



2010 UW Mathematics Academy

University of Washington-Seattle College of Engineering

Mathematics Academy

July 11 - August 6

2010



MATHEMATICS ACADEMY
UNIVERSITY of WASHINGTON
College of Engineering



About the College of Engineering **MATHEMATICS ACADEMY**

The COLLEGE OF ENGINEERING MATHEMATICS ACADEMY is a mathematics intensive, four-week residential session , first held on the University of Washington-Seattle (UW) campus during summer 2009.

While at the University of Washington, students will:

- Spend class time learning and developing skills in speed, accuracy, problem-solving and how to “Think like a Mathematician” from UW math and engineering instructors
- Work with University of Washington student tutors during study hall sessions
- Participate in “Engineering Explorations” seminars conducted by UW Engineering faculty and graduate students



2010 UW Mathematics Academy

- Engage in a rich array of recreation, college preparation and industry site visits
- Develop friendships with college bound peers and networks with UW students and faculty
- Tour the campus, live in residential halls, and enjoy dining in UW restaurants



Academic Focus

- High achieving rising seniors will be challenged to enhance their strengths in math problem-solving, and to better prepare for the rigorous college level mathematics coursework required of UW engineering students.



2009 Math Academy Students: Academic Profile

AP Calculus	2
Calculus	2
IB SL MATH ST 1	6
Math 141 (Running Start – PreCalculus)	1
Math Anal/Trig	1
Pre-Calculus	16

Math Coursework completed by the end of participants Junior Year in high school:

- The average student GPA for students was 3.493325
- 78.6% of students had a GPA of 3.0 or Higher
- 64.3% of students had a GPA of 3.5 or Higher

2009 Math Academy Academic Skills Assessment and Results

Students completed a pre-test before the start of the Math Academy, and took this same test as a final exam at the conclusion of the program. According to pre-test and post-test results:

- More than 96% of the class showed positive improvement in mathematical problem solving skills.
- 57% or nearly two thirds of the class showed more than a 100% increase between their pre-test and final test scores.
- Overall, for all students completing MA'09, there was an average improvement of 108.6% between their pre-test and final test scores.
- In both tests, roughly 50% of the problems tested algebra skills and roughly 50% tested modeling skills.

2009 Engineering Explorations Recap:

Students explored engineering research and industry opportunities through activities and events including:

- **Classroom and Laboratory Seminars** with faculty and graduate students, across 10 departments
- **Industry site visits** to the Boeing manufacturing facility in Everett, WA and Amazon.com headquarters.
- **UW Research Laboratory tours**, facilitated by current Engineering Undergraduate Research Program students.
- **Alumni & Professional Night Event:** Evening event giving students the opportunity to learn about careers in engineering from UW alumni, and other local engineering professionals



Leisure & Recreation

During the 2009 program, students:

- Engaged in team-building activities that helped them quickly make new friends and build good relationships over the summer
- Experienced the beauty of nature during excursions to Snoqualmie Falls and the SoundView Camp and Retreat Ropes Course
- Visited local attractions such as the Museum of Flight, Downtown Seattle shopping district, Pike Place Market, Waterfront and Seattle Center
- Used campus recreational facilities such as the Intramural Activities Center (IMA) , Hutchinson Pool, Denny Sports field and HUB Games Room



The UW College of Engineering
requires **hard work** and **talent** to
succeed.

Learn the **requirements** and
rewards of being a UW College of
Engineering student.



Attend the Math Academy.

And always remember....

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MATHEMATICS ACADEMY

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What Works, Is Work.
— Dave Prince