



FOR 110 Wildland Fire Science I
2 Credits
College Now/CTE
Student Outcome Checklist
cocc.edu/departments/college-now

Student's Name _____

Student's Signature _____ Completion Date _____

High School Teacher's Signature _____ Date _____

Recommended Grade _____ High School _____

COCC Review Instructor's Signature _____

COURSE DESCRIPTION: Introduction to Wildland Fire Suppression, course will introduce students to modern wildland firefighting, history, policy evolution, organization, fire behavior, strategy, tactics, safety, equipment, mobilization and large fire support.

INSTRUCTIONS: To receive credit, students must complete all reading assignments, successfully complete the outcomes, and complete the quizzes and exams.

INSTRUCTOR REQUIREMENTS: High school teachers will meet with a COCC instructor to review the course objectives; obtain labs, quizzes and sample exams; and discuss the depth of lecture presentations. The final exam will be prepared jointly by the high school teacher and a COCC faculty member. In addition, high school teachers will complete the teacher approval process and have a current articulation agreement with COCC prior to registering students.

REQUIRED TEXT: *Wildland Firefighting Practices*, by Joseph D. Lowe, Delmar Thomson Learning, Pub.

REQUIRED SUPPLEMENTAL READING:

Nighttime Fire Operations; handout

GRADING: A, A-, B+, B, B-, C+, C, D, F.

See [College Now Grading Policy](#).

Note: A C or better is needed for this course to count toward the Forest Resources Technology A.A.S. degree at COCC

Grading Calculations:	
Project*	25%
Weekly Quiz(s)	20% (includes field trip report)
Midterm Exam	25%
Final Exam	<u>30%</u>
Total	100%

*Projects will be assigned on the second week of the course. They will consist of paring students into two person teams, researching a specific wild fire event and providing a short but professional presentation and report on the last lab period of the class.

Grade Calculation

	Percent Score		Weight		
Competencies	_____	x	25%	=	_____
Quizzes	_____	x	20%	=	_____
Midterm Exam	_____	x	25%	=	_____
Final Exam	_____	x	<u>30%</u>	=	_____
TOTAL			100%	=	_____ Percent

RECOMMENDED LETTER GRADE:

_____ (Record here and on page 1)

GRADING SCALE:

A 94-100%	B 84-86%	C 70-76%
A- 90-93%	B- 80-83%	D 60-69%
B+ 87-89%	C+ 77-79%	F 59% and below

REQUIRED COMPLETION DOCUMENTATION: When the student has successfully completed all outcomes, the high school teacher will:

1. Mail or deliver the completed and signed course outcome checklist to: College Now Office, Central Oregon Community College, 2600 NW College Way, Bend, OR 97703.
2. Contact Bret Michalski at (541) 383-7756 or bmichalski@cocc.edu to make arrangements for the final exam.
3. Bret Michalski will be responsible for the final grade roster.

ASSIGNED READINGS: The student will complete the following readings and answer the quiz questions at the end of each chapter:

	Percent Score
Chapter 1-Ground and Air Resources Used on a Wildland Fire <i>Chapter 1 Quiz Score:</i>	_____
Chapter 2-Wildland Fire Behavior <i>Chapter 2 Quiz Score:</i>	_____
Chapter 3-Safety on Wildland Fires <i>Chapter 3 Quiz Score:</i>	_____
Chapter 4-Water Supplies <i>Chapter 4 Quiz Score:</i>	_____
Chapter 5-Tactics and Strategy <i>Chapter 5 Quiz Score:</i>	_____
Chapter 6-Engine Company Operations <i>Chapter 6 Quiz Score:</i>	_____
Chapter 7-Handcrew Operations <i>Chapter 7 Quiz Score:</i>	_____
Chapter 8-Backfire/Burnout Basics <i>Chapter 8 Quiz Score:</i>	_____

Chapter 9-Bulldozers and Tractor Plows
Chapter 9 Quiz Score: _____

Chapter 10-Firefighting Aircraft
Chapter 10 Quiz Score: _____

Chapter 11-Class A Foam and Fire-Blocking Gels
Chapter 11 Quiz Score: _____

National Fire Plan
National Fire Plan Quiz Score: _____

Chapter 12-Use of the Global Positioning System and Maps
Chapter 12 Quiz Score: _____

Chapter 13-The Incident Command System and ICS Forms
Chapter 13 Quiz Score: _____

Appendix A/ Aids to Determining Fuel Models
Appendix A Quiz Score: _____

Total Quiz Scores: _____

Average of Quiz Scores: Total Score ÷ 16 = _____ Percent
 (Record here and on page 2)

Teacher's Signature _____ **Date** _____

OUTCOMES

1. Identify major U.S. wildfires and how they effected and shaped U.S. Fire Policy.
2. Understand current wildland fire policy.
3. Working knowledge of basic wildland fire physics.
4. Identify and describe common fuel types.
5. Understand, discuss and have a working knowledge of current fireline safety practices.
6. Understand and describe the National Incident Management System (NIMS) its development and current configuration.
7. Hand tool use and maintenance.
8. Crew composition, structure and management.
9. Understand basic wildfire tactics, size-up, initial attack, mop-up, patrol. Includes mechanized and aerial attack.
10. Identify and understand principals of defensible space as it applies to the western states wildland/urban interface.
11. Understand large fire support, both operational and logistical.
12. Understand and apply principals of wildland fire situational awareness through review and study of past near misses and fireline fatalities. (Class project)

Topics and Assignments

Week 1: Introduction, important U.S. Wildfires and how they shaped national fire policy.
 Current wildland fire policy and local examples.
 Lab: visit area fires sites, discuss fuel types, basic fire ecology, wildland urban interface and national and state strategies.
 Reading Assignment: H/O 1 National Fire Policy, Chapter 2 “Wildland Fire Behavior”, appendix A fuel models.

Week 2: Wildland fire physics.
 Lab: S-190, fuel types, topography, Haines Index, belt weather kit, time-lag fuels and 10 hour fuel moisture readings, discussion of Rx burning prescriptions.

Reading Assignment: Chapter 3 “Safety of Wild Fires”

- Week 3: Fireline Safety, 10/18/LCES... history, application and “how to apply each”
Lab: Field Trip to COIDC, focus on daily operation, large fire support, prediction systems, mobilization, and local, regional and national coordination. Touch on A/C, expanded and MAC.
Reading assignment: Chapter 13, Appendix B (IAP) and WFS; WFDSS, (HO).
- Week 4: ICS/NIMS, history and evolution, organization, IAP, command and general staff.
Lab: Visit RAC, Hot Shots, Training Unit, Fire Cache, Smokejumper Unit, Air Tanker Base.
Assignment: review for Mid-Term
- Week 5: Mid-Term
Lab: Hand tool, identification, use and maintenance.
Assignment: Read Chapter 7, 1, 4
- Week 6: Crew Composition, water handling equipment, crew, engine, and dozer typing.
Lab: Field trip, Rural Engine Station/ Wildland Engine Station.
Assignment: Read Chapter 5, 6, 8
- Week 7: Tactics
Lab: Application of fire suppression tactics; direct vs. indirect, Visit field locations (sand table exercises).
Assignment: Read Chapters 9, 10
- Week 8: Air Operations
Lab: A/C identification, strategic and tactical use (costs)
Assignment: Wildland Urban Interface (H/O)
- Week 9: The Wildland/Urban Interface laws, defensible space, fire free, and the National Fire Plan.
Lab: Class presentations and course review.
- Week 10: Class presentations, review for final exam.