

George Mason University
College of Education and Human Development
Graduate School of Education: Elementary Education
EDCI 545 Section A01
Assessment and Differentiation (3 credits)
Summer 2016 (May 16—June 23)

Thompson L003/2020 and Centreville/Centre Ridge Elementary School

*Course taught in conjunction with *EDCI 553 – Science Methods*

Professor: Dr. Andrew Gilbert

Office Hours: By appointment; including email/Skype or Facetime if desired.

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COURSE DESCRIPTION:

A. **Prerequisites:** Admission to Elementary Education graduate program; must be taken in programmatic sequence.

B. **University Catalog Course Description:** Provides a research-based introduction to differentiated instruction for children in grades PK- 6. Emphasis on the assessment of learners and differentiation of instruction to meet the needs of all learners.

LEARNER OUTCOMES:

This course is designed to enable students to:

- a) discuss current, validated research underlying the theory, principles, and practices of differentiated instruction.
- b) identify and explain the core principles of differentiated instruction and the ways in which these principles inform and guide all aspects of instructional implementation.
- c) apply the core principles of differentiation when planning and assessing lessons.
- d) discuss the interdependent relationship between assessment and instruction in a learning environment.
- e) identify formal and informal assessment tools to collect data on the readiness, interests, and learning profiles of students as the basis for differentiation before and during instruction.
- f) identify and discuss strategies for assessment and grading in a differentiated classroom.
- g) generalize course content to reflect how the multicultural, special needs, gifted students and other diverse populations within classrooms have their needs met via the application of the skills, strategies, and knowledge of this course.

PROFESSIONAL STANDARDS:

[INTASC \(The Interstate Teacher Assessment & Support Consortium\):](#)

- **Standard #2: Learning Differences.** The teacher uses understanding of individual

differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards.

- **Standard #6: Assessment.** The teacher understands and uses multiple methods of assessment to engage learners in their own growth, to monitor learner progress, and to guide the teacher's and learner's decision making.
- **Standard #7: Planning for Instruction.** The teacher plans instruction that supports every student in meeting rigorous learning goals by drawing upon knowledge of content areas, curriculum, cross-disciplinary skills, and pedagogy, as well as knowledge of learners and the community context.

ACEI/NCATE Program Standards for Elementary Teacher Preparation:

- **Standard 3.2: Adaptation to diverse students**—Candidates understand how elementary students differ in their development and approaches to learning, and create instructional opportunities that are adapted to diverse students
- **Standard 4.0: Assessment for instruction**—Candidates know, understand, and use formal and informal assessment strategies to plan, evaluate and strengthen instruction that will promote continuous intellectual, social, emotional, and physical development of each elementary student.

The Virginia State Teacher Education Licensure Regulations for Elementary Education:

- **Standard 1:** The use of differentiated instruction and flexible groupings to meet the needs of learners at different stages of development, abilities, and achievement.

International Society for Technology in Education National Education Technology Standards (ISTE-NET):

- **Standard 2: Design and Develop Digital-Age Learning Experiences and Assessments**—Teachers design, develop, and evaluate authentic learning experiences and assessment incorporating contemporary tools and resources to maximize content learning in context and to develop the knowledge, skills, and attitudes identified in the NETS•S.
- **Standard 5: Engage in Professional Growth and Leadership**— Teachers continuously improve their professional practice, model lifelong learning, and exhibit leadership in their school and professional community by promoting and demonstrating the effective use of digital tools and resources.

Virginia State Technology Standards for Instructional Personnel:

- **Standard A:** Instructional personnel shall be able to demonstrate effective use of a computer system and utilize computer software.
- **Standard B:** Instructional personnel shall be able to apply knowledge of terms associated with educational computing and technology.
- **Standard C:** Instructional personnel shall be able to apply computer productivity tools for professional use.
- **Standard D:** Instructional personnel shall be able to use electronic technologies to access and exchange information.

