

George Mason University
College of Education and Human Development
Teaching Culturally & Linguistically Diverse and Exceptional Learners

EDUC 514.6F1: Teaching Elementary Science in International Schools
3 credits, Summer 2018 (CRN 42994)

July 7 – 18, 8:30 a.m. – 3:20 p.m.,
Thompson 2020 (July 6-13); Thompson L014 (July 16-17)

Professor: Nancy Holincheck, Ph.D., N.B.C.T.
Assistant Professor of Education

Office Hours: After class or by appointment

Office Location: Thompson 2507

Telephone: 703-993-8136

Email: nholinch@gmu.edu

Skype ID: nancy.holincheck

Prerequisites/Corequisites

Admission to GSE and enrollment in the TCLDEL program.
Recommended prerequisites: EDUC 511 and EDRD 515.

University Catalog Course Description

Covers the theory and practices of effective teaching of PK-6 science in international schools. Uses laboratory and discovery techniques to design essential science components and integrate them with other disciplines. Introduces students to the design and implementation of activities for developing concepts, solving problems, and strengthening thinking skills in PK-6 science. Requires 20 hours of PK-6 classroom fieldwork.

Course Overview

Explores the theory and practices of effective teaching of PK-6 science in international schools

Course Delivery Method

Course delivery will be accomplished in a variety of ways in order to meet the needs and styles of all learners. Methods of instruction will include:

- Presentations assisted by Power Point
- Whole group and small group discussions
- Cooperative learning groups
- Student presentations
- Field projects
- Video presentations
- Textbooks and journal articles
- Blackboard

Learner Outcomes or Objectives

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

1. Understand how children learn and develop
2. Understand the central concepts, tools of inquiry, applications, and structures of science
3. Understand how students differ in their approaches to learning
4. Understand the importance of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation

5. Plan instruction based upon knowledge of subject matter, students, the community, and curriculum goals
6. Understand the uses of formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social, and physical development of the learner
7. Be a reflective practitioner who continually evaluates the effects of his/her choices and actions on others and who actively seeks out opportunities to grow professionally
8. Foster relationships with school colleagues, parents, and agencies in the larger community to support students' learning and well-being
9. Develop an understanding and appreciation of the organization and excitement of science
10. Build a repertoire of science teaching and assessment strategies by reading, writing, observing, participating and reflecting on the teaching of science
11. Develop strategies to help students to become scientifically literate, think critically and creatively, and see relationships among science, technology and society
12. Create and teach a unit plan (PYP) that contains science lessons/activities that include:
 - Learning experiences that make aspects of content meaningful to students (*National Standards, Constructivism, and Experimental Design*)
 - Learning opportunities that support students intellectual, social, and personal development (*Science Process Skills, Constructivism, and Cooperative Learning*)
 - Instructional opportunities that are adapted to diverse learners (*Multiple Intelligences and Science Integration*)
 - Instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills (*Problem Solving & Thinking Skills*)
 - A learning environment that encourages positive social interaction, active engagement in learning, and self-motivation (*Hands-On Learning and Cooperative Learning*)
 - Foster active inquiry, collaboration, and supportive interaction in the classroom (*Questioning Strategies, Classroom Management, and Cooperative Learning*)
 - Formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social, and physical development of the learner (*Assessment and Evaluation*)
 - Integration of science with other subject areas
 - Highlight safety issues
 - Real world application
 - A cohesive unit of study
 - Strengthening existing knowledge of science content through hands-on investigations, reading, writing, and communicating
 - Working cooperatively with peers to teach and discuss science and science teaching
 - Identifying past, present, and future movements in science education

Professional Standards (GSE / ACEI / INTASC)

InTASC (Interstate Teacher Assessment and Support Consortium) Standards and CAEP (Council for the Accreditation of Educator Preparation) Standards

This course contains at least one Common Assessment developed by the College of Education and Human Development to assess our candidates' performance on nationally accepted standards for beginning teachers (InTASC) and our programs' performance on national accreditation standards (CAEP).

Upon completion of this course, students will have met the following professional standards:

Graduate School of Education Goals

Diversity

- Infuse diversity into the experience, training, and practice of students, faculty, and staff
- Provide support and mentoring of minority students, faculty, and staff
- Enhance recruitment and retention of minority students, faculty, and staff
- Ensure that diverse issues are reflected in curriculum and syllabi
- Ensure that diverse issues are reflected in GSE partnerships with schools, communities, and families

Reflective, Research-based Practice

- Encourage reflective and research-based practice for GSE faculty and for our students in their own practice

Relationship to the following ACEI Standards: www.acei.org

- 1.0 Development, Learning and Motivation
- 2.2 Science Content and Process
- 2.6 Health Education
- 3.1 Integrating and Applying Knowledge for instruction
- 3.2 Adaptation to Diverse Learners
- 3.4 Active Engagement in Learning
- 4.0 Assessment
- 5.1 Professionalism

Correlation Charts:

INTASC Standards for Beginning Teacher Licensing and Development to EDUC 514 Course

INTASC Standards	Course Topics	Class Assignments
Principle 1: Content <i>The teacher understands the central concepts, tools of inquiry, applications, and structures of science and of the science disciplines he or she teaches and can create learning experiences that make these aspects of content meaningful to students.</i>	Constructivism Hands-On Learning Science Process Skills National Science Standards Inquiry/Questioning Strategies Assessment & Evaluation Problem Solving & Thinking Skills Multiple Intelligences Experimental Design Science Integration Science Connections- Technology	Unit Plan Evaluation of Teacher Guides Articles & Readings Field Experience
Principle 2: Student Development <i>The teacher understands how children learn and develop and can provide learning opportunities that support their intellectual, social, and personal development.</i>	Constructivism Hands-On Learning Science Process Skills Inquiry/Questioning Strategies Assessment & Evaluation Problem Solving & Thinking Skills Multiple Intelligences Cooperative Learning	Unit Plan Evaluation of Teacher Guides Articles & Readings Field Experience
Principle 3: Student Diversity <i>The teacher understands how students differ in their approaches to learning and creates instructional opportunities that are adapted to diverse learners</i>	Assessment & Evaluation Problem Solving & Thinking Skills Multiple Intelligences Cooperative Learning Science Integration Science Connections - Technology	Unit Plan Evaluation of Teacher Guides Field Experience Articles & Readings
Principle 4: Instructional Variety <i>The teacher understands and uses a variety of instructional strategies to</i>	Science Process Skills Inquiry/Questioning Strategies Problem Solving & Thinking Skills	Unit Plan Evaluation of Teacher Guides

<i>encourage students' development of critical thinking, problem solving, and performance skills.</i>	Multiple Intelligences Experimental Design Cooperative Learning	Field Experience Articles & Readings
Principle 5: Learning Environment <i>The teacher uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.</i>	Constructivism Hands-On Learning Science Process Skills Inquiry/Questioning Strategies Multiple Intelligences Science Safety Classroom Management Cooperative Learning Science Connections - Technology	Unit Plan Field Experience Articles & Readings

PYP Practitioner Award Programme Requirements

Course	Curriculum	Teach/Learn	Assessment	Professional
Teaching Elementary Science in International Schools	A, B, C, D	E, F, G, H	I, J, K, L, M	N, O

Required Text

Contant, T. L., Bass, J. L., Tweed, A. A., & Carin, A. A. (2017). *Teaching science through inquiry-based instruction: 13th Edition*. Saddle River, NJ: Pearson.

