



S-290: Intermediate Wildland Fire Behavior (2007)

Course Plan

Course Details

Description:	S-290 is available via two delivery methods (online and ILT), either of which is sufficient for student completion. This is a classroom-based skills course designed to prepare the prospective fireline supervisor to undertake safe and effective fire management operations. It is the second course in a series that collectively serves to develop fire behavior prediction knowledge and skills. Fire environment differences are discussed as necessary; instructor should stress local conditions.
Designed For:	Personnel desiring to be qualified as any single resource boss or Fire Effects Monitor (FEMO).
Authority:	National Wildfire Coordinating Group (NWCG)
Prerequisites:	Successful completion of S-190, Introduction to Wildland Fire Behavior; and satisfactory completion of pre-selection assessment and pre-course work.
Standard:	N/A
Hours:	32 hours
Maximum Class Size:	40 (24 Recommended by NWCG)
Instructor Level:	Primary instructor
Instructor/Student Ratio:	1 primary instructor per 40 students (NWCG Recommends 1:6)
Restrictions:	Limited to Instructor-Led Delivery only.
SFT Designation:	FSTEP

Required Resources

Online Instructor Resources

The following instructor resources are available online at <https://www.nwcg.gov/publications/training-courses/s-290>

- Instructor-led delivery course materials
- Instructor Guide
- Student Workbook

Student Resources

To participate in this course, students need:

- Student Workbook
- Wildland Fire Incident Management Field Guide, PMS 210
- NWCG Fireline Handbook, Appendix B, PMS 410-2
- Basic Land Navigation, PMS 475
- Fire Weather Handbook, PMS 425-1
- Aids to Determining Fuel Models
- Fire Environment Visualization
- Safety Zones
- Standard Fire Behavior Fuel Models

Facilities, Equipment, and Personnel

The following facilities, equipment, or personnel are required to deliver this course:

Facilities

- Standard classroom equipped for 24 students
- Whiteboards or easel pads with appropriate writing implements
- Projector/TV with appropriate laptop connections
- Wifi/Internet access

Time Table

Segment			Unit Total
Unit 0: Introduction			1.0
Unit 1: The Fire Environment			1.0
Unit 2: Topographic Influences on Fire Behavior			1.0
Unit 3: Fuels			2.0
Unit 4: Basic Weather Processes			1.5
Unit 5: Temperature and Humidity Relationship			1.5
Unit 6: Atmospheric Stability			4.0
Unit 7: Wind Systems			3.5
Unit 8: Keeping Current with Fire Weather			2.0
Unit 9: Observing the Weather			1.5
Unit 10: Fuel Moisture			3.0
Unit 11: Extreme Wildland Fire Behavior			2.0
Unit 12: Gauging Fire Behavior and Guiding Fireline Decisions			6.0
Final Exam			2.0
Course Totals			32.0

Time Table Key

1. The Time Table documents the amount of time required to deliver the content included in the course plan.
2. Time is documented using the quarter system: 15 min. = .25 / 30 min. = .50 / 45 min. = .75 / 60 min. = 1.0.
3. The Course Totals do not reflect time for lunch (1 hour) or breaks (10 minutes per each 50 minutes of instruction or assessment). It is the instructor's responsibility to add this time based on the course delivery schedule.
4. Application (activities, skills exercises, and formative testing) time will vary depending on the number of students enrolled and the acquired structure selected for training. The Application time documented is based on the maximum class size identified in the Course Details section.
5. Summative Assessments are determined and scheduled by the authority having jurisdiction. These are not the written or psychomotor State Fire Training certification exams. These are in-class assessments to evaluate student progress and calculate course grades.

Objectives

Course Objectives

1. Identify and describe the characteristics of fuels, weather, and topography that influence wildland fire behavior.
2. Describe the interaction of fuels, weather, and topography on wildland fire behavior, fireline tactics, and safety.
3. Describe the causes of extreme fire behavior conditions (long range spotting, crowning, and fire whirls) that develop due to weather, fuels, and/or topography.
4. Interpret, communicate, apply, and document wildland fire behavior and weather information.