EDUC 385-585: Elementary Curriculum and Methods for Global Classrooms (6 units)
Spring 2016

Time: Monday 1:00–3:50-#135 &
Wednesday 4:00-7:50-#127
Professor: **C. Bobbi Hansen, Ed.D.**
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Office Hours: Monday 12-1
Wednesday 12-4
and by appointment

COURSE DESCRIPTION

This course is designed to provide candidates with subject-matter curriculum and pedagogical knowledge and skills in the following areas: mathematics, science, history-social science, the visual and performing arts. In each major subject area candidates learn to use appropriate instructional strategies and materials, to plan and implement instruction that fosters student achievement of state-adopted academic content standards and assists students develop as globally competent citizens who possess knowledge of other world regions, cultures, and global issues.

Practicum

Complete a practicum of on-site classroom observation. Some of the field experiences may have candidates work in International designated Baccalaureate Schools (PYP), Charter Schools, High Tech Elementary Schools)

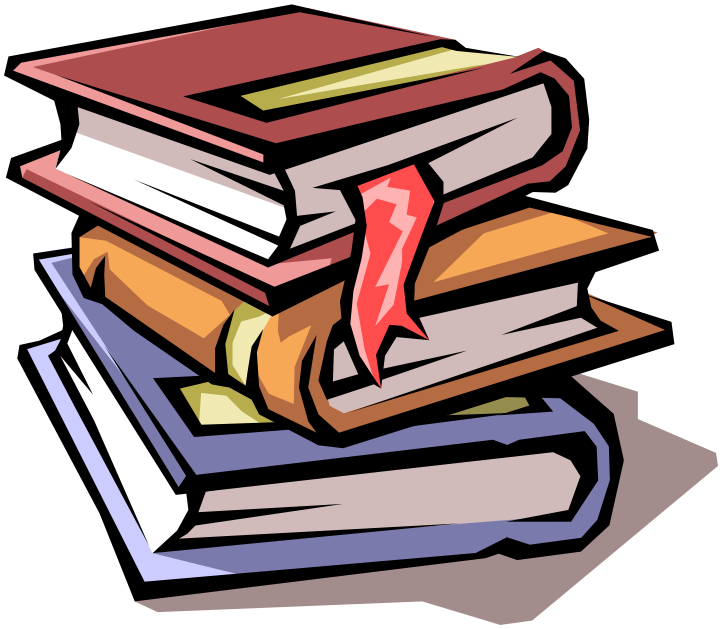
- Observe and support instruction in the classroom of the cooperating teacher for 50 hours.
- Teach at least two lessons. These lessons should be planned with the guidance of the cooperating teacher.
- Identify one student with a special need who will be your focus student and record 5 observations of instructional and support strategies used by the teacher with the student and your opinion of the effectiveness of these supports.
- Students are expected to draw connections between practicum observations, course readings and experiential activities with in class closure sheets.
- Students are expected to observe and reflect upon data that shows evidence of student learning.
- The cooperating teacher must complete a candidate evaluation. *Candidates cannot successfully complete EDUC 385-585 without a satisfactory practicum evaluation.*

Blended Learning Goals:

This course will model practices of *blended learning* that allows students to integrate face-to-face learning with technology-based, digital instruction. Learning takes place in settings (or in a combination of settings) that include the classroom, home, or mobile environments and gives students an element of control over the time and the pace of their learning. In addition to having a portion of our own course content online, we will discuss the theory and practice of blended learning in the K-6 classroom. Class sessions will model blended learning both in our classroom and online.

Inclusive Education Learning Goals:

This course will model practices of inclusive education that allows you to learn different approaches to providing support and differentiated tools and models for making inclusive education successful.



TEXTBOOKS

Required:

1. California Department of Education. *California State Framework in Science.* Sacramento, CA: Author. (text or on-line /http://www.cde.ca.gov/be/st/fr/, http://www.cde.ca.gov/ci/sc/cf/scifw1st60daypubreview.asp
   The Next Generation Science Standards, http://www.nextgenscience.org

2. California Department of Education. *California State Framework in History/Social Studies*. Sacramento, CA: Author. (text or on-line / http://www.cde.ca.gov/be/st/ss/documents/histsocscistnd.pdf
   and
   http://www.socialstudies.org/system/files/c3/C3-Framework-for-Social-Studies.pdf

3. California Department of Education. *California Common Core Standards: Mathematics*.
   http://www.cde.ca.gov/be/st/ss/documents/ccssmathstandardaug2013.pdf

4. California Department of Education. *California State Framework in Visual and Performing Arts.* Sacramento, CA: Author. (text or on-line
   http://www.cde.ca.gov/ci/cr/cf/allfwks.asp

5. **Literature Book, The Sign of the Beaver by Elizabeth George Speare,**

6. Packet of readings to be purchased at the USD bookstore

7. Selected digital readings

COURSE OBJECTIVES

USD Program Themes

Course objectives are linked to specific State of California's Teaching Performance Expectations (TPEs) and are organized around three outcomes. By the end of the semester, students will understand and be able to demonstrate the following outcomes:

