

Midland College
CDEC 2307 Math and Science
Spring 2 2026

Instructor: Victoria Bosch
Email: vbosch@midland.edu
Office Voice Mail Line: 432-685-6894
Campus Office Hours: Tuesday & Thursday: 11:00 am to 3:00 pm / Friday 10:00 am to 12:00pm
Virtual Office Hours: Monday & Wednesday By Appointment Only

Students may contact the instructor through Canvas or by email or phone. Students are encouraged to contact the instructor at any time; however, making an appointment will guarantee the instructor's availability at a specific time.

Course Description:

This course is an exploration of principles, methods, and materials for teaching children math and science concepts through discovery and play.

Course Goals/ Objectives:

Upon successful completion of the course the student will:

- relate the sequence of cognitive development to the acquisition of math and science concepts
- describe the scientific process and its application to the early childhood indoor and outdoor learning environments
- develop strategies which promote thinking and problem-solving skills in children
- utilize observation and assessment as a basis for planning discovery experiences for the individual child
- create, evaluate and/or select developmentally appropriate materials, equipment and environments to support the attainment of math and science concepts and skills.

Text, References, and Supplies:

OER Located in the classroom on Canvas

Microsoft Office 365 is a useful tool to complete assignments, including PowerPoints and word documents.

Minimum Technology Requirements:

Students will need to have Acrobat Reader, Microsoft Word or Free Word Viewer, Microsoft PowerPoint Reader, Zoom or other video conferencing program in order to meet with instructor if you are not able to come to Midland College Midland Campus.

Minimum Technical Skills include:

1. Use of Canvas Management System (see Learn About Canvas Module)
2. Use of Microsoft Office Software
3. Ability to create Microsoft PowerPoints

4. Use of email with attachments
5. Use of appropriate antivirus utilities

Assignment Submissions:

All assignments must be submitted through Canvas. Students are responsible for ensuring that their assignments are uploaded successfully and can be opened and read by the instructor. Assignments that are uploaded incorrectly, are corrupted, or cannot be opened will receive an automatic grade of 0. Students are also responsible for submitting assignments using the correct file format. The required file type for each assignment is listed in the assignment instructions. Files submitted in an incorrect format may not upload properly to the Canvas submission box and will not be accepted. To avoid submission issues, students should verify that: The correct file has been uploaded. The file opens properly after uploading. The assignment has been submitted in the required file format listed in the assignment instructions.

Notice Statement for Online Students:

Students enrolled in online courses **MUST** log in and actively participate by completing academic assignments required by the instructor by the official census date. Students who log in but do not actively participate in an academically-related activity will be reported as **Never Attended** and dropped from the course.

Technical Support:

If you experience technical difficulties with Canvas, click the "Help" link at the bottom of the [Canvas login page](#), or in the top-right green toolbar from any page within Canvas, select Report a Problem, provide details, and submit the ticket. If you choose to Report a Problem, include your name and student ID, along with a description of the problem, in the ticket. Your ticket will be sent to the Midland College information technology support center. Check your email for support updates.

In most cases, students will not have access to their courses until 8 am the first day of class. It can take up to 24 hours for your Canvas account to be created after enrolling for a course. A Canvas Student Orientation course is available for all students to become familiar with Canvas and can be accessed under Courses after login.

For technical support with Canvas click on the help button in the Canvas course and submit a ticket. For all other technical support, please contact the IT Help Desk @ 432-685-4788 or email them at help@midland.edu.

Artificial Intelligence (AI) Policy:

The use of artificial intelligence (AI) tools is not permitted for completing course assignments unless specifically authorized by the instructor. Students are expected to complete their own

work and demonstrate their individual understanding of course concepts. Assignments that are found to be completed using AI tools will receive an automatic grade of 0. Students are responsible for ensuring that all submitted work reflects their own knowledge, skills, and understanding of the course material.

Student Contributions and Class Policies:

The Helen L. Greathouse Children's Center, located at Midland College, is designated as the primary laboratory site for the completion of observations and assignments as specified by the instructor. The Midland College Child Care Center, located at Manor Park, Inc., 2208 N. Loop 250 West or other sites may be used upon instructor's approval prior to the completion of lab experiences.

The student will utilize text, discussions, and assignments to gain understanding of nutrition, health and safety in children from birth to eight. The student is expected to be knowledgeable of course material and complete all assignments. Assignments must be submitted in Canvas. Students are responsible for ensuring that assignments can be read in Canvas.

Assignments, exams, and projects are due on the due date and cannot be made up without approval from the instructor.

Course Communications:

Midland College provides each student with an official college email account for communication with college personnel. This email address is the default email used in Canvas unless the student changes their notification settings. Students are responsible for regularly checking their Midland College email, Canvas Inbox (Messages), and Canvas Announcements for important course information.

The instructor will use the following methods of communication throughout the course:

- Canvas Inbox (Messages): Used for individual communication between the instructor and students.
- Canvas Announcements: Used to share course updates, reminders, schedule changes, and other information relevant to the entire class.
- Assignment Feedback: Feedback on submitted assignments will be provided within the assignment comments and grading section in Canvas.

Students are responsible for reviewing all instructor feedback to improve future work and remain informed of any required revisions or comments. Students are expected to monitor these communication tools regularly to stay informed and meet course expectations.

Student Responsibilities

Attendance:

Attendance is expected. Excused absences and make-up work require instructor approval. Excessive absences, even if excused, may result in course failure.

