

2023 MOTOR-GRADER OPERATOR TRAINING

NDSU

UPPER GREAT PLAINS
TRANSPORTATION INSTITUTE
NORTH DAKOTA LOCAL TECHNICAL ASSISTANCE PROGRAM

NORTH
Dakota | Transportation
Be Legendary.™

Basic Training

- \$500.00/day per county (subject to change)
- 2.5 hours classroom training
- 4 hours field training
- Classroom training is limited to 30 attendees
- Field training is limited to 8 attendees (includes time in the blade)
- Road Scholar credit 6 hours

Advanced (Customized) Training

- \$500.00/day per county (subject to change)
- All day in the field – One-on-one training with operator

Instructors



Randy Watson – Mountrail County Operator. Randy has been an operator at Mountrail since 2018 and has 25 years of equipment operating experience. Randy started as an operator in 1996. He has a broad range of equipment experience gained through work with construction companies and the US Army, Roads & Ground Division. He is well versed in construction and maintenance of roads.



**NDLTAP IS LOOKING FOR
MOTOR-GRADER OPERATOR
INSTRUCTORS**

**We are looking for skilled motor-grader
operators willing to share their
knowledge throughout North Dakota.**



Classroom Topics – (Basic Training)

Safety

- Personal protective equipment
- 3-point contact
- On the road safety
- Backing safety
- Motor-grader blind spots



Equipment Maintenance

- Checking filters/fluids/oils
- Checking tires, pressure and wear
- Checking cutting edges
- Cab inspections



Gravel Road Issues

- Principles of a good road – drainage
- Gravel quality and content
- Understanding correct shape of the roadway cross-section
- Maintaining 4% crown
- Use of a slope meter
- Understanding the importance of straight blades
- Importance of the moldboard angle/pitch
- Intersections
- Windrows
- Intersections
- Retrieving material
- Vegetation
- Super-elevation



ADVANCED CUSTOMIZED TRAINING – FIELD ONLY

Format of Field Training

NDLTAP staff and the instructor will meet at the county highway department. The instructor will do a safety/maintenance walk around with the operators.

The instructor will communicate with the road superintendent about issues the operators are experiencing on the roads. The instructor will focus on those issues throughout the training.

The instructor will demonstrate to the operator the technique then the operator will do that same technique. The instructor uses a (two-way) headset to communicate with the operator.

Typically, the training will consist of 2 operators in the morning and 2 operators in the afternoon. This can be customized to the county.

Most instruction is given on crown (using a slope meter or automatics), slopes, drainage, pulling shoulders, retrieving gravel, washboards, grading speed and gravel quality.

Good cutting edges are required. Worn cutting edges will need to be changed before the field training.

1 mile of road is usually sufficient for the training. Preferably the road should have minimal traffic. Road signage is required on the road. Supplemental NDLTAP signage will be provided.

Operators are **required** to wear safety vests during the training.

A water truck is recommended, if one is not available please call us for further arrangements.

If your county has attachments the operators are encouraged to use them the day of training. Road Superintendents and County Commissioners are encouraged to attend the field training. Lunch will be on their own, typically 1 hour.



CONTACT INFORMATION

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