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

EDUC 514.6F1 & EDUC 514.B01: Teaching Elementary Science in International Schools
3 credits, Summer 2020 (CRN 42768 & 42791)
June 1 – July 21, Asynchronous Online

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

University Catalog Course Description
Covers 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 design and implementation of activities for developing concepts solving problems, and strengthening thinking skills in PK-6 science. Fieldwork hours are required.

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

Course Delivery Method
This course will be delivered online using an asynchronous format via Blackboard Learning Management system (LMS) housed in the MyMason portal. You will log in to the Blackboard (Bb) course site using your Mason email name (everything before @masonlive.gmu.edu) and email password. The course site will be available on Thursday, May 28, 2020.

Under no circumstances, may candidates/students participate in online class sessions (either by phone or Internet) while operating motor vehicles. Further, as expected in a face-to-face class meeting, such online participation requires undivided attention to course content and communication.

Technical Requirements
To participate in this course, students will need to satisfy the following technical requirements:

- High-speed Internet access with standard up-to-date browsers. To get a list of Blackboard's supported browsers see: https://help.blackboard.com/Learn/Student/Getting_Started/Browser_Support#supported-browsers
- To get a list of supported operation systems on different devices see: https://help.blackboard.com/Learn/Student/Getting_Started/Browser_Support#tested-devices-and-operating-systems
- Students must maintain consistent and reliable access to their GMU email and Blackboard, as these are the official methods of communication for this course.

- Students will need a headset microphone for use with the Blackboard Collaborate web conferencing tool. [Delete this sentence if not applicable.]
- Students may be asked to create logins and passwords on supplemental websites and/or to download trial software to their computer or tablet as part of course requirements.
- The following software plug-ins for PCs and Macs, respectively, are available for free download:
  - Adobe Acrobat Reader: https://get.adobe.com/reader/
  - Windows Media Player: https://support.microsoft.com/en-us/help/14209/get-windows-media-player
  - Apple Quick Time Player: www.apple.com/quicktime/download/
- The following apps are browser-based and will be used in this class. All are available as free accounts for students.
  - Google: https://accounts.google.com/signup (This should be a personal account, and not one affiliated with a school or school district. School and district "G-suite" accounts may limit your interaction with people outside of your organization.) If you are unable to access Google, please let your instructor know as soon as possible!
  - VoiceThread: https://voicethread.com/ You will be provided a class VoiceThread link within Blackboard. The link will prompt you to sign in or register. If you have an account through your school or school district, please create a new account that is not associated with your district.
  - Flipgrid: https://info.flipgrid.com/ You will be provided a class flipgrid link within Blackboard. The link will prompt you to sign in or register.
  - Other browser-based apps may also be used this semester, including padlet and PearDeck.

Expectations

- Course Week: Because asynchronous courses do not have a "fixed" meeting day, our week will start on Tuesdays and finish on Mondays.
- Log-in Frequency:
  Students must actively check the course Blackboard site and their GMU email for communications from the instructor, class discussions, and/or access to course materials at least 3 times per week. In addition, students must meet with the instructor synchronously at least once during the semester.
- Participation:
  Students are expected to actively engage in all course activities throughout the semester, which includes viewing all course materials, completing course activities and assignments, and participating in course discussions and group interactions.
- Technical Competence:
  Students are expected to demonstrate competence in the use of all course technology. Students who are struggling with technical components of the course are expected to seek assistance from the instructor and/or College or University technical services.
- Technical Issues:
  Students should anticipate some technical difficulties during the semester and should, therefore, budget their time accordingly. Late work will not be accepted based on individual technical issues.
- Workload:
  Please be aware that this course is **not** self-paced. Students are expected to meet *specific deadlines* and *due dates* listed in the **Class Schedule** section of this syllabus. It is the student's

responsibility to keep track of the weekly course schedule of topics, readings, activities and assignments due.

- Instructor Support:
  Students may schedule a one-on-one meeting to discuss course requirements, content or other course-related issues. Students can meet with the instructor via telephone or web conference. Students should email the instructor to schedule a one-on-one session, including their preferred meeting method and suggested dates/times.
- Netiquette:
  The course environment is a collaborative space. Experience shows that even an innocent remark typed in the online environment can be misconstrued. Students must always re-read their responses carefully before posting them, so as others do not consider them as personal offenses. *Be positive in your approach with others and diplomatic in selecting your words*. Remember that you are not competing with classmates, but sharing information and learning from others. All faculty are similarly expected to be respectful in all communications.
- Accommodations:
  Online learners who require effective accommodations to insure accessibility must be registered with George Mason University Disability Services.

