



"Students grasped some of the more difficult ideas like the gradient, for example, much faster than I expected making my lectures seem somewhat redundant." - 2014 Instructor

Raising Calculus to the Surface

Pre-Conference Workshop
Illinois Section of the MAA
March 13, 2020

- Build the course around student discoveries
- Discover the geometry behind MVC
- Explore concepts with various representations
- Promote student engagement with small group and whole class discussion.
- Experience perspective of student and teacher



**Engaging Students
in the Discovery of
Mathematics
Hands-On
Workshop**

**University of
St. Francis
Joliet, Illinois**

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Winona State University**



"Now when I talk about derivatives, area, and integrals, I can actually see what I am talking about." - Math major



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