

Introduction to statistics production with the use of geographical information systems (GIS)

COURSE LEADER	Svein Reid
TARGET GROUP	Target group are persons with some practical experience in GIS/ GI/ cartography, which want to make use of GIS in producing statistics or analysis, using the GIS-tool ArcGIS Pro
ENTRY QUALIFICATIONS	<ul style="list-style-type: none"> ▪ Sound command of Russian or English. Course holders are English speaking and simultaneous Russian interpretation will be provided. All course presentations and documents will be translated to Russian beforehand and will be available for participants in a dedicated website. ▪ Basic computer skills. Participants should be able to perform varied tasks using computer with some guidance or supervision. ▪ Some knowledge of GIS, but with plans to use GIS in their work. ▪ Participants need to access to the commercial GIS software ArcGIS Pro during the course.
OBJECTIVE(S)	<ul style="list-style-type: none"> ▪ To provide participants with basic understanding on how to produce statistics with the use of geocoded statistical registers and map databases. Emphasis is on the use of Vector data and Vector tools, also getting to know and use the GIS-tool ArcGIS Pro.
CONTENTS	<ul style="list-style-type: none"> ▪ Introduction to geodata and GIS <ul style="list-style-type: none"> - What is GIS?, Spatial data models (Vector/Raster), Coordinate systems, Topology, Quality ▪ Getting to know ArcGIS Pro ▪ Statistics and Geodata, the greater picture : <ul style="list-style-type: none"> - National frameworks - European framework (INSPIRE) - Global framework ▪ Thematic mapping : <ul style="list-style-type: none"> - Map elements and cartographic theory - interactive <> static maps - Creating a thematic map in ArcMap ▪ Vector Grid statistics : <ul style="list-style-type: none"> - Basics and Production line for aggregated approach ▪ Introduction to Spatial Analysis and ArcGIS Model builder ▪ Using Model Builder for statistics production

EXPECTED OUTCOME	The participants should have a good understanding on how to integrate geography in the statistical production.
TRAINING METHODS	<ul style="list-style-type: none"> ▪ Lectures and presentations ▪ Hands-on exercises using pre-recorded video tutorials ▪ Exchange of views/experiences
REQUIRED READING	<ul style="list-style-type: none"> ▪ "A gentle introduction to GIS" :chapters 2, 3 & 4 <ul style="list-style-type: none"> - Русская версия https://docs.qgis.org/3.16/ru/docs/gentle_gis_introduction/ - English version https://docs.qgis.org/3.16/en/docs/gentle_gis_introduction/
SUGGESTED READING	<ul style="list-style-type: none"> ▪ "A gentle introduction to GIS" :chapters 5 - 11 <ul style="list-style-type: none"> - Русская версия https://docs.qgis.org/3.16/ru/docs/gentle_gis_introduction/ - English version https://docs.qgis.org/3.16/en/docs/gentle_gis_introduction/ ▪ Explore http://www.efgs.info/ and especially "information base"
REQUIRED PREPARATION	<ul style="list-style-type: none"> ▪ The participants will be asked to fill in a questionnaire in Russian/English regarding any experience in GIS, and why they are applying for the course. ▪ All course data will be shared to the participants before the course, and must be downloaded before the course starts. ▪ Participants are required to have ArcGIS Pro installed on their computer before the course starts. ▪ ArcGIS Pro is a commercial software, so all issues on licensing and installation of GIS software is an issue between each participant and their own organisation. See www.esri.com for information on ArcGIS and for contact information for their agent in your country. In several countries it is possible to obtain free trial versions of ArcGIS Pro (30 days or so).
CERTIFICATE	Participants attending all the four sessions and successfully submitting the assignment will receive a certificate for the successful completion of the course.
TRAINER(S)/ LECTURER(S)	Svein Reid, Statistics Norway Erik Engelen, Statistics Norway