Recommended Texts & Resources:

Achieve, Inc. (2013). *Next generation science standards*. Retrieved from <http://www.nextgenscience.org/print/121> (Note: Not recommended to print)

National Research Council (1996). *National science education standards*. Washington, DC: National Academy Press. Retrieved from http://www.nap.edu/openbook.php?record_id=4962 (Note: Not recommended to print)

Virginia Department of Education (2010). *Virginia Science Standards of Learning*. Retrieved from http://www.doe.virginia.gov/testing/sol/standards_docs/science/index.shtml

IB Primary Years Program Documents:

In addition to the required and recommended texts, all students must have the following IB documents.. These documents are all available from the IBO Program Resource Center (PRC) (see below).

- Making the PYP Happen: A curriculum framework for international primary education
- Making the PYP Happen: Pedagogical leadership in a PYP school
- Programme standards and practices
- A continuum of international education (2009)*
- IB Learner Profile Booklet and Video*
- A basis for practice: the Primary Years Programme
- Learning in a language other than mother tongue in IB programmes*
- Developing a transdisciplinary programme of inquiry
- PYP Exhibition Guidelines
- The PYP as a model of transdisciplinary learning

Relevant Websites:

All students will be enrolled in the Program Resource Center (PRC) through the International Baccalaureate Organization; the IBO public website is also a useful resource (www.ibo.org).

Please ensure you can access the PRC prior to the start of the course.

Course Performance Evaluation

Students are expected to submit all assignments on time in the manner outlined by the instructor (e.g., Blackboard, Tk20, hard copy).

TK20 PERFORMANCE-BASED ASSESSMENT SUBMISSION REQUIREMENT

(Science Inquiry Unit Plan & Video Tape Analysis)

Every student registered for any Teaching Culturally, Linguistically Diverse & Exceptional Learners program course with a required performance-based assessment is required to submit this assessment and the Fieldwork Log of Hours and Evaluation Form to Tk20 through Blackboard (regardless of whether the student is taking the course as an elective, a one-time course or as 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 the IN grade is changed upon completion of the required Tk20 submission, the IN will convert to an F nine weeks into the following semester.

FIELDWORK REQUIREMENT

Field Experience Record and Evaluation (Science Inquiry Unit Plan & Video Tape Analysis)

The **field experience is a required component** of the teacher preparation program at George Mason University. All students will complete a minimum of **20 hours in field experience** for this course.

Documentation of your field experience is required as well as a signed statement from your field experience teacher(s) or supervisor(s). If you are taking more than one course in a semester, you must complete 20 hours per course (e.g., two courses require 40 hours of field experience). This means you may be completing different tasks for different courses in the same placement. Materials and products used for one course cannot be used for another course (e.g., videos, lesson plans, activities, etc.)

***TCLDEL Fieldwork Log of Hours and Evaluation Form must be uploaded to TK20 on Blackboard.**

The form is located on Blackboard in your TCLDEL organization site in the “Fieldwork” page.

In-service teachers: Field experience can often be conducted in your own classroom if you have access to the population of students required for the PBAs and other assignments. Please consult your instructor if you have questions about the viability of your classroom for fieldwork in this class. You must register for your school as your field experience site in the online Field Experience Request form available here: <https://cehd.gmu.edu/endorse/ferf>. You will check the box indicating that: *“I will arrange my own field experiences (observations and/or case studies) because I am a full-time contracted school system employee and will complete field experience at my workplace.”* The deadline to submit your field experience placement is Week 2 of class. Failure to do so will result in an unsatisfactory grade for your fieldwork assignment. If you are taking this course as part of a cohort program, please indicate “TCLDEL Cohort” on your request form FIRST, then select your program and placement location. HINT: Cohort courses have section numbers beginning with “6F” (e.g. EDUC 511.6F1).

Pre-service teachers: If you are not currently working in a K-12 school, you will need to be placed in an appropriate fieldwork setting to complete your required PBAs and fieldwork hours. You must request a fieldwork site using the online Field Experience Request form available here: <https://cehd.gmu.edu/endorse/ferf>. You will check the box indicating that: *I will need George Mason (Clinical Practice Specialist) to arrange a placement for my field experiences (including observations and/or case studies).* The deadline to submit your field experience placement is Week 2 of class. Failure to do so will result in an unsatisfactory grade for your fieldwork assignment. If you are taking this course as part of a cohort program, please indicate “TCLDEL Cohort” on your request form, then select your program and placement location. HINT: Cohort courses have section numbers beginning with “6F” (e.g. EDUC 511.6F1).

Virginia state or county cohort teachers: Cohort Students are required by their district and by TCLDEL to complete field experiences as required by the Virginia Department of Education for this program. Each district has arranged for candidates to be able to work at K-12 grade levels in order to complete all licensure requirements. Please contact your district coordinator for further information.

TCLDEL Fieldwork Log of Hours and Evaluation Assessment

	Status of Student Work	
	1	0
Fieldwork Log of Hours demonstrates 20 hours of fieldwork completed, with a teacher-mentor or supervisor signature.	Complete	Not Complete

NOTE: Failure to submit documentation of successful completion of your fieldwork in a timely manner will make you ineligible to register for coursework, be recommended for licensure, or receive a grade for this course.

Assignments and/or Examinations

Assignment Description	Grade %	Due Date
Participation & Electronic Journals	20%	Ongoing
Article Critique	10%	7/10/17, 11:59 pm
Microteaching: Inquiry mini-lesson	10%	7/13/18, in class
School-to-Home Cultural Connections to Science	10%	7/15/18, 11:59 pm
Final Take Home Exam	10%	7/17/18, 3:20 pm
Field Project	30%	1/15/2019
Field Experience	10%	1/15/2019

More detailed descriptions of assignments and rubrics are provided at the end of the syllabus.

Other Requirements

Attendance policy:

TCLDEL students are expected to attend *all* class periods of courses for which they register. In class participation is important not only to the individual student, but to the class as whole. Class participation is a factor in grading; instructors may use absence, tardiness, or early departure as de facto evidence of nonparticipation and as a result lower the grade as stated in the course syllabus (Mason Catalog). Any unexcused absences will result in a 10 -point deduction from your participation grade.

Grading

At George Mason University course work is measured in terms of quantity and quality. A credit normally represents one hour per week of lecture or recitation or not fewer than two hours per week of laboratory work throughout a semester. The number of credits is a measure of quantity. The grade is a measure of quality. The university-wide system for grading graduate courses is as follows:

Grade	GRADING	Grade Points	Interpretation
A	94-100	4.00	Represents mastery of the subject through effort beyond basic requirements
A-	90-93	3.67	
B+	85-89	3.33	Reflects an understanding of and the ability to apply theories and principles at a basic level
B	80-84	3.00	
C*	70-79	2.00	Denotes an unacceptable level of understanding and application of the basic elements of the course
F*	<69	0.00	

Note: "C" is not satisfactory for a licensure course; "F" does not meet requirements of the Graduate School of Education

See the University Catalog for details: <http://catalog.gmu.edu/policies/academic/grading/>

Honor Code & Integrity of Work

Integrity of Work: TCLDEL students must adhere to the guidelines of the George Mason University Honor Code (<https://catalog.gmu.edu/policies/honor-code-system/>). The principle of academic integrity is taken very seriously and violations are treated as such.

