YORK COLLEGE OF THE CITY UNIVERSITY OF NEW YORK
Department of Teacher Education

Course: EDUC230: Teaching with Multimedia Technology (2 credits – 4 course hours)

Prerequisite: None
Course Number: EDUC230
Teaching Methods: HyFlex*
Location: Online or AC-1E02

Instructor: Dr. Xin Bai
Office: AC-1E17
Email: xbai@york.cuny.edu
Office hours: After class or schedule another time via email

Class time: 6-9:50 pm on Wednesdays

***The HyFlex class modalities you can choose from:**

- **Face-to-face:** Meet during class time on campus: **AC-1E02**
- **Online via Zoom:** Meet during class time via Zoom: https://us02web.zoom.us/j/82241141807?pwd=MThCMlAyc25UUGQ1L295SG0wK1FGUT09

Teacher Education Unit Vision and Mission

The vision of the teacher education unit is to develop a cadre of professional educators who, having been taught by models of good teaching, are prepared with an array of theories, tools, and skills necessary to create rich learning environments in which urban children and youth can strive for and reach success. Teachers prepared by the York College Teacher Education Unit demonstrate caring and ethical professional behavior in order to build teaching and learning environments that draw on the strengths of students' diverse cultures, languages, and learning styles, providing their students with learning experiences that develop deep and broad content knowledge and life skills.

*York College Teacher Education Students **Enact** deep and broad content knowledge, **Empower** learners to achieve at the highest levels, **Embody** effective pedagogical strategies, and **Exemplify** professionalism*

Course Description:

4 hrs. 2 crs. Students learn the foundations for using multimedia technology in the classroom, become proficient with multimedia technology, study issues of equity related to educational technology, and understand NYS K-12 learning standards for technology. Students design curriculum integrating the Internet and student-produced multimedia projects. 4 hours laboratory. This course may be offered in a face-to-face, hybrid or asynchronous online format.

Required Text: None. Free online resources

Required Reading and Media:
Online references and information resources.

Selected Bibliography:

Akiba, D. (2022). 05 Computational Thinking and Coding for Young Children: A Hybrid Approach to Link Unplugged and Plugged Activities. *Education Sciences*, 12(11), 793.

Becker, H. J. (2000). Pedagogical motivations for student computer use that lead to student engagement. *Educational Technology*, 40(5), 5-17.

Dede, C. (2010). *Comparing frameworks for 21st century skills. 21st Century Skills: Rethinking How Students Learn*, 51-76.

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Guzdial, M. (2008). Education: Paving the way for computational thinking. *Communications of the ACM*, 51(8), 25-27.

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Jenkins, H. (2009). *Confronting the challenges of participatory culture: Media education for the 21st century*. MIT Press.

Jonassen, D. H., Marrone, C., & Stollenwerk, D. A. (1999). *Computers as mind tools for schools: engaging critical thinking*, 2nd edition. Upper Saddle River, NJ: Prentice Hall.

Jonassen, D. H., Peck, K. L., Wilson, B. G., & Pfeiffer, W. S. (1999). Learning with technology: a constructivist perspective. Upper Saddle River, NJ: Prentice Hall.

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Kafai, Y. B., & Proctor, C. (2022). A Revaluation of Computational Thinking in K–12 Education: Moving Toward Computational Literacies. *Educational Researcher*, 51(2), 146–151.

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Papert, S. (1972). *Teaching children thinking. Programmed Learning and Educational Technology*, 9(5), 245-255.

Peppler, K., Halverson, E., & Kafai, Y. B. (Eds.). (2016). *Makeology: Makerspaces as learning environments* (Volumes 1&2) (Vol. 1). Routledge.

Resnick, M., & Rosenbaum, E. (2013). *Designing for Tinkerability. Design, Make, Play: Growing the Next Generation of STEM Innovators*, 163-181.

Rice, M., & Dykman, B. (2018). The emerging research base for online learning and students with disabilities. In R. Ferdig and K. Kennedy (Eds.) *Handbook of research on K-12 online and blended learning* (pp. 189-206). Pittsburgh, PA: ETC Press.

Selwyn, N. (2016). *Is technology good for education?* Cambridge Polity.

Wang, J. (2017). Is the US education system ready for CS for all? *Communications of the ACM*, 60(8), 26–28.

