



WACO, TEXAS

**COURSE SYLLABUS
AND
INSTRUCTOR PLAN**

Math and Science for Early Childhood

CDEC 2307.87

Emily Stottlemire

NOTE: This is a 16-week course.

NOTE: This is a Fully Online course.

COVID 19 Notice:

McLennan Community College is committed to providing you with every resource you need to reach your academic goals. We are also concerned for your safety. We are working through COVID-19 guidelines to make sure we offer a safe environment for you and our faculty. This will include smaller class sizes to manage social distancing and proper cleaning techniques. You will have the advantage of a physical classroom experience but may also need to work part of the time online as we adjust to limited classroom capacity. This will also allow us the flexibility to move online if so directed by federal, state and/or local COVID 19 guidelines. Faculty and staff are preparing now to ensure that you have the best experience in the midst of these uncertain times.

Course Description:

Explores the principles, methods, and materials for teaching young children math and science concepts through discovery and play. All Child Development (CDEC or TECA) courses must be passed with a grade of C or better for graduation. 25% of the requirements must be completed at McLennan. 2.000 Minimum GPA required for graduation. Semester Hours 3 (2 lec/2 lab)

Prerequisites and/or Corequisites:

No prerequisites.

Course Notes and Instructor Recommendations:

- CDEC 2307 is typically offered in the Spring semester.
- Check Brightspace frequently. Read the **announcements**. **Read the feedback on your assignments!**
- Communicate with the professor frequently! When communicating by email, use your **MCC email address**.

All assignments must be submitted through Brightspace.. Emailing assignments will not be accepted. Exceptions will be made at the discretion of the professor.

Criminal Record Check: A criminal background check will be done during advising or during the first week of class. If the check reveals a conviction in your name, you may be dropped from class. Persons who have convictions must not work in a school/child-care facility.

Instructor Information:

Emily Stottlemire

CSC Child Development Center

254/299-8523

Office hours: By email or by appointment. See further details in Brightspace.

estottlemire@mclennan.edu

Required Text & Materials

Worms, Shadows, and Whirlpools, Karen Worth & Sharon Grollman. (NAEYC)

Exploring Math and Science in Preschool, NAEYC

ISBN# 978-1-938113-09-3

Math and Science for Early Childhood Course Pack (Only available at the MCC Bookstore)

MCC Bookstore Website: <http://www.mclennan.edu/bookstore/>

Methods of Teaching and Learning:

The content and information for this course will be presented in an online format.

The information will be presented through power point, lectures, videos, discussions, and reflection papers. “Hands on” demonstrations of activities that can be done with young children will be demonstrated through videos.

It is the student’s responsibility to participate in class and to do the assigned readings/assignments.

Course Objectives and/or Competencies:

By the end of the course, the student will be able to:

1. Relate the sequence of cognitive development to the acquisition of math and science concepts.
 - a. Summarize the sequential development of mathematical concepts.
 - b. Outline appropriate science concepts for children.
 - c. Describe how the development of mathematical concepts promotes children’s thinking skills.
 - d. Explain how to promote children’s cognitive development and understanding of their world through active, hands-on exploration of science concepts and processes.
 - e. Compare theories of cognitive development as they relate to math and science.
 - f. Summarize how brain development affects concept formation.
 - g. Compare gender similarities and differences in the acquisition of math and science concepts.
2. Describe the scientific process and its application to the early childhood indoor and outdoor learning environments.
 - a. Explain how to encourage all children to view themselves as competent scientific explorers.
 - b. Describe ways to promote all children’s ability to think scientifically (e.g., by providing opportunities to observe, describe, classify and order).
 - c. Summarize ways to nurture all children’s natural curiosity by encouraging them to explore and make discoveries about their world (e.g., by using their senses to gain information, draw conclusions and report outcomes).
3. Develop strategies which promote thinking and problem-solving skills in children.
 - a. Explain how instructional methods involving the use of various types of thinking (e.g., exploration, discovery learning, problem solving) can enhance children’s mathematical and scientific understanding.
 - b. Describe how to integrate curriculum content through a variety of learning experiences so children make connections across disciplines.

- c. Explain techniques for integrating math and science throughout the curriculum.
- d. Plan developmentally appropriate methods that include play, small group projects, open-ended questioning, group discussion, problem solving, cooperative learning and inquiry experiences to help children develop intellectual curiosity, solve problems, make decisions and become critical thinkers.
- e. Brainstorm strategies to encourage girls to feel competent in math and science.
4. Utilize observation and assessment as a basis for planning discovery experiences for the individual child.
 - a. Review a variety of assessment strategies.
 - b. Explain how assessment information is interpreted and used to provide developmentally appropriate learning activities.
 - c. Use a variety of assessment strategies to monitor children's progress in achieving outcomes and planning learning activities.
5. Create, evaluate and/or select developmentally appropriate materials, equipment and environments to support the attainment of math and science concepts.
 - a. Evaluate children's books, software, manipulatives, music, blocks and other materials which enhance math and science concepts for developmental appropriateness.
 - b. Describe how to create indoor and outdoor environments that encourage emergent numeracy and scientific literacy by offering children varied, meaningful and concrete learning experiences.
 - c. Discuss how technology can be philosophically and physically integrated to support development of math and science concepts in the curriculum.
 - d. Explore community resources, including cultural, available for enhancing math and science concepts.
 - e. Make and use developmentally appropriate, culturally diverse and nonsexist activities and materials to support development of specific math and science concepts.
 - f. Adapt math and science activities, materials, equipment and environments for children

