

George Mason University
College of Education and Human Development
Division of Elementary, Literacy and Secondary Education

EDPD502.6R1– Foundations to Data Collection & Analysis
3 Credits, Summer 2018
Meeting Dates: August 16, 17, 18, 21, 22, and 23, 2017 (8AM-4PM)
Location: 2110 Washington Blvd, Arlington VA 22204

Faculty

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Prerequisites/Corequisites

None

University Catalog Course Description

None

Course Overview

This course will provide students the foundation for data collection and analysis. Students will learn and use a variety of scientific sensors and probewares. Students will also use FieldScope and GLOBE platforms to collect, analyze, interpret, graph and communicate data. They will acquire skills in mapping data and collaborate with other platform users. Students will apply these knowledge and skills in their own classroom instruction to support problem-based learning in the context of stormwater management.

Course Delivery Method

The course will be delivered using in a face to face format over a six-day period. Students will engage in scientific discourse and hands-on data applications. In addition, students will collect data through fieldwork.

Learner Outcomes/Objectives

This course is designed to enable students to do the following:

- 1) Understand data collection methods and analyses used to implement project based learning in an educational setting.
- 2) Engage in active, hands-on experiments that promotes scientific discourse.
- 3) Acquire the knowledge and skills required to use a variety of scientific instruments such as sensors and probewares to collect, store, analyze, interpret, graph and communicate data.
- 4) Become proficient in a variety of data platforms, including FieldScope and GLOBE to collect, store, analyze, interpret, graph and communicate data.

- 5) Acquire skills to map data and collaborate findings with other platform users.
- 6) Apply knowledge and skills in data collection, mapping and analysis to own classroom instruction.

Professional Standards

None

Required Texts

None

Course Performance Evaluation

Students are expected to submit all assignments on time in the manner outlined by the instructor.

- **Assignments and/or Examinations**
 1. FieldScope platform 20%
 2. Using scientific sensors and probewares 10%
 3. GLOBE online modules and platform 40%
 4. Reflection Summary 10%
 5. Project Implementation Plan 20%

- **Other Requirements**
 Students are required to attend all classes. Students missing more than 2 classes will not receive course credits.

- **Grading**

A+	97-100%
A	93-96%
A-	90-92%
B+	87-89%
B	83-86%
B-	80-82%
C	70-79%
F	0-69%

Professional Dispositions

Students are expected to exhibit professional behaviors and dispositions at all times.

Class Schedule

Class	Date/Time	Topic	Activity
1	8/16 (8AM-4PM)	Concepts in Stormwater Management	Presentation and Field Study
2	8/17 (8AM-4PM)	Scientific Sensors and Probewares	Data Collection Tools and Techniques
3	8/20 (8AM-4PM)	FieldScope	Using Data Collection, Mapping, Sharing Platforms and Field Study
4	8/21 (8AM-4PM)	GLOBE	Using Data Collection, Analysis and Sharing Platforms
5	8/22 (8AM-4PM)	GLOBE	Using Data Collection, Analysis and Sharing Platforms
6	8/23 (8AM-4PM)	Project Implementation	Field Study and Final Exam

Core Values Commitment

The College of Education and Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles: <http://cehd.gmu.edu/values/>.

GMU Policies and Resources for Students

Policies

- Students must adhere to the guidelines of the Mason Honor Code (see <http://oai.gmu.edu/the-mason-honor-code/>).
- Students must follow the university policy for Responsible Use of Computing (see <http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/>).
- Students are responsible for the content of university communications sent to their Mason email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students **solely** through their Mason email account.
- Students with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor (see <http://ods.gmu.edu/>).
- Students must follow the university policy stating that all sound emitting devices shall be silenced during class unless otherwise authorized by the instructor.

Campus Resources

- Support for submission of assignments to Tk20 should be directed to tk20help@gmu.edu or <https://cehd.gmu.edu/aero/tk20>. Questions or concerns regarding use of Blackboard should be directed to <http://coursesupport.gmu.edu/>.
- The Writing Center provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing (see <http://writingcenter.gmu.edu/>).
- The Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance (see <http://caps.gmu.edu/>).
- The Student Support & Advocacy Center staff helps students develop and maintain healthy lifestyles through confidential one-on-one support as well as through interactive programs and resources. Some of the topics they address are healthy relationships, stress management, nutrition, sexual assault, drug and alcohol use, and sexual health (see <http://ssac.gmu.edu/>). Students in need of these services may contact the office by phone at 703-993-3686. Concerned students, faculty and staff may also make a referral to express concern for the safety or well-being of a Mason student or the community by going to <http://ssac.gmu.edu/make-a-referral/>.

For additional information on the College of Education and Human Development, please visit our website <https://cehd.gmu.edu/>.