



2024 Edition

SCOUTMASTER BUCKY

Surveying Merit Badge

SCOUTS PARTICIPATING IN A SCOUTMASTER BUCKY MERIT BADGE OPPORTUNITY (ONLINE OR IN PERSON), PLEASE CONSIDER ALSO USING THE SURVEYING MERIT BADGE CLASS PREPARATION PAGE FOR CLARIFICATIONS, INSIGHTS, AND EXPECTATIONS.

<https://scoutmasterbucky.com/merit-badges/surveying/surveying-cpp.pdf>

SURVEYING MERIT BADGE WORKBOOK

REQUIREMENT 1: Show that you know first aid for the types of injuries that could occur while surveying, including cuts, scratches, snakebite, insect stings, tick bites, heat and cold reactions, and dehydration.

Cuts:

Scratches:

Snakebite:



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Insect Stings:

Tick Bites:

Heat and Cold Reactions:

Dehydration:



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REQUIREMENT 1:

Explain to your counselor why a surveyor should be able to identify the poisonous plants and poisonous animals that are found in your area.

Notes:

REQUIREMENT 2a:

Set an instrument over one of the corners of a five-sided lot laid out by your counselor and sighting one of the other corners for reference and, using radial measurement methods, record the angle turned and the distance measured to each of the remaining corners, as directed by your counselor. Record the angle and distance to five topographic features (trees, shrubs, rocks, etc.) near your work area.

This requirement must be reviewed with your merit badge counselor.

BE PREPARED!

Notes:



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REQUIREMENT 2b: Measure to three of the same points with GPS measurement and compare the distances between the points measured.

This requirement must be reviewed with your merit badge counselor.

BE PREPARED!

Notes:

REQUIREMENT 3: From the field notes gathered for requirement 2, and using a protractor and scale, plot the points you measured and draw to scale a map of your survey which includes a north arrow, scale bar, title, date, and a diagram of the lot you measured. Submit a neatly drawn copy.

Notes:



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REQUIREMENT 4:

Use one of the corner markers from requirement 2 as a benchmark with an assumed elevation of 100 feet. Using a level and rod, collect and record measurements, and determine the elevation of the other four corner markers.

This requirement must be reviewed with your merit badge counselor.

BE PREPARED!

Notes:

REQUIREMENT 5:

Get a copy of the deed to a piece of property approved by your counselor, from the local courthouse or title agency. Discuss with your counselor the different parts of the deed and their importance.

This requirement must be reviewed with your merit badge counselor.

BE PREPARED!

Notes:



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REQUIREMENT 6: Discuss emerging surveying technology such as drones and laser scanning and the strengths and weaknesses of each.

DRONES:

Strengths:

Weaknesses:

LASER SCANNING:

Strengths:

Weaknesses:



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REQUIREMENT 7: Tell what GPS is

Notes:

REQUIREMENT 7: Discuss with your counselor the importance of GPS in the field of surveying.

Notes:

REQUIREMENT 7: Discuss with your counselor how GPS is changing the field of surveying.

Notes:



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REQUIREMENT 8: Discuss the importance of surveying with a licensed surveyor.

Notes:

REQUIREMENT 8: Discuss the various types of surveying and mapping, and applications of surveying technology to other fields.

Notes:



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REQUIREMENT 8: Discuss career opportunities in surveying and related fields. Discuss the qualifications and preparation for such a career.

Career Opportunity #1:

Qualifications and Preparation Required:

Career Opportunity #2:

Qualifications and Preparation Required:

Career Opportunity #3:

Qualifications and Preparation Required:

Career Opportunity #4:

Qualifications and Preparation Required: