

# Applications for Spring 2024 are open from **March 1** to **March 20!**

For important dates, detailed project descriptions, and the application link, go to <a href="https://sites.uw.edu/wdrp/applications/">https://sites.uw.edu/wdrp/applications/</a>





wdrp@uw.edu

### What is WDRP

The Washington Directed Reading Program (WDRP) is an initiative from the Mathematics Department launched in Fall 2018. This program pairs interested undergraduate students with mathematics graduate student mentors to embark on a quarter-long independent reading project.

### **Key Components**

- Start-of-quarter kickoff event, including an introduction to the program and time to mingle with other undergraduate and graduate students.
- One-on-one weekly meetings between undergraduate student mentees and graduate student mentors, to discuss the readings.
- Mid-quarter event with undergraduate students only, to connect with students working on other projects.
- **End-of-quarter presentations** by undergraduate students on topics selected from their readings.

### Why WDRP



#### Math Outside the Classroom

What is math beyond calculus? What topics interest math researchers? Find out through a unique reading course structure designed to break away from traditional lectures.



#### **Graduate Student Mentorship**

Are you considering a math major, or advancing in your math career as a math major? Connect with a graduate student mentor and gain firsthand insights into pursuing a math degree.



#### **Course Credit**

1 credit (CR/NC) as Math 398 is available to undergraduate students participating in and successfully completing the program.

### **Spring 2024 Project List**

#### **Explorer Level**: All math levels welcome

- A Mathematical Perspective through History
- Singularities
- Mathematics for Sustainability
- Combinatorics and Graph Theory
- Fibonacci Numbers through Counting
- An Introduction to Combinatorics
- Polytopes and Higher Dimensions

#### **Beginner Level**: May require some Calculus

- Exploring Upper-Level Math
- Learning stats with baseball
- Exploring the Complex World
- Tropical Geometry
- Computer Assisted Proofs

## **Intermediate Level**: May require Math 300 (proofs) and possibly other 300-level courses

- The Mathematics of Ranking
- Representation theory
- Mathematics of Quantum Mechanics
- Representation Theory of Finite Groups
- Matrix Groups
- Introduction to Group Theory
- Introduction to Partial Differential Equations
- Curve-Shortening Flow
- Enumerative Geometry, Incidence Geometry, Projective Geometry

### **Advanced Level**: Students who have taken multiple 400-level mathematics courses

- Galois Cohomology
- Introduction to Algebraic Geometry
- Algorithmic Integration