EDUC 422: TEACHING, LEARNING AND TECHNOLOGY

Section # 40014
FALL 2020

Synchronous Class Meetings via Zoom:
Fridays 11:30-2:20

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Office Location: Zoom
Office Hours: by appointment

COURSE CATALOG DESCRIPTION

Required for all credential candidates. Focuses on developing knowledge and skills using technology for teaching and learning within the broader context of Science, Technology, Engineering, Arts, and Math (STEAM) education through fifteen (15) hours of field experience with children in K-12 educational settings. Certificate of clearance and TB risk assessment required prior to engaging field experience hours.

ADDITIONAL INFORMATION ON THE COURSE

This course is one of the three prerequisite courses for entering the teacher credential program at CSUSM. The other two prerequisite courses include EDUC350 Foundations of Teaching as a Profession and EDUC364 The Role of Cultural Diversity in Schooling. This is also a required course for the Minor in Education Studies.

Considerations during A Challenging Time

Due to the COVID-19 pandemic, this class will be held online with both synchronous sessions and asynchronous online activities. Such remote teaching and learning brings many challenges (and flexibility). A challenge is community building. We will meet virtually via Zoom, and there will be discussion forums on Cougar Courses. All class members are expected to actively participate in both venues and pitch in to make this a wonderful class for everybody. **Note that effective learning happens in a caring community and that every class member is responsible for the collective learning of the class**.

> **Access to Technology:** It's crucial for you to log into Cougar Courses a few times every week to stay engaged. If you have any technology needs such as access to the Internet or a computer, please contact IITS for Students. For example, you may be able to check out a laptop or a webcam.
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> **Camera On:** During a synchronous Zoom session, I'd love to see your face and get to know you. So I expect you to turn on your camera. However, if you have a good reason for not showing your face in a particular session, please let me know. See this quick guideline: Camera on? Camera Off?
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> **Civility:** This fall semester brings heightened concerns related to COVID-19, the political climate, social unrest, financial hardships, online learning, and many other issues. It will therefore be especially important for all of us to be highly self-aware and self-monitoring to ensure that stress does not negatively influence the way we interact with others. It is the expectation that students' words and actions will be professional,

collaborative, courteous and supportive at all times. Instances of a failure to display a civil disposition, that violates CSUSM's student code of conduct, will be directed to the appropriate campus administrator.

Cougar Care Network: The pandemic can be stressful for many people. If you need help dealing with issues in your study, work, or life, use Cougar Care Network (CCN). It provides information, connection to resources, advocacy and support for students dealing with personal, academic, financial or other challenges which may adversely affect their academic success and/or collegiate experience. Contact Cougar Care Network at (760) 750-7627 or via ccn@csusm.edu.

Academic Honesty: Each student shall maintain academic honesty in the conduct of their studies and other learning activities at CSUSM. The integrity of this academic institution, and the quality of the education provided in its degree programs, are based on the principle of academic honesty. The maintenance of academic integrity and quality education is the responsibility of each student within this university and the California State University system. Cheating and plagiarism in connection with an academic program at a campus is listed in Section 41301, Title 5, California Code of Regulations, as an offense for which a student may be expelled, suspended, put on probation, or given a less severe disciplinary sanction.

CSUSM has established a resources portal called CSUSM as One. Check it out.

COURSE PREREQUISITE

The prerequisite for this course is basic computer knowledge and skills such as turning a computer on and off; opening, saving, and deleting a file; creating and deleting a folder; using e-mail and web browsers (i.e. Internet Explorer, Safari, Firefox, Google Chrome).

COURSE OBJECTIVES

The course objectives are:

a. Contextualize STEAM teaching and learning in authentic contexts.
b. Develop and disseminate STEAM learning experiences.
c. Implement, assess and reflect on STEAM learning experiences.
d. Engage in instructional conversations and collaborations that enhance STEM teaching and learning across content areas.
e. Increase confidence and self-efficacy in STEM teaching and learning.
f. Increase understanding of design thinking.

COURSE LEARNING OUTCOMES

In the end of this course, students will meet the International Society for Technology in Education (ISTE) Educator Standards. These standards are:

1. **Learner:** Educators continually improve their practice by learning from and with others and exploring proven and promising practices that leverage technology to improve student learning.
2. **Leader:** Educators seek out opportunities for leadership to support student empowerment and success and to improve teaching and learning.
3. **Citizen:** Educators inspire students to positively contribute to and responsibly participate in the digital world.

