

**FAQ**  
*Applied Math - EDGE*

**Application Process**

- **How competitive is the program in terms of admissions?**
  - Since this is a distance learning program, we don't have a set enrollment limit; so, it is not competitive in the sense of competing with other applicants for a limited number of spots.
  - For the autumn 2008 quarter, 35 people applied for graduate admission. 25 applicants (71%) were offered graduate admission. 10 of the applicants that were denied graduate admission were offered graduate non-matriculated status with the goal of improving their academic record for re-application to the degree program later.
  
- **Are transfer credits accepted?**
  - Students can transfer up to 6 quarter credits (4 semester credits) if approved by the applied math department and the graduate school. Students should petition the dean of the graduate school through the graduate school website.
  - Credits may not have been used toward another degree
  - All program requirements must still be satisfied

**Financial Info**

- **What are the fees for this program?**
  - Course fee – \$675 per credit in 2009-2010
    - Approximately \$24,300 for the entire program (not including fees below)
  - Technology fee – \$11-\$41 per quarter based on # of credits
  - Services & Activities fee – \$40-\$140 per quarter based on # of credits – master's students only (not GNM)
  - Registration fee – \$35 per quarter
  - It should be noted that it is cheaper to be a student in the online MS program than it is to be an on-campus student paying out-of-state registration fees.
  
- **Are there any grants/scholarships available?**
  - No grants or scholarships are available, but students are eligible for financial aid.
  
- **Are there any unusual expenses associated with the program?**
  - This software is highly recommended and may be required by some courses: Matlab Student Edition. Can be purchased at UW Book Store at student discount of \$99.95. Students can access the course lectures on the Web for no charge, but if CD-ROM or Videotape is requested, and additional fee will be charged (currently, fee is \$100, but this will increase)

## Program Specifics

- **Is the degree earned through the online program identical to the degree earned in the classroom-based program?**
  - Yes. Graduates earn a Master of Science in Applied Mathematics, which is the exact same degree that classroom-based students earn.
- **How many courses/credits are required to earn the degree?**
  - A minimum of 36 credits is required. However, many students complete more than the required amount.
- **How long does the student have to complete the program? Full-time and part-time options?**
  - Students who are full-time complete the program in a year.
  - Most students complete the program on a part-time basis within 3 years, but have up to 6 years.
- **Are prerequisite courses required?**
  - The three prerequisite courses for the degree:
    - **Beginning Scientific Computing (AMATH 301) or equivalent course work**  
Introduction to the use of computers to solve problems arising in the physical, biological and engineering sciences. Application of mathematical judgment, programming architecture, and flow control in solving scientific problems. Introduction to MATLAB routines for numerical programming, computation, and visualization
    - **Introduction to Differential Equations and Applications (AMATH 351) or equivalent course work**  
Introductory survey of ordinary differential equations. Linear and nonlinear equations. Taylor series. Laplace transforms. Emphasis on formulation, solution, and interpretation of results. Examples from physical and biological sciences and engineering. Introduction to MATLAB as a tool for solving differential equations.
    - **Applied Linear Algebra and Numerical Analysis (AMATH 352) or equivalent course work**  
Analysis and application of numerical methods and algorithms to problems in the applied sciences and engineering. Applied linear algebra, including eigenvalue problems. Emphasis on use of conceptual methods in engineering, mathematics, and science.
  - We recommend a course in either advanced calculus or real analysis, but this is not required.
- **Are the prerequisite courses available online at the University of Washington?**
  - The prerequisite courses will be offered online through UW summer quarter. Students may complete them at another school if they wish.

- **Do the prerequisite courses need to be completed before I submit my application?**
  - No but it is preferred.
- **Do the prerequisite courses need to be completed before I begin my graduate degree coursework?**
  - Yes.
- **Can I complete the prerequisites while completing the graduate degree coursework?**
  - No.
- **What is the student to teacher ratio?**
  - For the autumn 2008 quarter, each course had between 35 and 45 classroom students and between 10 and 25 online students. Courses will typically have teaching assistants in addition to the instructor.
- **How long has the program been running?**
  - The entire EDGE program began in 1983 as Televised Instruction in Engineering (TIE). It was renamed EDGE in 1999.
  - The MSAM has been offered via EDGE since 2007 (the classroom-based MSAM program began in 1998).
- **How is this program different from other similar programs?**
  - This program is one of the nation's few online master's degrees in applied mathematics. In terms of reputation and quality of online education is it arguably the best.
  - Students receive the same quality curriculum taught by full-time UW faculty as those who attend classes on UW's Seattle campus.
  - Students also have the flexibility of enrolling on a full- or part-time basis, allowing them to complete the required coursework typically in one to three years.
- **Is there an internship or job placement program?**
  - No

## **Program Outcomes**

- **Will this degree qualify me to teach?**
  - This degree qualifies people to teach at most community colleges or junior colleges, but we cannot vouch for any specific institution. A few institutions might require a math education or pure math degree. The safest thing for applicants who have an institution in mind is to check with them. Given the reputation of the program, this is usually not an issue.
- **What jobs can you go into after finishing this program?**
  - There is an extremely wide range: some students go on to PhDs, others work at research labs, most go to industry. Of this last group, we have

people who have gone into banking, pharmaceutical industries, insurance, engineering firms, biotech companies, etc. It is a very marketable degree, offering a wide range of possibilities.