Violations of the Honor Code include:

1. Copying a paper or part of a paper from another student (current or past);
2. Reusing work that you have already submitted for another class (unless express permission has been granted by your current professor **before** you submit the work);
3. Copying the words of an author from a textbook or any printed source (including the Internet) or closely paraphrasing without providing a citation to credit the author. For examples of what should be cited, please refer to: <https://owl.english.purdue.edu/owl/resource/589/02/>
4. You may also not “reuse” fieldwork hours. Each placement must have 20 documented hours that are solely for each course that you are in; you may be at the same site, but the same hours may not be counted towards the same course.

Late Work Policy

At the graduate level all work is expected to be of high quality and submitted on the dates due. *Work submitted late will be reduced one letter grade for every day of delay.* Because we live in uncertain times, if you have any extraordinary circumstances (think flood, earthquake, evacuation) that prevent you from submitting your work in a timely manner, it is your responsibility to contact the instructor as soon as possible after the circumstances occur and make arrangements to complete your work. *It is up to the discretion of the instructor to approve the late/makeup work.*

Course Withdrawal with Dean Approval

For graduate and non-degree students, withdrawal after the last day for dropping a course requires approval by the student's academic dean, and is permitted only for nonacademic reasons that prevent course completion (Mason catalog). *Students must contact an academic advisor* in APTDIE to withdraw after the deadline. There is no guarantee that such withdrawals will be permitted.

Participation/Attendance Policy

Students are expected to attend all classes. **Students with one or more absences will not receive credit for the course.**

Incomplete (IN)

This grade may be given to students who are in good standing, but who may be unable to complete scheduled course work for a cause beyond reasonable control. The student must then complete all the requirements by the end of the ninth week of the next semester, not including summer term, and the instructor must turn in the final grade by the end of the 9th week. Unless an explicit written extension is filed with the Registrar's Office by the faculty deadline, the grade of IN is changed by the registrar to an F (Mason catalog). Faculty may grant an incomplete with a contract developed by the student with a reasonable time to complete the course at the discretion of the faculty member. The faculty member does not need to allow up to the following semester for the student to complete the course. A copy of the contract will be kept on file in the APTDIE office.

GMU E-MAIL AND WEB POLICY:

Mason uses electronic mail (www.gmu.edu/email) to provide official information to students. Examples include notices from the library, notices about academic standing, financial aid information, class materials, assignments, questions, and instructor feedback. Students are responsible for the content of university communication sent to their Mason e-mail account and are required to activate that account and check it regularly (Mason catalog). All communication sent for this course will be sent to your Mason email account.

Schedule of Topics, Assignments and Readings

Note: Faculty reserves the right to alter the schedule as necessary, with notification to students.

Day	Date	Class Topic & Readings to complete <u>prior</u> to class	
		MORNING (8:30-11:30)	AFTERNOON (12:30-3:20)
1	Fri. 7/6	TOPIC: Inquiry, Science Ed Policy & Problems READ: Text Ch. 1: Science and Science Education	TOPIC: Inquiry & Nature of Science READ: NOS Articles on Bb (see day 1 folder)
2	Mon 7/9	TOPIC: Inquiry Processes & Strategies Focus on IB's inquiry stance & compatibility READ: Text Ch. 2: Getting Ready for Inquiry Instruction & article on Bb	TOPIC: Planning for a Positive Classroom Environment READ: Text Ch. 3: Creating a Positive Classroom Environment & article on Bb
<i>Science & Children Article Critique due by 11:59 pm today to Bb</i>			
3	Tues 7/10	TOPIC: Learning Cycles, Learning with Understanding READ: Text Ch. 4: Learning Science with Understanding & article on Bb	TOPIC: Teaching for Understanding, 5E Model of Instruction, Science Talks READ: Text Ch. 5: Engaging in Inquiry-Based Instruction and Using the 5-E Model & article on Bb
4	Wed 7/11	TOPIC: Effective questioning in science for teachers & students READ: Text Ch. 6: Effective Questioning AND Article posted on blackboard	TOPIC: Metacognition, misconceptions READ: Metacognition & misconception articles posted to Blackboard
5	Thurs 7/12	TOPIC: Assessment of Science Learning READ: Text Ch. 7: Assessing Science Learning & article on Bb	TOPIC: Scientific Argumentation & Discourse READ: Argumentation & Discourse Articles posted to Blackboard
<i>Unit exploration: Bring one lesson plan from your unit to class today for peer feedback</i>			
6	Fri 7/13	TOPIC: Science for All Learners READ: Text Ch. 10: Making Science Accessible for All Learners & article on Bb <i>Microteaching-Groups 1 & 2</i>	TOPIC: Differentiated Instruction in Science READ: Differentiation articles posted to Blackboard & article on Bb <i>Microteaching-Groups 3, 4, & 5</i>
<i>Microteaching will occur today in class, submit lesson plan & materials to Bb by 11:59 pm</i>			
	Sun 7/15	<i>Home-School Cultural Connections Assignment due by 11:59 pm today via Blackboard (due before midnight on Sunday 7/15/18)</i>	
7	Mon 7/16	TOPIC: Technology Tools & Resources for Inquiry Science READ: Text Ch. 8: Using Technology Tools and Resources for Science Learning	TOPIC: Interdisciplinary Connections: Connecting Science with Other Subjects READ: Text Ch. 9: Connecting Science with Other Subjects
8	Tues 7/17	TOPIC: Bringing it all together READ: JIGSAW readings (read assigned reading from list on blackboard, come prepared to share & teach)	<i>Final Inquiry Activities & Work time:</i> <i>Final Exam due by 3:20 pm via Blackboard</i>

COURSE PERFORMANCE EVALUATION

All assignments should be turned in on the due date indicated in the schedule below via Blackboard. The submission deadline for most assignments is 11:59 pm EST of the due date indicated for each assignment (note that some assignments are due in class or at the end of class). All projects must be typed, in a legible 12-point font, with one-inch margins, and double-spaced. **All writing assignments should be submitted as Word documents, or a word processor based format.** Writing quality (including mechanics, organization, and content) is figured into the overall points for each writing assignment, so please proofread carefully. Late papers and projects will not be accepted without penalty, except for in extraordinary circumstances. I am happy to clarify and lend assistance on projects and assignments, but please contact me within a reasonable timeframe

1. Participation

20%

Students will be expected to actively participate in class by questioning, commenting and critically analyzing relevant issues and topics. Students will make a presentation and lead a discussion on a journal or research article. Students will read, participate in activities, and perform reflective observations and journaling during class time.

TCLDEL students are expected to attend *all* class periods of courses for which they register. In-class participation is important not only to the individual student, but to the class as a whole. Class participation is a factor in grading; instructors may use absence, tardiness, or early departure as de facto evidence of nonparticipation and as a result lower the grade as stated in the course syllabus (Mason Catalog).

Mason uses electronic mail to provide official information to students. Examples include notices from the library, notices about academic standing, financial aid information, class materials, assignments, questions, and instructor feedback. Students are responsible for the content of university communication sent to their Mason e-mail account and are required to activate that account and check it regularly (Mason catalog).

2. Article Critique

10%

Students will submit one article critique, regarding an article from an outside source. At least one citation from the textbook or assigned articles should be included in the critique, as well as an assessment of the article, as explained in the rubric. The article should relate to teaching elementary science. APA citations & references should be included.