Course Outline or Schedule:

See the attached schedule in Brightspace for specific assignments and due dates. The dates are tentative. Updates and any changes will be announced and posted in Brightspace.

Course Grading Information:

You will be assessed by the following:

- **Tests 35% of final grade.** You will be given 3 tests. The tests will cover the material in the various modules. The tests will have varying formats. Including True/False, Multiple Choice, Short Answer and other.
- **Reflection Papers/ Discussion Boards. 30% of Final Grade.** You will be assigned **4 Reflection Papers** through out the semester. See individual assignments. You will be assigned **5 Discussion Boards**. The discussion boards will be graded upon timely submission, and thoroughness of the initial post and substantive responses. The initial

posts and the responses will typically have separate due dates. See individual assignments.

- **Article Reviews: 15% of Final Grade.** You will be assigned articles (approximately 5) throughout the semester. See guidelines for reviewing articles associated with each assigned article.
- **Final Project: 10% of Final Grade.** You will be assigned a final project assignment. This assignment will have specific guidelines. See module.
- **Attendance/Participation: 10% of Final Grade.** Weekly attendance will be taken. This will be based upon timely submission of assignments, active participation in class lectures and other videos, discussions and other assigned course work.
- **Evaluation/Grading** The system of grading will be based on the general standard of:
 - 90-100 = A
 - 80- 89 = B
 - 70- 79 = C
 - 60- 69 = D
 - Below 60 = F
- A minimum final grade of C is required in all CDEC classes for graduation.
- **W Withdrew** - this grade is given for an instructor or student initiated course withdrawal through the 12th week of a semester (fourth week, Summer day term; sixth week, Summer nine-week term). After the 12th week or until the end of the semester (fourth week, Summer day term; sixth week, Summer nine-week term), if a student withdraws from a course the instructor will either assign a W if passing work was being accomplished or an F if the student was doing failing work.
- **I Incomplete** - is given when a course is incomplete because of a student's absence caused by reasons acceptable to the instructor. To be eligible, the student must have essentially completed the course. If work is not made up within the following long semester, the "I" will be changed to an "F" and the course must be repeated if credit is to be given.
- All work must be original. If a student submits assignments or other work that is not their own, or if appropriate sources are not cited and given credit, the student will receive a 0 for the assignment. If there is another offense, this could result in dismissal from the class and/or an F for the final grade in the course.

Late Work, Attendance, and Make Up Work Policies:

No late work will be accepted. Exceptions can be made at the discretion of the Professor. It is the student's responsibility to contact the Professor. If an exception is made, the late work is subject to point reductions.

Student Behavioral Expectations or Conduct Policy:

In general, students are expected to maintain classroom decorum that includes respect for other students and the instructor, prompt and regular attendance, and an attitude that seeks to take full advantage of the education opportunity. The Highlander Guide describes the rights, privileges, and obligations of students affiliated with MCC. The complete guide may be accessed by clicking here: [Highlander Guide](#)

Ethics: It is the student's responsibility to read the General Conduct Responsibility Policy in the Highlander Guide (MCC Student Handbook) and the Child Development Code of Conduct Guidelines. Any breeches of conduct will result in disciplinary action. Acts of dishonesty and disruptive behavior will not be tolerated. Students may be asked to leave class if necessary.

*** Click Here for the MCC Academic Integrity Statement**

(www.mclennan.edu/academic-integrity)

The link above will provide you with information about academic integrity, dishonesty, and cheating.

*** Click Here for the MCC Attendance/Absences Policy**

(<https://www.mclennan.edu/highlander-guide/policies.html>)

Click on the link above for the college policies on attendance and absences. Your instructor may have additional guidelines specific to this course. *See attendance in grading section*

** You will need to access each link separately through your Web browser (for example: Mozilla Firefox, Chrome, Microsoft Edge or Safari) to print each link's information.*

McLennan

C O M M U N I T Y

COLLEGE

ACADEMIC RESOURCES/POLICIES

Student Support/Resources:

MCC provides a variety of services to support student success in the classroom and in your academic pursuits to include counseling, tutors, technology help desk, advising, financial aid, etc. A listing of these and the many other services available to our students is available at <http://www.mclennan.edu/campus-resource-guide/>

College personnel recognize that food, housing, and transportation are essential for student success. If you are having trouble securing these resources or want to explore strategies for balancing life and school, we encourage you to contact a success coach by calling (254) 299-8226. Students can visit the Completion Center Monday-Friday from 8 a.m.-5 p.m. to schedule a meeting with a success coach and receive additional resources and support to help reach academic and personal goals. Paulanne's Pantry (MCC's food pantry) provides free food by appointment to students, faculty and staff based on household size. Text (254) 870-7573 to schedule a pantry appointment. The Completion Center and pantry are located on the Second Floor of the Student Services Center (SSC).

