

CPSE 462 - Tch Math to Stdnts w/Disablts

Spring 2016

Section 001: 341 MCKB on T Th from 1:00 pm - 3:50 pm

Instructor/TA Info

Instructor Information

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Course Information

Description

This course prepares participants to teach mathematics to students with disabilities. Participants will learn research-validated methods for assessment, planning, and explicit and cognitively-guided instruction for math skills and concepts.

Materials

Grading Scale

Grades	Percent
A	95%
A-	91%
B+	88%
B	84%
B-	81%
C+	78%
C	74%
C-	71%
D+	68%

D 64%

D- 61%

E 0%

Learning Outcomes

Utah Common Core for Math

1. Access and use the common core standards for assessment, lesson planning, and individualized instruction.

Cognitively Guided Instruction

2. Create and teach lesson plans using cognitively guided instruction to teach core math skills.

Curriculum-based assessment (CBA) for math

3. Administer and score curriculum-based assessments for math core standards in grades K-6.

IEP PLAAFPs from CBA data

4. Write standards-based Present Levels of Academic and Functional Performance (PLAAFP) statements and measurable annual IEP goals based on math CBA data for multiple math core domains.

Instructional units and daily lesson planning

5. Write instructional unit goals to address annual IEP goals for multiple math core domains. Write daily lesson plans to address each unit goal.

Unit and lesson curriculum-based measurements

6. Create curriculum-based measurements for units and daily lessons.

Direct instruction for math

7. Create and teach direct instruction lessons for unit daily objectives.

Data systems for monitoring student progress

8. Design and implement data recording systems for monitoring student progress toward lesson objectives, unit goals, and annual IEP goals..

Grading Policy

- All assignments are due in full on the date indicated.
- Assignments submitted one class period after the due date will earn up to 50% credit. Assignments will not be accepted more than one class date late.

Attendance Policy

You will earn 2 points for arriving to class on time, 1 point for arriving after the prayer, and 0 points for missing class.

Bibliography

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- Cox, L. S. (1975). Diagnosing and remediating systematic errors in addition and subtraction computations. *The Arithmetic Teacher, 22*, 151-177.
- Gersten, R., Beckmann, S., Clarke, B., Foegen, A., Marsh, L., Star, J. R., & Witzel, B. (2009). *Assisting students struggling with mathematics: Response to Intervention (RtI) for elementary and middle schools* (NCEE 2009-4060). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from <http://ies.ed.gov/ncee/wwc/publications/practiceguides/>.
- Gersten, R., Carnine, D., & Woodward, J. (1987). Direct instruction research: The third decade. *Remedial and Special Education, 8*(6), 48-56.
- Ives, B., & Hoy, C. (2003). Graphic organizers applied to higher-level secondary mathematics. *Learning Disabilities Research & Practice, 18*(1), 36-51.
- Lovitt, T. C. (1995). *Tactics for teaching* (2nd ed.). Upper Saddle River, NJ: Merrill/Prentice Hall.
- Lyons, I. M. & Beilock, S. L. (2011). Mathematics anxiety: Separating the math from the anxiety. *Cerebral Cortex, 22*(9), 2102-2110.

Mastropieri, M. A., Scruggs, T. E., & Shiah, S. (1991). Mathematics instruction for learning disabled students: A review of research. *Learning Disabilities Research and Practice, 6*, 89-98.

Miller, A.D., & Heward, W.L. (1992). Do your students really know their math facts? Using daily time trials to build fluency. *Intervention in School and Clinic, 28*(2), 98-104.

Strawser, S., & Miller, S. P. (2001). Math failure and learning disabilities in the postsecondary student population. *Topics-in-Language-Disorders, 21*(2), 68-84.

Swanson, H. L. (1999). Instructional components that predict treatment outcomes for students with learning disabilities: Support for a combined strategy and direct instruction model. *Learning Disabilities Research and Practice, 14*(3), 129-40.

Utah State Office of Education. (2009). *Utah's 3-tier model of mathematics instruction*. Salt Lake City, UT: Author. Available

at <http://www.schools.utah.gov/sars/DOCS/resources/math.aspx>

Wilson, C. L. & Sindelar, P. T. (1991). Direct instruction in math word problems: Students with learning disabilities. *Exceptional Children, 57*(6), 512-19.