4. **Collaborator:** Educators dedicate time to collaborate with both colleagues and students to improve practice, discover and share resources and ideas, and solve problems.
5. **Designer:** Educators design authentic, learner-driven activities and environments that recognize and accommodate learner variability.
6. **Facilitator:** Educators facilitate learning with technology to support student achievement of the 2016 ISTE Standards for Students (see https://www.iste.org/standards/standards/for-students).
7. **Analyst:** Educators understand and use data to drive their instruction and support students in achieving their learning goals.

COURSE MATERIALS & RESOURCES

1. **Google Drive:** This is an online file storage service provided by Google. It allows users to create, share, and collaboratively edit files stored in the cloud. Students should have access to Google Drive through their CSUSM e-mail. If you do not have access to Google Drive, you can create an account at drive.google.com. Directions on how to create an account are available at: https://support.google.com/drive/answer/2424384?hl=en
2. **Additional File Storage:** While you can create, upload, and store files using Google Drive, you may need to use an additional secondary cloud file storage service such as Dropbox (You can create an account at www.dropbox.com) and/or purchase a USB stick (8GB or larger) to store large files.
3. **Cougar Courses:** Course materials, assignment instructions, and grades will be available on Cougar Courses site. Available at: https://cc.csusm.edu/. Be sure to set your preferred email in your profile settings of Cougar Courses so that you receive important announcements and communications. It is your responsibility to check the course site regularly and bring any issues immediately to the instructor's attention.
4. **Campus Resources:** In addition to attending class meetings, students may need to use campus resources for some assignments. It is the student's responsibility to make arrangements to have the technology resources available in order to complete scheduled assignments and due dates. All students must plan times they can work in labs on campus. Students are required to check campus resources and availability of labs. Mac computers are available in ACD 202, ACD 211, UH 271, and SCI2 306 in addition to other locations such as the library 2nd floor.
5. **Backing Up Work:** Many technology platforms you will be using in this course are online and require a username and password. However, for some assignments you will need to take a screenshot or copy/paste your work into a word file, therefore it is important that you backup your work.
6. **Username & Password:** You will be using a variety of online platforms. Avoid creating a new username and password for each platform, instead, use the same username and password for all platforms for you to easily remember.

UNIVERSITY AND SCHOOL OF EDUCATION POLICIES

Attendance Policy: Due to the dynamic and interactive nature of courses in the School of Education, all candidates are expected to attend all classes and participate actively. At a minimum, teacher candidates must attend more than 80% of class time, or s/he may not receive a passing grade for the course at the discretion of the instructor. Individual instructors may adopt more stringent attendance requirements. Should the candidate have extenuating circumstances, s/he should contact the instructor as soon as possible. For EDUC 422 in particular, attendance will be taken each synchronous zoom class session. 10 points will be deducted from your overall grade if

you miss a zoom class session more than 2 times during the semester or if you are significantly late more than 3 times. **However, note that during the six weeks where you complete the service learning component of the course, you cannot miss the zoom class sessions. If you miss the zoom class session, you will not be allowed to facilitate the afterschool session. Note that there is also no make-up for missing an afterschool session. You will fail the class if you do not meet the field experience hours.**

Professional Dispositions: The California State University San Marcos School of Education fosters the development of the following professional dispositions among teacher candidates:

- *Social Justice and Equity*: Candidates appreciate the languages, communities, and experiences learners bring to the classroom. Candidates advocate for and support marginalized communities and individuals.
- *Collaboration*: Candidates learn and practice the skills of collaboration in their coursework and use them in their professional interactions with students, colleagues, parents, caregivers and those in the wider community.
- *Critical Thinking*: Candidates analyze various professional contexts, resulting in more informed decision-making about professional practice.
- *Professional Ethics*: Candidates learn to make and act on well-reasoned, principled judgments.
- *Reflective Teaching and Learning*: Candidates critically review their professional practice and the impact it has on student success.
- *Life-Long Learning*: Candidates are committed to actively seeking new knowledge, skills and experiences throughout their career.

Academic Honesty Policy: Students are expected to adhere to standards of academic honesty and integrity, as outlined in the Student Academic Honesty Policy. All written work and oral presentation assignments must be original work. All ideas/materials that are borrowed from other sources must have appropriate references to the original sources including resources found online. Any quoted material should give credit to the source and be punctuated with quotation marks.

Students are responsible for honest completion of their work including examinations. There will be no tolerance for infractions. If you believe there has been an infraction by someone in the class, please bring it to the instructor's attention. The instructor reserves the right to discipline any student for academic dishonesty in accordance with the general rules and regulations of the university. Disciplinary action may include the lowering of grades and/or the assignment of a failing grade for an exam, assignment, or the class as a whole.

