

International Standards for Geographic Information

Instructor: Prof. Wolfgang Kresse, University of Applied Sciences Neubrandenburg, e-mail: kresse@hs-nb.de

Target audience: PhD students and people responsible for the design and the administration of geographic information systems, primarily in the public sector.

Course objective: The topic is primarily background information that helps to understand the foundation of modern geographic information systems, not least of the administrative systems such as INSPIRE. However, the practical part also demonstrates how standards are applied to the creation of new applications.

Course outline: The course will start with the kick-off seminar followed by a set of tasks that will be accomplished at home and discussed and finalized online via the Internet.

Module 1. The content of this module includes the characteristics of standards, standardization bodies, the relevance of standards, their original sources and the process towards final standards documents, the relation between standards, and the usage of standards in software development and legislation.

Module 2. The content of this module is a detailed discussion of a larger set of standards for geographic information. The topic begins with the reference model and infrastructure standards such as the conceptual schema language, continues with the basic standards regarding space and time as well as services, quality, rights and general metadata, and finally proceeds to implementation, web-mapping, and imagery. A small geoportal will be created while the focus is set on the demonstration and the analysis of the standards involved.

Module 3. The content of this module is the development of an application model, the derivation of an xml schema, and the development of a software interface for an r/w access.