

Urban Informatics Certificate Requirements

Name: _____
 ID#: _____
 Uniqname: _____
 Graduate Program: _____

	Course Number	Term Taken	Modification/ Approval by
1. Core Course: Intro. to Urban Informatics (3 credits)			
2. Urban Context Elective (3 credits)			
3. Analytical Methods Elective (3 credits)			
4. Additional Course: Programming, Design, or Entrepreneurship Elective (3 credits)			
5. Integrative Experience course or project (3 credits)			

Urban Informatics Certificate Approval _____

Courses

1. Core Course: Introduction to Urban Informatics (3 cr)

URP 535/SI XXX Introduction to Urban Informatics 3

2. Urban Context Elective (3 cr)

EAS 537 Urban Sustainability (3)
EAS 554 Urban Agriculture (3)
EAS 578 Urban Stormwater (3)
EAS 787 Metropolitan Dynamics Studio (module 1) (2)
URP 580 Metropolitan Structure (3)
URP 671 Transportation and Public Policy (3)
URP 560 Transportation and Land Use Planning (3)
URP 540 Land Use and Development Management Planning (3)
URP 582/SSW 655 Neighborhood Revitalization Policy and Planning (3)

3. Analytical Methods Elective (3 cr)

Student may pick from three areas.

Spatial Analysis

URP 520 Introduction to GIS (3)
EAS 531 Principles of GIS (4)

Or, for students with previous GIS coursework:

URP 521 Intermediate GIS (3)
EAS 534 GIS and Landscape Modeling (even years) (3)
EAS 543 Environmental Spatial Data Analysis (odd years) (3)
EAS 540 GIS Applications (2)

Data Analysis

SI 618 Data Manipulation and Analysis
SI 671 Data Mining
EECS 453 Applied Data Analysis
STATS 415 Data Mining and Statistical Learning
PP 567 Data Analysis
CEE 575 Sensors and Data
CEE 573 Data Analysis in CEE
IOE 691 Data Analysis

Databases

SI 664 Database Application Design
EECS 584 Advanced Database Management Systems

4. Programming, Design or Entrepreneurship Elective (3 cr)

Students whose home discipline does not require programming must take a programming course. Students whose home disciplines requires programming, may take either an additional programming course, OR a course in technology design, or entrepreneurship and leadership.

Programming Courses (one required if not satisfied in home discipline)

SI 502	Networked Computing (3)
SI 506	Programming I (3)
SI 539	Design of Complex Websites (web) (3)

Technology Design Courses

SI 622	Needs Assessment and Usability Evaluation (4)
SI 582	Intro. to Interaction Design (3)

Entrepreneurship and Leadership

URP 522:	Collaborative Planning (3)
MO 617	Social Intreprenurship
ES 250:	Introduction to Entrepreneurship
ES 325:	New Product and Innovation Management
SI 663	Entrepreneurship in the Information Industry (3)
Any ENTR 500-level course offered by the Center for Entrepreneurship	

5. Integrative experience qualifying course or project (3 cr)

The integrative experience allows students to integrate the knowledge obtained from other coursework, and can be satisfied 1) by taking a course from a list of approved electives or 2) by completing a project-based course. Students choosing the project option will need to demonstrate that the project integrates appropriate analytical methods, a consideration of technology context, and an appropriate practice model. Projects completed to satisfy the requirements of the student's primary degree program or another certificate will not be allowed. Students interested in completing this requirement through an independent project completed within a project course or independent study should submit a 2-page proposal to the program Director, who will approve the proposals after consulting with the Faculty Advisory Committee. Students will be strongly encouraged to present the results of their integrative experience at an annual conference.

Courses

SI 538	Citizen Interaction Design (4)
URP 526	Scenario Planning (3)
ARCH 531	American Space

OR An applied project completed independently or within a project course (such as CEE 679 (Infrastructure Systems Project), SI 612 (Pervasive Interaction Design), or URP 602 (Professional Project))