Teaching Performance Expectations (TPEs)

A. Making Subject Matter Comprehensible to Students

TPE 1: Subject Specific Pedagogical Skills for Instruction
TPE 1A: Subject Specific Pedagogical Skills for Multiple Subject Teaching Assignments

B. Assessing Students Learning

TPE 2: Monitoring Student Learning During Instruction
TPE 3: Interpretation and Use of Assessments

C. Engaging and Supporting Student Learning

TPE 4: Making Content Accessible
TPE 5: Student Engagement
TPE 6: Developing Appropriate Teaching Practices
TPE 6A: Developing Appropriate Teaching Practices in Grades K-3
TPE 6B: Developing Appropriate Teaching Practices in Grades 4-8
TPE 6C: Developing Appropriate Teaching Practices in Grades 9-12
TPE 7: Teaching English Learners

D. Planning Instruction and Designing Learning Experiences for Students

TPE 8: Learning about Students
TPE 9: Instructional Planning

E. Creating and Maintaining Effective Environments for Student Learning

TPE 10: Instructional Time
TPE 11: Social Environment

F. Developing as a Professional Educator

TPE 12: Professional, Legal and Ethical Obligations
TPE 13: Professional Growth

ACE Outcomes & Course Objectives

Academic Excellence & Critical Inquiry and Reflection

Teacher Candidates will demonstrate knowledge on how to represent content accurately and competently by applying strategies and techniques in their field of study. Engage in reflective activities, critically analyze their practice and apply

higher order thinking skills to a wide array of investigative pursuits **in order to become globally competent, intercultural peace and character education teachers.**

1. Demonstrate knowledge of the state frameworks, standards and assessments related to the teaching of mathematics, science, history/social science and the visual and performing arts. (TPE 1, 3, 4) (K)
2. Demonstrate uses of a variety of subject-specific pedagogical approaches to the teaching of mathematics, science, history/social science and the visual and performing arts. (TPE 1, 4) (S)
3. Demonstrate an understanding of lesson plan development, implementation and evaluation. (TPE 5, 6, 9, 10, 13) (K, S)
4. Demonstrate awareness of and ability to evaluate the material and community resources available in the teaching of mathematics, science, history/social science, and the visual and performing arts. (TPE 4) (K, S)
5. Know and apply strategies for supporting reading in the content areas. (TPE 1A) (K, S)
6. Apply knowledge of lesson plan development to an integrated unit of study. (TPE 9) (S)
7. Demonstrate an understanding of appropriate use of a variety of assessments, including norm referenced and criterion referenced tests and alternative measures such as formative and summative evaluations, works samples, observation, portfolios, and standards-based (TPE 3) (K, S)
8. Demonstrate ability to cultivate critical thinking and problem solving skills in students (TPE 1, 6) (S)
9. Design, administer and interpret a variety of assessments in content subject areas. (TPE 3) (S)
10. Demonstrate competence in the use of electronic teacher management resources (TPE 13) (S)
11. Demonstrate competence in examining and evaluating internet and software resources for mathematics, science, history/social science and the visual and performing arts. (TPE 1, 4) (S)
12. Demonstrate ability to engage in cycles of self-evaluation of planning and teaching practices, alone and in collaborative groups (TPE 9, 13) (S, D)
13. Demonstrate your ability to select, plan, implement and evaluate methodologies and resources for teaching international perspectives for K-6 students designed to help them develop as globally competent citizens. (TPE 9, 13) (S, D)
14. Demonstrate your ability to identify the similarities and differences between the social studies curriculum as traditionally taught and as taught with a global perspectives emphasis. (TPE 9, 13) (S, D)
15. Demonstrate your ability to use teaching strategies for challenging negative and distorted views of distant places. (TPE 9, 13) (S, D)

Community and Service

Teacher candidates will demonstrate the ability to create and support

collaborative and caring learning communities in their professional fields of practice. They will bridge theory and practice by experiencing various dimensions of the diverse cultural communities through active service engagements that support world cultures through peace and character education traits.

16. Understand the purpose for establishing classroom meetings as a way of fostering a democratic classroom environment. (TPE 11) (K)
17. Know and apply strategies for creating a positive learning environment (TPE 11) (K, S)
18. Demonstrate your ability to use the pedagogy of service learning by creating opportunities for K-6 students to address global environmental or ecological problems and to contribute to possible solutions. (TPE 11) (K)
19. Demonstrate your ability to successfully use computer technology, including e-mail and the Internet, to teach students to participate in a global community.

Ethics, Values and Diversity

Teacher candidates will understand and adhere to the values and ethical codes of the university, of schools they work in, and of their professional organizations. They will create inclusive, unified, caring and democratic learning peace education communities that value individuals regardless of the global cultural background or ability, and equitably support their learning and development.