Conceptual Framework for this Course

Moral endeavor in this course is established upon principles of eternal and unchanging truth contained in the restored gospel of Jesus Christ. Prophets of God proclaim that “all human beings—male and female—are created in the image of God. Each is a beloved spirit son or daughter of heavenly parents, and, as such, each has a divine nature and destiny.”¹

Teaching is a moral endeavor that recognizes and responds to the divine destiny of each student. Moral teachers ensure that students master the knowledge, skills, and dispositions necessary to realize their divine potential for growth and achievement. Therefore, teachers:

1. Recognize and cultivate the individual worth of each student
2. Embrace and apply proven instructional practice
3. Establish and maintain positive, supportive learning environments
4. Value and enact respectful interpersonal behavior and responsible citizenship.

Four assumptions guide our work:

1. All children can learn.
2. Schools exist to advance student learning.
3. Teachers are accountable for student learning.
4. Accountability is measured by data.

¹The Church of Jesus Christ of Latter-day Saints (1995). *The family: A proclamation to the world*. Salt Lake City, UT:

Author.

Course Objectives

Participants will

1. Access and use the common core standards for assessment, lesson planning, and individualized instruction.
2. Create and teach lesson plans using cognitively guided instruction to teach core math skills.
3. Administer and score curriculum-based assessments for math core standards in grades K-6.
4. Write standards-based Present Levels of Academic and Functional Performance (PLAAFP) statements and measurable annual IEP goals based on math CBA data for multiple math core domains.
5. Write instructional unit goals to address annual IEP goals for multiple math core domains. Write daily lesson plans to address each unit goal.
6. Create curriculum-based measurements for units and daily lessons.
7. Create and teach direct instruction lessons for unit daily objectives.
8. Design and implement data recording systems for monitoring student progress toward lesson objectives, unit goals, and annual IEP goals.

The Mission of Brigham Young University Special Education

We maximize the potential of diverse learners with individualized educational needs to elevate their quality of life. We accomplish this by supporting the mission and aims of a BYU education as we integrate teaching, research, and service. We specifically:

- prepare competent and moral educators who select, implement, and evaluate research-based effective teaching practices and appropriate curriculum for learners with special needs.

- prepare master special educators who will provide collaborative leadership to foster the moral development and improve learning and social competence of exceptional students with challenging behaviors.
- add to the knowledge base of special education and related disciplines through research.
- serve and advocate for learners with individualized educational needs and others who support them.

Methodologies/Teaching Strategies

This course employs whole-group instruction, small-group application and practice, and digital and internet exploration.

Assignments

Assignment Description

Create CGI Operations and Algebraic Thinking

Due: Thursday, May 05 at 3:59 pm

Create CGI Number and Operations in Base Ten

Due: Thursday, May 05 at 3:59 pm

Teach CGI Numbers and Operations in Base Ten

Due: Thursday, May 05 at 3:59 pm

Teach CGI Operations and Algebraic Thinking

Due: Thursday, May 05 at 3:59 pm

Attendance

Due: Tuesday, May 17 at 1:00 pm

2 pts. awarded for each class fully attended. 1 pt. for arrival after class prayer.

Create and teach DI Lessons

Due: Tuesday, May 17 at 11:59 pm

You will teach two DI lessons, one from unit..

Create Summer DI Lesson 1

Due: Tuesday, May 24 at 4:00 pm

Summer math unit 1

Due: Tuesday, May 24 at 4:00 pm

Create two (2) summer math units based on your CBA assessment data. Use the assigned unit planning form and include a focus CBA for each unit. Submit unit plans to the instructor.

Summer math unit 2

Due: Thursday, May 26 at 4:00 pm

Create two (2) summer math units based on your CBA assessment data. Use the assigned unit planning form and include a focus CBA for each unit. Submit unit plans to the instructor.

Create and submit Unit 1 DI lesson 2

Due: Thursday, May 26 at 11:59 pm

Create and submit one DI lesson from Unit 1.

Create and submit Unit 2 DI lesson 1

Due: Tuesday, May 31 at 11:59 pm

Create and submit one DI lesson from Unit 2..