Warschauer, M., & Matuchniak, T. (2010). New technology and digital worlds: Analyzing evidence of equity in access, use, and outcomes. *Review of Research in Education*, 34(1), 179-225.

Wing, J. M. (2006). Computational thinking. *Communications of the ACM*, 49(3), 33-35

Our virtual community:
Eat, read, and learn: https://padlet.com/xinbai531/eat-read-learn-27z2boh4bzih0any

Attendance:
Weekly attendance is required. If you do not understand something taught in an earlier class, it will be difficult to complete work in later classes. If you come to class late or leave early, it will be counted as being *unprofessional* as a student, thus you get half an absence unless prior authorization was given.

CLASS POLICIES

Class attendance and participation

- You will be processing a large amount of new information, as well as analyzing, interpreting, and critiquing what you learn. Active participation through discussions, group activities, and sharing of experiences will be an integral part of the instructional approach in this class. Therefore, attendance is critical for success in this course. No more than two excused absences can be permitted, and chronic lateness will not be accepted. Students are expected to arrive at class on time. On-time arrival will be considered a professional disposition and tardiness will negatively impact this.
- Class participation also involves completing the readings before as well as after the class session and the timeliness in completing and submitting assignments.
- It is also expected that you come to class with the required texts. Many in-class activities require the text for successful completion.
- Texting and accessing social media during class is expressly forbidden. While technology may be used in the class for academic purposes, personal or social use is not allowed.
- Responsibility in case of absence: If you miss a class, you are responsible for knowing what was conveyed during that class including written materials distributed. It is suggested that each student selects one "partner" and exchange phone numbers for the purpose of keeping up to date with the class or to receive handouts.

Policy on videotaping online classes
Students who participate in this class with their camera on or use a profile image agree to have their video or image recorded solely for the purpose of creating a record for students enrolled in the class to refer to, including those enrolled students who are unable to attend live. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who unmute during class and participate orally agree to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live.

Policy on submitting late assignments: It is the instructor's responsibility to provide due dates on the syllabus. This enables students to do advanced planning. Therefore, late assignments, without accompanying explanation and/or documentation, are not recommended and may result in a lower grade in the course. Students should always check with their instructor as to the consequences of a late assignment.

Blackboard and York email account: All students are required to have a Blackboard account and a York email account. All assignments and ancillary class materials will be posted electronically.

Candidates are required to check announcements and email on Blackboard at least twice a week. York College provides training sessions on Blackboard. It is the student's responsibility to attend those training sessions if he/she is not familiar with Blackboard. All assignments will be submitted electronically through Blackboard.

Policy on grammar, spelling and writing style: Writing that demonstrates competencies in the conventions of standard written English should be the goal for every student. Remember to proofread and correct all papers for grammatical, spelling and typing errors. The college has tutors who are available to help you with your writing.

Ethical conduct and academic integrity: Students are expected to adhere to all CUNY and York College standards of ethical conduct and academic integrity and honesty: {https://www.cuny.edu/about/administration/offices/legal-affairs/policies-procedures/academic-integrity-policy/ and https://www.york.cuny.edu/academics/integrity/policy/policy-and-procedures/view}.

Successful teaching and learning depend on trust in the integrity of all involved. While Teacher Education students must adhere to ALL integrity policies, your attention is drawn to the following:

- You may not use any other's work or ideas and submit them as your own in any context. It is expressly stated that all individual assignments for this course must be the original work of the author.
- You may not submit substantial portions of the same paper to more than one course without consulting with each instructor even when you are the author of that paper. It is expressly stated that ANY portion of an assignment completed for another class may not be submitted for this class without the instructor's prior approval.
- Included in Ethical Code and Academic Integrity is the reporting of Field hours. It is therefore explicitly stated that field hours must be independently completed for each course. There can be no "double dipping" of hours. That means that field hours completed for this class may in no way be used or reported for any other class. *Any forging of field documents or school time records will be dealt with as a breach of this code and can lead to dismissal from Teacher Education.*

Ethical conduct in class: No student should take photographs, audio or video in class without the permission of the instructor and his/her fellow classmates. Doing so is a violation of Federal guidelines under FERPA.
http://www.cuny.edu/about/administration/offices/la/Guidelines-for-implementation-of-the-Student-Records-Access-FERPA.pdf

Violating CUNY and York integrity policies will affect both your course grade and your ability to be admitted to or remain in the Teacher Education program.