20. Demonstrate an understanding of assessment techniques and tools appropriate for individuals with diverse backgrounds and varying language, communication and cognitive abilities. (TPE 8) (K, S)
21. Know and apply strategies for learning that meet the learning styles, interests and cognitive abilities of all students. (TPE 8) (K, S)
22. Demonstrate competence in the use of electronic research tools, internet resources and the ability to use technology to support the needs of diverse learners. (TPE 8) (K, S)
23. Demonstrate your ability to systematically acquire information from a variety of digital sources regarding international issues and global environmental problems. (TPE 8) (K, S)
24. Demonstrate your ability to use global geographical knowledge and understandings to lead K-6 students in becoming active and informed international citizens. (TPE 8) (K, S)

Course Outline

ASSIGNMENT	DATE
Science Lesson Due	**2/17**
Read Sign of the Beaver	**3/7**
Science Unit Due	**3/16**
Math Lesson Due	**4/11**
Focus Student Observation Due	**4/25**
Online assignments	**Throughout course**
***Portfolio Reflection Sheets Due/Individual Conference**	**5/11**

Blended (online) Classes
2/8, 2/24, 4/13,

CLASS 1 –M-1/25 Introduction
***Big Idea*: HOW DO YOU WANT TO BE AS A TEACHER?**
What are you going to learn? What do you want to learn?

- 21st Century Skills and digital learning environment
- CA Common Core Standards State and National NGSS Standards
- EdTPA
- Designing your classroom to facilitate a global learning community
- Equity and Access so that ALL students may learn
  Universal Design for Learning From Section 103(a)(24) of the Higher Education Opportunity Act of 2008: UNIVERSAL DESIGN FOR LEARNING/ The term "universal design for learning" means a scientifically valid framework for guiding educational practice that— (A) provides flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged; and (B) reduces barriers in instruction, provides appropriate accommodations, supports, and challenges, and maintains high achievement expectations for all students, including students with disabilities and students who are limited English proficient.'
- Classroom Management and creating a positive classroom community and social support for students
- Brain-based Learning

Video: 21st Century Skills
https://www.youtube.com/watch?v=qMG5dvhEzyo

CLASS 2 W 1/27- Best Practices in Science: NGSS

- STEM and STE(A)M
- Constructivist Teaching Practices in Science
- Examining Global Issues in Science
- Teaching science to special populations

- Planning and Implementing Instruction in Science Using State-adopted Standards, Textbooks, Digital Resources, Community Resources

Going Digital

- **Explore website(s)**
  - Understanding of the content, intent and vision of the Next Generation Science Standards. http://www.nextgenscience.org
  - California Department of Education. *California State Framework in Science.* /http://www.cde.ca.gov/be/st/fr/.

- **Videos**
  - Video: The Case for NGSS http://www.lawrencehallofscience.org/services_and_expertise/ngss

CLASS 3 M 2/1–Inquiry-based Science

- Students as Scientists/ Higher Order Thinking
- Teaching Academic Language (Vocabulary)
- Classroom Management for Science: Using spaces and materials for learning

Going Digital

Read: http://www.edutopia.org/blog/teaching-science-inquiry-based
Explore website(s):
Video(s): Claim evidence reasoning

- https://www.teachingchannel.org/videos/support-claims-with-evidence-getty

- **CCSS Reading Informational texts-**

https://www.teachingchannel.org/videos/informational-text-lesson-equip/?utm_source=newsletter20150411

CLASS 4 W 2/3 Explorations in Life, Earth and Physical Science:
Next Generation Science Standards
Crosscutting Concepts: Patterns; Cause and effect; Mechanism and explanation; Scale, proportion and quantity; Systems and system models; Energy and matter: Flows, cycles, and conservation; Structure and function; Stability and change.

- Providing students opportunities to use science concepts and investigation/experimentation skills to make sense of a real world phenomenon.
- Teaching the Content of Science
  Physical Science, Life Science, Earth and Space Sciences
- Science and the Common Core Literacy Standards
- Science Notebooking
- Science and Engineering Practices (SEP)
  1. Asking questions (for science) and defining problems (for engineering)

2. Developing and using models
3. Planning and carrying out investigations
4. Analyzing and interpreting data
5. Using mathematics and computational thinking
6. Constructing explanations (for science) and designing solutions (for engineering)
7. Engaging in argument from evidence
8. Obtain, evaluate and communicate information

Going Digital

- **Explore website(s);** http://modeling.asu.edu/modeling/SciencePoster-8practices.pdf
- **Video(s) Making Claims from Evidence**
- **https://www.teachingchannel.org/videos/claims-evidence-science-lesson-achieve**

CLASS 5 M 2/8 Project-based Learning (PBL)- Blended Online Class
Essential Questions:
What is Project based Learning (PBL)?
How does it connect to 21st Century skills?
How does PBL connect to global, international learning goals?

Going Digital

- **Explore website(s)**
  - **Explore George Lucas Foundation/Edutopia, http://www.edutopia.org/**
    Read one article about PBL
    Watch on video about PBL
  - **Explore the Buck Institute for Education http://www.bie.org**
  - **Explore E-Pals, (http://www.epals.com) a global digital community of connected classrooms sponsored by National Geographic**

Quick write prompt:
How do you believe PBL may advance student learning and connect to 21st Century workplace skills? How do you think PBL could be used in your future classrooms to advance students' understandings of other nations, cultures and/or global environmental issues?

