

TLL 2009 STEAM Assessment Course Syllabus

Online Graduate Course (7 weeks)

Course Instructor: Tinukwa Boulder, Ph.D.

Class Format: Online (Fully asynchronous)

Course Duration: 01/08/24 – 02/25/24

Office Hours: by appointment via Zoom

Teams Call: 1 412-383-4541

Email: tboulder@pitt.edu

School of Education Mission-Vision

“We ignite learning. We strive for well-being for all. **We teach.** We commit to student, family, and community success. **We commit to educational equity.** We advocate. We work for justice. **We cultivate relationships.** We forge engaged partnerships. **We collaborate.** We learn with and from communities. **We innovate and agitate.** We pursue and produce knowledge. We research. **We disrupt and transform inequitable educational structures.** We approach learning as intertwined with health, wellness, and human development. We address how national, global, social, and technological change impacts learning. **We shape practice and policy.** We teach with and for dignity. We think. We dream. **We lead with integrity.** We are the School of Education at the University of Pittsburgh.”

Course Description

This course focuses on assessment practices that support learning. This includes the iterative process of refining instruction and evaluating learning in a real-world context using multiple forms of data. The assessment types include authentic, embedded and incorporate regular feedback that drives pedagogical adjustments.

Prerequisite Courses:

The STEAM Education certificate courses must be taken in sequential order, you must have complete TLL 2008 and TLL 2007 prior to enrolling in the course (TLL 2009).

1. TLL-2008: STEAM Instructional Design
2. TLL-2007: STEAM Transdisciplinary Learning Approaches
3. TLL-2009: STEAM Assessment
4. TLL-2010: STEAM Implementation

Learning Pursuits

The overarching goal of this course is to explore and example different design pedagogies that support the development of online courses: By the completion of this course, the graduate learning will:

1. Develop measurable outcomes that assess student learning of STEAM content
2. Create learning objectives linked to problem-scenario
3. Develop formative assessments linked to learning objectives
4. Develop a variety of authentic assessments strategies connected to the problem-based learning
5. Create a portfolio of embedded assessment strategies aligned with STEAM approaches to teaching
6. Use data from assessments to alter teaching plans
7. Analyze assessment tools and strategies for authenticity

Core Course Materials

Each week you will have required open-source materials that will include synthesized lecture content, peer-reviewed journal articles, blogs, TedTalks, podcasts, and other online resources.

Required Textbook: Quigley, C.F., & Herro, D. (2019). [An Educator's Guide to STEAM: Engaging Students Using Real-World Problems](#). Teachers College Press.

Course Structure

I will be structuring this course using Canvas modules. The course map will consist of four modules covering a broad range of topics to contextualize STEAM Assessment. Please note that this schedule might change as we continue due to unplanned issues that may arise.

This course is part of the **four-course STEAM Certificate** process:

Course Introduction and Optional Module 0: Situating STEAM (Week1)

- Introduction to the professor and course
- Course and university policies
- Refresh your knowledge of transdisciplinary teaching
- Submit your STEAM Unit from the Transdisciplinary course

Module One: Overview of Assessment (Weeks 1 & 2)

- Successful Students' Formative and Summative Uses of Assessment Information Assessment as a formative process; assessment as a summative process
- Reflection on Assessment in your Classroom
- Determine if assessment scenarios are effective or not.

Module Two: Formative Assessment (Weeks 3 & 4)

- Formative Assessment: What Do Teachers Need to Know and Do?
- Formative Assessment in the Classroom; Using Games for Assessment
- Identifying effective formative assessment techniques for your classroom.
- Five Fantastic, Fast, Formative Assessment Tools
- Digital tools and formative assessment, which one is right for you?

Module Three: Summative Assessment (Week 5)

- Examination and shifts from traditional assessments
- Critical Analysis of Traditional and Alternative Assessments
- The Challenges of Creating and Implementing Assessments

Module Four: Engaging Learners (Weeks 6 & 7)

- The Hook: How to Excite Learners into STEAM
- Discuss with your peers how to improve your ideas for a hook

Course Policy, Approach, and Expectations

Student Expectations

Active participation in this course is vital to developing a community of inquiry, practice, and learning. I encourage you to:

- Log into the Canvas course frequently
- Engage and interact with your peers, instructional materials and scholarly activities.
- Complete online learning activities by specified due dates and times, however we will work with you to extend due dates if the deadlines are challenging.

