**Summary:**

This course provides students with wildland fire behavior knowledge applicable for safe and effective fire management activities (wildfire or prescribed fire).

Students are introduced to characteristics and interactions of the wildland fire environment (fuels, weather, and topography) that affect wildland fire behavior for safety purposes.

**Incident Position Description (IPD) Alignment:**

This course aligns with the NWCG IPDs that serve as the single authoritative source for the essential duties and responsibilities of a NWCG incident position. IPDs ensure connection between the position and established operation standards. Each unit in this course will identify the related IPD statement.

For more information on IPDs visit, [https://www.nwcg.gov/nwcg-standards-management-cycle](https://www.nwcg.gov/nwcg-standards-management-cycle).

**Objectives:**

Students will be able to:

- Upon completion of the course, the student will be able to:
- Describe the basic terminology used in wildland fire.
- Identify and discuss the fire triangle.
- Identify and discuss key characteristics of the primary wildland fire environment components - fuels, weather, and topography.
- Identify critical fire weather factors that, combined with receptive fuels, may result in extreme fire behavior.
- Recognize how alignment of fuels, weather, and topography can increase the potential for extreme fire behavior.
Course at a Glance:

<table>
<thead>
<tr>
<th>Units</th>
<th>Method</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Introduction</td>
<td>Presentation</td>
<td>30 Minutes</td>
</tr>
<tr>
<td>Basic Concepts of Wildland Fire</td>
<td>Presentation</td>
<td>60 Minutes</td>
</tr>
<tr>
<td>Fuels</td>
<td>Presentation</td>
<td>60 Minutes</td>
</tr>
<tr>
<td>Temperature and Moisture Relationships</td>
<td>Presentation</td>
<td>60 Minutes</td>
</tr>
<tr>
<td>Topography</td>
<td>Presentation</td>
<td>45 Minutes</td>
</tr>
<tr>
<td>Atmospheric Stability, Winds, and Clouds</td>
<td>Presentation</td>
<td>60 Minutes</td>
</tr>
<tr>
<td>Critical Fire Weather</td>
<td>Presentation</td>
<td>60 Minutes</td>
</tr>
<tr>
<td>Alignment</td>
<td>Presentation</td>
<td>45 Minutes</td>
</tr>
<tr>
<td><strong>Total Course Duration</strong></td>
<td></td>
<td><strong>7 Hours</strong></td>
</tr>
</tbody>
</table>

Materials:

For Each Participant

- Notebooks.

Classroom

- Ability to display images and video on large screen.
- White board or easel access for group breakout.

Guides and Key

The presentations and instructor guides include notes to aid facilitators in instruction.

Key

- Indicates an action for the instructor to take.
- Indicates topics and information for the facilitator to use as they see fit.
S-190: Course Introduction

Slide 1

S-190: Introduction to Wildland Fire Behavior
### Course Objectives

- Student will be able to:
  - Describe the basic terminology used in wildland fire.
  - Identify and discuss the fire triangle.
  - Identify and discuss key characteristics of the primary wildland fire environment components - fuels, weather, and topography.
  - Identify critical fire weather factors that, combined with receptive fuels, may result in extreme fire behavior.
  - Recognize how alignment of fuels, weather, and topography can increase the potential for extreme fire behavior.

- Review course objectives.
Achievement of course and unit objectives is measured using one or more of the following methods:

- Class or group discussion
- Instructor or coach observation and feedback
- Knowledge checks
- Knowledge assessment
- Skill assessment
- Course Evaluation Task Sheet
Course Overview

Unit 1: Basic Concepts of Wildland Fire
Unit 2: Fuels
Unit 3: Temperature and Moisture Relationships
Unit 4: Topography
Unit 5: Atmospheric Stability, Winds, and Clouds
Unit 6: Critical Fire Weather
Unit 7: Alignment
## Course Materials

- *Incident Response Pocket Guide (IRPG), PMS 461*
- *NWCG Glossary of Wildland Fire, PMS 205*
- *Fire Weather Cloud Chart, PMS 438*
- Notebook
- *S-190 Student Evaluation Task Sheet*
The S-190 Student Evaluation Task Sheet should be completed throughout the course. Instructors will review it with the students at the end of the course.
Course Objectives

Student will be able to:
• Describe the basic terminology used in wildland fire.
• Identify and discuss the fire triangle.
• Identify and discuss key characteristics of the primary wildland fire environment components - fuels, weather, and topography.
• Identify critical fire weather factors that, combined with receptive fuels, may result in extreme fire behavior.
• Recognize how alignment of fuels, weather, and topography can increase the potential for extreme fire behavior.