

# 2025 MOTOR-GRADER OPERATOR TRAINING

## Motor-Grader Training – Classroom and Field

- 3 hours – Road Scholar 3 credits for classroom training
- 3 hours – Road Scholar 3 credits for field training
- Classroom training is limited to 30 attendees
- Field training is limited to 8 attendees (includes time in the blade)



## Field Training (only)

- All day in the field - up to 6 hours Road Scholar Credits
- One-on-one training with operators on the road

## Fee for training

- \$500 or \$125 per operator – **minimum 4 operators** (if needed you can partner with another entity).

## Instructors

Nathan Miller, Slope County Operator

Ross Hanson, Morton County Operator

Ryan Larson, ButlerCat Machinery

## Classroom Topics – Field to Follow with hands on learning

<p><b>Safety</b></p> <ul style="list-style-type: none"> <li>• Personal protective equipment</li> <li>• 3-point contact</li> <li>• On the road safety</li> <li>• Backing safety</li> <li>• Motor-grader blind spots</li> </ul>	<p><b>Equipment Maintenance</b></p> <ul style="list-style-type: none"> <li>• Checking filters/fluids/oils</li> <li>• Checking tires, pressure and wear</li> <li>• Checking cutting edges</li> <li>• Cab inspections</li> </ul>	<p><b>Gravel Road Issues</b></p> <ul style="list-style-type: none"> <li>• Principles of a good road – drainage</li> <li>• Gravel quality and content</li> <li>• Understanding correct shape of the roadway cross-section</li> <li>• Maintaining 4% crown</li> <li>• Use of a slope meter</li> <li>• Understanding the importance of straight blades</li> <li>• Importance of the moldboard angle/pitch</li> <li>• Intersections</li> <li>• Windrows</li> <li>• Intersections</li> <li>• Retrieving material</li> <li>• Vegetation</li> <li>• Super-elevation</li> </ul>
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## Field Training

### 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.
- One 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.



**If you would like to have a Motor-Grader Operator training for your entity - please complete the training request form:**

<https://forms.office.com/r/BPS3PPk4JJ>



**Contact:**

Denise Brown

[Denise.brown.1@ndsu.edu](mailto:Denise.brown.1@ndsu.edu)

701-220-0101

**NDLTAP is always looking for experienced operators to join our team as a Motor-Grader Operator Instructor. In being part of this team, you are given the opportunity to share your expertise with other operators and also to learn from them.**