York College Disability Statement

Under Section 504 of the 1973 Rehabilitation Act and Title II of the Americans with Disabilities Act of 1990, York College provides reasonable accommodations for students with documented

disabilities through the STAR (Specialized Testing and Academic Resources) program. For more information on the STAR program please go to Room AC-1G02 or email star@york.cuny.edu.

CLTE Credits

York College Department of Teacher Education is able to award 15 hours of CTLE credit for every course hour to students who are current teachers with Professional certifications or current Paraprofessionals. EDUC230 has 4 course hours. You must earn a B or better in the course in order to earn the CTLE hours. If you are eligible, please email Regina Misir (rmisir@york.cuny.edu) to let her know. She will distribute certificates at the end of the semester.

Assignments for Pre-service Teachers

Grading:

E-Portfolio Including 3 self-reflections; 2 work samples; 1 teaching video (5% each)	30%
Analyzing Student Performance Data	10%
Digital Maker (1): The Scratch Group Project	20%
Digital Maker (2): The 3D modelling Group Project	20%
Show-and-Tell	15%
DARE Survey	5%

Assignments for In-service Teachers (CSin6)

Grading:

2 Lesson Plans (20% each)	40%
Digital Maker (1): The Scratch Group Project	20%
Digital Maker (2): The 3D modelling Group Project	20%
Show-and-Tell	20%

Grading Scale:

A+ 97 – 100	C+ 77 – 79.9
A 93 – 96.9	C 73 – 76.9
A- 90 – 92.9	C- 70 – 72.9
B+ 87 – 89.9	D+ 67 – 69.9
B 83 – 86.9	D 60 – 66.9
B- 80 – 82.9	F 0 – 59.9

Alignment of course objectives, standards, assignments and assessments

Course objectives	**Competencies and/or standards**	**Class activities and assignments**	**Assessments**
• Respond to the diverse learning needs and promote inclusive and equitable technology integration	ISTE.E 1; 2; 4; 5,6,7 InTASC 1; 2 CSDF 1; 2; 5	• Eportfolio • Group Discussions	• Eportfolio • Group project

• Integrate computational thinking in K12 settings	CSDF 1; 2, 5	• Group Projects	• Eportfolio • Group Project
• Foster critical thinking and evaluation of digital content for accuracy, bias, and credibility. • Encourage students to critically reflect on their own experiences with technology and its impact on their learning and social engagement.	ISTE.E 1; 2; 4; 5,6,7; InTASC 2; 3; 5; 6; 8; CSDF 1; 2; 5	• Eportfolio • Group Discussions	• Eportfolio • Group project
• Introduce students to digital creation tools for content development, presentations, and communication	ISTE.E 1; 2; 4; 5,6,7; InTASC 7 CSDF 1; 2; 3; 4; 5	• Eportfolio • Presentations	• Eportfolio • Group Project
• Nurture reflective practitioners with curiosity and technological self-efficacy	ISTE.E 1; 2; 4;5,6,7 InTASC 1; 9; 10 CSDF 1; 5	• Self-reflections	• Eportfolio • Group Project

Week	Dates	Topics	Labs/Assignments
1	8/30	• Course Orientation • Computing Integration in K-12 Settings	**Assignment:** Set up ePortfolio via Google Sites
2	9/6	• NYS CSDF Learning Standards • Using Learning Theories to Inform Instructional Design	**Assignment:** ePortfolio (Self-reflection 1) (pre-service Ts only)
3	9/13	• Brief Intro to Computational Thinking • Intro to Scratch	**Lab:** Start the Digital Maker Project (CT) - brainstorming in groups **Assignment:** ePortfolio (Work Sample 1)
9	9/20	• Physical Computing • Promote CT via Unplugged Activities	**Lab:** Micro:bit; Makey Makey, Sphero LittleBits **Assignment:** Work on a 5 -10-minute teaching video (pre-service Ts only)
7	9/27	• Digital Computing meets Physical Computing	**Lab:** Scratch with Micro:bit/Makey Makey **Assignment:** Submit an edited 2-min teaching video (pre-service Ts only)
5	10/4	• The Digital Maker Project Group Presentations: Intro to CT via Scratch (1): **Abstraction** • Intro to CT via Scratch (2): **Decomposition**	**Assignment:** EPortfolio (Work Sample 2)
6	10/11	• The Digital Maker Project Group Presentations: Intro to CT via Scratch (3): **Algorithm Design** • Intro to CT via Scratch (4): **Pattern Recognition**	**Assignment:** ePortfolio (Lesson Plan 1 with Work Sample 1 embedded (in-service Ts only)