Evaluation of Students:

Course evaluation is determined by the following ratings:

Letter Grades & Percentages	Points 630
A = 100% - 90%	630-567
B = 89% - 80%	566-504
C = 79% - 70%	503-441
D = 69%-60%	440-378
F = 59% and below	377-0

COURSE EVALUATION SUMMARY

Assignment	Explanation	Objectives
Discussion Posts	These will be graded on a rubric. You must post twice to classmates. Instructor will post comments throughout the course when needed. Initial Post are due Wednesday by 11:59pm	SLO's 1-6
Assignments: Teaching with a STEM Framework Toddler Science Lesson Plan	 Students will relate the sequence of cognitive development to the acquisition of math and science concepts using two instructional frameworks Students will use observation and documentation of children's interests to design a developmentally appropriate small-group science lesson for toddlers (18–24 months)	 SLO: 1 SLO: 4

Indoor & Outdoor Science Experiences	In this assignment, you will design and describe two developmentally appropriate science learning experiences—one indoor and one outdoor—that foster young children’s scientific thinking and problem-solving skills.	SLO: 2
Final- Designing Developmentally Appropriate Math and Science Learning Environments	Students will create, evaluate, and select developmentally appropriate materials, equipment, and environments that support the attainment of math and science concepts and skills in early childhood settings.	SLO: 1-5
TOTAL		

Course will contain the following assignments and points:

- 7 Discussion posts at 10 points each for a total of 70 points. These will be graded on a rubric. You must post twice to classmates. Instructor will post comments throughout the course when needed.
- 3 Assignments for a total of 360 points. These will be graded on a rubric.
- 1 final project worth 200 points

A course calendar will be distributed to the class by the instructor. This will give specifics on due dates and order of assignments.

All assignments will be graded within 10 days of the due date. If for some reason, there is a delay I will alert you.

Late Work:

Late assignments will not be accepted without prior approval from the instructor. Approval for late work is granted only in cases of extreme extenuating circumstances. If late work is approved, points will be deducted from the assignment according to the instructor's discretion. Discussions and quizzes cannot be submitted late under any circumstances. No late submissions for discussions or quizzes will be accepted. Students who experience an emergency or other significant circumstance should contact the instructor as soon as possible, preferably before the assignment deadline.

Scholastic Dishonesty:

Students are expected to maintain high academic standards, including being responsible for submitting original work. Information on scholastic dishonesty and the discipline process is in the *MC Catalog and Student Handbook*, [Scholastic Dishonesty section](#).

The instructor may use a tool called Turnitin to compare a student's work with multiple sources. The tool itself does not determine whether or not a paper has been plagiarized, that judgment will be made by the instructor.

Title IX: Non-Discrimination Statement:

Midland College does not discriminate on the basis of race, color, national origin, sex, gender, disability or age in its programs and activities. Midland College also prohibits retaliation against any person opposing discrimination or participating in any discrimination investigation or complaint process internally or externally. Reports of misconduct, questions regarding Title IX, and concerns about noncompliance should be directed to the Title IX Coordinator.

For a complete copy of the policy or for more information, please contact the Title IX Coordinator:

Nicole Cooper
Title IX Coordinator/Compliance Officer
3600 N. Garfield
Scharbauer Student Center (SSC) Room 129
Midland, Texas 79705
432-685-4781
ncooper@midland.edu

For further information on notice of non-discrimination, visit the Midland College [Title IX webpage](#)

Americans with Disabilities Act (ADA) Statement:

MC provides services for students with disabilities through Student Services. In order to receive accommodations, students must visit www.midland.edu/accommodation and complete the Application for Accommodation Services located under the Apply for Accommodations tab.

Services or accommodations are not automatic, each student must apply and be approved to receive them. All documentation submitted will be reviewed and a “Notice of Accommodations” letter will be sent to instructors outlining any reasonable accommodations.

Support Our Students:

The Support Our Students (SOS) program helps Midland College students enrolled in credit courses stay in school by assisting them with emergency non-academic needs. For more information on SOS services see the web site: <https://www.midland.edu/services-resources/student-services/sos.php>

Course Schedule:

Week	Readings and Preparation for this week's class:	Assignment (Points)	Due Date
1 Importance of STEM	Unit 1: Introduction to STEM Review Class Resources & Learn About Canvas Modules	Discussion: Importance of STEM (10 points)	8-30
2 Theory & Framework	Unit 2: Theory & Framework	Discussion: Scenario (10points) Assignment: Teaching with a STEM Framework (100points)	9-6
3 Integration	Unit 3: Integration	Discussion: Integration (10 points)	9-13
4 Standards, Lesson Plans & Assessments	Unit 4: Standards, Lesson Plans & Assessments	Discussion: Rubric (10 points) Assignment: Toddler Science Lesson Plan (100points)	9-20
5 Integrated STEM Through Physical Science Anchor Standards	Unit 5: Integrated STEM Through Physical Science Anchor Standards	Discussion: Exploration Activities (10points)	9-27
6	Unit 8: Technology & Engineering	Assignment: Indoor & Outdoor Science Experiences	10-4

Technology & Engineering		(160 points)	
7 Math	Unit 9: Math	Discussion: Challenge Activities (10points)	10-11
8 Wrapping Up		Complete/ Submit Final	10-15

Education Department Chair:

Denise McKown-Yorkman, (dmckown@midland.edu) Division Office Location and Telephone:
Center for Teaching Excellence Building 2nd Floor, Office 214; 432-685-6839