NATURE OF THE COURSE:

This course is structured to utilize multiple instructional formats. We will engage in face-to-face class sessions as well as online discussions and activities. Face-to-face class sessions will include small/large group discussions and tasks, lecture, and student led activities. Some of our course meeting time will occur in an elementary school setting. These field-based hours will be a combination of our required course meeting times and the 15 hours of field work associated with this course. A detailed schedule will be provided in class.

REQUIRED TEXTS:

Marzano, R. J. (2006). Classroom assessment and grading that work. ASCD: Alexandria, VA
Tomlinson, C. A. (2014). *The differentiated classroom: Responding to the needs of all learners* (2nd ed.). ASCD: Alexandria, VA.

**Additional selected readings will be posted on Blackboard.

COURSE ASSIGNMENTS AND EXAMINATIONS (all assignments count for each course EDCI 545 and 553):

1. Attendance and Participation

10%

It is expected that you attend all scheduled classes and asynchronous online meetings outlined within the syllabus. Absence from class to observe a religious holiday, to serve jury duty, or to participate in required military service, and medical emergencies are exceptions to the above policy. If you anticipate being absent for any of these reasons, please make arrangements at least 48 hours in advance. In addition, you are expected to be on time to class each week unless 48 hours advance notice has been provided to the instructor. This is particularly important given our work with a school partner. This course operates with the assumption that knowledge is socially constructed and the most meaningful learning opportunities are those where you have the opportunity to offer and explore diverse perspectives with peers; therefore, you are expected to contribute to both class and online discussions and activities as well as genuinely listen to peers as they do the same. In addition, you are expected to be prepared for each class, which means having completed all assigned readings and tasks for that class. Cell phones are for emergency use only and it is expected that you will not use cell phones in class for purposes such as texting, social media, or phone calls.

2. Wonder Project

10%

Think about the science that you see in the everyday. Ask yourself questions, feel the movements and forces while you drive, look at the sky, watch your pet, engage with another human, think about your place in this world, go for a long walk and just think...no phone, no worries, just get lost in your thoughts. Remember this is homework so you have an excuse. After you have engaged with some of these and spent some time with your thoughts, **craft a list of 25 things you wonder about in relation to science and include at least one image that can be shared with the class.** There are no real rules here. Your wonders are yours and unique to how you envision the world around you. "Dance like nobody is watching" while you build your list. Then reflect on the list and provide a one-page discussion regarding aspects we will discuss on day one in class.

- 3. Longitudinal Reading Logs** **20%**
- a. You will analyze each reading in terms of the reading and its connection to your school site and your unit. Record these responses in your longitudinal reading log for each reading. Use the template provided in Bb. Your reflection should...
1. be completed before the class period begins.
 2. be brief, yet thoughtful, and demonstrate genuine consideration of the text
 3. be accessible during each class session.
- These will help in the construction and support of both your science unit and differentiation plan.
- 4. Differentiation and Assessment Plan for unit** **(PBA #1)** **20%**
- Using the template provided in class, you will work with your teams to outline a plan for a differentiated unit of instruction. You will design the differentiation and assessment plan to promote equity in learning opportunities for all students. This means that intentional decisions will need to be made to consider student readiness, interests, and learning profiles. You will need to consider how content, process, and/or products of the lesson will be different for different groups of students depending on their strengths. All of these decisions will be driven by your knowledge of students from your field placement and couched in the readings you have engaged in throughout the semester. Your outline will also include a plan for measuring student learning prior to and throughout the unit.
- 5. Impact on Student Learning Task:** **(PBA #2)** **10%**
- After teaching a portion of your unit, you will analyze the student learning data you collected from any formative or summative assessments you delivered within your instruction. You will be expected to examine it to such a level that you are able to identify areas of strengths and weaknesses for individual students while also identifying learning trends across the classroom. And finally, you will pose implications for further instruction, including differentiation, based on your analysis of student assessment data. **You will go beyond merely attending to percentage correct/incorrect of the assignment and instead will “break the assessment down” to its skills and sub-skills. First, you will evaluate what the student demonstrated that he/she knew or did not know within each objective. Second, you will pose implications for further instruction based on your analysis.**
- 6. Inquiry-Based Unit Project** **(PBA #3)** **30%**
- The goal of this project is construct and teach (a small portion) an inquiry-based unit within your field site. We will design this work around the 5 E model of lesson planning. The unit will entail building a detailed and well-supported narrative description for the approach that will be employed. The Three-lesson sequence will build science content understanding in engaging and dynamic ways for students within your field site and provide some key theoretical and research-based support for the content, approach and activities constructed. The unit will be comprised of the following components and scored via the rubric provided later in the syllabus as part of the PBA for science.

GRADING POLICIES:

A=94-100; A-=90-93; B+=87-89; B=80-86; C=70-79; F=below 70

**Remember: A course grade less than B requires that you retake the course.*

WORK TIMELINESS EXPECTATIONS:

It is expected that all class assignments will be submitted on time to the correct location; therefore, **late assignments will not receive full credit**. Assignments turned in late will receive an automatic deduction of one letter grade making the highest possible score equivalent to 80% (B). All assignments must be submitted by the beginning of class (Eastern standard time) on the due date stated within the syllabus (see below) and should only be submitted via **Blackboard**.

If you are unable to complete an assignment due to an emergency or difficult circumstance, communication must be made with the instructor via email or in person. In situations that are deemed an emergency or a difficult circumstance, I will work with you to set a new submission date that will not be considered late.

OTHER EXPECTATIONS

All written papers are **expected to be double-spaced, with 1” margins, and in 12-point font** (Times New Roman, Calibri, or Arial). **APA format is expected**. If you do not have a 6th Edition APA manual, the OWL at Purdue is an excellent resource:

<http://owl.english.purdue.edu/owl/resource/560/01/>

***Please Note:** The GMU Writing Center offers online support via email. They will provide feedback on your writing within one hour. Graduate and professional writing can be difficult; I encourage you to take advantage of this service.

http://writingcenter.gmu.edu/?page_id=177

BLACKBOARD REQUIREMENTS

Every student registered for any Elementary Education course with a required performance-based assessment (designated as such in the syllabus) is required to submit this/these assessment(s) (EDCI 545: Impact on Student Learning Task; EDCI 553 – Science Unit) to Tk20 through Blackboard (regardless of whether a course is an elective, a onetime course or part of an undergraduate minor). Evaluation of the performance-based assessment by the course instructor will also be completed in Tk20 through Blackboard. Failure to submit the assessment to Tk20 (through Blackboard) will result in the course instructor reporting the course grade as Incomplete (IN). Unless this grade is changed upon completion of the required Tk20 submission, the IN will convert to an F nine weeks into the following semester.

GMU POLICIES AND RESOURCES FOR STUDENTS

- 1 Students must adhere to the guidelines of the George Mason University Honor Code (See <http://oai.gmu.edu/the-mason-honor-code/>).
- 2 Students must follow the university policy for Responsible Use of Computing (<http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/>).

- 3 Students 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 communication from the university, college, school, and program will be sent to students solely through their Mason email account.
- 4 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/>].
- 5 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, as soon as possible [See <http://ods.gmu.edu/>]. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor (See <http://ods.gmu.edu/>)
- 6 Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.
- 7 The George Mason University Writing Center staff 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/>).

PROFESSIONAL DISPOSITIONS

Students are expected to exhibit professional behaviors and dispositions at all times (See Elementary Education Program Handbook).

CORE VALUES COMMITMENT

Core Values Commitment

collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles. <http://cehd.gmu.edu/values/>

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For additional information on the College of Education and Human Development, Graduate School of Education, please visit our website [See <http://gse.gmu.edu/>].