## Online-learning Format

- **Can the program be completed completely at a distance/do students ever need to be on campus?**
  - Students who live in the local Puget Sound Area are required to take their final exams on campus unless they receive instructor permission to use a proctor.
  - Students who do not live in the local Puget Sound Area are not required to come to campus; the program can be completed entirely at a distance
  
- **How do I access lectures?**
  - On-campus courses take place in an EDGE studio classroom where they are recorded and delivered to online students on the EDGE website (<http://www.engr.washington.edu/EDGE/streaming.html> ) by:
    - Live streaming video of the lecture on the Web
    - On-demand viewing (high bandwidth, low bandwidth and FTP download) within two hours after end of class
    - Delivery of CD-ROMs or videotapes (additional fee required)
    - In addition, most instructors also provide online lecture notes.
  
- **How do online students interact with instructors?**
  - Email/phone/skype
  - Discussion boards
  - Web conferencing (some courses)
  
- **Can I participate during the live lecture?**
  - No.
  
- **How are homework and exams handled?**
  - Refer to EDGE Student Guide:  
<http://www.engr.washington.edu/EDGE/students.html>
  - Each course has a website that will have handouts, homework assignments, etc.
  - Assignments are submitted by email or fax
  - Exams can be proctored at work site or testing center
  - Exams must be taken on the same day they are administered in class; any exceptions due to work schedules, etc. must be approved by the instructor on a case-by-case basis
  - Online students may take their exams on campus with instructor permission
  - Students who live in the local Puget Sound Area are required to take their final exams on campus unless they receive instructor permission to use a proctor.

- **Is it possible to attend lectures on campus once in a while or take a course completely on campus?**
  - As long as there is room in the class, you may attend lectures on campus, even if you are enrolled in the online section.
  - Online students who wish to take one of their courses completely on campus can submit a petition that needs to be approved by the Applied Math department. These are usually approved as long as there is space available in the classroom. Refer to EDGE Student Guide for procedure: <http://www.engr.washington.edu/EDGE/students.html>
  - Similarly, students are allowed to enroll for courses that are not offered online, if their schedule allows. The registration is still done through the edge system. Students should contact Beth Outlaw with the EDGE office at 206.685.2242 or [edgeuw@u.washington.edu](mailto:edgeuw@u.washington.edu)
  
- **What should I do if I want to start in the MS program, but I have not taken all the background courses?** There are different possibilities. One option is to remedy the missing background courses by taking courses at UW or elsewhere, online or in person. Another option if the student feels comfortable with the background courses is to apply to the program as a Graduate Nonmatriculated (GNM) student. Doing well as a GNM student is a good indicator for future success in the MS program, and vastly improves the chances of admission to the degree program.
  
- **What are the rules for GNM students?** GNM students can take courses towards the MS program without being formally enrolled in it. Once admitted up to 12 qualified credits taken as a GNM student may be applied to the MS program.
  
- **Is there a way to transition from the MS to the PhD program?** There is. Student have to notify the graduate program coordinator by 2/1 prior to the year they wish to start in the PhD program. Student's files will be evaluated with those of the other PhD applicants. As of 2009 one student in the online MS program has applied to enter the PhD program. The student was admitted and is currently working towards a PhD in applied mathematics.
  
- **Is there a possibility of getting involved in research?** As part of the requirements for the MS degree, students enroll in at least 4 credits worth of independent study credits. These credits could be used to start a research project with a faculty member.
  
- **Is there a thesis option?** Not for students in the online program, since it is too difficult for advisors and students to work as closely as needed for something as intensive as a thesis. It should be mentioned that the thesis option is not popular with on-campus students, as it doubles the time required for the MS degree. Two students (out of several 100s) have chosen the thesis option this last decade.
  
- **What constitutes the Final Examination?** This consists of a 25 minute public presentation in the presence of at least two of the applied mathematics faculty on a topic of the student's choice. The topic should be related to applied

mathematics and/or its applications and be at a level that surpasses the material covered in the courses taken towards the MS program.

- **How does one satisfy the independent study requirement?** Students should contact faculty members whose research they are interested in, and come to a mutual understanding on how the independent study requirement can be satisfied. Students could read book chapters surpassing course material, or research papers, or could work on some original research.