4	10/18	• Spreadsheets:
		  ○ Design educational games/activities
		  ○ Data-driven Curriculum Design
			Assignment: Analyzing Student Performance Data (pre-service Ts only)

8	10/25	• AI in Education	**Lab:** AI model training **Assignment:** ePortfolio (Self-reflection 2) (pre-service Ts only)
10	11/1	• The Digital Maker Project: 3D modeling via TinkerCAD	**Lab:** Start the Digital Maker Project (3D modeling) - brainstorming in groups
11	11/8	• 3D Modeling (Groupwork) (We won't meet as a class - schedule your own time to work on the project with your team)	
12	11/15	• Modeling and Simulations • Show & Tell	**Lab:** Tools exploration **Assignment:** ePortfolio (Self-reflection 3) (pre-service Ts only)
13	11/29	• The Digital Maker Project: Group Presentation of the Simulations	**Assignment:** ePortfolio - Lesson Plan 2 with Work Sample 2 embedded (in-service T only)
14	12/6	• Teacher Happy Hours (virtual) - Show & Tell	

Pre-service Ts: Pre-service teachers/undergraduate students

In-service Ts: In-service teachers/CSin6 participants

All: Both pre-service and in-service teachers

Department of Teacher Education
Assessment A
E-portfolio Assessment (for undergraduates/pre-service teachers)

Description:
The Teaching with Technology e-portfolio provides a virtual space for you to collect, store, and reflect on your coursework. It can also be used to showcase your work and academic growth to your family, friends, and potential employers. In this project, you will build your own e-portfolio that focuses on Teaching with Technology. This assessment is used to inform admissions decisions for Teacher Education Programs. Passing requires a score of Developing or higher (consult rubric below).

Requirements: Your e-portfolio site should contain the following components:

1. **Teaching Video Demo**
   Make a teaching video of 5-10 minutes and edit it to a 2-minute teaching video. Teach a topic of your choice. The video clip should include interactions between you and your students as well as your responses to student comments, questions, or needs. (This will be posted to a secure site)

2. **Technology Work Samples** (2)
   Develop two sample works that demonstrate the use of technology to address the needs of all students. For example, students from all cultures and backgrounds, students from different genders and sexual orientations, students from homes where English is not the primary language, students who are homeless, students who are in foster care; students with interrupted, limited, or no formal education, students who are gifted and talented.

   For each sample work, **write a rationale of approximately 100-200 words** in which you:
   - *Describe how the sample work can help address the issue(s) related to student diversity and inclusion.*
   - *Explain why the sample work would be effective in facilitating diverse student learning experiences.*

   Some examples:
   - Create a website (or blog) that allows your students to communicate with peers from around the world when exploring issues on climate change.
   - Create a video to teach a topic, which engages visual learners via Powtoon/Animaker/SimpleVideo
   - Create an alarm system via Micro:bit
   - Create a workout station for students to keep track of their exercises via Makey Makey
   - Use a poll to solicit ideas from students anonymously.
   - Design 3D artifacts that give your students hands-on experiences.
   - Adopt a concept mapping tool to measure student learning (e.g., Miro, Figjam, Padlet)
   - Create a game/activity in Scratch for digital storytelling, problem-solving, and simulations.
   - *Your better ideas are here….*

3. **Self-Reflections** (3)
   You may have been using technologies for learning (online discussions, eBooks). Or you may have come across some articles or seen technologies being adopted by others to promote learning in innovative ways. Please share your reflective thoughts based on those experiences or observations.

   Follow these prompts:
   1. *A summary of what you have learned from articles or experiences (at least 2 citations from peer-reviewed journal articles required).*
   2. *Your professional growth - How have your ideas about the technology mentioned above changed over the experiences? How could you benefit from that technology? For instance, you can describe your critical experience with technology-based teaching or learning in or outside this course and reflect on how they contribute to your understanding of the role of technology in education and your role as a teacher.*
   3. *Your specific plans for continued growth (What will you do to continue improving, thus better positioning, yourself as a future teacher in the 21st century?).*

   Your reflections should demonstrate ***growth*** over time and reveal ***depth*** and ***breadth*** of experiences.