Incidents of Academic Dishonesty will be reported to the Dean of Students. Sanctions at the University level may include suspension or expulsion from the University.

It is expected that each candidate will do his/her own work, and contribute equally to group projects and processes. Plagiarism or cheating is unacceptable under any circumstances. If you are in doubt about whether your work is paraphrased or plagiarized see the Plagiarism Prevention for Students website **http://library.csusm.edu/plagiarism/index.html**. If there are questions about academic honesty, please consult the University catalog.

Writing Requirement: The CSUSM writing requirement of 2500 words is met through the completion of course assignments. Therefore, all assignments will be looked at for content, organization, grammar, spelling, and format. If needed, it is suggested that you make an appointment with the Writing Center (http://www.csusm.edu/writing_center/) to seek help with writing skills before submitting your written assignments.

Because it is important for teachers to be able to effectively communicate their ideas to students, parents, colleagues, and administrators, writing that is original, clear and error-free is a priority for the School of Education.

Students with Disabilities Requiring Reasonable Accommodations: Candidates with disabilities who require reasonable accommodations must be approved for services by providing appropriate and recent documentation to the Office of Disability Support Services (DSS). This office is located in Craven Hall 4300, and can be contacted by phone at (760) 750-4905, or TTY (760) 750-4909. Candidates authorized by DSS to receive reasonable accommodations should meet with their instructor during office hours or, in order to ensure confidentiality, in a more private setting.

COURSE EXPECTATIONS

Professional Demeanor: It is expected that students will conduct themselves as professional adults who show respect to others, bring a positive attitude, and demonstrate productive engagement with people, process, and tasks to be completed. Professional demeanor includes, but not limited to, meeting the following expectations:

1. Arriving to all class meetings and school sites **on time**. Emailing the instructor when you are unable to attend class meetings or when you will be late. If you come late to class more than twice in the semester, you will be considered absent. Consistently being late to class will not be tolerated. You cannot be late to the school site.
2. Submitting required assignments **on time**. When you are unable to complete an assignment and need more time, e-mail the instructor and explain the reasons for requesting an extension, and provide a projected timeline for successful completion of the assignment.
3. Approaching problems with a disposition to find solutions rather than feeling helplessness or hopelessness when facing a challenge or difficulty. This applies to the learning and teaching of different technologies and other class and field work related issues.
4. Working respectfully and productively with peers, the instructor, children, and school site staff at all times.
5. Contributing to and being part of a supportive and collaborative teaching and learning environment. This includes helping classmates with technical and/or content issues, interacting with your peers, selecting one or two class "buddies" to ensure that you receive information and handouts if you miss a class, and help you keep track of the course assignments, upcoming tasks, and deadlines.

Electronic Communication: My goal is to respond to your e-mails as soon as possible. However, I have other job responsibilities and family obligations. While it is my intention to respond to all received e-mails in a timely manner, it might take up to 24 hours to respond to your e-mail.

Online Etiquette: Please keep in mind that electronic communication is a very specific form of communication, with its own nuances and etiquette. For instance, electronic messages sent with no title or greetings, in all upper case (or lower case) letters, major typos, or slang, often communicate more than the sender originally intended. With that said, please be mindful of all e-mail and online discussion messages you send to your colleagues, to faculty members in the School of Education, or to persons within the greater educational community. All electronic messages should be crafted with professionalism and care. Things to consider:

- Would I say in person what this electronic message specifically says?
- How could this message be misconstrued?
- Does this message represent my highest self?
- Am I sending this electronic message to avoid a face-to-face conversation?

In addition, if there is ever a concern with an electronic message sent to you, please talk with the author in person to correct any confusion. Be aware that messages sent within an online context may be open to misinterpretation. When concerned, meanings should be verified to clarify sender's intent.

COURSE ACTIVITIES

Asynchronous Activities

Course activities will be introduced on Monday mornings via learning modules in cougar courses. Students will complete the learning module and associated activity during the week and then submit their completed activity and noticings and wondering to a discussion forum in cougar courses.

Synchronous Zoom Meetings

Synchronous zoom meetings will be on most Fridays between 11:30AM - 2:20PM. Students are expected to attend each weekly session prepared to actively participate in a discussion-based class session. There will be activities that students are expected to have completed prior to the zoom meeting (see above). The zoom session will be spent reflecting on these activities and key concepts related to design thinking and teaching STEM/STEAM. In addition, during the weeks of the course in which you complete the field experience, you will reflect on this experience in groups and plan for subsequent field experience lessons.

