Geographic Information Systems Graduate Certificate: UMaine Grad Catalog Changes for 2020-2021

Geographic Information Systems (Certificate)

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Geographic Information Systems have become a common information management and analysis tool used across many academic disciplines, government agencies and businesses. Students from diverse backgrounds may advance their career potential by building knowledge in this area. Practitioners in business, industry and government may be interested in acquiring base skills in this area to keep up with changing information technology in their work environment. The graduate certificate program is designed to provide a foundation in key aspects of geographic information systems.

The Graduate Certificate in Geographic Information Systems requires completion of a minimum of 15 credits of coursework. The fifteen credits of coursework must include the following three core courses:

SIE 509 - Introduction to Geographic Information Systems

SIE 557 - Database System Applications

SIE 510 - GIS Applications

The remaining 6 credits may be selected from among the following set of courses:

SIE 505 - Formal Foundations for Information Science

SIE 507 - Information Systems Programming

SIE 512 - Spatial Analysis

SIE 515 - Human Computer Interaction

SIE 525 - Information Systems Law

SIE 550 - Design of Information Systems

SIE 555 - Spatial Database Systems

SIE 558 - Real-Time Sensor Data Streams

SIE 570 - Spatial Cognition and Computing

Only courses in which the student obtained a grade of B or higher count towards the completion of the Geographic Information Systems Graduate Certificate.

GIS Graduate Certificate Admission

Students to be admitted into the Geographic Information Systems Certificate must hold an undergraduate degree and have a cumulative undergraduate GPA of 3.0 or higher. Candidates must submit a transcript of their undergraduate degree, essay, and one reference letter. Students can apply to transfer up to 3 credits of graduate course work into the GIS Graduate Certificate, except for the three core courses, which must be taken at the University of Maine. The GIS Certificate Coordinator must approve such transfer credits after assessing whether they are appropriate or not.

Continuation of GIS Certificate to M.S. in Spatial Information Science and Engineering or M.S. in Spatial Informatics

Upon completion of the GIS Graduate Certificate, students may apply for the MS Spatial Information Science and Engineering (all courses are both on campus and online) or the MS Spatial Informatics (online only). They must meet all the master's requirements for admission. Students can transfer from the GIS Graduate Certificate only those SIE courses in which they received a grade of B or higher.

Additional Information

Course Descriptions: http://gradcatalog.umaine.edu/ > Graduate Courses or see SIE course descriptions
Application for Admission: http://spatial.umaine.edu/admission-aid/

Spatial and Information Systems Graduate Faculty

M. Kate Beard-Tisdale, Ph.D. (Wisconsin, 1988), Professor and GIS Graduate Certificate Coordinator. Geographic information systems, map generalization, data quality and its visualization, geographic information retrieval, spatio-temporal phenomena and information integration.
Max J. Egenhofer, Ph.D. (Maine, 1989), Professor and Director of School of Computing and Information Science. Spatio-temporal reasoning, user interfaces for geographic information systems, design of spatial database systems, and mobile spatial information appliances.
Nicholas A. Giudice, Ph.D. (Minnesota, 2004), Professor and Director of VEMI Lab. Human computer interaction in real and virtual reality environments, indoor navigation, multimodal spatial cognition, information-access technology and multimodal spatial displays.
Torsten Hahmann, PhD (Toronto, 2013), Associate Professor. Spatial informatics, spatial ontologies as test bed for research about formal ontologies and their development, knowledge representation, artificial intelligence, and logic.
Silvia Nittel, Ph.D. (Zurich, 1994), Associate Professor and Director of Geosensor Networks Lab. Stationary and mobile sensor networks, decentralized in-network data collection algorithms for geosensor networks, management of distributed sensor data streams in real-time.

Harlan J. Onsrud, J.D. (Wisconsin, 1982), Professor and Graduate Coordinator. Legal, ethical, and institutional issues affecting creation and use of databases, ethics driven information systems design, assessment of social and societal impacts of spatial technologies.

Nimesha Ranasinghe, Ph.D. (National University of Singapore (NUS), 2013), Assistant Professor. Research interests include Multisensory Interactive Media, Augmented Reality, and Human-Computer Interaction