University of Washington – Master of Infrastructure Planning and Management

The Department of Urban Design and Planning, in the College of Built Environments at the University of Washington, offers a fully online Master of Infrastructure Planning and Management (MIPM). This program provides professionals throughout the nation with an understanding of infrastructure systems and how to make them more resilient to breakdown, whether caused by terrorist acts, extreme natural events, climate change or normal accidents. The two-year MIPM program is designed for working professionals, who can earn their master's degree while staying employed. The curriculum is broken down into 16 courses, of which students take 15. Four required core courses introduce key concepts about infrastructure, systems thinking, infrastructure finance and the fundamental aspects of strategic planning and policy analysis. In addition, students explore the impacts of climate change on infrastructures. Four required methods courses focus on processes related to planning and monitoring infrastructures, general management and leadership. These processes include advanced geospatial analysis, epidemiology, emergency management and business continuity planning. Six systems courses focus on components and characteristics that make up infrastructure systems for food, energy, communications, transportation and more. Students gain a working knowledge of these systems, the hazards confronting them and preventive measures. Students will select five out of these six courses. Students may substitute a special three-course series on floodplain management topics for three of their five infrastructure systems courses in their second year.

Two required capstone courses help students to synthesize knowledge they learned across the program and then apply it to a real-world project, conduct research and develop a case study. The MIPM program is guided by an advisory board composed of professionals in the field, and is led by director Wendy Freitag. For more information, see http://www.infrastructuremanagement.uw.edu/.

To earn the University of Washington Master of Infrastructure Planning & Management degree, students must successfully complete 15 courses, for a total of 45 credits.

All courses are required, with one exception: Students take only five of the six systems courses offered. However, students may substitute a special three-course series on floodplain management topics for three of their five infrastructure systems courses in their second year.

**Required Courses in Sequence**

**Year One**  
Autumn Quarter  
IPM 502: Introduction to Infrastructure Systems  
IPM 508: Risk Assessment & Business Continuity

Winter Quarter  
IPM 500: Strategic Planning & Policy Analysis  
IPM 504: Applied Geospatial Analysis

Spring Quarter  
IPM 505: Climate Change & Infrastructure
IPM 507: Epidemiology for Health Hazards

Summer Quarter
IPM 501: Comprehensive Emergency Management
IPM 503: Infrastructure Finance

Year Two
Students choose five out of the six infrastructure systems courses offered. (Students may substitute a special three-course series on floodplain management topics for three of their five infrastructure systems courses.)

Autumn Quarter
IPM 506: Energy Systems
IPM 512: Public Health Systems

Winter Quarter
IPM 510: Water Systems
IPM 514: Transportation Systems

Spring Quarter
IPM 509: Communications & Cyber Infrastructure Systems
IPM 513: Capstone A: Research Design

Summer Quarter
IPM 511: Food Systems
IPM 515: Capstone B: Implementation

Capstone Project

During the last two quarters of the program, students gain practical experience through a capstone project. The capstone allows students to synthesize what they've learned in the program, conduct research and apply it to a real-world problem. At the same time, students build a network in a particular area of the infrastructure field.

The University of Washington is accredited by the Commission on Colleges of the Northwest Association of School and Colleges, the regional accrediting association.

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