Emergency Procedures

You are encouraged to sign up for emergency alerts by visiting the website <https://alert.gmu.edu>. There are emergency posters in each classroom explaining what to do in the event of crises. Further information about emergency procedures exists on <http://gmu.edu/service/cert>

IMPORTANT INFORMATION FOR LICENSURE COMPLETION

Beginning with Spring 2015 internships, all official and passing test scores must be submitted and in the Mason system (i.e. Banner/PatriotWeb) by the internship application deadline. Allow a minimum of six weeks for official test scores to arrive at Mason. Testing too close to the application deadline means scores will not arrive in time and the internship application will not be accepted.

Required tests:

- Praxis Core Academic Skills for Educators Tests (or qualifying substitute)
- VCLA
- RVE
- Praxis II (Content Knowledge exam in your specific endorsement area)

For details, please check <http://cehd.gmu.edu/teacher/test/>

Endorsements:

Please note that ALL endorsement coursework must be completed, with all transcripts submitted and approved by the CEHD Endorsement Office, prior to the internship application deadline. Since the internship application must be submitted in the semester prior to the actual internship, please make an appointment to meet with the Endorsement Specialist and plan the completion of your Endorsements accordingly.

CPR/AED/First Aid:

Beginning with spring 2015 internships, verification that the Emergency First Aid, CPR, and Use of AED Certification or Training requirement must be submitted and in the Mason system (i.e. Banner/PatriotWeb) by the application deadline. Students must submit one of the "acceptable evidence" documents listed at <http://cehd.gmu.edu/teacher/emergency-first-aid> to CEHD Student and Academic Affairs. In order to have the requirement reflected as met in the Mason system, documents can be scanned/e-mailed to CEHDacad@gmu.edu or dropped-off in Thompson Hall, Suite 2300.

Background Checks/Fingerprints:

All local school systems require students to complete a criminal background check through their human resources office (not through George Mason University) prior to beginning field hours and internship. Detailed instructions on the process will be sent to the student from either the school system or Mason. Students are strongly advised to disclose any/all legal incidents that may appear on their records. The consequence of failing to do so, whether or not such incidents resulted in conviction, is termination of the field hours or internship.

Please Note: Your G-Number must be clearly noted (visible and legible) on the face of the document(s) that you submit.

Application

The internship application can be downloaded at <http://cehd.gmu.edu/teacher/internships-field-experience>
Deadlines

Spring internship application:

- Traditional semester long internship: September 15

Fall internship application:

- Traditional semester long internship: February 15
- Year Long Internship: April 1 (All testing deadlines are August 1 immediately preceding the fall start; RVE deadline is December 1)

PBA #1 Three lesson inquiry unit

Description and standard addressed	Exceeds Expectations, 4-5 pts.	Meets Expectations, 2-3 pts.	Needs Improvement, 1 pt.	Does Not Meet Expectations – 0
<p>A. Lesson Framework (pedagogical process & procedure, narrative description)</p> <p>INTASC: # 8 ACEI: #1.0</p>	<p>Utilizes inquiry-based lesson model (5E’s), clearly describes pedagogical process that embodies inquiry. Clearly described, highly usable and innovative ideas with original elements; uses a myriad of excellent and well-respected sources properly referenced within narrative descriptions.</p>	<p>Utilizes inquiry-based lesson model (5E’s), clearly describes pedagogical process that embodies inquiry. Effectively describes, usable and effective ideas; uses dependable sources that properly referenced within narrative descriptions.</p>	<p>Difficult to use; does not have complete components; and/or is not self-explanatory. Does not utilize reputable sources within narrative descriptions and/or more needed clarity within narrative.</p>	<p>No consistent format nor serious professional commitment to student needs.</p>
<p>B. Aligned Standards, Objectives, Activities & Resources</p> <p>INTASC: # 7; ACEI: #3.1</p>	<p>All are student-oriented objectives and stated in observable student learning outcomes; spans all levels of student thinking; all are appropriate for the lesson. Standards, objectives and lesson activities all seamlessly align and support one another.</p>	<p>All are student-oriented objectives and stated in observable student learning outcomes; covers some levels of student thinking; most are clearly connected directly to lesson activities; there exists alignment between standards, objectives and activities.</p>	<p>A mix of student- and teacher-oriented objectives or not stated in terms of observable student learning outcomes; has only minimal levels of student thinking; has way too little or many objectives; and/or some are inappropriate for lesson. Standards, objectives and activities not clearly aligned.</p>	<p>Missing</p>
<p>C. Assessment</p> <p>INTASC: #6 ACEI #4</p>	<p>Innovative, well-supported assessment strategies clearly linked to objectives; demonstrates all stated objectives, copies of assessments included. Will include diagnostic, formative and summative approaches throughout the unit.</p>	<p>Assessment clearly linked to objectives; demonstrates nearly all stated objectives, copies of written assessments are attached. Will include diagnostic, formative and summative approaches throughout the unit.</p>	<p>Assessment is not clearly linked to objectives; demonstrates some stated objectives, and/or copies of written assessments are not attached. Does not include all three types of assessment.</p>	<p>Missing</p>