MCC Foundation Emergency Grant Fund:

Unanticipated expenses, such as car repairs, medical bills, housing, or job loss can affect us all. Should an unexpected expense arise, the MCC Foundation has an emergency grant fund that may be able to assist you. Please go to <https://www.mclennan.edu/foundation/scholarships-and-resources/emergencygrant.html> to find out more about the emergency grant. The application can be found at https://www.mclennan.edu/foundation/docs/Emergency_Grant_Application.pdf.

Minimum Technical Skills:

Students should have basic computer skills, knowledge of word processing software, and a basic understanding of how to use search engines and common web browsers.

Backup Plan for Technology:

In the event MCC's technology systems are down, you will be contacted/notified through your MCC student email address. Please note that all assignments and activities will be due on the date specified in the Instructor Plan, unless otherwise noted by the instructor.

* [Click Here for the Minimum System Requirements to Utilize MCC's D2L|Brightspace](https://www.mclennan.edu/center-for-teaching-and-learning/Faculty%20and%20Staff%20Commons/requirements.html)
(<https://www.mclennan.edu/center-for-teaching-and-learning/Faculty%20and%20Staff%20Commons/requirements.html>)

Click on the link above for information on the minimum system requirements needed to reliably access your courses in MCC's D2L|Brightspace learning management system.

Email Policy:

McLennan Community College would like to remind you of the policy (<http://www.mclennan.edu/employees/policy-manual/docs/E-XXXI-B.pdf>) regarding college email. All students, faculty, and staff are encouraged to use their McLennan email addresses when conducting college business.

A student's McLennan email address is the preferred email address that college employees should use for official college information or business. Students are expected to read and, if needed, respond in a timely manner to college emails.

Instructional Uses of Email:

Faculty members can determine classroom use of email or electronic communications. Faculty should expect and encourage students to check the college email on a regular basis. Faculty should inform students in the course syllabus if another communication method is to be used and of any special or unusual expectations for electronic communications.

If a faculty member prefers not to communicate by email with her/his students, it should be reflected in the course syllabus and information should be provided for the preferred form of communication.

Email on Mobile Devices:

The College recommends that you set up your mobile device to receive McLennan emails.

Forwarding Emails:

You may forward the emails that come to your McLennan address to alternate email addresses; however, the College will not be held responsible for emails forwarded to an alternate address that may become lost or placed in junk or spam filters.

Accommodations/ADA Statement

Any student who is a qualified individual with a disability may request reasonable accommodations to assist with providing equal access to educational opportunities. Students should contact the Accommodations Coordinator as soon as possible to provide documentation and make necessary arrangements. Once that process is completed, appropriate verification will be provided to the student and instructor. Please note that instructors are not required to provide classroom accommodations to students until appropriate verification has been provided by the Accommodations Coordinator. Instructors should not provide accommodations unless approved by the Accommodations Coordinator. For additional information, please visit mclennan.edu/disability.

Students with questions or who require assistance with disabilities involving physical, classroom, or testing accommodations should contact:

disabilities@mclennan.edu

254-299-8122

Room 319, Student Services Center

* [Click Here for more information about Title IX](http://www.mclennan.edu/titleix)
(www.mclennan.edu/titleix)

We care about your safety, and value an environment where students and instructors can successfully teach and learn together. If you or someone you know experiences unwelcomed behavior, we are here to help. Individuals who would like to report an incident of sexual misconduct are encouraged to immediately contact the Title IX Coordinator at

titleix@mclennan.edu or by calling Dr. Drew Canham (Chief of Staff for Equity & Inclusion/Title IX) at 299-8645. Individuals also may contact the MCC Police Department at 299-8911 or the MCC Student Counseling Center at MCC by calling 299-8210. The MCC Student Counseling Center is a confidential resource for students. Any student or employee may report sexual harassment anonymously by visiting the following website: <http://www.lighthouse-services.com/mclennan/>.

McLennan's Title IX webpage (<http://www.mclennan.edu/titleix/>) contains more information about definitions, reporting, confidentiality, resources, and what to do if you or someone you know is a victim of sexual misconduct, gender-based violence or the crimes of rape, acquaintance rape, sexual assault, sexual harassment, stalking, dating violence, or domestic violence.

* *You will need to access each link separately through your web browser (for example Mozilla Firefox, Chrome, Microsoft Edge, or Safari) to print each link's information.*