

MAPPING 101

Certification

Mapping 101 Certification

Part 1: Course Information

Course Description: This certification is appropriate for individuals interested in understanding how to create maps for decision making and building new skills in QGIS for data and map development.

Timeframe: Participants will have 2 months to complete certification and is assessed at 30 hours' time.

Certification Objectives:

Mapping 101: Mapping 101 includes unique input models to garner feedback, comprehensive reports utilizing qualitative and quantitative information, and resources to find necessary data for decision making on multiple scales from business development, organizational work and community food systems assessments.

Part 2: Course Requirements

Completing Assignments: You must complete all module activities to receive a Community Food Systems Certificate of Completion. All assignments for this course will be submitted electronically through Moodle unless otherwise instructed.

Important Note: Activity and assignment details will be explained in detail within each learning module. If you have any questions, please contact your instructor.

Part 3: Grades

You must receive 80% or above on all activities to receive your Certificate. You will receive feedback and a grade from instructors on assignments before scheduled cohort meetings.

Viewing Grades in Moodle

- Click into the course
- Click on the Grades link in the Settings Box to the right of the main course page



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Part 4: Course Methods and Delivery

Course/Technical Requirements:

- Internet connection (DSL, LAN, or cable connection desirable)
- Adobe Flash Player
- Adobe Acrobat Reader
- Audio out and audio in
- QGIS: must be able to download the free QGIS software

Workshop Binders: It may be helpful for you to follow along in your binder while completing modules as some activities are like those completed in the workshop. If you took notes, information shared during the workshop between your cohort may also be helpful in completing assignments.

Moodle Access: This course is delivered online through Moodle online learning platform. If you need technical assistance at any time during the course, or to report a problem with Moodle, please contact the Moodle assistance contact below. For any assistance with course enrollment/cancellations or questions about course content please email kaleyh@iastate.edu.

Moodle Assistance Contacts:

Moodle username and password assistance	515-294-1725
Technical assistance with Moodle	515-294-1725
Enrollment and cancellations	kaleyh@iastate.edu
Content questions	court7@iastate.edu

Outputs:

Following **completion of the certification** you will receive all transferrable materials and templates related to your certification.

Mapping 101:

- QGIS Maps and Data Links
- Map reports
- Templates
 - Reports
 - Map design guidelines



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Part 5: Course Outline

Mapping 101

Goal: Mapping and visual aids helpful tools to express concerns or opportunities for new projects or existing issues within businesses and organizations. Participation in this program will lead to new skills in mapping techniques, unique input models to garner feedback, comprehensive reports utilizing qualitative and quantitative information, and resources to find necessary data for decision making on multiple scales from business development, organizational work and community food systems assessments.

Introductory Presentation: Ron Rainey: Local Food Systems Mapping

Module 1: Introduction to Mapping for Food Systems

Overview: This section will provide an overview of the need for mapping and how they can be used for decision making.

Outcomes: Participants will have increased understanding of the importance of mapping and appropriate ways to utilize both visualizations and assessments within business development, organizational pursuits, and community foods systems.

Required Activities:

- 1.1 Presentation 1: Introduction to Mapping
- 1.2: Reading 1: Local Food Economics- Framing Your Assessment Process
- 1.3: Reading 2: Local Food Economics- Using Secondary Data
- 1.4: Reading 3: Finding Quick Stats
- 1.5: Reading 4: Local Food Economics- Primary Data
- 1.6 Reading 5 Local Food Economics- Engaging Community Process With Data
- 1.7 Activity 1: Reflect on a project need for a business, community design, etc. Using the template provided, write about the type of map you would need to articulate a change, issue, or opportunity. Describe in detail the context, scale, conditions of the business, etc. How many maps do you need to create to describe your project?

Optional Activities:

USDA Economic Impact Toolkit

Module 2: Creating a Map

Overview: This section will provide an overview of the basics of GIS, the QGIS open source software, and common publicly available GIS datasets that can be used for food systems mapping.

Outcomes: Participants will know what GIS is, how it can be used in the food systems context, and will be able to create a map with the QGIS opensource software. Participants will also know new sources for finding relevant data.

Required Activities:

- 2.1 Reading: Terms
- 2.2 Presentation 1: What is GIS



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Optional Activities:

Map forms
Tools of the Geographer
Types of Thematic Maps
Video: Data Sources Final

Required Activities:

2.3 Presentation 2: Interface Navigation

Optional Activities:

Supported Data Formats
Exploring Data Formats and Fields
Files and Data: Vector and Raster
Working with Web Map Service Data
OS GEO LIVE
GeoSpatial Data Gateway
Web Feature Services Lesson

2.4: Presentation 3: Accessing and working with GIS data
2.5: Presentation 4: Styling Layers
2.6 Presentation 5: Adding Labels
2.7 Presentation 6: Making a Map and downloading
2.8 Activity 1: Create a map using the CFS Data Package that you downloaded in QGIS.
2.9 Presentation 7: Creating New Data Layers
2.10 Activity 2: Create a map with one or more layers by following the Presentation 6 tutorial.
2.11 Presentation 8: Analysis and Assessment
2.12 Activity 3: Create a map analysis and include a narrative of what data your map is showing.

Module 3: Creating the Report

Goals: This section will describe the process of taking a GIS map and making it into an analysis report. It will review a project design, as well as share templates for layouts.

Objectives: Participants will create their own place-based map based on their reflections in section 1. Participants will develop a report and will receive feedback and critique from Mapping 101 teachers.

Required Activities:

3.1 Presentation 1: Building Your Map

Optional Activities:

Presentation: Community Input Sessions

Required Activities:

3.2 Reading 1: Color Schemes
3.3 Activity 1: Determine which layers you need to create a map. Create a color scheme and 1 map showing environmental conditions surrounding your business or region.
3.4 Activity 2: Create a final report regarding your proposal. Submit at least one map with a legend and narrative to describe what you are trying to show.

Mapping 101 Evaluation



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