CLASS 6 W 2/10 Why Engineering?

- STEM and Engineering Practices for Elementary Students
- Bridge Building Engineering Project

Going Digital:
K-6 science units with an engineering problem to solve

https://www.pltw.org/pltw-launch-curriculum

- **Video http://www.eie.org/eie-curriculum/resources/what-research-says**

- **Read:** Engineering Articles: http://www.nytimes.com/2010/06/14/education/14engineering.html?pagewanted=all&_r=0

- **http://www.eie.org**
  Engineering Investigation-Getting to the Other Side: Designing Bridges
  http://www.eie.org/eie-curriculum/curriculum-units/get-other-side-designing-bridges
  - Background information on types of bridges- http://www.pbs.org/wgbh/nova/tech/build-bridge-p3.html

  - Choose the right type of bridge Digital Activity- http://www.pbs.org/wgbh/nova/tech/build-bridge-p4.html

CLASS 7 – M 2/15 Planning Curriculum for Students' Learning Needs

- Mapping Curriculum for Long Range (Yearly Planning and Curriculum Units)
- Short-range planning: Lesson plan development, implementation and evaluation
- Planning using content textbooks
  - Higher-order thinking
  - Students' prior knowledge, experience and learning styles
  - Planning instruction for ELLs
  - Planning instruction for students with special needs

Going Digital

Explore Lesson Plan Sites
http://www.lessonplanspage.com
http://teachers.net/lessons/posts/4763.html

CLASS 8 W 2/17 Micro-teaching #1: Inquiry Science (Self and Peer-Mediated Reflections)

Pick one area (Life, Earth, or Physical Science)

- Identify specific California Science Standards that apply to this lesson.
- Lesson should use one or more Science and Engineering Practices (SEP)
  1. Asking questions (for science) and defining problems (for engineering)
  2. Developing and using models
  3. Planning and carrying out investigations
  4. Analyzing and interpreting data
  5. Using mathematics and computational thinking
  6. Constructing explanations (for science) and designing solutions (for engineering)
  7. Engaging in argument from evidence
  8. Obtain, evaluate and communicate information Lesson should be aimed at a specific grade level K-6

- Bring all materials to class for lesson.
- As a group, discuss ways each lesson may be differentiated for UNIVERSAL ACCESS for all students.

CLASS 9 M 2/22 Using Assessments to Drive Instruction

How do you want to be as a teacher? The Power and Responsibility of Assessing Students

- Formative (Informal) and Summative (Formal) Assessment
- Data driven decision making using student work samples
- Issues of Equity in Assessing ALL Students

Going Digital

- **Read:** Formative Assessment: one or the other and discuss with partner
  1. **http://www.ascd.org/publications/educational-leadership/mar14/vol71/num06/The-Bridge-Between-Today's-Lesson-and-Tomorrow's.aspx**

  2. http://www.edutopia.org/blog/dipsticks-to-check-for-understanding-todd-finley

Video - Travel Journals as Student Portfolios

1. **http://www.edutopia.org/practice/creating-travel-journals-assess-learning**
2. **Both formative and Summative_Video #2 games as assessments/ http://www.edutopia.org/blog/using-games-for-assessment-rebecca-rufo-tepper**
3. **Self reflection: student led conferences http://www.edutopia.org/practice/student-led-conferences-empowerment-and-ownership**

CLASS 10 W 2/24 Explore Science Museums-Blended Class
Explore the Web sites of the following Science Museums

- **San Francisco Exploratorium http://www.exploratorium.edu**
- **Lawrence Hall of Science- http://www.lawrencehallofscience.org**
- **Virtual Museum Tours website.**
- **Smithsonian Institution website and investigate their various virtual exhibits.**
- **The Kennedy Center website including resources for educators and the multimedia finder.**
- **The British Museum and explore their online collection.**

Discussion prompt:
Write a brief description of at least 5 resources (articles, videos, websites, lesson plans) from these sites that you believe are noteworthy. How do you believe science museums (both virtual and on-ground field trips) may enhance your classroom teaching/learning science environment?

Class 11 M 2/29 Best Practices in Teaching: Focus-History-Social Studies

- Planning and Implementing Instruction in History-Social Science: Using State-adopted Standards, Textbooks, Electronic Planning and Research Tools, and Community
- Using evidence-based teaching strategies: Inquiry, Simulation, Debates, Case Studies, Cooperative Projects, Service Learning, Scaffolding, Jigsaw, Peer tutoring, Questioning, Graphic Organizers
- SDAIE teaching strategies,
- Building Academic Language (vocabulary) in social studies
- Teaching Strategies for Students with Identified Special Need

Going Digital
Read
Explore website(s):

- **California Department of Education. *California State Framework in History/Social Studies*. Sacramento, CA: Author. http://www.cde.ca.gov/be/st/ss/documents/histsocscistnd.pdf**

- **http://www.socialstudies.org/system/files/c3/C3-Framework-for-Social-Studies.pdf**

CLASS 12 W 3/2 Common Core Literacy Skills in Social Studies

Providing students an opportunity to use facts and concepts to make interpretations or judgments about a topic in history through clear connections among facts, concepts, interpretations, and judgments. Instructional strategies that make difficult text easier for students to read

and understand.

