EMPOWER NRT

PROFESSIONAL DEVELOPMENT SPECIALIZATION AREA GUIDE

Professional Development Specialization Area

Information and Course Guide

Purpose:

The Professional Development Specialization Area (PDSA) provides focused coursework tailored to an individuals' self-identified career trajectory. The PDSA is designed to (1) foster the development of transferrable professional skills; (2) provide training that prepares students for multiple career paths; and (3) help trainees translate and communicate their research to inform a range of stakeholders. The PDSA coursework is intended to add breadth to the scope of coursework required of traditional, disciplinary-specific graduate programs.

The PDSA is designed in consultation with the student's graduate advisor, the EMPOWER Program Director, and the EMPOWER Program Manager. Students may select courses from the list of approved courses below or submit a petition to the EMPOWER Academic Programs Committee for approval of courses that are not on the list.

Academic Advisement:

Students are expected to work closely with their advisor, advisory committee, and the EMPOWER Program Director and Program Manager to outline their course of study, ensuring that it meets the needs of their home department and EMPOWER. It is expected that the course of study selected for the PDSA will include courses outside of the traditional disciplinary boundaries of a student's graduate program. In particular, students in the natural and physical sciences are expected to take coursework in areas of social science, policy, communications, entrepreneurship, and/or law. Students in the social sciences are expected to take coursework in the areas of physical science, engineering, communications, entrepreneurship, and/or law.

Trainees supported on fellowship have up to 30 hours of tuition credits for the 12-month period for which they receive a stipend, depending on the terms of the tuition scholarship provided through their home college. The trainees are encouraged to make wise use of the tuition credit to ensure that they have accumulated the credit hours required by their academic department for their degree, as well as by EMPOWER. It is at the discretion of the individual academic departments to what extent professional development coursework required by the EMPOWER NRT will count towards department credit hour and coursework degree requirements.

Course Requirements:
PhD trainees will complete **12 credit hours** of study to satisfy the PDSA requirement; MS trainees complete **6 credit hours.**

To satisfy the PDSA course requirements, students may select courses available through Syracuse University and SUNY ESF. The following other training elements may be counted towards the PDSA credit requirements:

1)   Science Communication Course (3 credits): select a class from available options
2)   Domestic Field Experience (3 credits): optional (NOT AVAILABLE after August 2019)
3)   International Field Experience (3 credits): optional

Approved Courses:
Students may select courses from the list of approved courses below. Detailed information on courses, such as the course description, prerequisite requirements (if any), and number of credit hours, can be found by searching for the course number in the Syracuse University course catalogue (http://coursecatalog.syr.edu/) or the SUNY ESF Course Descriptions website (http://www.esf.edu/catalog/courses/intro.htm).

A. Communication

CRS 625: Oral Communication Skills for Engineers
FOR 694: Writing for Scientific Publications (geared for those with a thesis or dissertation
                planned or in process)
TRM 701: Transmedia Graduate Seminar
EST 695:   Environmental Journalism
EAR 600: Practicum in Science Communication (geared for those with a thesis or dissertation
                 planned or in process)
BIO 700:   Scientific Writing (geared for those with a thesis or dissertation planned or in process)
EST 645:   Mass Media and Environmental Affairs

College of Arts and Sciences, Writing Program
WRT 627: Emerging Technologies in Professional and Technical Writing
WRT 647: Professional and Technical Writing in Global Contexts

The list of classes that will count toward the Science Communication Training is updated routinely. Also, you may suggest a class for consideration. Please check in with Annie if you need assistance or have questions!

B. Entrepreneurship

Whitman School of Management
EEE 620: Foundations of Entrepreneurship
EEE 640: Social Entrepreneurship in Action

C. Education and Outreach

Department of Science Teaching
SCE 614: The Nature of Science in Science Education (offered in the Maymester)
SCI 544: Teaching of College Science

D. Policy Analysis and Law

LPP 758: Environmental Law & Policy
LPP 756: Land Development Law

GEO 537: Environmental Policy in a Development Context
GEO 622: Water: Environment, Society and Politics

Environmental Studies at SUNY ESF
EST 606: Environmental Risk Perception: Implications for Communication and Policy
EST 608: Environmental Advocacy Campaigns and Conflict Resolution
EST 635: Public Participation and Decision Making: Theory and Application
EST 660: Land Use Laws
EST 705: Environmental Policy and Analysis

E. Business and Management

Whitman School of Management
BUA/ECS 650: Managing Sustainability: Purpose, Principles, and Practice
BUA/ECS 651: Strategic Management and the Natural Environment
BUA/ECS 759: Sustainability-driven Enterprise

Environmental Science at SUNY ESF
ENS 601: Water Resources Management
FOR 560: Principles of Management for Environmental Professionals

F. **The Cultural Foundations of Environmental Issues**

CAS 611: Living in a Global Environment
GEO 537: Environmental Policy in a Development Context

G. **Physical Sciences**

EAR 601: Hydrogeology
EAR 605: Global Change: Geologic Record
EAR 607: Climate Change & Human Origins
EAR 620: Contaminant Hydrogeology
FOR 540: Watershed Hydrology
FOR 642: Watershed Ecology & Management
ENS 601: Water Resources Management

H. **Engineering & Computer Science**

CIE 657: Biogeochemistry
CIE 671: Environmental Chemistry & Analysis

One of the following **Certificate of Advanced Study (CAS)** programs can be completed to satisfy the PDSA requirement, if the certificate program falls outside of the traditional scope of a trainee's graduate program. These certificates appear on your graduate transcript and demonstrate a specialization in a given sub-field. Note that if you elect to complete a CAS, the Science Communication course is still required for EMPOWER, in addition to the requirements of the individual CAS.

Sustainable Enterprise (Whitman School of Management, contact Todd Moss for details)
Public Management and Policy (Maxwell School)
Conflict Resolution (Maxwell School)
Environmental Decision Making (Maxwell School)
Certificate of University Teaching (Graduate School)