Teaching with Technology E-portfolio Assessment

Criteria	Ineffective	Developing	Effective	Highly Effective
Teaching Video Demo InTASC 6; 8 ISTE.E: 2.5; 2.6 NYS CSDF: 5	• The clip includes no interactions between you and students or no responses to student comments, questions, and needs. • You and your students are not clearly heard on the video clip. • Demonstrates ineffective verbal instructions, which are not articulated, coherent, or consistent • Convey a lack of enthusiasm and excitement for the subject, your students and teaching.	• The clip includes limited interactions between you and students and your limited responses to student comments, questions, and needs. • You and your students are sometimes not clearly heard on the video clip. • Demonstrates verbal instructions that are sometimes not articulated, coherent, or consistent. • Convey limited enthusiasm and excitement for the subject, your students and teaching.	• The clip includes interactions between you and students as well as your responses to student comments, questions, and needs. • Both you and your students are clearly heard on the video clip. • Demonstrates effective verbal instructions that are articulated, coherent, and consistent • Convey satisfactory enthusiasm and excitement for the subject, your students and teaching.	• In addition to meeting the requirement of Effective, demonstrate innovative ways of promoting learning via the video. • Demonstrates highly effective verbal instructions that are clearly articulated, coherent, and consistent. • Convey an enthusiasm and excitement for the subject, your students and teaching.
Work Samples: Design, develop, and evaluate authentic learning experiences incorporating contemporary tools and resources to advance learning for diverse learners, and promote creativity and innovation. ISTE.E: 2.2;2.5 InTASC: 1;2;3;4;5;6;8 NYS CSDF: 1,2,5	• Students used a **limited number** of information tools and technologies. • The sample works are not responsive to the characteristics and learning needs of students with a broad range of backgrounds. • The sample work responses demonstrate a	• Students used a **variety** of information tools and technologies. • Some sample works are clearly and directly responsive to the characteristics and learning needs of students with a broad range of backgrounds. • The sample work responses demonstrate a limited	• Students used a **variety** of information tools and technologies, learned both **within** and **outside** the course. • All sample works demonstrate clear and insightful integration of technology to adapt for diverse student needs. • The sample work responses demonstrate a satisfactory command of relevant knowledge and skills.	• In addition to meeting the requirement of Effective, demonstrate innovative ways of promoting learning via the work samples

	lack of relevant knowledge and skills.	command of relevant knowledge and skills.		
Reflect on current research and professional practice on a regular basis to make effective use of existing and emerging digital tools and resources in support of student learning. ISTE.E: 2.1;2.3 InTASC 1;9;10 NYS CSDF: 1, 2, 5	• Show no evidence of personal response to issues and experience related to the use of the emerging digital tools and resources based on the concepts and themes presented in the course, and current research in the field of instructional technology and design. • Show no personal growth in knowledge and competency of integrating technology into the curriculum. Reveal no deeper or broader experiences. • Draws no relevant research or professional practice in reflecting upon the use of digital tools in teaching.	• Show little evidence of personal response to issues and experience related to the use of the emerging digital tools and resources based on the concepts and themes presented in the course, and current research in the field of instructional technology and design. • Demonstrate little personal growth in knowledge and competency of integrating technology into the curriculum. Reveal limited deeper or broader experiences. • Draws upon little research and professional practice in reflecting upon the use of digital tools in teaching.	• Show evidence of personal response to issues and experience related to the use of the emerging digital tools and resources based on the concepts and themes presented in the course, and current research in the field of instructional technology and design. • Demonstrate personal growth in knowledge and competency of integrating technology into the curriculum. Reveal depth and breadth of experiences. • Draws upon relevant research and professional practice in reflecting upon the use of digital tools in teaching.	• Show strong evidence of personal response to issues and experience related to the use of the emerging digital tools and resources based on the concepts and themes presented in the course, and current research in the field of instructional technology and design. • Demonstrate qualitative personal growth in knowledge and competency of integrating technology into the curriculum. Reveal depth and breadth of experiences. • Draws upon relevant research and professional practice in critically reflecting upon the use of digital tools in teaching.