FIELD EXPERIENCE

As part of the course, students will create learning environments that promote productive student STEM learning, encourage positive interactions among students, reflect diversity and multiple perspectives, and are culturally responsive [TPE 2.2]. Students will implement the STEM activities they learned in class with children (grades 4 through 8) via zoom. This will include using digital tools and learning technologies to provide personalized and integrated technology-rich lessons that support student learning, digital literacy, and provide multiple means for students to demonstrate their STEM learning [TPE 4.8]. Students will monitor student learning according to anticipated difficulties the children will have the design challenge and adjust instruction while teaching so that students continue to be actively engaged in learning [TPE 1.8]. In addition, students will be expected to access resources for planning and instruction, including the expertise of community and school colleagues (e.g., after school program contact) through in-person or virtual collaboration, co-teaching, coaching, and/or networking [TPE 4.6]. This process is designed to support students in improving their teaching practices and learning about the local population of students they will serve. The field experience will take place between 1:00PM-3:00PM on one afternoon per week for six weeks of the semester. Students will work in groups of four to five throughout the semester and will be assigned to one school site. Each after school session, EDUC422 students will take a different role within their groups. Using a messaging and phone app (e.g. WhatsApp, GoogleTalk, etc.) is recommended for coordination and communication among group members. Carpooling is strongly encouraged when going to the school site. You will accumulate approximately 15 hours of field experience in this class.

COURSE ASSIGNMENTS

Certificate of Clearance (must be completed before field experience): You will apply and obtain a certificate of clearance through the California Commission on Teacher Credentialing (CTC) website. The certificate will be

posted in your online account. You will submit a digital copy of the certificate as an assignment. You cannot start your field experience without the submission of the certificate.

CITI Training (must be completed before field experience): As part of your field experience, you will take on the role of a teacher-researcher, collecting data (information) about children's STEM/STEAM learning through observations and document in the form of field notes. You will complete the CITI (Collective Institutional Training Initiative) and receive a certificate upon completing the appropriate modules and submit a digital copy of the certificate as an assignment. The modules will provide information about procedures and guidelines that must be followed when doing research in educational settings with children. You cannot start your field experience without the submission of the certificate.

Field Experience Reflection: At the end of each afterschool session with children, students will submit a field experience reflection focused on (1) what happened during the session, (2) their reflections about the session, (3) the subject matter and pedagogical knowledge students drew from to facilitate the session, (4) questions about how to use the experience to plan subsequent afterschool sessions that improve student learning, and (5) reflections on their process of monitoring student learning and adjusting instruction while teaching so that students continued to be actively engaged in learning. In addition, students will also be expected to reflect on their process of accessing resources for planning and instruction, including the expertise of community and school colleagues through in-person or virtual collaboration, co-teaching, coaching, and/or networking. **Each field note entry will be 2 Noticings and 2 Wonderings from the session.**
TPE: 1.8 (I,P); 4.6 (I); 6.1 (I)

Discussion forums: We will pair online asynchronous work with synchronous discussions via zoom. During 9 weeks of the course, you will complete an open-ended activity between Monday and Thursday and then submit your **completed activity** and **2 noticings and 2 wonderings** to the appropriate **discussion forum by Thursday at 11:59 PM**. This work will provide the foundation for our synchronous zoom sessions on Fridays.

Create Your Own Design Challenge: Students will work in groups to create a design challenge that uses and adapts resources, standards-aligned instructional materials, and a range of technology (including assistive technology) to facilitate students' equitable access to the curriculum. The design challenge will include an **assessment plan** and associated technology tool to administer an assessment that captures children's learning before, during, and after the lesson. Students will also conduct data analysis of the assessment results and describe how they would use these results to design additional learning experiences for students.
TPE: 3.6 (I); 5.4 (I)

Instructional Video: Based on the design challenge you created, you will put together an instructional video (at least 3 minutes long) and share it using social media so that other teachers can use the design challenge in their own classrooms. You will use screen casting software to record a short presentation that provides an overview the design challenge and assessment plan.

Teaching, Learning, and Technology Portfolio: You will put together a personal website as a means to document your work, showcase your learning, and things you have created as a future educator. Your portfolio (i.e. website) must include: (1) your lesson plan, assessment tool, and presentation (2) your photo and bio, (3) your instructional video, (4) a narrative that demonstrates knowledge of effective teaching strategies aligned with the International

Society of Technology in Education standards (ISTEs), and (5) a written plan for how you will integrate STEAM powered by Maker Education in your future classroom.
TPE: 3.8 (I)

GRADING

It is expected that work will be turned in on time and course expectations will be met. Please discuss individual issues with the instructor promptly if extraordinary circumstances prohibit you from turning in assignments on time, going to the school sites, or participate in course activities. Points will be deducted if assignments are submitted late (10% penalty per day late) **except for the field notes assignment. If you submit your field notes past 48hours mark, you will receive no credit**.

