

GEODESIGN GRADUATE CREDIT CERTIFICATE PROGRAM

Learning Outcomes

1. Discern the core principles of historic and contemporary foundations of geodesign theory.
2. Identify cumulative affects of changes in population, climate, and biodiversity, and their impacts to food and water to understand how to influence major environmental and social change.
3. Comprehend the definition of geographic space in its broadest context, including temporal, cultural, economic and other social and environmental systems – essentially nD thinking.
4. Demonstrate knowledge of the multidimensional scope and scale of projects to which geodesign can be applied.
5. Appreciate the importance of balancing the creative and scientific processes and their influence on geodesign solutions.
6. Ascertain the appropriate application of key design methodologies specific to geospatial issues, such as systems thinking, and design as an operations/resources problem.
7. Assess how to balance instant feedback with sound decision–# support tools to effectively incorporate myriad data in combination with user needs and preferences.
8. Combine design – the proposed changes to a place – with relevant science–#based and value–#based information, in a manner that explores alternative solutions from a cross–#disciplinary, decision–# driven approach.
9. Critically develop and apply ethical frameworks to appropriately evaluate culturally, socially and economically diverse environments.
10. Develop a collective understanding of other disciplines, the multidisciplinary geodesign process, and how different specialists engage and intersect with one another.
11. Demonstrate proficiency in collaboration tools for team communication, efficient document sharing, topological diagramming, time/dynamics management, and media archiving.
12. Integrate contextual data, objects, and media to represent and discover relationships and constraints of a study area.
13. Apply a working knowledge of geospatial modeling tools that assess, visualize, and compare social, economic, and environmental consequences of design configurations over time.