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
    - Instructional opportunities that are adapted to diverse learners
    - Instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills
    - A learning environment that encourages positive social interaction, active engagement in learning, and self-motivation
    - Foster active inquiry, collaboration, and supportive interaction in the classroom

- Formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social, and physical development of the learner
- Integration of science with other subject areas
- Highlight safety issues
- Real world application
- A cohesive unit of study

13. Strengthen existing knowledge of science content through hands-on investigations, reading, writing, and communicating
14. Work cooperatively with peers to teach and discuss science and science teaching

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

InTASC (Interstate Teacher Assessment and Support Consortium) Standards and CAEP (Council for the Accreditation of Educator Preparation) Standards
Principle 1: Content
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.
Principle 2: Student Development
The teacher understands how children learn and develop and can provide learning opportunities that support their intellectual, social, and personal development.
Principle 3: Student Diversity
The teacher understands how students differ in their approaches to learning and creates instructional opportunities that are adapted to diverse learners
Principle 4: Instructional Variety
The teacher understands and uses a variety of instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills.
Principle 5: Learning Environment
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.

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

George Mason University 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

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 through Blackboard. Only assignments submitted to the course Blackboard site will be assessed.

Assignments and/or Examinations

Assignment	Grade %	Due Date
Weekly Class Engagement (~2 pts/week)	15%	Ongoing-due by Fri/Mon each wk
Weekly Dialectical Journal (~2 pts/week)	15%	Ongoing – due by Mon each week
Weekly Journals (2.5 points per journal)	20%	Fri or Mon each week by 11:59 pm
Article Critique of *Science & Children* article	10%	6/15/20, 11:59 pm
Microteaching: Inquiry Mini-lesson Video & Lesson Plan	10%	6/29/20, 11:59 pm
PYP Planner with 2 Science Lesson Plans	20%	7/13/20, 11:59 pm
Final Reflective Essay on Science Teaching & Learning	10%	7/21/20, 11:59 pm

Each course assignment is described below. Further details and rubrics for each assignment are located on Blackboard. **It is strongly recommended that students develop an organized plan for working on the major assignments throughout the semester.**

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 EDT of the due date indicated for each assignment. 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 (NOT as pdf files). 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 be assessed a grade 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. Weekly Class Engagement (15 points)
Weekly class engagement includes multiple aspects of engagement in our course content, including the weekly online class experiences incorporating science, inquiry, lesson planning, assessment, and other aspects of science teaching; critical discussion of scholarly readings with a focus on developing knowledge and skills for teaching science; and work on lesson planning for your final PYP planner. In addition to being virtually "present" each week, this part of your grade also includes quality participation and investment in dialogues and professionalism in all communication with your professor and your peers. See rubric at the end of the syllabus.

2. Dialectical Journal (15 points)
A student's dialectical journal is a series of conversations with the texts read in the class. The dialectical journal provides the instructor a view into each student's interaction with the course content as represented in the readings. Specific directions will be provided to students in class.

3. Reflective Journal Entries (20 points)
Participants will maintain an online reflective journal throughout EDUC 514. This journal, which will be written to prompts, is designed to help participants develop a habit of mind of putting thoughts to paper and will scaffold course learning final reflection on learning. Systematic and regular journaling will be used to provide evidence of growth. See rubric at the end of the syllabus.

4. Article Critique of *Science & Children* article (10 points)
Students will write a 2-4 page double-spaced article critique of one article from the NSTA journal for elementary teachers, *Science & Children*. [Note that the *Science & Children* article selected must be 4 pages or longer. The article must be submitted with the critique.] The article critique should (a) briefly summarize the article, (b) provide details for how the topic is relevant to the elementary classroom and the teacher candidate's interests, and (c) critique the article. The critique should identify strengths and weaknesses of the lesson or ideas expressed in the article. At least one citation from the textbook, assigned articles, or other relevant sources should be included in the critique. The article should relate to teaching elementary science. APA 7th edition citations & references should be included. See rubric at the end of the syllabus.