<p>D. Science Content (Earth science, space science, life science, physical science)</p> <p>INTASC: #4 ACEI #2.2</p>	<p>Content utilized in lesson plan is accurate, complete (as defined by listed standards); incorporates innovative, exciting and scientifically accurate approaches; multiple connections are made to students everyday lives and accessible.</p>	<p>Content utilized in lesson plan is accurate, complete (as defined by listed standards); incorporates These approaches make attempts to connect to students everyday lives.</p>	<p>Content utilized in lesson plan is inaccurate in some places, key content is not addressed (as defined by listed standards); incorporates mostly scientifically accurate approaches; little effort to connect to students everyday lives.</p>	<p>Missing</p>
<p>E. Nature of Science and Safety</p> <p>INTASC Content #5 ACEI #2.2</p>	<p>Lesson supports essential enactment of science processes consistent with accepted notions of NOS. These include wonder, evidence, investigation, testing, concluding based on findings, etc. These approaches are well-supported with research literature. There also exists keen attention to issues that could arise and clearly provides appropriate safety measures.</p>	<p>Lesson supports enactment of science processes consistent with accepted notions of NOS. These include wonder, evidence, investigation, testing, concluding based on findings, etc. There also exists attention to issues that could arise and clearly provides appropriate safety measures.</p>	<p>Lesson tries to support enactment of science processes consistent with accepted notions of NOS, but misses on key approaches or those approaches are absent. (including wonder, evidence, investigation, testing, concluding based on findings, etc.) There is not enough attention paid to issues that could arise and do not clearly provide appropriate safety measures.</p>	<p>Missing</p>
<p>F. Technology Plan</p> <p>INTASC #5 ISTE: #I</p>	<p>Provides excellent description for technology use that connects subject matter with multiple forms technology that advance student learning through creative, and innovative ways.</p>	<p>Strong description for technology use that connects subject matter with technology approaches that advance student learning through creative, and innovative ways.</p>	<p>Description for technology lacks specifics and does not clearly offer ways to advance student learning in creative, innovative and meaningful ways.</p>	<p>Missing</p>

Assessment Summary: The project is meant to facilitate your understanding for the design and teaching of an inquiry-based science unit. This will require research into both inquiry-based lesson planning and science content. The goal is bring powerful learning theory to life in classrooms and design science experiences that both excite and engage elementary children.