*** Note: This assessment is used for Teacher Education Admission. "Ineffective" is considered *unacceptable*, and all others are considered *acceptable (or passing)*.**

Assessment A
Teaching with Technology e-portfolio Assessment
Score Sheet

Instructor: For each candidate in your course, please fill in scores for each component of the assessment using the rubric and write comments as needed. Provide the original completed score sheet to Regina Misir and keep a copy for your records.

Candidate Name _____ Course _____ Semester/Year _____

Part A. Instructor.

Component	Instructor Assessment: Highly Effective (4) Effective (3) Developing (2) Ineffective (1)	Comments to Admissions Committee (optional)
Teaching Video		
Work Sample #1:		
Work Sample #2:		
Self-Reflection #1		
Self-Reflection #2		
Self-Reflection #3		

Assessment B: The Digital Maker Project

Description:

In this ***Digital Maker*** project, your group will demonstrate your ability to execute a lesson plan on a selected topic of Computational Thinking (below) and reflect upon that lesson as professional educators. The Digital Maker Project provides a space for you to design and develop artifacts to test out new ideas. Research shows once you believe you are makers yourselves with confidence, you could help bring the *maker culture and practices* into your future classrooms to inspire new generations of CT-based problem-solvers and innovators. Your project includes a lesson plan, technology-enhanced class activities and reflection. *Your class activities should include at least one Scratch-based activity and one activity designed through other multimedia tool(s).*

CT topics (pick one):

1. Abstraction
2. Decomposition
3. Pattern Recognition
4. Algorithm Design

Assessment of Instruction:

We will assess your ability to establish a positive, responsive, and flexible learning environment, your ability to support the entire class and provide targeted differentiation for the students in the class, your ability to manage time, space, and resources, and your ability to use technology and computational thinking to support learning. The lesson observation may occur in person or through a video of the entire lesson implementation.

Assessment of Reflection:

We will assess your ability to reflect on how your instruction connects to research/theory, your ability to reflect on your impact on student learning, your ability to consider multiple perspectives regarding your instruction, and your ability to use feedback to establish clear goals for your teaching and interaction with students.

Guiding questions for reflection

1. What do you feel were the strongest parts of your lesson? Give examples. How will you continue using these strong points?
2. What do you feel was the weakest part of your lesson? Give examples. How do you plan to improve?
3. Describe some of the feedback given by your peers, how do you plan to use this feedback? Give specific examples.
4. Lastly, describe your next steps on how to improve on your future lesson. Justify your plans by referring to current educational research or theory.

Workload suggestions:

Your team will share responsibilities for all aspects of the lesson.

In-service teacher: Lead lesson planning and adopt Scratch as a programming platform (a lesson plan template will be provided).

Pre-service teacher: Help with lesson plan design. Develop a game or activity as a teaching or learning tool to enhance the lesson.

All will be involved when teaching the lesson.

Assessment instructions:
Your assessment of the group's performance must be based upon the attached rubric. The rubric includes 4 performance levels defined as follows:

Highly Effective =	performance expected from a successful teacher who has achieved tenure
Effective =	performance expected from a successful student teacher
Developing =	performance that indicates beginning understanding of the disposition but inconsistent application
Ineffective =	performance that is unacceptable for someone becoming an educator

Group Lesson Observation Score Sheet

Criteria The group ….	Ineffective	Developing	Effective	Highly Effective
1. Establishes a positive learning environment.				
2. Demonstrates flexibility and responsiveness to students' diverse needs.				
3. Presents learning tasks in a manner that engages students in active learning				
4. Engages students in learning tasks to support the mastery of CT academic language.				
5. Engages students in challenging work and conveys his/her high expectations for the students.				
6. Demonstrates an ability to manage time (closure).				
7. Demonstrates an ability to use varied technologies and computational thinking effectively.				

Individual Reflection Score Sheet

Criteria	Ineffective	Developing	Effective	Highly Effective
1. The reflection covers the assigned topic(s).				
2. The reflection includes an analysis (using assigned questions for guidance) of how classroom events connect with theory/research.				
3. The reflection includes a clear plan for improvement.				