3. Microteaching: Inquiry mini-lesson

10%

Students will work collaboratively in grade level groups to plan & implement an inquiry activity with their peers in the EDUC 514 class. Students are encouraged to draw from the activities provided in the second half of the textbook, but may draw from other resources, as well. Students should identify the relevant VA SOL or NGSS standard(s) that are met by the activity and discuss.

4. School-to-Home Cultural Connections to Science

10%

Teachers of elementary children are particularly responsible for initiating and encouraging communication between their students' families and the school. It is vital that teachers create relationships with families and the community, particularly when teaching in a school with cultural and linguistic diversity (whether in the U.S. or around the world).

The student will develop **one** of the following, and will include citations of at least two course readings to support work:

- A one-page newsletter/handout with ideas for families to extend science development that builds on classroom activities on a particular topic or concept. The newsletter must provide opportunities for the child to bring back products done with family members at home.

- A detailed plan for a “skill backpack”. The backpack can remediate or extend a mathematics or science skill that students often have a difficult time developing or provide an extension of a classroom activity for students with advanced proficiency. The backpack must provide opportunities for the child to bring back products done with family members at home.
- A detailed plan for a classroom or school family science night. The plan should include how the student will involve parents and what activities will be done.

4. Field Project

30%

A. All TCLDEL licensure courses have a required Performance Based Assessment (PBA). The Field Project incorporates two PBAs for this course, the **Science Inquiry Unit Plan** and the **Critical Incident Analysis**. Students will design an integrated, inquiry-based, hands-on science unit (four to six connected lessons) that demonstrates an understanding of topics presented during the semester. Units may be based on National or State Standards K-6. Students also need to complete a PYP Planner. Students will post the Unit Plans to TK20 for review and grade assignment. Be sure to identify your cohort.

B. Students will teach at least two lessons from their unit and reflect on their experience with respect to student learning as part of their unit submission. A peer or administrator should observe both of the lessons taught and complete a Science Teaching Feedback Form on each lesson for a total of two completed forms. Feedback from these two forms should be incorporated during your reflections. Please see the Science Teaching Feedback Form in this syllabus.

5. Field Experience

10%

All TCLDEL courses require 20 hours of field experience in elementary classrooms. For this course, teaching the two science lessons and submitting two Science Teaching Feedback Forms in this syllabus along with the Reflective Paper on your field placement site’s physical environment, learning climate, the teacher, and the students; TCLDEL Field Experience Record (includes log of hours); and TCLDEL Field Experience Evaluation Form can be considered the field experience component of the class.

If you cannot teach the two science lessons during your regularly scheduled field work, you will need to make arrangements to complete the science teaching assignments at another time. After a “satisfactory” completion of Field Experience a course grade will be provided. Signed documents must be submitted to the instructor. All field experience documents must be loaded into TK20. Also, please see EDUC 514 Field Experience Assessment Rubric in this syllabus.

6. Final Project

10%

Take home final exam. Students will select two topics to address that show understanding of issues that are presented during the semester. Responses should be limited to three pages, double-spaced.

All assignments should be in APA format.

If you need access to students in a classroom setting to conduct your Field Project, you can either join a teacher in this class or see me to make arrangements **no later than the first week of class.*

Class Participation Rubric

Unsatisfactory (<70)	Minimal (70-79)	Competent (80-89)	Excellent (90-100)
Does not ask questions or make any observations that indicate reading of assigned material. Does not participate in small groups and is frequently tardy or absent.	Does not ask questions or make any observations that indicate reading of assigned material. Does not participate in small groups and is frequently tardy or absent.	Frequently asks questions or makes observations that indicate reflection and some reading of assigned material. Participates very actively in small groups or class discussions. May be tardy two or three times or one unexcused absence.	Consistently asks thoughtful, analytic questions or makes astute observations that indicate reflection and reading of assigned material. Participates very actively in small groups or class discussions. Attends class regularly and on time.

Article Critique Rubric

	Outstanding (90-100)	Above Expectations (80-89)	Meets Expectations (70-79)	Does Not Meet Expectations (0-69)
Relevance	Relates personal reactions and/or raises relevant questions throughout response.	Relates a few personal reactions and/or raises relevant questions to elementary science.	May relate personal reactions and/or raises relevant questions to elementary science.	Stretches to raise relevant questions and/or make a relevant personal reaction to elementary science.
Summary	Summarizes article clearly, articulately and briefly.	Summarizes article clearly and briefly.	Summarizes article briefly with some coherence.	Summary is unclear and poorly written.
Critique	Critique is expressed clearly and supported with reference(s).	Critique is expressed clearly and supported with a reference.	Critique is expressed clearly.	Critique is unclear.
Due Date	Instructor receives critique before or on due date.	Instructor receives critique before or on due date.	Instructor receives critique on due date.	Instructor receives critique after due date.

Rubric: School to Home Cultural Connections to Science

	Exceeds Expectation	Meets Expectations	Does Not Meet Expectations
Directions	Provides clear, parent friendly directions for family members to engage child in mathematics and/ or science development	Provides parent friendly directions for family members to engage child in mathematics and/ or science development	Provides limited or unclear directions to engage child in mathematics and/ or science development
Communication	Provides opportunities and encouragement for parent-child-school communication	Provides limited opportunities or encouragement for parent-child-school communication	Provides limited or no opportunities or encouragement for parent-child-school communication
Readings	Shows clear evidence of incorporating at least two readings (includes citations)	Shows some evidence of incorporating at least two readings (includes citations)	Limited or ineffective incorporation of course readings