5**. Microteaching: Inquiry Mini-lesson Video & Lesson Plan (10 points)**
Students will plan a short scientific inquiry lesson & video record themselves "teaching" it for the class. Videos will be posted to a class discussion board (e.g. padlet or flipgrid) for classmates to engage in the science activity as if they were an elementary student. Students are encouraged to draw on the science activities provided in the second half of the textbook, but may draw from other resources, as well. Because we are all in different situations around the world, students are encouraged to plan activities that use common household or outdoor materials—and careful attention to safety should be paid. A lesson plan using the provided lesson plan template should be submitted with the video. The activity should provide the science learner an opportunity to engage in a meaningful, engaging, hands-on science activity. The video and lesson plan should help the class understand how the "teacher" would assess knowledge before, during, and after the activity. Students should also submit a "Read before you watch" paragraph that peers (and the instructor) can read before watching the video.

6. PYP Planner with 2 Science Lesson Plans (20 points)
Students will identify a topic around which a unit could be constructed and design a unit, including a minimum of two integrated, inquiry-based, hands-on science lessons that would be part of the unit, and a PYP planner. Units may be based on National or State Standards K-6. See rubric at the end of the syllabus.

7. Final Reflective Essay on Science Teaching & Learning (10 points)
A writing prompt for this essay will be provided in the final week of the semester. Students will draw on their dialectical journals and reflective journal entries from throughout the semester to reflect on their learning about science teaching and learning. Course readings should be referenced using APA 7th edition style. Responses should be limited to three pages, double-spaced.

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	

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

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

Honor Code & Integrity of Work
***Integrity of Work*:** 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/

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.

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.

Professional Dispositions
See https://cehd.gmu.edu/students/polices-procedures/

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

GMU Policies and Resources for Students
Policies

- Students must adhere to the guidelines of the Mason Honor Code (see https://catalog.gmu.edu/policies/honor-code-system/).
- Students must follow the university policy for Responsible Use of Computing (see https://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 https://ds.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 https://its.gmu.edu/knowledge-base/blackboard-instructional-technology-support-for-students/.
- For information on student support resources on campus, see https://ctfe.gmu.edu/teaching/student-support-resources-on-campus

Notice of mandatory reporting of sexual assault, interpersonal violence, and stalking:
As a faculty member, I am designated as a "Responsible Employee," and must report all disclosures of sexual assault, interpersonal violence, and stalking to Mason's Title IX Coordinator per University Policy 1202. If you wish to speak with someone confidentially, please contact one of Mason's confidential resources, such as Student Support and Advocacy Center (SSAC) at 703-380-1434 or Counseling and Psychological Services (CAPS) at 703-993-2380. You may also seek assistance from Mason's Title IX Coordinator by calling 703-993-8730, or emailing titleix@gmu.edu.

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

Class Schedule for Summer 2020

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

Module	Topic	Readings & Work Due

**Week 0
May 28-June 1**
	Getting Started Tasks	• READ: Syllabus
		• DUE:
		  ○ Module 0 work
		  ○ Journal 1 due by Monday, first day of class

Week 1: June 2-June 8	Intro to inquiry Nature of Science	• READ: Text chapter 1 ++ NOS Articles on Bb • DUE: ○ Journal 1 due Monday

**Week 2:
June 9-June 15**
	Safety in Science & Classroom Management Learning Objectives	• READ: Text chapters 2 and 3
		• DUE:
		  ○ Journal 2 due Friday
		  ○ **Article Critique of *Science & Children* article due Monday by 11:59 pm EDT**

Week 3: June 16-June 22	Planning for Inquiry & the 5E Lesson Plan Model, & Misconceptions	• READ: Text chapters 4 and 5 ++ Misconceptions & 5E Articles on Bb • DUE: ○ Journal 3 due Monday

**Week 4:
June 23-June 29**
	Questioning for Inquiry, Assessment	• READ: Text chapters 6 and 7 ++ Articles on Bb
		• DUE:
		  ○ Journal 4 due Friday
		  ○ **Microteaching: Inquiry Mini-lesson Video & Lesson Plan due Monday by 11:59 pm EDT**

Week 5: June 30-July 6	Argumentation & Technology in Science	• READ: Text chapter 8 ++ Argumentation Articles • DUE: ○ Journal 5 due Monday

**Week 6:
July 7-July 13**
	Differentiation & Making Science Accessible for all	• READ: Text chapter 10 ++ Differentiation Articles
		• DUE:
		  ○ Journal 6 due Friday
		  ○ **PYP Planner with 2 Science Lesson Plans due Monday by 11:59 pm EDT**

Week 7: July 14-July 20	Inquiry across Content Areas, including STEM & Maker Spaces	• READ: Text chapter 9 ++ Articles on Bb • DUE: ○ Journal 7 due Friday
July 21	Bringing it all together	• DUE: ○ **Submit Final Reflective Essay on Science Teaching & Learning by 11:59 pm EDT**

