FIRE 294 : S-390 FIRE BEHAVIOR CALCULATION

Transcript title
S-390 Fire Behavior Calculat.

Credits
3

Grading mode
Standard letter grades

Total contact hours
30

Lecture hours
30

Prerequisites
FIRE 230 and FIRE 290.

Course Description
Introduces fire behavior calculations by manual methods, using nomograms and the Fire Behavior Handbook Appendix B: Fire Behavior. Gain an understanding of the determinants of fire behavior by studying inputs such as weather, slope, fuels, and fuel moisture. Learn how to interpret fire behavior outputs, documentation processes, and fire behavior briefing components. This is an NWCG (National Wildfire Coordinating Group) Certified course; requires qualification as a single resource boss.

Course learning outcomes
The following learning outcomes are those of the National Wildfire Coordinating Group (NWCG).

1. List the assumptions, limitations, and appropriate uses of fire behavior prediction models.
2. Describe how environmental factors and processes affect fire behavior predictions and safety.
3. Define and interpret fire behavior prediction model inputs.
4. Calculate fire behavior outputs using available fire behavior processors.
5. Interpret, communicate, apply, and document wildland fire behavior and weather information.

Content outline
• Introduction • Topography • Weather • Atmospheric Stability • Winds • Weather information and forecasts • US Fire Behavior Prediction System (USFBPS) Models • Fuel Moisture • Fire Behavior Models • Non-electric Wildland Fire Behavior processors • Spotting model • Safety zone calculations • Fire Growth • Plotting fire size and shape • Point source • Extreme fire behavior • Documentation, Briefings, and Monitoring for Fireline Safety

Required materials
All material is provided to the student.