EDUC 514 PBA Rubric

Criteria & Standard	Score			
	Does not meet standard 0 - 1	Approaches standard 2	Meets standard 3	Exceeds standard 4
Unit Content Science <i>ACEI Standard 2.2 – Science Content Knowledge</i> <i>InTASC 4(c)</i>	The candidate does not engage learners in applying methods of inquiry and standards of evidence used in science.	The candidate engages learners in applying methods of inquiry but disregards the standards of evidence used in science, which may include nature of science.	The candidate engages learners in applying methods of inquiry and the appropriate standards of evidence used in science, including the nature of science.	The candidate engages learners in applying multiple methods of inquiry and appropriate standards of evidence used in science by implementing authentic tasks and meaningfully conveying the nature of science to students.
Unit Content Instructional Differentiation <i>ACEI Standard 3.2 Adaptation to Diverse Learners</i> <i>InTASC 2(a)</i>	The candidate does not design, adapt, or deliver instruction to address each student’s diverse learning strengths and needs and did not create opportunities for students to demonstrate their learning in different ways.	The candidate designs, adapts, and delivers instruction to address some student’s diverse learning strengths and needs and creates few opportunities for some students to demonstrate their learning in different ways.	The candidate designs, adapts, and delivers instruction to address each student’s diverse learning strengths and needs and creates opportunities for students to demonstrate their learning in different ways.	The candidate designs, adapts, and delivers student-centered instruction that addresses each student’s diverse learning strengths and needs and creates multiple opportunities for students to demonstrate their learning in different ways.
Unit Content Manages Learning Environment <i>InTASC 3(d)</i>	The candidate does not plan ways to manage the learning environment to actively and/or equitably engage learners. The candidate does not show evidence of organizing, allocating, and coordinating the resources of time, space, and learner’s attention.	The candidate plans ways to marginally manage the learning environment to actively and equitably engage some learners by organizing, allocating, and coordinating the resources of time, space, and learner’s attention.	The candidate plans ways to effectively manage the learning environment to actively and equitably engage the majority of learners by organizing, allocating, and coordinating the resources of time, space, and learner’s attention.	The candidate plans ways to effectively manage the learning environment to actively and equitably engage all learners by creatively organizing, allocating, and coordinating the resources of time, space, and learner’s attention.
Unit Content - Integration of Science <i>ACEI Standard 3.1 Integrating & Applying Knowledge for Instruction</i>	The candidate does not design instruction that integrates science topics with other s subject.	The candidate designs instruction that integrates science topics with one other subject.	The candidate designs instruction that integrates science topics with several other subjects clearly to create meaning for students.	The candidate designs instruction that integrates science topics with several other subjects skillfully and creatively to make meaning for students
Unit Content Assessment <i>ACEI Standard 4.0 Assessment for Instruction</i> <i>InTASC 8(b)</i>	The candidate does not provide evidence of monitoring student learning, and/or does not engage learners in assessing their progress, and/or does not provide evidence of adjusting instruction in response to student learning needs.	The candidate provides minimal evidence of monitoring student learning and engaging learners in assessing their progress, but the candidate rarely adjusts instruction in response to student learning needs.	The candidate provides consistent evidence of monitoring student learning, engaging learners in assessing their progress, and adjusts instruction in response to student learning needs.	The candidate provides substantial evidence of continuously monitoring student learning, engaging learners in assessing their progress, and innovatively adjusts instruction in response to student learning needs.
Unit Content Health and Safety <i>ACEI Standard 2.6 Health Education</i>	The candidate does not address health or safety issues.	The candidate addresses health and safety issues minimally but fails to address misconceptions or real world applications	The candidate addresses potentially dangerous health and safety issues in all unit activities to help students clarify misconceptions and bring real world applications to the unit	The candidate highlights potentially dangerous health and safety issues in all unit activities to help students clarify misconceptions and bring extensive real world applications to the unit

Criteria & Standard	Score			
	Does not meet standard 0 - 1	Approaches standard 2	Meets standard 3	Exceeds standard 4
Unit Content Adapts Instruction <i>InTASC 8(a)</i>	The candidate does not adapt instruction to the needs of individuals and groups of learners.	The candidate adapts instruction to the needs of some individuals and groups of learners but seldom incorporates appropriate strategies or resources.	The candidate uses appropriate strategies and resources to adapt instruction to the needs of individuals and groups of learners.	The candidate uses appropriate and creative strategies and resources within authentic tasks to adapt instruction to the needs of individuals and groups of learners.
Lesson Plan Content Science Inquiry Process <i>ACEI Standard 3.3</i> <i>Development of Critical Thinking and Problem Solving</i> <i>InTASC 8(f)</i>	The candidate does not engage learners in developing higher order questioning skills or metacognitive processes. Lesson content, objectives, and standards do not require students to demonstrate critical thinking or problem solving skills	The candidate engages some learners in developing higher order questioning skills or metacognitive processes. Lesson content, objectives, and standards requires students to demonstrate critical thinking and problem solving skills only in some cases	The candidate engages most learners in developing higher order questioning skills and metacognitive processes. Lesson content, objectives, and standards requires students to demonstrate critical thinking and problem solving skills	The candidate engages all learners in developing higher order questioning skills and metacognitive processes within authentic science learning situations. Lesson content, objectives and standards requires students to repeatedly demonstrate critical thinking and extensive problems solving skills
Lesson Plan Content Stimulates learner reflection <i>InTASC 4(d)</i>	The candidate does not stimulate learner reflection on prior content knowledge, does not link new concepts to familiar concepts, and does not make connections to learners' experiences.	The candidate stimulates learner reflection on prior content knowledge, but neither links new concepts to familiar concepts nor makes connections to learners' experiences.	The candidate stimulates learner reflection on prior content knowledge, links new concepts to familiar concepts, and makes connections to learners' experiences.	The candidate creatively stimulates learner reflection on prior content knowledge, links new concepts to familiar concepts, and makes connections to learners' experiences using student-centered instruction.
Lesson Plan Content Questioning to Promote Inquiry <i>InTASC 8(i)</i>	The candidate does not ask questions to stimulate discussion.	The candidate asks questions to stimulate discussion but the purposes tend to be low level.	The candidate asks appropriate questions to stimulate discussion that serves different purposes (e.g., probing for learner understanding, helping learners articulate their ideas and thinking processes, stimulating curiosity, and helping learners to question).	The candidate asks varied questions to stimulate discussion that serves different purposes (e.g., probing for learner understanding, helping learners articulate their ideas and thinking processes, stimulating curiosity, and helping learners to question) within authentic learning situations.
Lesson Plan Content Developmental Appropriateness <i>ACEI Standard 1.0</i> <i>Development, Learning & Motivation</i> <i>InTASC 1(b)</i>	The candidate's instruction does not take into account individual learners' strengths, interests, and needs and does not enable learners to advance and accelerate his/her learning.	The candidate creates instruction that takes into account some students' strengths, interests, and needs and that enables some learners to advance and accelerate his/her learning.	The candidate creates developmentally appropriate instruction that takes into account individual learners' strengths, interests, and needs and that enables each learner to advance and accelerate his/her learning.	The candidate creates student-centered instruction that is developmentally appropriate and takes into account individual learners' strengths, interests, and needs and that enables each learner to advance and accelerate his/her learning.
Lesson Plan Content Critical thinking and problem solving <i>ACEI Standard 3.3</i> <i>Development of critical thinking and problem solving</i>	The candidate does not provide authentic opportunities for students to engage in critical thinking and problem solving	The candidate provides few opportunities for students to engage in critical thinking and problem solving	The candidate provides some opportunities for students to engage in critical thinking and problem solving	The candidate provides multiple opportunities for students to engage in critical thinking and problem solving

Criteria & Standard	Score			
	Does not meet standard 0 - 1	Approaches standard 2	Meets standard 3	Exceeds standard 4
Lesson Plan Content Active Engagement <i>ACEI Standard 3.4</i> <i>Active engagement in Learning</i>	The candidate does not incorporate any hands-on activities to engage learners in inquiry.	The candidate incorporates some low-quality activities	The candidate incorporates at least one engaging hands-on science activity or experiment.	The candidate incorporates at least one high quality, engaging hands-on science activity or experiment that is designed to engage learners in inquiry.
Lesson Plan Content Varies Instruction Role <i>InTASC 8(d)</i>	The candidate does not vary his/her role in the instructional process (e.g. instructor, facilitator, coach, audience).	The candidate sometimes varies his/her role in the instructional process (e.g. instructor, facilitator, coach, audience) but it is in relation to neither the content nor the purpose of instruction nor the needs of learners.	The candidate varies his/her role in the instructional process (e.g. instructor, facilitator, coach, audience) in relation to the content and purpose of instruction and the needs of learners.	The candidate consistently varies his/her role in engaging instructional processes (e.g. instructor, facilitator, coach, audience) in relation to the content and purpose of instruction and the needs of learners.
Reflection & Response to Feedback <i>InTASC 9(l)</i>	The candidate does not provide ideas for follow-up on the two lessons observed by teacher/supervisor.	The candidate provides ideas for follow-up on the two lessons observed by teacher/supervisor, but they do not stem from the feedback form or classroom assessments	The candidate provides ideas for follow-up on the two lessons observed by teacher/supervisor that stem from the feedback form and classroom assessments.	The candidate provides robust and specific ideas for follow-up on the two lessons observed by teacher/supervisor that stem from the feedback form and classroom assessments.
Video Clip & Reflective Analysis Technology to support instruction <i>InTASC 9(d)</i>	The candidate does not use technology to support analysis, reflection, and problem-solving strategies for instruction.	The candidate ineffectively uses technology to support analysis, reflection, or problem-solving strategies for instruction.	The candidate uses technology to support analysis, reflection, and problem-solving strategies for instruction.	The candidate effectively uses technology to support a thorough use of analysis, reflection, and problem-solving strategies for instruction.