Summer Unit Focus CBA

Due: Thursday, Jun 02 at 3:59 pm

Create Brief DI Geometry

Due: Thursday, Jun 09 at 3:59 pm

Point Breakdown

Categories

Percent of Grade

CGI Lesson Plans	14.34%
Direct Instruction Lesson Plans	35.86%
Lesson Teaching	17.93%
Summer Unit Plans	19.12%
Attendance	12.75%

Schedule

Date	Topic	Readings
T Apr 26 Tuesday	First Day of Spring Term (04/26/2016 - 06/13/2016)	http://www.illustrativemathematics.org http://achievethecore.org/ http://www.schools.utah.gov/CURR/mathelem/Core.a
	Introduction and overview Common Core math standards	
Th Apr 28 Thursday	Standards for Mathematical Practice Common Core math standards, continued Counting and cardinality	
T May 03 Tuesday	Assessment for math Math CBA for summer practicum	
Th May 05 Thursday	Cognitively Guided Instruction (CGI) Math CBA for summer practicum	

T May 10	<i>No Class</i>
Tuesday	Practice Math CBA
W May 11	CBA assessment in
Wednesday	practicum schools
Th May 12	Score math CBAs
Thursday	Organize Practicum student groups Identify practicum units
T May 17	DI lesson demonstration
Tuesday	
W May 18	Sequence summer units
Wednesday	with mentors
Th May 19	Formalize summer math units
Thursday	PLAAFPs Measurable annual goals 5 daily lesson objectives for each unit
T May 24	Operations and algebraic

Tuesday	thinking Concrete/pictorial/abstract teaching-learning sequence
W May 25	Mentors return graded
Wednesday	lesson plans
Th May 26	Number and Operations
Thursday	in Base Ten
M May 30	Memorial Day
Monday	
T May 31	Measurement and Data
Tuesday	
Th Jun 02	Technology for math
Thursday	Guest presenter: Teaching math in high school
T Jun 07	Teaching fact families
Tuesday	Math fact fluency
Th Jun 09	Geometry
Thursday	
M Jun 13	Last Day of Spring Term
Monday	(04/26/2016 - 06/13/2016) Withdraw Deadline (Full Semester)

	Final Exam: 341 MCKB 11:00am - 12:50pm
T Jun 14 Tuesday	Spring Exam Preparation (06/14/2016 - 06/14/2016)
W Jun 15 Wednesday	First Day of Spring Final Exams (06/15/2016 - 06/16/2016)
Th Jun 16 Thursday	Final Exam: 341 MCKB 11:00am - 12:50pm

University Policies

Honor Code

In keeping with the principles of the BYU Honor Code, students are expected to be honest in all of their academic work. Academic honesty means, most fundamentally, that any work you present as your own must in fact be your own work and not that of another. Violations of this principle may result in a failing grade in the course and additional disciplinary action by the university. Students are also expected to adhere to the Dress and Grooming Standards. Adherence demonstrates respect for yourself and others and ensures an effective learning and working environment. It is the university's expectation, and every instructor's expectation in class, that each student will abide by all Honor Code standards. Please call the Honor Code Office at 422-2847 if you have questions about those standards.

Sexual Misconduct

As required by Title IX of the Education Amendments of 1972, the university prohibits sex discrimination against any participant in its education programs or activities. Title IX also prohibits sexual harassment-including sexual violence-committed by or against students, university employees, and visitors to campus.

As outlined in university policy, sexual harassment, dating violence, domestic violence, sexual assault, and stalking are considered forms of "Sexual Misconduct" prohibited by the university.

University policy requires any university employee in a teaching, managerial, or supervisory role to report incidents of sexual misconduct that come to their attention through various forms including face-to-face conversation, a written class assignment or paper, class discussion, email, text, or social media post. If you encounter sexual misconduct, please contact the Title IX Coordinator at t9coordinator@byu.edu or 801-422-2130 or Ethics Point at <https://titleix.byu.edu/report-concern> or 1-888-238-1062 (24-hours). Additional information about Title IX and resources available to you can be found at <http://titleix.byu.edu>.