- Close reading
- Text Dependent Questions
- Claim/Evidence

Going Digital:
Read:
(1) **Information text** **http://www.ascd.org/publications/educational-leadership/nov13/vol71/num03/Points-of-Entry.aspx**
(2) Close Reading: **http://www.ascd.org/publications/educational-leadership/dec12/vol70/num04/Closing-in-on-Close-Reading.aspx**

Videos:
1.CCSS video **https://www.teachingchannel.org/videos/common-core-state-standards-elementary-school**

2. Text talk time –https://www.teachingchannel.org/videos/analyzing-text-lesson?resume=0

CLASS 13 –M 3/7 Teaching for Democratic Understanding, Social Justice and Global Understanding

- Exploration of digital technologies and videos that could be employed with service learning, character education, social justice and understanding what is required of citizens in a democracy.
- Classroom management to promote democratic classrooms, character building, and social justice

Going Digital

Read article: How to Integrate Social and Emotional Learning into the Common Core
http://greatergood.berkeley.edu/article/item/how_to_integrate_social_emotional_learning_into_common_core

Explore website(s)
https://www.teachingchannel.org/blog/2014/01/09/honoring-mlk-day/?utm_source=newsletter20160116/

Video(s)

Watch video of Julian Elementary School, 2010 National School of Character to see what can happen when a whole school decides to focus on Character Education
http://www.youtube.com/watch?v=qaaZTprxg8Y#t=11

Watch video of Service Learning and see one school's efforts to connect service projects with content standards so that students not only participate in improving the community, they also strengthen skills in literacy,

mathematics, science and social studies.
https://www.youtube.com/watch?v=6zecR0oSROE

CLASS 14 W 3/9 The Many Faces of Geographic Literacy
Geography is more than places on a map. It's global connections. People and cultures. Economics and environments. Our young people need to know geography in order to understand today's world—and succeed in tomorrow's.

- How does geography impact the lives of people around the world?
- Develop an Awareness of Place
- Develop Locational Skills and Understanding
- Using Children's Literature to Teach International Perspectives

Going Digital

Explore website:

1. **National Geographic**
   http://education.nationalgeographic.com/education/teaching-resources/?ar_a=1
2. **Pinterest**
   https://www.pinterest.com/Cre8iveCre8tion/teaching-geography/

Video:

1. **Jay leno video http://www.youtube.com/watch?v=7_pw8duzGUg**

2. **Why geography video http://www.youtube.com/watch?v=CGpas-GPjvQ**

CLASS 15 M 3/14 Historical Literacy: Teaching Social Studies through Literature

- Into Through and Beyond strategies for effective teaching.
- Using Oral History Projects and Primary Documents to teach History
- Sign of the Beaver

Video(s) You Tube about webquests
http://www.youtube.com/watch?v=o4rel5qOPvU

Sign of the Beaver Web quest
http://questgarden.com/84/77/7/091007063349

CLASS 16 W 3/16 Unit Due
Micro teaching #2-Share your Unit with your home team. Specifically share the global/international topics in your unit.

Going Digital
http://www.livebinders.com/play/play?id=68904
http://www.livebinders.com/play/play?id=946980

A SURPRISE EXPERIENCE!

SPRING BREAK March 21-28

CLASS 17 W 3/30 Mathematics-Examining the Common Core

CCSS in Mathematics
Counting and Cardinality (K) **Number & Operations in Base Ten** **Number & Operations-Fractions**
Operations and Algebraic Thinking
Measurement and Data
Geometry
Eight Mathematical Practices

2. Examine at least 5 pinterest sites:
My Pinterest CCSS Pin Board
http://www.pinterest.com/lrosenbusch/ccss-math-resources/

Common Core Mathematics
- **Counting and Cardinality (K)**
- **Number & Operations in Base Ten**

Assist students to develop conceptual understanding and skills, use math vocabulary as they talk about their mathematical thinking, and connect big ideas to meaningful independent exploration and practice.
Going Digital:
Websites to build number sense
http://list.ly/list/1uC-elementary-math-websites-to-build-number-sense

Videos:
1. Number Sense-Grade 3 patterns, skip counting by 200s- https://www.teachingchannel.org/videos/teaching-number-patterns?fd=1
2. Number Sense 3-5 mult and division- https://www.teachingchannel.org/videos/multiplication-division-in-the-core

Going Digital
- **Explore website(s)**
  - California Department of Education. *California Common Core Standards: Mathematics*.
  - http://www.cde.ca.gov/be/st/ss/documents/ccssmathstandardaug2013.pdf

CLASS 18 M 4/4 Problem Solving, Reasoning &

Eight Mathematical Practices

- **8 practices and Kid Friendly language**
  http://www.ride.ri.gov/Portals/0/Uploads/Documents/Instruction-and-Assessment-World-Class-Standards/Transition/EIA-CCSS/ScarpelliD-MP_ICanStatements.pdf