Science Teaching Feedback Form

Please use this form OR another relevant teacher feedback form. Evaluator feedback does not influence the teacher’s course grade in EDUC 514. This form should be completed twice, once *each* for two lessons.

Teacher: _____ **Date:** _____

Observer: _____ **Title:** _____

School: _____ **Grade/Subject(s):** _____

Lesson Observed: _____

Please score the teacher on the following aspects based on your observation of their teaching two lessons from their science unit completed as a portion of their course requirements for EDUC 514. This form should be completed for each observation so that you have completed the form twice. It is not required that the same person complete both forms. Please note that the content of your feedback does not influence the teacher’s course grade in EDUC 514. Instead, the teacher is requested to reflect on your feedback as a valuable opportunity to grow as a professional educator, and the quality of their reflection is scored as part of their final grade on their unit assignment.

Criteria	Exceeds Standard – 4	Meets Standard – 3	Approaches Standard - 2	Needs Improvement - 1
<u>Lesson Content</u> <i>Science Inquiry Process</i> <i>ACEI 2.2</i>	Lesson content, objectives and standards requires students to repeatedly demonstrate critical thinking and extensive problems solving skills	Lesson content, objectives, and standards requires students to demonstrate critical thinking and problem solving skills	Lesson content, objectives, and standards requires students to demonstrate critical thinking and problem solving skills only in some cases	Lesson content, objectives, and standards do not require students to demonstrate critical thinking or problem solving skills
<u>Lesson Content</u> <i>Developmental Appropriateness</i> <i>ACEI 1.0</i>	Lesson content, objectives, and standards are developmentally appropriate	Lesson content, objectives, and standards are developmentally appropriate in most cases	Lesson content, objectives, and standards are developmentally appropriate only in some cases	Lesson content, objectives, and standards are not developmentally appropriate
<u>Lesson Content</u> <i>Critical thinking and problem solving</i> <i>ACEI 3.3</i>	Includes extended opportunities for students to engage in critical thinking and problem solving	Includes sufficient opportunities for students to engage in critical thinking and problem solving	Includes minimal opportunities for students to engage in critical thinking and problem solving	No authentic opportunities are provided for students to engage in critical thinking and problem solving
<u>Lesson Content</u> <i>Active Engagement</i> <i>ACEI 3.4</i>	Includes extended high quality, engaging hands-on/minds-on activities/experiments	Includes sufficient high quality, engaging hands-on/minds-on activities/experiments	Includes minimal hands-on/minds-on activities/experiment	Includes a low-quality, unengaging hands-on/minds-on activity/experiment(s)
<u>Lesson Content</u> <i>Communication to Foster Collaboration</i> <i>ACEI 3.5</i>	Models effective written and oral communication conveying ideas and information to students extending their understanding of science	Models effective written and oral communication to convey information to students	Models good communication skills written and orally to share information with students	Models poor communication skills in written and oral forms; lacks clarity and often confuses students

<u>Lesson Content</u> <i>Communication to Foster Communication</i> <i>ACEI 3.5</i>	Models effective questioning strategies including using higher level questioning, restating ideas, drawing connections and using cues with active student engagement	Models effective questioning strategies using higher level questions, some student engagement	Good use of questioning strategies, some attempt to ask higher level questions, some student involvement	Poor use of questioning strategies; asks low level questions with little or no student engagement
<u>Lesson Content</u> <i>Health and Safety</i> <i>ACEI 2.6</i>	Highlights potentially dangerous health and safety issues in all unit activities to help students clarify misconceptions to bring extensive real world applications to the unit	Mentions potentially dangerous health and safety issues in all unit activities to help students clarify misconceptions to bring extensive real world applications to the unit	Some health and safety issues are addressed in the unit but without addressing misconceptions or real world applications	No health or safety issues are addressed

Additionally, please use the space below to provide feedback to the teacher in following areas:

PREPARATION and PLANNING:

INSTRUCTIONAL METHODS and MANAGEMENT:

ASSESSMENT:

PROFESSIONALISM:

RECOMMENDATIONS:

Observer's Signature _____ Date _____

Teacher's Signature _____ Date _____

Observers: When completing the second page of the Science Teaching Feedback Form please consider the following list of characteristics and practices of effective teachers.

An effective teacher...

Planning and Preparation:

- Uses curriculum guidelines and learning standards during planning to meet the needs of learners
- Develops unit and lesson plans to meet the developmental and academic needs of diverse learners.
- Plans a sequence of engaging activities, which are focused on achievement of the instructional objective(s).
- Selects learning experiences, technology and materials to accommodate different styles and levels of learning.
- Relates activities to students' culture, interests, knowledge, and experiences.
- Integrates materials and activities that are sensitive to culture, disabilities and gender.
- Gathers, creates and organizes materials and equipment in advance.
- Plans for using various methods to assess students' learning.
- Collaborates with other teachers and specialists in planning.

Instructional Methods and Management:

- Uses a variety of teaching methods, techniques and strategies.
- Consistently presents accurate content.
- Consistently provides clear instruction.
- Provides opportunities for learners to participate actively and successfully at different levels.
- Provides opportunities for learners to work independently and in cooperative groups.
- Encourages critical thinking and problem solving.
- Appropriately uses a variety of materials, technology and other media to achieve instructional objectives.
- Motivates students through interesting and challenging activities.
- Communicates high expectations while respecting individual differences and cultural diversity.
- Creates and/or uses established routines to provide an orderly and supportive environment.
- Creates and/or uses established routines to provide an orderly and supportive environment.
- Demonstrates courtesy and caring in relationships with students.
- Manages time, space and materials to keep students productively involved in learning.
- Demonstrates ability to manage 2/+ classroom activities simultaneously, with evidence of attention to each.
- Works toward developing a positive classroom community.
- Handles disruptive or destructive behavior firmly and fairly.

Assessment:

- Uses assessment that matches the objective.
- Uses assessment to inform future instruction.
- Adapts pacing, methods and materials using feedback from students.
- Assesses for understanding and mastery through observation of students' performance.
- Assesses for understanding and mastery through evaluation of students' work.
- Assesses for understanding and mastery through evaluation of students' work.
- Keeps records of students' progress and problems.
- Communicates with students to inform them of their progress.
- Gathers, organizes, and analyzes student data to communicate progress to others.

