INTEGRATIVE DESIGN OF BUILT AND NATURAL ENVIRONMENTS, CERTIFICATE

The Certificate in Integrative Design of Built and Natural Environments, offered through the Department of Planning and Landscape Architecture, is focused around an exciting trans-disciplinary design approach that relies on design processes and thinking and integrates spatial data technologies to effectively and efficiently inventory, represent, analyze, evaluate, and communicate planning and design alternatives for landscapes, cities, and regions. Proactively co-designing and co-producing healthy places comprehends, plans, and acts on social and environmental information and, therefore, a diverse suite of elective courses addresses social and environmental considerations through stakeholder engagement, environmental justice, policy, conservation, and management. Required courses will apply spatial technologies (GIS, Geodesign) to enable collaborations among the design professions (landscape architects, planners, engineers, and scientists and humanists from various disciplines), and community members. This collaborative process will help prepare you to work in interdisciplinary teams and to appreciate diverse perspectives and values while addressing complex problems.

HOW TO GET IN

Undergraduate students from across campus are encouraged to consider completing the Certificate. To declare the Certificate in Integrative Design of Built and Natural Environments through the Department of Planning and Landscape Architecture, students must have completed at least one class that meets Certificate requirements, or be enrolled in at least one class in the current or upcoming semester that meets Certificate requirements. Students pursuing the program are encouraged to declare as early as possible so that they can best align the coursework with their interests. Students can declare the program by scheduling an appointment with the Department of Planning and Landscape Architecture Undergraduate Academic Advising Manager, or by filling out the online declaration form on the Department of Planning and Landscape Architecture website.

Students declared in the certificate should plan to complete the program before, or alongside, their degree and major requirements, as they are not able to extend their time on campus to complete a certificate.

REQUIREMENTS

REQUIREMENTS FOR THE CERTIFICATE

Students are required to a minimum of 14 credits to include one introductory course, one methods and applications course, and elective courses.

Code	Title	Credits
Introductory Course (complete one)		**2-4**
LAND ARC 311	Introduction to Design Frameworks and Spatial Technologies	
GEOG/ CIV ENGR/ ENVIR ST 377	An Introduction to Geographic Information Systems	
Methods and Applications		**3**
LAND ARC 511	Geodesign Methods and Applications	
Elective Courses		**7-9**
Stakeholder Engagement		
LSC/ AMER IND 444	Native American Environmental Issues and the Media	
LSC 561	Writing Science for the Public	
LSC 625	Risk Communication	
LSC 250	Research Methods in the Communication Industry	
GEOG/ ENVIR ST 309	People, Land and Food: Comparative Study of Agriculture Systems	
Environmental Justice and Policy		
LAND ARC 363	Earth Partnership: Restoration Education for Equity and Resilience	
AMER IND/ ENVIR ST 306	Indigenous Peoples and the Environment	
AMER IND/ ENVIR ST/ GEOG 345	Managing Nature in Native North America	
CHICLA/ LEGAL ST/ SOC 440	Ethnicity, Race, and Justice	
CHICLA/ LAND ARC 475	Latino Urbanism: Design and Engagement in the American City	
ENVIR ST 308	Outdoors For All: Inequities in Environmentalism	
GEOG/ URB R PL 305	Introduction to the City	
GEOG/ ENVIR ST 439	US Environmental Policy and Regulation	
GEOG/ ENVIR ST 534	Environmental Governance: Markets, States and Nature	
GEOG/ENVIR ST/ LAND ARC/ URB R PL 532	Applications of Geographic Information Systems in Planning	
GEOG/ ENVIR ST 537	Culture and Environment	
SOC/ C&E SOC 140	Introduction to Community and Environmental Sociology	
URB R PL 512	Gentrification and Urban Restructuring	
Environmental Conservation & Management		
LAND ARC 668	Restoration Ecology	
LAND ARC/ ENVIR ST/ SOIL SCI 695	Applications of Geographic Information Systems in Natural Resources	

