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UNIVERSITY  
*Quad Cities*

Distance Learning, International Studies & Outreach  
3300 River Drive  
Moline, IL 61265-1746

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Macomb, IL 61455  
Permit NO. 489

*A summer enrichment experience for students on the WIU-QC campus*

# Math on the Mississippi

**Grades 4-6 • June 18-22, 2018**

**Grades 6-8 • June 25-29, 2018**

**8:30 a.m.-3:30 p.m.**



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ILLINOIS  
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*Quad Cities*

*Discover Math and Science in a Dynamic and Interactive Learning Environment!*

## GENERAL INFORMATION

**REGISTRATION:** Enrollment is limited; the program accepts only 24 participants in each session. Please register early; students are admitted on a first-come, first-served basis. **The registration fee is \$275 and includes class room instruction, supplies, lunch and field trips.** Please include a minimum \$100 deposit with your registration. The remaining balance of \$175 is due by **May 18 for Session I** and **May 25 for Session II.**

Mail the attached registration form with check made payable to "Western Illinois University" to: **WIU-QC, QC Initiatives, 3300 River Dr., Moline, IL 61265.** Please duplicate the registration form for additional registrations. You may register online at [wiu.edu/qci](http://wiu.edu/qci). *Please note that there is an additional registration fee for online transactions.*

**MEDICAL:** Students do not qualify for university health care, so parents should check family insurance policies for health and accident coverage.

**ADA COMPLIANCE:** Western Illinois University is in compliance with the Americans with Disabilities Act of 1990. Please let our office know of any special needs a student may have at least two weeks prior to the program start date. The office phone number is **(309) 762-3999, ext. 62357.**

**REFUND POLICY:** Western Illinois University reserves the right to withdraw a program because of unforeseen circumstances or insufficient enrollment. If a program is withdrawn, participants are notified and fees are refunded. Participants who cancel within 14 calendar days of the program start date will receive a refund minus a \$50 fee. **No refunds will be made on or after Wednesday, June 13 for Session I and June 20 for Session II.**

**FURTHER INFORMATION:** For further information call Quad Cities Initiatives at **(309) 762-3999, ext. 62357.**

# Math on the Mississippi

## THE PROGRAM

"Math on the Mississippi," is an engaging and interactive summer enrichment camp at Western Illinois University-Quad Cities. This program is offered from 8:30 a.m.-3:30 p.m. each day and is available in two sessions. Session I is offered for students in grades 4-6 and Session II is offered for grades 6-8; Sixth grade students may choose to attend either session.

Each morning, participants begin their day with brain teasers or an excursion into the local area. A topic, such as Earth and Space Science, Pressure, Indirect Measurement, Statistics or Buoyancy are introduced to guide the day's activities and discussions. Past and present participants will explore relative motion, as well as decipher patterns in complex behaviors by analyzing data and learning to track trends. In addition, participants will create a blog of the day's lessons, detailing what they have learned. Members of the math education department, as well as physics and math faculty and University students coordinate and lead instruction for the program. On the closing day of the program, a panel of professionals in science, technology, engineering and math (STEM) fields discuss how they use math in their career choices.

## TOPICS

*Earth and Space Science:* Participants will learn how to create measurements of the shape of the Earth, as well as determine our location and orientation on it. They will also explore our movement and place in the solar system using a combination of observations and computer programs. In addition, they will have the opportunity to calculate the speed of light through measurements from the motion of Jupiter's moons.

*Buoyancy:* During the program, participants will have the opportunity to learn about buoyancy through lessons using the Mississippi's Sylvan Slough. Under the supervision and guidance of faculty, students will design and build a cardboard boat to test on the water. They will also paddle board with faculty as part of this interactive day.

*Pressure:* Participants will learn about air, water and surface area pressure during the program. Students will be given a tour of Lock & Dam 15 by a U.S. Army Corps of Engineers civil engineer to examine the concept of water pressure and learn how the dam opens and closes. In addition to the field trip, students will create bottle rockets to study air pressure and examine surface area pressure through a variety of demonstrations.

*Indirect Measurement:* Participants will study indirect measurement and visit Black Hawk State Park for a field trip. They will determine circumference, height and distance of various objects based on their own reasoning within the natural environment of Black Hawk State Park.

*Western Illinois University is an Affirmative Action and Equal Opportunity employer with a strong commitment to diversity. In that spirit, we are particularly interested in receiving applications from a broad spectrum of people, including, but not limited to, minorities, women, and individuals with disabilities. WIU has a non-discrimination policy that includes sex, race, color, sexual orientation, gender identity and gender expression, religion, age, marital status, national origin, disability and veteran status.*

*Statistics:* Participants will learn basic concepts related to statistics and statistical analysis and how to apply those concepts to real world situations.

Program coordinators and instructors include Kathy Felt, associate faculty in the WIU Department of Mathematics, specializing in math education; Susan Brooks, mathematics assistant professor and recipient of the WIU-Quad Cities Core Value Award for Academic Excellence in 2015; and James Rabchuk, physics professor and assistant dean of the College of Arts and Sciences.

## PARTICIPATION CRITERIA

Session I (June 18-22) is open to fourth, fifth and sixth graders, and session II (June 25-29) is open to sixth, seventh and eighth graders. Sixth grade students will have the opportunity to choose between Session I or Session II.

This co-educational program focuses on grade-appropriate science and math concepts for the elementary and middle school student. Gifted status or minimum qualifying scores on standardized tests are not requirements for the program. Please note that this is not a remedial program. Participants should have sufficient curiosity, motivation, achievement level and maturity to benefit from the program. Students are admitted on a first-come, first-served basis.

## WIU-QUAD CITIES

The WIU-QC campus is easily accessible from either side of the Mississippi River. Participants experience WIU-QCs state of the art classrooms and facilities as part of the program. In addition, students use calculators from Texas Instruments and university labs for instructional purposes while on campus.

The Western Illinois University-Quad Cities Complex has LEED (Leadership in Energy and Environmental Design) Silver certification and uses a geothermal heating and cooling system, energy-efficient lighting and controls, recycled building materials and finishes and a vegetative roof system as part of its commitment to sustainability.

## SPONSORS

Western Illinois University  
School of Distance Learning, International Studies and Outreach  
College of Arts and Sciences  
Department of Mathematics

## REGISTRATION – Math on the Mississippi

Session One – June 18-22, 2018, Grades 4-6

Session Two – June 25-29, 2018, Grades 6-8

Name \_\_\_\_\_

Address \_\_\_\_\_

City/State/Zip Code \_\_\_\_\_

Phone Number (include area code) \_\_\_\_\_ E-Mail \_\_\_\_\_

Age \_\_\_\_\_ Gender \_\_\_\_\_ Grade as of January 2018 \_\_\_\_\_

How did you hear about the program? \_\_\_\_\_

1. This student is sufficiently mature to benefit from this program and to observe campus rules.
2. I understand and accept all program policies and conditions as set forth in this brochure.

Parent or Guardian Signature \_\_\_\_\_

Parent or Guardian Name (printed) \_\_\_\_\_

Teacher/Administrator Name (printed) \_\_\_\_\_

Title \_\_\_\_\_ School/City/State \_\_\_\_\_

Phone Number (include area code) \_\_\_\_\_ E-Mail \_\_\_\_\_

Please make check payable in the amount of \$275 to **Western Illinois University**, or register online on our website at [wiu.edu/qci](http://wiu.edu/qci). Please note that an online fee is included for online credit card payments.