Lesson Observation Evaluation Rubric

The Learner and Learning				
Criteria	**Ineffective**	**Developing**	**Effective**	**Highly Effective**
1. **The group establishes a positive learning environment. Respect and Rapport are evident (InTASC Standard 3, Danielson Framework Component 2).**	The group demonstrates and students disrespect for one another. Candidate demonstrates a lack of regard for students' interests, development or culture. Candidate does not monitor and/or address student behavior.	The group controls the students in the classroom by acting as an authoritarian figure or does not consistently monitor and/or address student behavior.	The group and student interactions are warm and respectful. Candidate addresses behavioral issues in a supportive and competent manner.	The group and students demonstrate strong respect and regard for one another. Candidate responds to students as unique individuals, students demonstrate a willingness and comfort taking intellectual risks. Student behavior is monitored and appropriate, and students demonstrate an ability to self-monitor as well.
2. The group demonstrates flexibility and responsiveness to students' diverse needs. (InTASC **Standards 1, 2, 3 & 8, Danielson Framework Components 3c, 3d & 3e).**	The group follows the written lesson plan and does not alter instruction or pay attention to students' individual responses or needs. The group includes no activities that connect to students' learning styles, interests, or cultural assets.	The group alters instruction in response to some students' individual needs but fails to identify the needs of all learners. The candidates includes learning activities that display vague connections to students' learning styles, interests, or cultural assets.	The group uses formative assessment to identify diverse learners' needs and makes adjustments in instruction during the lesson. It is apparent that candidate understands some of the different styles, interests, cultural assets, and prior knowledge that the particular group of students possesses.	The group gives the learners the opportunity to self-assess and self-identify needs, and then makes adjustments in the lesson in response. The group also gives diverse students opportunity to direct learning experiences. Candidate displays an ability to address the range of individual styles, interests, cultural assets, and prior knowledge that students possess.

Criteria	**Ineffective**	**Developing**	**Effective**	**Highly Effective**
6. The group engages students in active learning (InTASC Standards 1,2,3,5, 7 &8, Danielson Framework Components 2b & 3c).	The students are passive during the lesson. The group does not encourage student questions.	The students engage somewhat with the presented materials and/or learning activities, but not consistently or in a way that supports mastery of the learning outcomes. The group rarely encourages student questions and	The students actively engage with the presented materials and/or learning tasks throughout the lesson in a way that supports mastery of the learning outcomes. Students participate as a result of how activities have been introduced and structured.	The students demonstrate a strong interest in the presented materials and/or learning tasks. Students participate enthusiastically, as a result of how The group has introduced and structured the learning tasks. The group appropriate structures students' level of independence, ensuring

		responses during the lesson.	The group appropriately structures students' level of independence. The group encourages student questions and responses at several points during the lesson,	that students understand the reason for this. The group encourages student questions and responses consistently throughout the lesson.
7. The group engages students in learning tasks to support the learning and use of academic language (InTASC Standards 4, 5, 7&8, Danielson Components 3a, 3b & 3c).	The group does not address academic language.	The group mentions academic language but does not encourage student engagement with academic language.	The group encourages students to use and engage with academic language throughout the learning tasks. The group supports students in using academic language but on the cursory level. The group appropriately scaffolds academic language acquisition for diverse student needs.	The group deliberately designs learning tasks that highlight and provide students the opportunity to practice academic language for all diverse student needs. The group intentionally prepares supports for diverse student need to engage in academic language.
Criteria	**Ineffective**	**Developing**	**Effective**	**Highly Effective**
12. The group engages students in challenging work and conveys high expectations for the students (InTASC Standards 1, 2, 3 &8, Danielson Framework Components 2a, 2b, 3a& 3c).	Learning activities are rote and the lesson topics are inappropriate for the students in the class.	Little commitment to challenge is demonstrated. High expectations are reserved for one or two students.	The group engages all students in appropriately challenging work; classroom activities support rigor and deep learning.	The group inspires all students to engage in appropriately challenging work; students take some responsibility for their learning and improvement.
13. The group demonstrates an ability to manage time (closure) (InTASC Standards 3,7 &8, Danielson Framework Component 2c).	The lesson extends well into the next period or ends too early. The group deviates significantly from the anticipated plan, but this change results from lack of time management.	The lesson is conducted within the anticipated time-frame, but lacks a strong closing due to lack of time. The group may alter the plan to accommodate time restrictions, but alterations impact learning opportunities.	The lesson is conducted within the anticipated time frame, and demonstrates the precise timing of activities. There is sufficient time for a strong closing. The group alters the plan slightly to accommodate time restrictions, but this	Timing reflects the candidates' accurate predictions of student needs. Transitions are managed to maximize learning time. Students contribute to time monitoring.