We strive to build a learning community by recognizing our strengths in our collective knowledge, personal and professional experiences. We can achieve this by sharing the artifact, experiences, strategies, and ideas in our blended learning environments. We know that many aspects of our lives (internal and external factors) distract us, but we hope that we can do what Dr. James Lang suggested - to design learning environments as classroom retreats or what Dr. Sabina Vaught described as "retreat spaces." We hope this course serves as a retreat for us to interact with each other and build on our collective wisdom (Vaught, S., 2021).

We will conduct most of our work in discussion forums and use external tools such as padlet, mural, and Google Jamboard to facilitate our collective learning and contributions. However, you are encouraged to communicate privately with the course facilitator via email (tboulder@pitt.edu).

Coursework Submissions: All coursework has due dates and times to keep us on track. If you need more time to complete a specific activity or are experiencing difficulties with the pace of the course, please let me know as soon as possible.

Instructor Presence

Instructors will maintain an active role in this blended course by logging into the course daily. The course facilitator will provide timely feedback on drafts and final scholarly activities, contribute to class discussion and respond to student queries within 24 hours of receiving your emails and course messages. Please note that the instructors will typically be more available to

address questions and respond to discussion forum comments in the evenings.

Grading with Care Policy

My policy is that if a learner is actively and authentically engaging with the course material and our learning community, they are fulfilling the goals of this course. Learning happens at your own pace and from your own perspective and cannot be assessed based on a decontextualized and depersonalized standard of measure. Moreover, grading has been proven to be ineffective in engaging authentic learning but instead serves to conform behavior (see [Alfie Kohn's work](#) for more details on this). I hope to play with alternative approaches to traditional grading for this course. There are movements toward radical assessment (such as the work of [Jesse Stommel](#)) that I believe would be more in line with my values.

I acknowledge the institution's policy to adhere to a system that requires grades. However, I also recognize our power to be "in but not of" (Harney and Moten) this institutional practice. As such, we strive for a more humanizing approach to grades rooted in care that supports learning and growth and offers grace. Under this policy, grading will be primarily based on the following three key elements:

1. Honoring our collective relational responsibilities in our course community
2. Adhering to our PQS feedback protocol
3. Completing your self-assessment surveys

Our Collective Relational Responsibilities

To build a respectful and caring learning community, we will adopt Dr. Sabina Vaught's 'Relational Responsibilities' as a practice in this course. Our collective responsibilities are grounded in our interdependent relationships and expressed through our active engagement with one another and our dedication to learning. We will undertake relational praxes when we:

- consider how others' experiences are similar or different from your own.
- recognize and affirm that affective responses to readings and discussions are part of a just intellectual project.
- engage generously and contribute meaningfully to one another's learning.
- challenge one another's ideas in a scholarly manner but never insult or disparage one another.
- engage in ways that enhance and strengthen your scholarship.
- attend carefully and attentively to one another's experiences and ideas, recognizing those as gifts to the community.

Positive Question Suggestion (PQS) Protocol

Building a learning community requires trust, respect, and caring. With these values in mind, I have adapted [Richard Koch's](#) "PQS Protocol" as a guide for providing meaningful and supportive feedback to each other on our scholarly work. As Dr. Koch points out, "Research clarifies that

response is more helpful to the writer [or producer of a piece of scholarly work] when we listen to understand and appreciate."

Throughout this course, we will develop several artifacts of our scholarship - e.g., reflections, free writing, discussions, annotations, content design and development, and other media. We will share our work with each other for feedback to grow our thinking and learning. Much like our learning, our work is never truly 'done,' so we will consider the pieces we share as "works-in-progress" that can be further refined through community reflection.

In responding to someone's work, we will follow this PQS pattern:

1. **Positive Response:** If we "listen" fully to the work that is offered, we can find wisdom within. For example, consider:
 - What do you remember best from this work?
 - What resonated with you most from this work, and why?
 - What is most interesting to you about this piece?
2. **Questions:** Through our spirit of curiosity, we can offer our peers new questions to grapple with in their inquiry process. For example, consider:
 - What are you curious about to the topic of this work?
 - What are you confused about?
 - What would you like to know?
3. **Suggestions:** We can offer our wisdom to support the learning journey of our peers. Based on what you think is the purpose of the work, consider offering one or two suggestions, especially for what could be:
 - **Added** to the piece - Does it need a new section, or is there a part that should be made longer?
 - **Taken out** of the piece - Is a part unnecessary or repeated?
 - **Changed** in the piece - Is there a part that could be revised with a recommended approach to improve it?