94 – 100 A	90 – 93 A-
87 – 89 B+	84 – 86 B
80 – 83 B-	77 – 79 C+
74 – 76 C	70 – 73 C-
60 – 69 D	Below 60 F

- You are responsible to track your grades and progress in the course by logging in Cougar Course.
- Failure to complete this course with a grade of C+ or better will prohibit a teacher candidate from entering a teaching credential program.

Assignments	Points	Percentage
CITI Training	**10**	**~3.8%**
Certificate of Clearance	**10**	**~3.8%**
Discussion Forum Participation (9 weeks x 10 points)	**90**	**~34.5%**
Field Experience Reflection (10 points x 6)	**60**	**~23%**
Create Your Own Design Challenge: 1. Google Slides Presentation (5) points) 2. Description of Design Challenge (35 points)	**40**	**~15.3%**
Instructional Video	**30**	**~11.5%**
Teaching, Learning, and Technology Portfolio	**20**	**~7.6%**
Total:	**260**	**100%**

COURSE SCHEDULE

Please note that modifications may occur at the discretion of the instructor and based on coordination with the school sites. Any changes to assignments and activity schedule will be announced in class OR students will be notified via e-mail through the course announcements in Cougar Courses. To successfully complete this course, ***all assignments must be completed*** at an acceptable level noted on assignment directions. **All assignments are due by 23:59 PM PST on the due date**. **Field Notes are due within 48 hours of field experience by 23:59 PM.**

FALL COURSE SCHEDULE

Week	Date	Topics	Assignments/Session information
1	9/1-9/4	Introductions & Course Overview Signing up for school sites	**Discussion Forum #1 (DUE 9/4)**
2	9/8-9/11	Introduction to Intro to STEAM powered by Maker Education & Design Thinking • Most Magnificent Thing	**Discussion Forum #2 (DUE 9/10)**
3	9/14-9/18	Facilitating STEM after school activities: • Asking good questions	**Discussion Forum #3 (DUE 9/17)**
4	9/21-9/25	Learn Design Challenge #1	**CITI Training** **Certificate of Clearance** **Discussion Forum #4 (DUE 9/24)**
5	9/28-10/2	**Field Experience:** Implement Design Challenge #1	**Field Experience Reflection #1:** Due within 48 hours of site "visit"
		Learn Design Challenge #2	**Discussion Forum #5 (DUE 10/1)**
6	10/5-10/9	**Field Experience:** Implement Design Challenge #2	**Field Experience Reflection #2:** Due within 48 hours of site "visit"
		Learn Design Challenge #3	**Discussion Forum #6 (DUE 10/8)**
7	10/12-10/16	**Field Experience:** Implement Design Challenge #3	**Field Experience Reflection #3:** Due within 48 hours of site "visit"
		Learn Design Challenge #4	**Discussion Forum #7 (DUE 10/15)**
8	10/19-10/23	**Field Experience:** Implement Design Challenge #4 at the school site	**Field Experience Reflection #4:** Due within 48 hours of site "visit"

		Learn Design Challenge #5	**Discussion Forum #8 (DUE 10/22)**
9	10/26-10/30	**Field Experience:** Implement Design Challenge #5	**Field Experience Reflection #5:** Due within 48 hours of site "visit"
		Learn Design Challenge #6	**Discussion Forum #9 (DUE 10/29)**
10	11/2-11/6	**Field Experience:** Implement Design Challenge #6	**Field Experience Reflection #6:** Due within 48 hours of site visit
		Holistic Reflection on the Field Experience	
11	11/9-11/13	Introduce final assignments: • Create your Own Design Challenge • Instructional Video • Teaching, Learning, and Technology Portfolio	**Google Slides Presentation (DUE 11/13)**
12	11/16-11/20	Group/individual work on final assignments	**Create Your Own Design Challenge (DUE 11/20)**
13	11/23-11/27	Group/individual work on final assignments	**Thanksgiving. No class meeting.**
14	11/30-12/4	Group/individual work on final assignments	
15	12/7-12/11	Group/individual work on final assignments	**Instructional Video and Teaching, Learning and Technology Portfolio (DUE 12/11)**

*Due to the dynamic nature of collaboration and learning, the course schedule/syllabus is subject to change during the semester.