			does not detract from learning.	
Criteria	**Ineffective**	**Developing**	**Effective**	**Highly Effective**
16. The group demonstrates an ability to use varied technologies and computational thinking effectively (InTASC Standard 8, Danielson Framework Components 2c & 3c, NYS Computer Science and Digital Fluency Standards Digital Literacy).	Technology and/or computational thinking is not used in the classroom or for homework. The technology expectations do not consider issues of access.	Technology and/or computational thinking is used by the teacher but not the students. The technology is accessible to some students but does not consider issues of diverse needs or resources.	Students use technology and/or computational thinking in a way that supports interaction, creativity, analysis, and problem-solving. Technology is used in the classroom or for homework in a way that is accessible to most of the students.	Students have a choice of activities that use technology and/or computational thinking in a way that supports interaction, creativity, analysis, and problem-solving. Technology is used in the classroom or for homework in a way that is accessible to all of the students.

Reflection Evaluation Rubric

Criteria	Ineffective	Developing	Effective	Highly Effective
The reflection responds to the guiding questions. (INTASC Standards 9 & 10, Danielson Framework 4a, 4d, 4e, 4f).	The reflection responds to the questions in a superficial way with minimal connection to lesson events.	The reflection provides general response to the assigned questions with some connections to lesson events.	The reflection provides thorough response to the assigned questions with precise connections to multiple lesson events.	The reflection provides in-depth coverage of the assigned questions, with precise connections to lesson events and theory/research.

Appendix C:
DARE Data Analysis Assessments (5%) (for undergraduates/pre-service teachers)

The instructor in this class is participating in a CUNY-wide initiative, supported by the National Science Foundation, to infuse data analysis across the curriculum. As part of this initiative, faculty in courses across CUNY are administering assessments in their classes. These assessments are designed to measure students' attitudes and skills relating to data analysis and quantitative reasoning. There will be an assessment administered very early in the semester and one at the end of the semester. These assessments count for 5% of your class grade (each assessment is 2.5%), but you are NOT graded on your performance. That said, we do ask that you try your best since student performance on these assessments speaks to the skills and talents of CUNY students. Before you take the assessment, you have the option of indicating whether you want your assessment data to be used for research purposes. If you opt to allow the data to be used for research purposes, you will be compensated **$5** for each assessment you complete. Additional information about the assessments will be provided in Blackboard.

Computational Thinking (CT)-integrated Lesson Plans (for In-service Teachers)

Description:

Each CSin6 participant will develop two (2) CT-integrated lesson plans this semester. The objective of this task is to create a comprehensive and well-structured lesson plan that integrates computing concepts to promote computational literacy among students. By developing this lesson plan, you will be fostering students' understanding of computational thinking and digital fluency and their implications in the context of social justice. Additionally, you will address diversity, equity, and inclusion to ensure an equitable learning experience for all students.

Assignment Details:
You will design a lesson plan using the provided "*Designing a Computing-Integrated Lesson Plan to Promote Computational Literacy*" template. Your lesson plan should reflect a deep understanding of the NYS Computer Science and Digital Literacy Learning Standards (CSDF), relevant content area standards (e.g., ELA, Math), and strategies for promoting diversity, equity, and inclusion.

Some work sample ideas:

- Create a website (or blog) that allows your students to communicate with peers from around the world when exploring issues on climate change.
- Create a video to teach a topic, which engages visual learners via Powtoon/Animaker/SimpleVideo
- Create an alarm system via Micro:bit
- Create a workout station for students to keep track of their exercises via Makey Makey
- Use a poll to solicit ideas from students anonymously.
- Design 3D artifacts that give your students hands-on experiences.
- Adopt a concept mapping tool to measure student learning (e.g., Miro, Figjam, Padlet)
- Create a game/activity in Scratch for digital storytelling, problem-solving, and simulations.
- *Your better ideas are here…*

Lesson Plan Template:

https://www.dropbox.com/scl/fi/om7l3gyky8urls9tdnbxm/EDUC230_Teacher-Lesson-Plan-Template.docx?rlkey=0axkifnz90m43z8ex3d2driv1&dl=0