- **More in-depth explanation of 8 practices**
  http://www.corestandards.org/Math/Practice/

Teaching mathematics from a problem solving perspective

- math computation in story context (i.e. story problems)
- REAL mathematical problem solving
- Solving logic problems

Going Digital
Read: Solving Word Problems
http://www.livebinders.com/media/get/MTc3NTMxOQ==

Videos:

- Choose 3 ways
  https://www.teachingchannel.org/videos/problem-solving-math
- Perseverance 3-5
  https://www.teachingchannel.org/videos/math-practice-standard-perseverance
  - https://www.teachingchannel.org/videos/persist-through-challenges-perts

CLASS 19 W 4/6 Geometry
Domains A, C, D, E
Geometry and Spatial Reasoning
Measuring: Time/ Length/ Volume/ Weight/ Distance
Going Digital
Video
Grade 6: Perimeter and area: 22 at a table
https://www.teachingchannel.org/videos/real-world-geometry-lesson?fd=1

CLASS 20 M 4/11 Math Micro teaching
Micro-teaching #3: Mathematics
Domains A, B, C, D, E
Self and Peer-Mediated Reflections
Micro Teaching –Mathematics: A Jigsaw teaching strategy
Gallery sharing
Mathematics

CLASS 21 W 4/13- Technology Plunge-Blended class

Surf technology resources on LiveBinder by either (1) general tech sites http://www.livebinders.com/play/play?id=112855 or (2) ipod-touch and ipad apps- http://www.livebinders.com/play/play?id=36989

Discussion Prompt:
Create an annotated list of at least 8 of your favorite digital resources and how you might use them in your classroom to ensure student engagement and learning for ALL.

CLASS 22 M 4/18 Operations and Algebraic Thinking
Algebraic Thinking-Develop techniques to help students:

- recognize, construct, extend, create, analyze, generalize, and describe patterns
- use pattern-based thinking to understand and represent mathematical and real-world phenomena; determine mathematical rules and develop an understanding of functional relationships;

Data, Statistics and Probability
Develop techniques to help students

- formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them;
- select and use appropriate statistical methods to analyze data;
- develop and evaluate inferences and predictions that are based on data;
- understand and apply basic concepts of probability.

Going Digital

Web-based links:

1. Graph Your Favorite….
http://www.1.minn.net:80/~schubert/Graph.html
2. National Center for Educational Statistics
http://nces.ed.gov/nceskids
3. Math teaching strategies
https://mathteachingstrategies.wordpress.com/2008/11/24/data-analysis/

Video:
https://www.teachingchannel.org/videos/3rd-grade-graphing-lesson?fd=1

CLASS 23 W 4/20- Fractions-What's the problem with Fractions?
Going Digital

- **Read-You can't do that with a worksheet.**
http://www.ascd.org/ascd-express/vol8/824-livers.aspx
- **Video(s)**

https://www.teachingchannel.org/videos/teaching-fractions

https://www.teachingchannel.org/videos/formatively-assess-fraction-knowledge-sbac

Class 24-M-4/25- Focus Student Observation Due
Differentiated Instruction

1. **Examining Student work in PLCs**
   https://www.teachingchannel.org/videos/protocol-for-evaluating-lessons-equip

2. **Tips and Strategies for Effective Differentiation and Instructiou765iuk.**
   http://www.youtube.com/watch?v=mVRYSC8YyYA

3. **3 ways to differentiate a learning station**
   http://www.youtube.com/watch?v=E3LljMkI2OQ

- **Open ended**
- **Tiered**
- **Choice**

CLASS 25 W 4/27- GUEST SPEAKER

CLASS 26 M 5/2 Becoming a Professional Learner
Content Synthesis-Science, Social Studies, Mathematics
How are you going to prepare your students to be global citizens?
How are you going to help your students to become aware of issues that affect the planet?

CLASS 27 W 5/4 Peer Mock Interviews
Putting it all together: What did we learn?
Final Closure
***Big Idea*: HOW DO YOU WANT TO BE AS A TEACHER?**

CLASS 28 M 5/9 Complete Portfolio reflections-Blended Class

Wednesday 5/11- Portfolio Conferences

Course Assignments and Grading

I. STEM Curriculum Unit (TPEs 1, 4, 9, 14)

Each class member will prepare an interdisciplinary STEM (Science, Technology, Engineering and Mathematics) unit of study that will advance **K-6 students' understanding of the sciences**. The lessons in this unit will meet the ***California Common Core State Literacy Standards for Science, NGSS-Practices*** and ***The California Common Core State Standards: Mathematics (CA CCSSM)*** while addressing Universal Access for All Students. The Unit will also advance **K-6 students' understanding of other nations, cultures and/or global ecological issues**.

GUIDELINES

1) Title of STEM Unit and Grade level (K-6)

2) Introduction Letter to Parents (Address why STEM understanding is important for students in the 21st century how the unit addresses key STEM understanding.) List California Science Standards and any additional goals for students.)

