GEORGE MASON UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT
GRADUATE SCHOOL OF EDUCATION
EDUCATIONAL PSYCHOLOGY PROGRAM

EDEP 591 Section D01: Data-Driven Decision-Making for Continuous Educational Improvement
3 Credits, Summer 2016
May 25, 2016 to July 27, 2016

INSTRUCTOR:
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COURSE DESCRIPTION

    A. **Prerequisites/Corequisites**
       None
    B. **University Catalog Course Description**
       Provides an intellectual and practical framework for creating and understanding formative and summative assessments of student performance. Emphasis is placed on the learning principles, cognitive processes, and psychometric models as they pertain to assessments issues.

LEARNER OUTCOMES AND OBJECTIVES

This course is designed to enable students to gain a foundation of understanding the importance and role of data-driven decision-making in the context of current school reform initiatives and policies at the federal, state, and local levels. The course provides an overview of the theoretical, intellectual and practical framework for:

- understanding learning
- teaching to engage cognition
- assessing student learning and changes in affect
- using formative and summative assessments of student performance
- interpreting assessment data
- making instructional decisions based on data analyses
- evaluating federal, state and local initiatives and policies in the context of making instructional decisions and the assessment of students

Emphasis is placed on the learning principles, cognitive processes, and psychometric models as they pertain to instructional and assessment issues. Students should have a working knowledge of potential data sources and existing data from classrooms, schools, or at the district level.

By the end of this asynchronous online course students will be able to:
- Identify how data-driven decision-making is implied or made explicit in federal statutes and state assessment programs, particularly for the state where employed.
- Explain the differences between the conceptual frameworks underlying classroom- and system-level assessment data.
- Explain how data from these multiple frameworks are used to inform decision making about learning and teaching.
- Explain the cognitive bases for learning and their connections to various forms of assessments of learning.
- Analyze learning artifacts (e.g., lesson plans, assessment reports) in terms of their cognitive demands and determine an appropriate assessment of the expectations for students.
- Apply multiple learning hierarchies to teaching and assessment of student progress.
- Design classroom-based tests that meet standards for sound assessment interpretation.
- Explain the range of testing and data analyses issues that educators confront and describe sound ways to handle those issues effectively.
- Discern critical issues related to the role of DDDM in public school accountability and high-stakes testing–including issues of social justice.

PROFESSIONAL STANDARDS

The goal of the course is to facilitate each educator's reaching a level high of competence and professional-level understanding of assessment design practices used in making decisions related to continuous improvement in student learning. Learner outcomes are consistent with the Educational Psychology Program standards. The standards, as expressed as learner outcomes for assessment for data-driven decision making, are:
- Educators will demonstrate an understanding of principles and theories of learning, cognition, motivation, and development as they apply to a wide variety of contemporary assessment contexts.
- Educators will use their knowledge, skills, and dispositions to apply principles and theories of learning, cognition, motivation, and development to analyze and develop instruction based on sound assessment principles.
- Educators will demonstrate an understanding of the basic concepts, principles, techniques, approaches, and ethical issues involved in educational assessment.

TECHNOLOGY REQUIREMENTS

Hardware
You will need access to a Windows or Macintosh computer with at least 2 GB of RAM and access to a fast and reliable Internet connection. A larger screen is recommended for better visibility of course material. A headset with a microphone is recommended for the best experience.

Software
This course will use Blackboard as the learning management system. You will need a browser and operating system that are listed compatible or certified with the Blackboard version, a list of which is available on the myMason Portal. See supported browsers and operating systems.

Log in to myMason to access your registered courses. Online courses typically use Acrobat Reader, Flash, Java, and Windows Media Player, QuickTime and/or Real Media Player. Your computer should be capable of running current versions of those applications. Also, make sure your computer is protected from viruses by downloading the latest version of Symantec Endpoint Protection/Anti-Virus software for free here. Students owning Macs or Linux should be aware that some courses may use software that only runs on Windows. You can set up a Mac computer with Boot Camp or virtualization software so Windows will also run on it. Watch this video about using Windows on a Mac. Computers running Linux can also be configured with virtualization software or configured to dual boot with Windows.

Note: If you are using an employer-provided computer or corporate office for class attendance, please verify with your systems administrators that you will be able to install the necessary applications and that system or corporate firewalls do not block access to any sites or media types.

NATURE OF COURSE DELIVERY

This course will be taught in an asynchronous online environment. The course will consist of some combination of whole- and small-group discussion and activities and instructor and student presentations. Students are expected to be prepared for class activities and discussions by reading assigned materials and completing assignments by their due dates.

REQUIRED TEXT

There is no required text for this course.

COURSE MATERIALS

Course readings will be available on the Blackboard site, accessible through YouTube or other media site and linked from within the Blackboard site for access via the Internet.

COURSE ASSIGNMENTS AND EXAMINATIONS

1. **Class Participation (15 points)**

   Participation in course discussion prompts and discussion questions is essential in ensuring the course progresses and opportunities for student self-assessment of learning are available. It is an expectation that professional discussions between participants (including the instructor) are maintained during the each week of the course in order to explore the course content in a meaningful and applicable way.

2. **Case Analyses (10 points each)**

   Two case analyses will be completed that allow the student to apply his or her understanding and application of the course material. The case analyses will be constructed to allow for free-response evaluation as well as structured question responses.

3. **Cognitive Framework / Taxonomy Presentation (10 points)**

   Each student will complete a brief overview of the major cognitive framework or taxonomy that he or she uses in his or her domain or that was utilized in the development of the standards in his or her domain. This will be developed into a short presentation that other students will be able to view in 10 minutes or less using a media tool in Blackboard. More information will be provided, and a workshop will be scheduled for support. We will not want to duplicate – so a sign-up will be offered.

