



UW Extension Certificate Program in Geographic Information Systems (GIS)

About GIS & the Program

A Geographic Information System (GIS) is a comprehensive spatial database used to input, store, retrieve, manipulate, analyze and output geographically-referenced information, to support decision making for planning and management of land use, natural resources and the environment, transportation, facilities and services, and public administration. The ability of GIS to display the results of queries geographically and its unique capacity for spatial analysis and modeling, make it possible to ask and answer questions well beyond the scope of traditional databases.

The use of GIS in government agencies, private businesses and nonprofit organizations has grown steadily in recent years as forward-thinking leaders acknowledge the value of GIS and spatial analysis for a variety of uses. The U.S. Department of Labor identified geospatial technologies as one of the three most important emerging and evolving fields, along with nanotechnology and biotechnology. The nine-month *GIS Certificate Program* is for professionals seeking the skills and knowledge to use GIS. This course of study most benefits entry- and intermediate-level users.

All instructors are experienced teachers and professionals who have been approved by the [Department of Geography](#) and the [Department of Urban Design and Planning](#) at the University of Washington.

Classes meet in the well-equipped GIS Lab of the UW Geography Department. Students enrolled in the certificate courses have access to this facility during evening and weekend hours outside of scheduled classes.

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PROFESSIONAL CERTIFICATE PROGRAM

>> www.extension.washington.edu

Courses

Geospatial Information and Technologies

Develops conceptual foundations in spatial concepts, spatial thinking, and mapping to prepare students for advanced study of geographic information systems and management.

GIS Data and Database Design

Reviews the basics of spatial modeling and the vector and raster spatial data models, consideration of attribute data, relational and object-oriented databases, and their links to the spatial models.

GIS Project Planning and Implementation

GIS project management, metadata documentation, impact of the internet and web on geographic information, operational aspects of GIS implementation, and management case studies.

GIS Modeling and Analysis

Spatial analysis is the application of a variety of sophisticated operations to data that includes both location and attribute (tabular) information. This course concentrates on raster data for geographic modeling and analysis.

GIS in Practice in the Pacific Northwest

Explores the wide range of professions that utilize GIS through presentations of GIS applications in the Pacific Northwest, and especially the Puget Sound region.

Advanced GIS Analysis and Applications

Examines a diverse range of topics that demonstrate the variety of domains to which GIS can be applied, in addition to tools and methods that expand the use of GIS beyond the traditional desktop environment.

About UW Extension Certificate Programs

This nine-month program gives you a diverse set of skills to take you to the next stage in your career.

Build Your Network! You'll connect with other designers & developers enhancing their own careers, allowing you to learn from their experiences and expand your professional network.

Study with the Pros! Learn from seasoned instructors who derive their expertise from many years of teaching & professional experience.

Earn a valuable Credential! The University of Washington is the leading research and graduate studies university in the Northwest.

Learn around Your Schedule! The certificate program courses are scheduled at a convenient time to work with your busy schedule.

Make the decision today to achieve your career goals—and let the Managing for High Performance certificate give you the knowledge you need to get there.

About UW Extension

Learning through UW Extension gives working professionals the quality education that will take your career to the next level, whether you long for a promotion or a shift to a completely new field. All UW Extension programs are designed by UW faculty, industry experts and community leaders. To ensure you receive first-rate instruction, every UW Extension program must be approved by the corresponding University of Washington academic department. UW advisory boards are continually reviewing programs and

Learn more about the program

For complete details, visit the Web site:

➔ WWW.EXTENSION.WASHINGTON.EDU

Attend an information meeting.

Interested in a certificate? You can ask questions and meet instructors and former students at these free meetings. For meeting dates, times and locations, please go to our Web site.

Questions? Ask away

Give us a call:

📞 206.685.8936 OR 1.800.506.1325

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Apply or register today

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This program is brought to you by UW Extension, a community gateway to the University of Washington.