3) 10 individual lessons on a K-6 grade level science topic:

Within the unit include the following:

- **1 lesson that incorporates mathematics (graphing, problem solving, measurement)**
- **1 lesson that incorporates reading *information text* using close reading strategies**
- **1 lesson that incorporates drama, art, movement or music**
- **1 lesson that incorporates global topic or environmental issue**
- **1 project* (engineering, service learning or any other PBL idea)**
- **1 "web quest" for students***

  ***brief explanation/does not need to be in regular lesson plan format**

4) A Summative Assessment for the entire unit that is Performance or Portfolio based along with a Scoring Rubric that allows students to show some depth of understanding with respect to the standards/objectives.

SCORING RUBRIC FOR THEMATIC UNITS

3. Above Standard

Meets all of the criteria for the (2) score and goes beyond in at least 3 of the following ways:

A. It is readily apparent that the student included many extra curriculum materials in the lessons and that the materials fit the intended objectives of the lessons.

B. Differentiated Learning Strategies for UNIVERSAL ACCESS for English language learners and for students who have disabilities are extremely thorough.

C. Student has identified and utilized a wide variety of instructional strategies (ex. Graphic organizers, simulations, inquiry, technology-enhanced, problem-based)

D. Use of the digital technology is extensively documented in lessons in unit.

E. Unit has multiple global/international connections

2. At Standard

A. Curriculum Integration-There is representation of interdisciplinary curriculum in lesson.

B. Standards-based-The unit is fully aligned to specific SCIENCE, Math and Literacy standards.

C. Lesson Clarity-Each lesson is written clearly and follows the format of the lesson design taught in class.

D. Differentiated Learning Strategies for learners with identified needs are present in every lesson

E. Assessment-Each lesson has a **Formative** (ongoing and more informal) and a **Summative** (at the end and more formal) assessment.

1. Below Standard

A. Curriculum Integration- Not all required subject areas are present in the thematic unit

B. Goals and Standards-Unit's does not have goal statement and/or unit is missing standards alignment

C. Lesson Clarity- Lesson plans are sketchy or difficult to understand.

II. Focus Student Observation

In your practicum you will identify one student with a special need who is being included in your general education class. You will record 5 observations that include the following components: (a) instructional and support strategies used by the teacher with the student; (b) your opinion of the effectiveness of these supports.

SCORING RUBRIC FOR FOCUS STUDENT OBSERVATION

3 Above Standard: Five observations are extremely insightful and provide many details and/or examples.

2 At Standard: Student has made five observations and they all fully address the instructional supports used by the teacher and your opinion of the effectiveness of the supports.

1 Below Standard: Student has not made five observations and/or they do not fully address the instructional supports used by the teacher and nor your opinion of the effectiveness of the supports.

III. Final Synthesis of Subject Specific Pedagogical Knowledge

Throughout the semester you will engaged in learning tasks that exemplify best practices in standards-based instruction in science, mathematics, and social studies with the goal of gaining competence in (1) knowing and presenting accurate content of each discipline, (2) using subject specific pedagogical processes, (3) using *best practice* instructional strategies for universal access for ALL learners, (4) using formative and summative assessment strategies to support content and learning outcomes, and (5) selecting appropriate digital and other resources to enhance the learning goals for all students.

You will compile your analysis of these tasks into a course portfolio with 8 entries. Models of this assignment will be given in class.

Portfolio Reflection Sheet

Activity:

Address at least one of the following questions: Why did you select this entry for your portfolio? What does it demonstrate about your learning? What insights did you have about the teaching/learning process? (**Note: Do not include a description of the activity since you have done that for the closure sheets**.)

Web-based Learning Connection(s) (TPE 14)

List digital app or internet site that could support teachers and/or students in learning the content and give a one sentence description.
App or url:

Description:

Connection to Global/International Ideas

Does this entry have a connection to Global/International Topic? If so, briefly explain.

Theory into Practice

To show evidence of critical thinking apply what you learned by doing this task and relate to theory (frameworks, textbook, readings, lectures, videos, etc.) and to practice via your practicum.

Prompt: This activity is supported by course readings (or videos) as evidenced by….. (discuss specific articles or videos and how they relate to the activity) and demonstrates principles of good practice….. (discuss any practicum experiences that relate to activity.)

SCORING RUBRIC FOR COURSE PORTFOLIO

4. EXCEPTIONAL
A. must meet all the criteria for a score of 3
B. All writing is correct, scholarly, linked to readings, and shows that candidate has been extremely insightful regarding learnings in class.

3. ABOVE STANDARD
A. must meet all the criteria for a score of 2
B. Each piece of writing is detailed and routinely cites at least 2 specific pieces of information found in the readings, framework & standards documents, videos and classroom lectures.

2. AT STANDARD
A. Portfolio is complete and has 10 required assignments.
B. Each piece of writing cites at least one specific piece of information found in the readings, framework & standards documents, videos and classroom lectures.
C. Student has solid attendance record.

1. BELOW STANDARD
A. Portfolio is missing assignments
B. Reflections are cursory and do not indicate whether or not student has read the required materials or has learned the required information.