Professionalism:

- Possesses the basic skills and knowledge needed to guide students' learning.
- Demonstrates effort to continue learning both content and pedagogy.
- Reflects on his/her professional practice.
- Welcomes assistance for improvement.
- Implements suggestions and recommendations for improvement.
- Can develop and explain professional judgments.
- Engages in productive relationships with professional colleagues and support staff.
- Demonstrates stamina, flexibility and a positive attitude.
- Is responsible, dependable and observant of school policies and procedures.
- Demonstrates dispositions associated with an effective career educator.
- Projects a professional image in terms of demeanor and appearance.

Field Experience: Documentation of Fieldwork Experiences

All TCLDEL courses require 20 hours of field experience in elementary classrooms. All those observing in a classroom are required to submit a **TCLDEL Field Experience Record (includes log of hours) and TCLDEL Field Experience Evaluation Form** to your **instructor** via Tk20 no later than **the last date of the semester** of your fieldwork (or by the relevant extended summer deadline). The documents **must have signatures from either their teachers/or supervisors before submission**. Those conducting fieldwork in their own schools should provide the **principal/head's permission**.

Additionally, for this course you must teach two science lessons from your unit and submit two completed Science Teaching Feedback Forms from this syllabus along with the Reflective Paper. If you cannot teach the two science lessons during your regularly scheduled field work, you will need to make arrangements to complete the science teaching assignments at another time.

EDUC 514 Field Experience Assessment Rubric

Checklist: Are all items Submitted?

____ **Signed TCLDEL Field Experience Record (includes log of hours)**

____ **Signed TCLDEL Field Experience Evaluation Form**

____ **Two signed Science Teaching Feedback Forms (OR similar teaching feedback forms) on two different lessons taught from unit**

____ **Reflective paper on observations and teaching experiences**

Excellent

- Completed 20 hours of Field Experience
- Unit Plan (including IB Planner) is complete and thoughtfully created; Reflective paper connects meaningfully to instructional changes for the future
- Writes clearly with few stylistic and grammatical errors
- Organizes paper in deliberate manner
- Reflects thoughtfully for all areas
- Supports analysis and application by frequently citing class content
- Applies knowledge to future teaching situations

Satisfactory

- Completed 20 hours of Field Experience
- Unit Plan and reflective paper (including IB Planner) is mostly complete
- May write with some lack of clarity and/or consistent stylistic or grammatical errors
- May organize paper in loose fashion that is difficult to follow
- May not reflect for all areas or does not reflect with depth
- Supports analysis by citing class content inaccurately or using few citations
- May not apply knowledge to future teaching situations

Unsatisfactory

- Did not complete 20 hours of Field Experience
- Unit Plan and reflective paper (including IB Planner) is lacking in specific details
- Writes with some lack of clarity and/or many stylistic and grammatical errors
- Organizes paper in fashion that is difficult or impossible to follow
- Does not reflect for all areas or does not reflect with depth
- Does not support analysis by citing class content
- Does not apply knowledge to future teaching situations

Evaluator's Comments

The following common assessment for the College of Education and Human Development will be administered during the course.

George Mason University College of Education and Human Development

CAEP Common Assessment

Critical Incident Analysis: Impact on Student Learning Assessment Task

Assessment Information:

In the TCLDEL program, the Critical Incident Analysis Assessment Task is completed during EDUC 514 Teaching Elementary Science in International Schools and is assessed by the course instructor. The candidate must achieve a score of 3 to be successful on this assignment. If a candidate does not earn a 3 on the assignment, they must meet with the course instructor or assessor prior to resubmitting. The data from this assessment are used to identify gaps the candidate's ability to meet learning differences and to critically analyze and reflect upon an instructional episode and connections between situations they encounter and the broader social, political, and economic forces that can impact on student learning.

Standards addressed in this assessment:

InTASC Standards: 2 & 9

CAEP Standards: 1.1, 1.2, 1.3, 1.5

VDOE Standards: 2, 3, 4, 5

THEMES: Technology 

Assessment Objectives

- The candidate will use knowledge of learning differences and assessment to develop an instructional plan including a plan for assessing the learner progress.
- The candidate will use all three levels of critical reflection (technical, practical, and critical) to analyze an instructional episode to make connections between situations they encounter and the broader social, political, and economic forces that influence those events.
- The candidate will critically reflect upon a “critical incident” from a lesson and propose alternative ways of addressing the incident to affect future teaching.

Rationale

According to John Dewey (1933) reflection is an active, persistent, and careful consideration of any belief or supposed form of knowledge in light of the grounds supporting it and future conclusions to which it tends. Critical reflection delves even more deeply. Critical reflection allows candidates to make teaching decisions based upon a conscious awareness and careful consideration of the assumptions on which the decisions are based, and the technical, educational, and ethical consequences of those decisions.

For this assessment, you'll apply Van Manen's (1977) three hierarchical levels of reflection to your holistic reflection, as explained in Yost, et.al (2000):

- **Technical reflection** – focuses on effective application of skills and knowledge in the classroom so reflection focuses on analyzing the effects of strategies used. (Example: “Will using a timer help Susan stay focused on her work?”)

- **Practical reflection** – focuses on the assumptions underlying a specific practice and the consequences of that practice on learning. It implies the assessment of the educational implications of actions and beliefs. (Example: “Did using a ‘flipped classroom’ design allow my students to learn more, faster-than more traditional instruction?”)
- **Critical reflection** – includes emphases from technical and practical reflection and goes deeper. It focuses on questioning moral and ethical dimensions of decisions related, directly or indirectly, to the classroom. Candidates make connections between situations they encounter and the broader social, political, and economic forces that influence those events. (Example: “I wonder if creating structures that provide learners with more responsibility for their learning will make them more independent and self-motivated learners. And will these skills carry over into the real world?”)

For this assessment, you’ll also identify a “critical incident” from your own teaching. Brookfield (1990) noted that a “critical incident” is a ‘vividly remembered event which is unplanned and unanticipated’ (pg. 84). Reflecting upon a critical incident can affect change in: your thinking, your practice, your attitudes, and your understanding. A critical incident might be an interaction with a learner; it might be part of a teaching episode; it could be a parent interaction or just a solitary “ah-ha” moment. **For this assessment, your analysis will focus on what you learn from reflecting on a critical incident identified from a lesson.**

Directions: Critical Incident Analysis: Impact on Student Learning Assessment Task

This assignment requires you to reflect at all three levels of reflection. During field experience or your internship, you will record yourself teaching a lesson for which you have developed a detailed lesson plan. **Prior to recording, be sure to obtain appropriate permissions from school system, school, and families as needed in your specific context.**

This assignment consists of two parts: (a) **the holistic reflection**, and (b) **critical incident analysis**.

To complete this assignment you must develop a lesson plan and record the lesson* while teaching it. The lesson and the video will not be scored but will provide context during scoring the assessment. *(A videotape of the lesson will help identify the critical incident; however, if you are unable to videotape for any reason, completing this assessment for a lesson observed and transcribed or scripted by a mentor or supervisor so an incident can be identified, is an acceptable option.)

Section 1: Holistic Reflection

Following the lesson presentation, write a reflective statement that includes technical, practical, and critical reflections related to your lesson. (See above for additional information.)

Section 2: Identify, Analyze, and Critically Reflect on a Critical Incident

From your recorded lesson, select a segment (~5-10 minutes in length) that contains a critical incident, an incident that did not go as you anticipated, causing you to adjust and/or rethink your instruction. Use the following to guide your description of and reflection on the critical incident captured that occurred during your lesson.