Student Disability

Brigham Young University is committed to providing a working and learning atmosphere that reasonably accommodates qualified persons with disabilities. If you have any disability which may impair your ability to complete this course successfully, please contact the University Accessibility Center (UAC), 2170 WSC or 422-2767. Reasonable academic accommodations are reviewed for all students who have qualified, documented disabilities. The UAC can also assess students for learning, attention, and emotional concerns. Services are coordinated with the student and instructor by the UAC. If you need assistance or if you feel you have been unlawfully discriminated against on the basis of disability, you may seek resolution through established grievance policy and procedures by contacting the Equal Employment Office at 422-5895, D-285 ASB.

Academic Honesty

The first injunction of the Honor Code is the call to "be honest." Students come to the university not only to improve their minds, gain knowledge, and develop skills that will assist them in their life's work, but also to build character.

"President David O. McKay taught that character is the highest aim of education" (The Aims of a BYU Education, p.6). It is the purpose of the BYU

Academic Honesty Policy to assist in fulfilling that aim. BYU students should seek to be totally honest in their dealings with others. They should complete their own work and be evaluated based upon that work. They should avoid academic dishonesty and misconduct in all its forms, including but not limited to plagiarism, fabrication or falsification, cheating, and other academic misconduct.

Inappropriate Use Of Course Materials

All course materials (e.g., outlines, handouts, syllabi, exams, quizzes, PowerPoint presentations, lectures, audio and video recordings, etc.) are proprietary. Students are prohibited from posting or selling any such course materials without the express written permission of the professor teaching this course. To do so is a violation of the Brigham Young University Honor Code.

Plagiarism

Intentional plagiarism is a form of intellectual theft that violates widely recognized principles of academic integrity as well as the Honor Code. Such plagiarism may subject the student to appropriate disciplinary action administered through the university Honor Code Office, in addition to academic sanctions that may be applied by an instructor. Inadvertent plagiarism, which may not be a violation of the Honor Code, is nevertheless a form of intellectual carelessness that is unacceptable in the academic community. Plagiarism of any kind is completely contrary to the established practices of higher education where all members of the university are expected to acknowledge the original intellectual work of others that is included in their own work. In some cases, plagiarism may also involve violations of copyright law.

Intentional Plagiarism- Intentional plagiarism is the deliberate act of representing the words, ideas, or data of another as one's own without providing proper attribution to the author through quotation, reference, or footnote.

Inadvertent Plagiarism- Inadvertent plagiarism involves the inappropriate, but non-deliberate, use of another's words, ideas, or data without proper attribution. Inadvertent plagiarism usually results from an ignorant failure to follow established rules for documenting sources or from simply not being sufficiently careful in research and writing. Although not a violation of the Honor Code, inadvertent plagiarism is a form of academic misconduct for which an instructor can impose appropriate academic

sanctions. Students who are in doubt as to whether they are providing proper attribution have the responsibility to consult with their instructor and obtain guidance. Examples of plagiarism include: Direct Plagiarism-The verbatim copying of an original source without acknowledging the source. Paraphrased Plagiarism-The paraphrasing, without acknowledgement, of ideas from another that the reader might mistake for the author's own. Plagiarism Mosaic-The borrowing of words, ideas, or data from an original source and blending this original material with one's own without acknowledging the source. Insufficient Acknowledgement-The partial or incomplete attribution of words, ideas, or data from an original source. Plagiarism may occur with respect to unpublished as well as published material. Copying another student's work and submitting it as one's own individual work without proper attribution is a serious form of plagiarism.

Respectful Environment

"Sadly, from time to time, we do hear reports of those who are at best insensitive and at worst insulting in their comments to and about others... We hear derogatory and sometimes even defamatory comments about those with different political, athletic, or ethnic views or experiences. Such behavior is completely out of place at BYU, and I enlist the aid of all to monitor carefully and, if necessary, correct any such that might occur here, however inadvertent or unintentional. "I worry particularly about demeaning comments made about the career or major choices of women or men either directly or about members of the BYU community generally. We must remember that personal agency is a fundamental principle and that none of us has the right or option to criticize the lawful choices of another." President Cecil O. Samuelson, Annual University Conference, August 24, 2010 "Occasionally, we ... hear reports that our female faculty feel disrespected, especially by students, for choosing to work at BYU, even though each one has been approved by the BYU Board of Trustees. Brothers and sisters, these things ought not to be. Not here. Not at a university that shares a constitution with the School of the Prophets." Vice President John S. Tanner, Annual University Conference, August 24, 2010