UPLOAD STEM Science Units:
As part of the course, you will also email a copy of your unit (Embedded Signature Assignment, ESA) to a designated Box.com folder. For the Spring 2016 semester you will need to email their ESA as a PDF to: upload.Spring_16.5a749a2z3k@u.box.com,

Name the document following this example:

Department Code, Course Number-Section Number-Last Name, First Name

- EDUC385C-02-Last name, First Name
- EDUC585C-02-Last name, First Name

COURSE GRADE SHEET
EDUC 385/585

Area		Total Possible Points	Your Points
I.	**STEM Unit**	**3**	
II.	**Focus Student Observation**	**3**	
III.	**Portfolio Assessment and Conference**	**4**	

Late unit or portfolio -1 pt. for each.

TOTAL POINTS_____ **FINAL GRADE_____**

10 =A **7=B**
9 =A- **6=B-**
8 =B+ **5=C**

BELOW 5 = Consultation with instructor-may result in D, F or I

If attendance becomes a problem, your grade may be lowered. Please discuss with your instructor any situations that occur that will cause you to miss class.

Requests for Accommodation

Reasonable accommodations in accordance with the Americans with Disabilities Act will be made for course participants with disabilities who require specific instructional and testing modifications. Students with such requirements must identify themselves to the University of San Diego Disability Services Office (619.260.4655) before the beginning of the course. Every effort will be made to accommodate students' needs, however, performance standards for the course will not be modified in considering specific accommodations.

Grade of Incomplete:

The grade of Incomplete ("I") may be recorded to indicate (1) that the requirements of a course have been substantially completed but, for a legitimate reason, a small fraction of the work remains to be completed, and, (2) that the record of the student in the course justifies the expectation that he or she will complete the work and obtain the passing grade by the deadline. It is the student's responsibility to explain to the instructor the reasons for non-completion of work and to request an incomplete grade prior to the posting of final grades. Students who receive a grade of incomplete must submit all missing work no later than the end of the tenth week of the next regular semester; otherwise the "I" grade will become a permanent "F."

A Petition for a grade of incomplete must accompany all requests for an incomplete at the end of the course term. Criteria for changing a grade of incomplete to a letter grade must be negotiated with the instructor before the final class. The criteria must be outlined on the signed Incomplete Request Form. A completed form with both the instructor and student signature must be turned in by the last session of the class. Without a student signed form the registrar requires assignment of a grade of F. A student must complete an incomplete by the 10th week of the next session or a grade of F is permanently calculated in the overall grade point average. Any attempts to complete an incomplete after the 10-week deadline requires the approval of the Associate Dean of the School of Education.

SOLES On-line Course Evaluation

Student evaluations in SOLES are collected via an on-line system that maintains student anonymity. SOLES uses these evaluations for continuous improvement of course content and instruction and as a component of its regular performance review of faculty members, so please take them seriously. Course evaluations are available to students in their MySanDiego accounts via the Active Registration link on the One-Stop Services tab. Your instructor will provide you with instructions on how to access the evaluations once they are activated near the scheduled conclusion of your course.

Statement on Plagiarism

The complete plagiarism policy is available for your review at:

http://www.sandiego.edu/associatedstudents/branches/vice_president/academics/honor_council/integrity_policy.php

All members of the University community share the responsibility for maintaining an environment of academic integrity since academic dishonesty is a threat to the University.

Acts of academic dishonesty include: a) unauthorized assistance on an examination; b) falsification or invention of data; c) unauthorized collaboration on an academic exercise; d) plagiarism; e) misappropriation of resource materials; f) any unauthorized access of an instructor's files or computer account; or g) any other serious violation of academic integrity as established by the instructor.

It is the responsibility of the instructor to determine whether a violation has occurred. An act of academic dishonesty may be either a serious violation, or, if unintentional, an infraction (a non-serious violation of course rules). If the instructor determines that an infraction (as opposed to a serious violation) has occurred, the instructor can impose penalties that may include: a) reduction in grade; b) withdrawal from the course; c) requirement that all or part of the course be retaken; and d) a requirement that additional work be undertaken in connection with the course or exercise. Students may formally challenge the instructor's determination of infraction (see below).

Instructors shall report all violations, whether, infractions or serious violations, both to the Dean's office and the student using the Academic Integrity Violation Preliminary Worksheet. The Associate Dean will contact the student and ensure she or he is aware of the Academic Integrity policy. The Associate Dean will appoint a hearing committee only when: 1) the instructor reports that a serious violation occurred, or 2) the instructor reports that an infraction occurred and the student wishes to appeal the determination of infraction.

The hearing committee will include, in addition to the Associate Dean, a faculty member and two students from the School of Leadership and Education Sciences, and a faculty member from outside the School of Leadership and Education Sciences. If the hearing committee determines that a serious violation has occurred it also will determine sanctions to be applied which may include: a) expulsion from the University; b) suspension from the University for up to one year; c) a letter of censure; and d) imposition of a period of probation. If the hearing committee determines an infraction has occurred the penalty imposed by the faculty member will be upheld. If the hearing committee determines that no serious violation or infraction has occurred, it will request the instructor to take action consistent with that determination. If the hearing committee determines that expulsion is the appropriate sanction the student may appeal to the Provost.