting Council's Compost Operations Training Course</u>

The US Composting Council's Compost Operations Training Course is a 40-hr, 5-day course includes lectures, hands-on activities and field trips. It focuses on the knowledge and skills to run a successful composting facility. The course is taught by leading composting professionals and educators.

Zero Waste Business Associate (ZWBA) Certification

The U.S. Zero Waste Business Council (USZWBC) developed the Zero Waste Business Associate (ZWBA) certification system to train professionals to help businesses get to Zero Waste, and to help get their facilities <u>certified</u> as Zero Waste according to the USZWBC Scorecard Certification System.

Zero Waste School Project Handout: Chester Upland School District (CUSD)

Stetser Elementary and Main Street Elementary Green Team students took the lead in starting a successful recycling collection pilot project at their respective schools during Spring 2015. This is the first phase of the Chester Zero Waste School Project, a partnership of the City of Chester, Chester Upland School District, and the Institute for Local Self-Reliance (ILSR), working to support the city of Chester in its efforts to increase recycling and strive for zero waste, educate students, parents, and the community about the importance of zero waste adn how to effectively recycle and compost, and create a model school organics recovery/zero waste program.

ZWIA: Requirements to be Recognized by ZWIA as a Zero Waste Community

The Zero Waste International Alliance (ZWIA) has a Recognition Program for Zero Waste Communities. This provides a framework for ZWIA approved National Affiliates to recognize communities that are operating in their country in keeping with the ZWIA Definition of Zero Waste and ZWIA Global Zero Waste Community Principles. This Recognition Program is designed to recognize communities that have a Zero Waste goal and are working towards or have reduced their waste to landfill, incineration and the environment by 90% or more.