A A E/ENVIR ST/ F&W ECOL 652	Decision Methods for Natural Resource Managers	
BOTANY/ ENVIR ST/ F&W ECOL/ ZOOLOGY 651	Conservation Biology	
C&E SOC/ F&W ECOL/ SOC 248	Environment, Natural Resources, and Society	
C&E SOC/ ENVIR ST/ GEOG 434	People, Wildlife and Landscapes	
ENVIR ST/ GEOG 339	Environmental Conservation	
ENVIR ST 413	Preserving Nature	
GEOG/ ENVIR ST 333	Green Urbanism	
GEOG/ ENVIR ST 337	Nature, Power and Society	
GEOG/ AMER IND 410	Critical Indigenous Ecological Knowledges	
GEOG/ENVIR ST/ HISTORY 469	The Making of the American Landscape	
GEOG 538	The Humid Tropics: Ecology, Subsistence, and Development	
Total Credits		**14**

PASS/FAIL COURSES

Courses taken on a pass/fail basis will not count toward the certificate.

RESIDENCE AND QUALITY OF WORK

- At least 8 certificate credits must be completed in residence
- Minimum 3.000 GPA on all certificate courses

CERTIFICATE COMPLETION REQUIREMENT

This undergraduate certificate must be completed concurrently with the student's undergraduate degree. Students cannot delay degree completion to complete the certificate.

LEARNING OUTCOMES

1. Demonstrate an understanding of the frameworks and processes involved in integrative design of built and natural environments
2. Understand and demonstrate how to use techniques and research from biological, physical sciences, and social sciences in design, planning, and management contexts to create frameworks and designs
3. Select and evaluate geospatial technologies appropriate for a variety of design, planning, and management contexts
4. Understand and evaluate the role of stakeholder values and ethics in design frameworks relative to design, planning, and management of the built environment within social and natural systems

ADVISING AND CAREERS

ADVISING

We encourage you to reach out to Debi Griffin, our undergraduate academic advising manager, if you're interested in learning more about the Certificate or would like guidance as a current Certificate student. You can make an appointment via Starfish (https://wisc.starfishsolutions.com/starfish-ops/dl/instructor/serviceCatalog.html) or email Debi (dagriffin@wisc.edu)

CAREERS

The interdisciplinary education provided through the Certificate in Integrative Design of the Built and Natural Environment will make graduates highly sought after by employers in local government, landscape and urban design, environmental science, management, and policy.

L&S CAREER RESOURCES

Every L&S major opens a world of possibilities. SuccessWorks (https://successworks.wisc.edu/) at the College of Letters & Science helps students turn the academic skills learned in their major, certificates, and other coursework into fulfilling lives after graduation, whether that means jobs, public service, graduate school or other career pursuits.

In addition to providing basic support like resume reviews and interview practice, SuccessWorks offers ways to explore interests and build career skills from their very first semester/term at UW all the way through graduation and beyond.

Students can explore careers in one-on-one advising, try out different career paths, complete internships, prepare for the job search and/or graduate school applications, and connect with supportive alumni and even employers in the fields that inspire them.

- SuccessWorks (https://careers.ls.wisc.edu/)
- Set up a career advising appointment (https://successworks.wisc.edu/make-an-appointment/)
- Enroll in a Career Course (https://successworks.wisc.edu/career-courses/) - a great idea for first- and second-year students:
  - INTER-LS 210 L&S Career Development: Taking Initiative (1 credit)
  - INTER-LS 215 Communicating About Careers (3 credits, fulfills Comm B General Education Requirement)
- Learn about internships and internship funding (https://successworks.wisc.edu/finding-a-job-or-internship/)
  - INTER-LS 260 Internship in the Liberal Arts and Sciences
- Activate your Handshake account (https://successworks.wisc.edu/handshake/) to apply for jobs and internships from 200,000+ employers recruiting UW-Madison students
- Learn about the impact SuccessWorks has on students' lives (https://successworks.wisc.edu/about/mission/)