Weekly Class Engagement Rubric

	Evolving	Competent	Accomplished
Overall Participation	Very few tasks are completed on time AND/OR completed tasks do not demonstrate thoughtful consideration of the content. Collaborate session, if scheduled, may not have been attended; The student's communications with professor and peers often demonstrates unprofessional attitude, behavior, or exchange.	Most tasks for all weeks are completed on time and demonstrate thoughtfulness. Collaborate sessions, if scheduled, were attended and student somewhat engaged with peers and instructor; Demonstrates professionalism in all communications with professor and peers.	All tasks for all weeks are completed on time and demonstrate thoughtfulness. Collaborate sessions, if scheduled, were attended and student actively engaged with peers and instructor; Demonstrates professionalism in all communications with professor and peers.
Discussion Quality	Discussion posts and most replies are limited; Readings are not at all integrated to support posts; Some to no posts utilize and demonstrate learners' prior and/or new knowledge; Replies do not go beyond superficial responses; Replies may not build on others' responses to create connected threads; The student rarely pushes their own and/or their peers' thinking.	Most discussion posts and most replies are one *hearty* paragraph to three paragraphs; Readings are somewhat integrated to support posts; Most but not all posts utilize and demonstrate learners' prior and/or new knowledge; Replies typically go beyond superficial responses; Most replies build on others' responses to create connected threads; Questions may be posed for further thought and discussion; Some questions from peers may be addressed (there is some evidence that you went back to read discussion replies); The student may usually, but not always, critically consider content and/or pose questions.	All discussion posts and all replies are one *hearty* paragraph to three paragraphs; Readings and weekly content are integrated to support thoughtful posts (*and explicitly referenced*); Posts utilize and demonstrate learners' prior *and* new knowledge; All replies go beyond superficial responses; Replies build on others' responses to create connected threads; As appropriate, questions are posed for further thought and discussion; Questions from peers are addressed (there is evidence that you went back to read discussion replies); Student critically considers class content and poses questions to push their own thinking and that of their peers.

Weekly Dialectical Journal Rubric

Evolving (0-0.9)	Competent (1.0-1.9)	Accomplished (2)
Student dialogue with the text is not evident. Quotes may be missing, quotes may be listed with no student response or reflection, or student comments may be very shallow.	Student dialogue is evident in most or all of the dialectical journal entries. Quotes are identified for all readings. Students may summarize readings rather than respond to them.	Entries in dialectical journal demonstrate careful student thought and reflection. Student makes connections between readings and/or reframes their prior beliefs or original perspectives. Connections to classroom practice are made.

Weekly Reflective Journal Entries Rubric

Evolving (0-1)	Competent (1.1-1.9)	Accomplished (2-2.5)
Several journal entries are not completed on time. Student does not articulate answers/ responses to all the journal prompts and includes a number of off topic information. Lack of coherence in thought is evident in the journal entries. Entries lack evidence of substantial thought and/or were only addressed briefly during class time. Student does not appear to place emphasis on developing an understanding of self, others, and/or the course objectives.	Most journal entries is completed on time and submitted via the Blackboard Journal tool Student articulates answers/responses to the journal in a somewhat clear manner with occasional information off topic. Lack of coherence in thought may be evident in the journal entries. Entries demonstrate some evidence of revisions but the majority of the writing was not revised or further reflected upon. Student begins to place emphasis on developing an understanding of self, others, and/or the course objectives. Issues are often described instead of critically reflected upon in terms of themselves, others, and the course objectives.	Each journal entries is completed on time and submitted via the Blackboard Journal tool. Student clearly and concisely articulates answers/responses to the journal prompt. Student thoughts are expressed in a coherent and logical manner. Entries are substantive and demonstrate evidence of revisions (i.e. time was spent further reflecting on thoughts written in class). Student places clear emphasis on developing an understanding of self, others, and the course objectives. Student makes clear and specific connections between the course and his/her classroom teaching

Article Critique Rubric

	Evolving (0-1 point)	**Competent** (2 points)	**Accomplished** (3 points)
Article Summary	Article summary is not included OR is unclear and poorly written.	Article summary is excessively long or extremely short and/or is somewhat confusing.	Article summary is clear, articulate and brief.
Relevance	Fails to raise relevant questions and/or make a relevant personal reaction to elementary science.	Relates a few personal reactions and/or raises relevant questions to elementary science.	Relates personal reactions and raises relevant questions throughout response.
Critique	Critique is missing or unclear.	Critique may identify strengths or weaknesses, but not both. Weaknesses may not relate to the classroom implementation, or are not thoughtfully discussed.	Critique of article is clearly written and identifies strengths and weaknesses of article. Weaknesses are authentic and thoughtfully discussed in relation to the teacher's own or future classroom.
APA Reference	No references are included in the paper.		At least one relevant reference is included using APA 7th ed. style.

