



THE MATH CORPS AT CLEVELAND STATE UNIVERSITY



Summer Instructor Information

Position Description: Instructors are assigned to teach various math classes which range from topics such as Arithmetic and Algebra to Discovery to Logic and Proof. Instructors are offered and assigned courses based upon their level of mathematics studied and teaching experience. Instructors new to the program must be willing to teach using the method taught by Math Corps. Instructors are responsible for planning instruction, teaching the course, preparing/adjusting and grading assignments and assessments, recordkeeping, and managing student behavior.

General Qualifications:

- Baccalaureate degree required
- Experience working with students in grades 7-12
- Mathematics or Math Education background preferred
- Mathematics certification preferred

Course Descriptions & Schedule:

7th Grade

The Real Numbers

Who are they? What do they look like?
Where do they live?

- Two sections: 10:00 – 10:30am (M – Th)
11:00 – 11:30am (M – Th)
- No. of students per class: 20 7th graders
- Notes:
 - Set curriculum.
 - No grading.
 - Two college students and 10 high school students help facilitate/manage middle school students.
- Compensation: \$700/section

Discovery

Infinite Series $\left(\frac{1}{2^n}\right)$

or other topic of instructor's choosing

- Two sections: 11:30am – 12:20pm (M – W)
12:50 – 1:30pm (M – W)
- No. of students per class: 20 7th graders
- Notes:
 - **Intended to be taught using Socratic method**
 - Curriculum can be provided.
 - No grading.
 - Three college students to help facilitate/manage middle school students.
- Compensation: \$1,000/section

8th Grade

Operations on the Real Numbers

Operations, Properties and Applications

- Two sections: 10:00 – 10:30am (M – Th)
11:00 – 11:30am (M – Th)
- No. of students: 20 8th graders
- Notes:
 - Set curriculum.
 - No grading.
 - Two college students and 10 high school students help facilitate/manage middle school students.
- Compensation: \$700/section

Discovery

Fractals, Fibonacci/Golden Number, Graph Theory
or other topic of instructor's choosing

- Two sections: 11:30am – 12:20pm (M – W)
12:50 – 1:30pm (M – W)
- No. of students per class: 20 8th graders
- Notes:
 - **Intended to be taught using Socratic method**
 - Curriculum can be provided.
 - No grading.
 - Three college students to help facilitate/manage middle school students.
- Compensation: \$1,000/section

Course Descriptions & Schedule *(continued)*

7th and 8th Grade Afternoon Activities

Hands-on STEM-related activities for students to explore real-world applications of mathematics as well as potential career opportunities. Past activities have included robotics, cryptography, modular arithmetic, and chess.

- Four activities run concurrently: 1:30 – 2:20pm (M – Th)
- Each activity includes five sessions with 2 groups of 7th or 8th graders (1 session/week/group)
- Number of students per session: 20 7th or 8th graders (depending on activity)
- Notes:
 - Curriculum can be provided or created by instructor.
 - No grading.
 - Four college students help facilitate/manage middle school students.
- Compensation: \$325/activity (10 days total commitment)

High School Students (10th-12th Grade)

Broccoli Courses: High school students are placed into one of the following courses based on their placement test*: Algebra I, Algebra II, Functions, Pre-Calculus, Intro to Calculus

*course offerings depend upon student placement.

- One section of each course: M – Th
- 12:30 – 1:20pm(M-W)/12:50 – 1:30pm (Th only)
- Number of students: 15 students max per section (if >15, an additional section is added)
- Notes: Curriculum provided. Homework, Quizzes and Final Exam grading required.
- Compensation: \$1,000/course

Ice Cream Courses: High school students are placed into the following college-level courses based on the grade they will be entering in the Fall:

Logic (10th Grade), Proof (11th Grade),
Foundations of Adv. Math aka FOAM (12th Grade)

- One section of each course: M – Th
- 1:30 – 2:20pm (M-W)/1:40 – 2:20pm (Th only)
- Notes: Curriculum provided. Homework, Quizzes and Final Exam grading required.
- Compensation: \$1,000/course

Simplified Course Schedule

10:00 – 10:30am	Reals (7s-A)		Operations (8s-A)			
10:30 – 11:00am						
11:00 – 11:30am		Reals (7s-B)		Operations (8s-B)		
11:30am–12:30pm	7s Discovery-A (M-W only)		8s Discovery-A (M-W only)			
12:30 – 1:30pm		7s Discovery-B (M-W only)		8s Discovery-B (M-W only)	TA Broccoli Courses	
1:30 – 2:30pm	7s Activity (A)	7s Activity (B)	8s Activity (A)	8s Activity (B)		TA Ice Cream Courses