Self-Assessments

After each module, I will administer a self-assessment survey to understand your academic journey better. This survey will include questions to help you reflect on your learning from the core materials and overall engagement in the course. It is also an opportunity to self-assess whether you are meeting your personal learning goals.

Final Grade

My primary goals for this course are that you maintain a genuine curiosity about the course materials and activities and grow your critical thinking and scholarship on topics related to online pedagogy and praxis. I hope that you focus on learning rather than the final grade.

To assuage some of this grade anxiety and acknowledge the market value of grades, I offer a

minimum final grade of ' B' to all learners participating in most course activities. I will provide individual feedback and participate in relational conversations as part of the meaningful assessment process, in addition to qualitative feedback. You will receive a complete/incomplete for your scholarly activities. If you receive an incomplete, you will have an opportunity to revise and resubmit your scholarly work.

Finally, we ask that you communicate with the course facilitator about any challenges you might experience in the course. No one will be penalized for life circumstances that lead to delayed or missed submissions in this course.

University Policies

Academic Integrity

Students in this course will be expected to comply with the [University of Pittsburgh's Policy on Academic Integrity](#). Any student suspected of violating this obligation for any reason during the semester will be required to participate in the procedural process initiated at the instructor level, as outlined in the University Guidelines on Academic Integrity. To learn more about Academic Integrity, visit the [Academic Integrity Guide](#) for an overview of the topic. For hands- on practice, complete the [Understanding and Avoiding Plagiarism tutorial](#).

Attendance and Observance of Religious Holidays

Pitt guidelines on class attendance and observance of religious holidays:

"The observance of religious holidays (activities observed by a religious group of which a student is a member) and cultural practices are an important reflection of diversity. As your instructors, we are committed to providing equivalent educational opportunities to students of all belief systems. You should review the course requirements at the beginning of the semester to identify foreseeable conflicts with assignments, exams, or other required attendance. If possible, please contact me (your course coordinator) within the first two weeks of the first- class meeting to allow time for us to discuss and make fair and reasonable adjustments to the schedule and/or tasks." From Faculty Assembly, December 2020.

We interpret this language to apply to cultural and spiritual observances, feasts, dances, ceremonies, etc., not covered by colonial notions of religion and/or culture. Please notify your professor in advance of any anticipated absences related to the guideline.

Equity and Diversity

The course aligns with the School of Education's mission to ignite learning and deliver a respective, inclusive, and equitable learning experience. We behave professionally and communicate mindfully while feeling free to share contrasting viewpoints and ideas. We create an open learning environment for students from diverse backgrounds and perspectives. The diversity denoted by the intersections of race, gender, disability, sexuality, age, socioeconomic status, ethnicity, and culture that we all bring to this course is advantageous in serving as a strength and resource in our learning community.

"As the course instructor, I am committed to pedagogy that is anti-racist, non-sexist, non-classist, non-heterosexist, and non-gender-normative. This includes fostering an environment that is as safe and inclusive as possible. [We] intend to name and correct any actions on [our] part that fall short of these commitments as best as possible.

The University of Pittsburgh prohibits and will not engage in discrimination or harassment based on race, color, religion, national origin, ancestry, sex, age, marital status, familial status, sexual orientation, disability, or status as a disabled veteran. The university is committed to creating a learning environment that is inclusive of all races, genders, socioeconomic statuses, religions, sexual orientations, nationalities, and languages." (Roop, L., 2020).

In particular, we are committed to including the voices of minoritized groups in this class, including those of womxn and other people of color, transgender people, LGBTQIA+ people, non-Christian people, non-US citizens, and those who speak multiple languages. If you feel uncomfortable due to your social identities and background or how they are perceived, please let us know. If you do not feel comfortable talking with the instructors, you can contact the [Office of Equity, Diversity, and Inclusion](#).

Preferred Names and Pronouns: You can use the NameCoach feature in Canvas to indicate your preferred pronoun. You can [use NameCoach with Canvas](#) to add your pronouns.