Holistic Rubric for Microteaching Video & Lesson Plan

Evolving (0-3 points)	**Competent** (4-7 points)	**Accomplished** (8-10 points)
Lesson plan or video is not submitted, or is grossly misaligned with the instructions.	Lesson plan and video are submitted. Assessment may be missing from the video and/or lesson plan. Lesson may be a lecture without a hands-on activity. Video may be an explanation of the activity rather than an example of micro-teaching.	Lesson plan using provided template and video are submitted, along with a "Read before you watch" paragraph. Formative assessment is evident in the video and lesson plan. Student takes on teacher role within the instructional video, providing clear direction to their peers as if their peers were actually elementary students. Teacher asks questions and anticipates questions students may ask, and summarizes main ideas at the end of the video.

Holistic Rubric for Final Reflective Essay

Evolving (0-3 points)	**Competent** (4-7 points)	**Accomplished** (8-10 points)
Student does not address the writing prompt. There is little evidence that the student has drawn on their dialectical journal and reflective journal entries. Neither growth nor reflection is evident.	Student may not fully address the writing prompt, or does not make clear how their ideas have extended beyond those expressed in the dialectical journal and reflective journal entries. Minimal growth evident. Reflection is present, but is not critical.	Student thoughtfully addresses the writing prompt, building upon ideas from their dialectical journal and reflective journal entries. Growth across the semester and critical reflection regarding their experiences and expectations is evident. Course readings are referenced using APA 7th edition style.

Rubric for PYP Planner with 2 Science Lesson Plans

Criteria	Does not meet standard (0 – 1)	Approaches standard (2)	Meets standard (3)	Exceeds standard (4)
Science & Inquiry *ACEI Standard 2.2* *ACEI Standard 3.3* *InTASC 8(f)* *InTASC 4(c)*	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. Learners develop questions.	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. Candidate engages learners in developing questions and engage in critical thinking.
Instructional Differentiation *ACEI Standard 3.2* *ACEI Standard 1.0* *InTASC 2(a)* *InTASC 8(d)* *InTASC 1(b)*	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. Candidate does not vary their instructional role across and within lessons.	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. Candidate may not vary their instructional role across and within lessons.	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. Candidate varies their instructional role.	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. Candidate varies their instructional role (e.g. instructor, facilitator, coach, audience) in relation to the content and purpose of instruction and the needs of learners.
Manages Learning Environment *ACEI Standard 2.6* *ACEI Standard 3.4* *InTASC 3(d)* *InTASC 8(i)*	The candidate does not plan ways to manage the learning environment to actively and/or equitably engage learners. No questions are identified for use in lessons. Safety is not meaningfully addressed. No hands-on activities are used.	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. Low-level questions are identified for use. Potential safety concerns are addressed in most activities across unit. A hands-on activities is used.	The candidate plans ways to effectively manage the learning environment to actively and equitably engage the majority of learners. Questions are identified to stimulate discussion. Potential safety concerns are addressed in ALL activities across the unit. At least one hands-on activity is used to engage learners in inquiry	The candidate plans ways to effectively manage the learning environment to actively and equitably engage all learners. Varied questions are identified to be used to engage learners and stimulate discussion. Potential specific safety concerns are addressed in ALL activities across the unit. At least one meaningful hands-on activity is used to engage learners in inquiry
Assessment *ACEI Standard 4.0* *InTASC 8(b)* *InTASC 4(d)*	The candidate does not provide evidence of monitoring student learning, and/or does not engage learners in assessing their progress, and/or does not	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	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. Candidate stimulates

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	provide evidence of adjusting instruction in response to student learning needs. Candidate does not stimulate learner refletion.	needs. Candidate stimulates learner reflection on prior knowledge but does not link to new concepts.	Candidate stimulates learner reflection on prior knowledge to link to new concepts.	learner reflection on prior knowledge and helps learner link to new concepts.
Integration of Science *ACEI Standard 3.1*	The candidate does not design instruction that integrates science topics with other subjects.	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