4. **Assessment/Rubric Review (10 points)**

   Each student will complete a review of both the items/categories and overall assessment/rubric of an existing assessment or rubric he or she uses in class that was self-developed. The review will allow the student to apply central concepts of the course in a real-world and practical use. The set of standards to which the assessment or rubric is aligned should be provided when the assignment is completed. A rubric and guidance will be provided closer in time to the assignment.

5. **Course Action Plan (45 points)**

   An "action plan" reflection of how you currently use DDDM, how your instruction is informed by assessment, and how your program of assessment is currently aligned with best practices will be the culminating assignment for the course. While more information will follow, this assignment will take the course content and allow you to reflect where you are in terms of best practice in the areas relevant to DDDM and develop an action plan to support growth toward best practice. Again, a more-detailed description will be provided.

   You may wish to begin reflecting and planning related to your current practice early in the course by keeping a journal of the course content contextualized to your current practice.

GRADING

A+ = 98 – 100	B+ = 87 – 89	C = 70 – 79	F = below 70
A = 93 – 97	B = 83 – 86		
A- = 90 – 92	B- = 80 – 82		

GMU POLICIES AND RESOURCES FOR STUDENTS

a. Students must adhere to the guidelines of the George Mason University Honor Code (see http://oai.gmu.edu/the-mason-honor-code/)

b. Students must follow the University policy for Responsible Use of Computing (see http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/)

c. Student are responsible for the content of University communications sent to their George Mason University email account and are required to activate their account and check it regularly. All communications from the University, College, School and program will be sent to students solely through their Mason email account.

d. The George Mason University 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/).

e. Students with disabilities who seek accommodations in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester (see http://ods.gmu.edu).

f. Students must follow the University policy sating that all sound-emitting devices shall be turned off during class unless otherwise authorized by the instructor.

g. The George Mason University Writing Center staff provides a variety of resources and services (e.g, tutoring workshops, writing guides, and handbooks) intended to support students as they work to construct and share knowledge through writing (see http://writingcener.gmu.edu/).

PROFESSIONAL DISPOSITIONS

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

CORE VALUES COMMITMENT

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

For additional information on the College of Education & Human Development Graduate School of Education, please visit our website http://gse.gmu.edu/.

	Tentative Course Organization & Schedule		
The course organization, schedule, and readings may change based on the interests of the students and emerging research released by national organizations. However, the assignments and their due dates will remain unchanged. Each week, expect that short additional readings will be assigned that connect current research to the topics below. Additionally, from time-to-time there will be discussion prompts posted to which all students should respond.			
Date	**Topics**	**Assigned Reading**	**Homework Class Activities Due Dates**
May 25	• Foundational issues in school improvement initiatives and assessment	• The Merits of Measurement-Driven Instruction • *Implementing Data-Informed Decision Making in Schools: Teacher Access, Supports and Use (*selected assigned sections) • *Reforming Educational Assessment: Imperatives, Principles and Challenges* (selected assigned sections)	
June 1 June 8	• Cognitive dimensions of assessment • Cognitive processes of learning	• *How Students Learn: History, Mathematics and Science in the Classroom* (selected assigned sections)	Case Analysis 1 Due (Assignment 2 above): June 5

June 15	• Taxonomies and classification systems	• *Taxonomies of Learning*	
June 22	• Structuring assessment for learning	• *Using Rubrics to Promote Thinking and Learning* • Rubric-referenced Self-assessment and Self-efficacy for Writing • The Role of Interim Assessments in a Comprehensive Assessment System	Cognitive Framework/Taxonomy Assignment Due (Assignment 3 above): June 19
June 29	• Assessment and teaching • Assessment and curriculum	• *Rethinking Classroom Assessment with Purpose in Mind* (selected assigned sections) • *State Assessment Systems: Exploring Best Practices and Innovations* (selected assigned sections) • *Formative Assessment for Next Generation Science Standards: A Proposed Model* (selected assigned sections)	
July 6	• Validity, Reliability and Bias • Noncognitive Assessment	Selected readings from Sage Online – assigned based on interest	Case Analysis 2 Due (Assignment 2 above): July 3
July 13	• Collecting Classroom Evidence	• Classroom Test Construction: The Power of a Table of Specifications • Blueprint for Item Writing	
July 20	• Standardized testing	• *State Standardized Testing Programs: Their Effects on Teachers and Students* (selected assigned sections)	Assessment/Rubric Review Due (Assignment 4 above): July 17
July 27	• Course Summary	Selected reading summaries chosen by students in their domains	Course Action Plan Due: August 1

Attendance & Participation Rubric

Student participation is imperative to student learning and a successful class. The following rubric outlines how student participation scores will be determined in this course. All students are expected to demonstrate specific characteristics and actions throughout the semester. The quality and quantity of these actions will determine the points assigned for participation.

Students are expected to:

a) Be present and well prepared for class.

b) Participate fully in class activities and assignments – take an active part in small and large group discussions (without dominating the conversations) and pay attention to class lectures.

c) Make insightful comments, which are informed by required readings and demonstrate reflection on those readings. Specifically, students should come to class with questions, comments, and thoughts on the current readings.

Each of these criterion will be assessed on a 5-point scale:

5 = Student consistently demonstrated the criterion throughout the semester.

4 = Student frequently demonstrated the criterion throughout the semester.

3 = Student intermittently demonstrated the criterion throughout the semester.

2 = Student rarely demonstrated the criterion throughout the semester.

1 = Student did not demonstrate the criterion throughout the semester.

The participation grade will be calculated as the sum of points for each criterion.

Assignment Rubrics

Rubrics for the various assignments will be provided with the details of the expectations of the assignment. The role of assignments is to provide students an opportunity to apply and express an understanding of the material discussed in the course.