PBA #2

Part 1-Diagnostic Assessment				
Topic	Distinguished (met) 4	Proficient (met) 3	Developing (not met) 2	Beginning (not met) 1
Diagnostic Tools	Discusses a wide variety (4+) of diagnostic pre-assessments and articulates myriad of reasons for choosing your approach.	Discusses a variety (2-3) of diagnostic pre-assessments and articulates myriad of reasons for choosing your approach.	Designed and used a limited number of diagnostic pre-assessments (2 or fewer) articulates a few reasons for choosing your approach.	Not included
Analysis of pre-assessment data	Analysis of data includes rich, thorough descriptions with detailed example cases	Analysis of data includes a general description with example cases, but missing some detail.	Analysis of data is generic in scope and limited in depth.	Not included
Implications of pre-assessment findings	A thorough description of implications for planning—with an emphasis on strategies for differentiating instruction	A description of implications for planning—with an some emphasis on strategies for differentiating instruction	Limited description of implications for planning—with little attention to strategies for differentiating instruction	
Writing Style	Well written with no errors in grammar, style or punctuation	Well written with few errors in grammar, style or punctuation	Some errors and/or stylistic issues	Numerous errors and/or stylistic issues

Part 2: Lesson Plans				
Topic	Distinguished (met) 4	Proficient (met) 3	Developing (not met) 2	Beginning (not met) 1
Rationale ACEI 3.1 INTASC 2	Detailed rationale for instructional decisions. Specific connections to course content.	Somewhat detailed rationale for instructional decisions. General connections to course content.	General rationale for instructional decisions. Minimal connections to course content.	Limited rationale for instructional decisions. No connection to course content.

Standards and objectives ACEI 3.1 INTASC 7	Specific connections to standards; specific, clear objectives aligned to lesson procedures	Connections to standards; Objectives generally clear and connected to lesson procedures	General connections to standards; broad objectives and/or not connected to lesson procedures	Limited connections to standards; minimal/poorly constructed objectives
Instructional procedures ACEI 3.1 INTASC 7	Specific, clear, description including a scripting of the procedures	Somewhat specific description of procedures with limited scripting	General description of procedures	Limited description of procedures
Instructional approach and strategies ACEI 3.4, INTASC 5	Instructional approach is clearly identifiable and includes all components are used; highly engaging instructional strategies are used	Instructional approach is identifiable and most components are used, some engaging instructional strategies are used	Instructional approach is identifiable and generally followed; minimal inclusion of engaging instructional strategies	Instructional approach is unclear and/or missing components; no attention to engaging instructional strategies
Assessment ACEI 4.0 INTASC 6	Detailed, specific attention to formative and summative assessment strategies; assessments clearly connect to objectives and procedures.	Somewhat specific attention to formative and summative assessment strategies; assessments generally connect to objectives and procedures	General attention to formative and summative assessment strategies; minimal connections to objectives and procedures	Limited attention to formative and summative assessment strategies; no connection to objectives and procedures
Learner differences ACEI 3.2 INTASC 2	Detailed attention to learner differences via accommodations, modifications, differentiated strategies	Somewhat specific attention to learner differences via accommodations, modifications, differentiated strategies	General attention to learner differences via accommodations, modifications, differentiated strategies	Limited attention to learner differences via accommodations, modifications, differentiated strategies

Part 3-Analysis of Impact of Instruction on Student Learning

Topic	Distinguished (met) 4	Proficient (met) 3	Developing (not met) 2	Beginning (not met) 1
Analysis of Progress Towards Objectives	Thorough post lesson analysis of what the students did/did not know in relation to the objectives	Post lesson analysis of what the students did/did not know in relation to the objectives	General post lesson analysis of what the students did/did not know in relation to the objectives	

Analysis of Student Strengths/Weaknesses	Rich description of areas of strength and areas of weakness for each student	Description of areas of strength and areas of weakness for each student	General description of areas of strength and areas of weakness for each student	
Implications	Thoroughly described implications for future instruction, including needed differentiation.	Description includes implications for future instruction, including needed differentiation.	General description of implications for future instruction	
Writing Style	Well written with no errors in grammar, style or punctuation	Well written with few errors in grammar, style or punctuation	Some errors and/or stylistic issues	Extensive errors and/or stylistic issues

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