Disability Services

Pitt required syllabus statement: If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructors and the Office of Disability Resources and Services, 140 William Pitt Union, at 412-648-7890 or 412-383- 7355 (TTY) as early as possible, but no later than the fourth week of the term or visit the [Office of Disability Resources and Services website](#) as early as possible, but no later than the 4th week of the term. The DRS will work with you to provide accommodations. Please let me know if you need resources or accommodations to complete this course. You may also seek campus-wide support, information, and/or services such as [Disability Accommodations](#). Please feel free to communicate with me directly about what would be helpful to your learning and participation in our learning community. Please review the following university resources:

- [University of Pittsburgh Non-Discrimination Policy](#)
- Pitt single-occupancy restroom map and information:
<https://www.studentaffairs.pitt.edu/lgbtqia/single-occupancy-restrooms/>

Accessibility

Canvas is ADA Compliant and has fully implemented the final accessibility standards for electronic and information technology covered by Section 508 of the Rehabilitation Act

Amendments of 1998. Learn more about the [Canvas accessibility statement](#).

Sexual Harassment

The University of Pittsburgh is committed to maintaining a community free from all forms of sexual harassment. Sexual harassment violates University policy as well as state, federal, and local laws. It is neither permitted nor condoned. It is also a violation of the University of Pittsburgh's policy against sexual harassment for any employee or student at the University of Pittsburgh to attempt in any way to retaliate against a person who makes a claim of sexual harassment. Any individual who, after thorough investigation and an informal or formal hearing, is found to have violated the university's policy against sexual harassment will be subject to disciplinary action, including, but not limited to, reprimand, suspension, termination, or expulsion. Any disciplinary action taken will depend upon the severity of the offense. For more information, see the [Policies and Guidelines](#) website.

Copyright Notice

These materials may be protected by copyright. United States copyright law, 17 USC section 101, et seq., in addition to University policy and procedures, prohibits unauthorized duplication or retransmission of course materials. See [Library of Congress Copyright Office](#) and the [University Copyright Policy](#).

Additional University and Pittsburgh Community Resources

- **Education Library Guide:** See this [Hillman Library customized libguide](#), a gateway to education students and faculty resources.
- **Emergencies:** Do you have Pitt Police saved on your mobile phone? 911 works, or Pitt Police, 412-624-2121.
- **Catalogs:** The University Catalogs have comprehensive information about policies, programs, and courses. There are University-level policies and policies specific to the School of Education. Bookmark these links and review these documents periodically. [Pittsburgh Campus Graduate and Professional Studies](#).
- **Student Mental Health:** Resources to support student mental health and wellness are available here at Pitt: Counseling Center, in the Wellness Center in Nordenberg Hall: <https://www.studentaffairs.pitt.edu/cc/> or Call 412-648-7930, any time.
- **Sexual Assault Response:** Contact Pittsburgh Action Against Rape: 24-hour crisis intervention, counseling, and advocacy for victims of sexual assault Phone: 1-866-363-7273. Website: Home - [PAAR](#).
- **Racial violence, discrimination, harassment, etc.:** You can access resources and contact at the [Pitt diversity website](#).

- **Care and Resource Support Team (CARS):** Email pittcares@pitt.edu or see: <http://www.studentaffairs.pitt.edu/cars/>
- **Basic Needs Security:** Some students are unable to afford groceries or access sufficient food to eat every day and/or may lack a safe and stable place to live. Some students experience challenges in balancing school with paid work, childcare, and other family obligations. Those challenges can create considerable anxiety for students and affect their performance in their courses. Students experiencing those challenges should contact the Assistant Dean of Student Engagement, Dr. Andrea Zito (email: andreaz@pitt.edu and phone: 412-648-1780). In addition, here are resources you may find useful:
 - [Pitt Food Pantry](#)
 - [Pitt and Community Assistance Resource Guide](#)
 - [Access the Greater Pittsburgh Community Foodbank](#)
 - [Pitt Pregnant and Parenting Students](#)
- **Affordable housing assistance (source: Chris Wright):**
 - **Action Housing:** 611 William Penn Place, Suite 800; Pittsburgh, PA 15219 Phone: 412-281-2102. Assists in locating affordable housing
 - **Allegheny County Housing Authority:** 625 Stanwix Street, 12th floor; Pittsburgh, PA 15222 Phone: 412-355-8940. Assists in locating affordable housing
- **Shelter options:**
 - **Allegheny County Bureau of Hunger and Housing Services** Phone: 412-350-4354 This is an area homeless resource.
 - **East End Cooperative Ministry:** 6140 Station Street; Pittsburgh, PA 15206 Phone: 412-361-5549. This emergency shelter provides a refuge for the night, case management, breakfast, dinner, shower, and laundry services for men and women older than 18. Individuals can stay in the Emergency Shelter for up to 60 days.

Note: Please help us by suggesting additional resources