- Provide a brief description of what is happening in the selected clip. (A review of a videotape of the lesson will help identify the critical incident; however, if you are unable to videotape for any reason, completing this assessment for a lesson observed and transcribed or scripted by a mentor or supervisor where an incident can be identified, is an acceptable option.)
- Explain why this particular segment was selected.
- Analyze the critical incident using critical reflection strategies.
 - Propose alternative ways of handling the critical incident. You should draw upon your readings, knowledge of best practice, observations, and course work for support.
 - Summarize what was learned and how it will impact your future teaching.

Submit: (a) the lesson plan for the recorded lesson, (b) the holistic reflection, (c) the critical incident video clip or a detailed description/transcript of the critical incident, and (d) critical reflection of the critical incident.

References:

Brookfield, S.D. (1990). Using critical incidents to explore learners' assumptions. J. Mezirow (Ed). *Fostering critical reflection in adulthood* (pp. 177-193). San Francisco: Jossey-Bass Publishers.

Dewey, J. (1933). *How we think. A restatement of the relation of reflective thinking to the educative process* (Revised edn.), Boston: D. C. Heath.

Van Manen, M. (1977). Linking ways of knowing with ways of being practical. *Curriculum Inquiry*, 6, 205-228. <http://www.jstor.org/stable/1179579>

Yost, D.S., Sentner, S.M., Forlenza-Bailey, A. (2000). An Examination of the Construct of Critical Reflection: Implications for Teacher Education Programming in the 21st Century, *Journal of Teacher Education*, 51:1, 39-49. DOI: <https://doi.org/10.1177/002248710005100105>

**Critical Incident Analysis: Impact on Student Learning Assessment Task Rubric
Scoring Guidelines**

4-Exceeds Standard: Candidates receive a score of 4 if they perform beyond the expectations of candidates at this point in their programs. There is evidence that candidates have done additional research, identified additional resources, and/or demonstrate exceptional understanding and application of the standard.

3-Meets Standard: This is the TARGET score. This score reflects that candidates have met the standard at the level expected at this point in their program. Candidates who receive a 3 have successfully met the standard.

2-Approaching Standard: Candidates receive this score when their understanding and effort does not meet the Target but shows basic understanding of the content being assessed.

1-Does not meet standard: Candidates who do not submit work, and/or who submit work that is clearly below the expectations for a candidate at this point in their program.

CRITERIA	Does Not Meet Standard 1	Approaching Standard 2	Meets Standard 3	Exceeds Standard 4
Part 1 – Holistic Reflection				
<i>The candidate uses a variety of data to evaluate the outcomes of teaching and learning to adapt planning and practice.</i> InTASC 9 VDOE 6	The candidate uses either a single data point to evaluate the outcomes of teaching and/or does not address their analysis and insights to adapt planning and practice for subsequent learning.	The candidate uses limited data points to evaluate the outcomes of the learning experience, and/or provides limited strategies and insights to adapt planning and practice for subsequent learning experiences.	The candidate uses a variety of data points to evaluate the outcomes the learning experience and also a variety of learning strategies and insights to adapt planning and practice for subsequent learning experiences.	The candidate uses a variety of data points to evaluate the outcomes the learning experience. The candidate selects a variety of learning strategies and insights to adapt planning and practice for subsequent learning experiences. The candidate provides detailed rationale for the selection of strategies and the adaptation of instructional practice.
<i>The candidate uses ongoing analysis and reflection to improve planning and practice.</i> InTASC 9 VDOE 6	There was no evidence that the candidate used ongoing all three levels of analysis and/or reflection to improve planning and practice.	The candidate used all three levels of analysis. However, the analysis is superficial and reflection is not at a critical level to improve planning and practice.	The candidate uses all three levels of analysis and critical reflection in an in-depth manner, to improve planning and practice.	The candidate effectively used all three levels of analysis and critical reflection to improve planning and practice. Additionally, the candidate analyzed and anticipated/predicted the impact that changes in strategies and practice would have on learners in subsequent experiences.
Part 2-- Critical Incident Analysis and Critical Reflection				
<i>The candidate critically reflects on a critical incident based on the cause and effect relationship between underlying issues and</i>	The candidate does reflect at a technical or practical level.	The candidate makes an inaccurate or incomplete critical reflection of the critical incident by identifying poorly	The candidate makes a complete critical reflection of the critical incident based on the cause and effect relationship	The candidate makes a complete critical reflection of the critical incident based on the cause and effect relationship between underlying issues and

CRITERIA	Does Not Meet Standard 1	Approaching Standard 2	Meets Standard 3	Exceeds Standard 4
<p><i>motivators that impact learning.</i></p> <p>InTASC 9 VDOE 6</p>		<p>matched underlying issues and motivators impacting learners.</p>	<p>between underlying issues and motivators impacting learners.</p>	<p>motivators and includes reflection, and problem-solving strategies to improve instruction.</p>
<p><i>The candidate engages in ongoing learning opportunities to develop knowledge and skills in order to provide all learners with engaging curriculum and learning experiences.</i></p> <p>InTASC 9 VDOE 6</p>	<p>There was no evidence that the candidate engages in ongoing learning opportunities to plan to improve teaching and learning.</p>	<p>There was minimal evidence that the candidate engages in ongoing learning opportunities to plan to improve teaching and learning.</p>	<p>The candidate identifies examples of possible options to effectively engage in ongoing learning opportunities to plan to improve teaching and learning.</p>	<p>The candidate identifies specific evidence of strategies to effectively engage in ongoing learning opportunities to plan to improve teaching and learning that directly relate to the critical incident.</p>
<p><i>The candidate reflects on his/her personal biases and accesses resources to deepen his/her own understanding of instruction.</i></p> <p>InTASC 9 VDOE 6</p>	<p>There is no evidence that the candidate reflects on his/her personal biases. The candidate did not access resources to deepen his/her own understanding of individual differences.</p>	<p>The candidate provides evidence that he/she reflects at the technical level on his/her personal biases and accesses resources to deepen his/her own understanding of limited individual differences.</p>	<p>The candidate provides evidence that he/she critically reflects on personal biases and accesses appropriate resources to deepen his/her own understanding of a variety of individual differences.</p>	<p>The candidate provides evidence that he/she critically reflects on personal biases and accesses multiple resources to deepen his/her own understanding of a variety of specific individual differences.</p>
<p><i>The candidate uses knowledge of individual differences to build relationships to create more relevant learning experiences.</i></p> <p>InTASC 2 VDOE 1</p>	<p>The candidate does not build relationships and does not create relevant learning experiences for learners.</p>	<p>The candidate builds relationships and creates relevant learning experiences for some learners.</p>	<p>The candidate builds relationships and creates relevant learning experiences based upon the knowledge of individual learner differences.</p>	<p>The candidate builds relationships and creates relevant and authentic learning experiences based upon the knowledge of specific individual learner differences.</p>

Professional Dispositions

See <https://cehd.gmu.edu/students/policies-procedures/undergraduate#profdisp>

GMU Policies and Resources for Students

Policies

- Students must adhere to the guidelines of the Mason Honor Code (see <https://catalog.gmu.edu/policies/honor-code-system/>).
- 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 silence all sound emitting devices 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/>.
- For information on student support resources on campus, see <https://ctfe.gmu.edu/teaching/student-support-resources-on-campus>

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