

Forest Fires : Risks and Management

PSL-EPHE Courses of the Master SDV Biodiversity-Environment Track

PSL-EPHE Courses of the Certificate in Forest fires

From October 26 to December 4, 2026

Forest fire. Risk and management – Level 1: Week 1/2

Courses located at the University of Montpellier

26/10/2026 to 30/10/2026	Monday 26	Tuesday 27	Wednesday 28 Lake	Thursday 29	Friday 30
09:00 am	HELY : Introduction PART 1: Combustion process; Environmental drivers ; Fire regime concept ; fire behaviour and models	DUPUY (visio in the classroom): Introduction PART 2: Basic fire processes Fire behaviour Fire behaviour model overview	BREMOND + HELY <u>Field visit – Lake</u> Fires History with macrocharcoal analysis	MOUILLOT + HELY Practical work Fire databases (USA, Canada, and Promethée) Homework	MOUILLOT + HELY Practical work Remote sensing databases (EFFIS, MODIS, VIIRS, GABAMS, Fire Atlas)
12:30 pm					
02:00 pm	MOUILLOT Plant functional traits and fire : pyro- ecophysiology	MOUILLOT : Fire observations : Census data	BREMOND : Practical work Fires History with macrocharcoal analysis Experiments in Lab with data analysis	MOUILLOT : Fire observations : remote sensing data	HELY : Weekly evaluation
05:30 pm					

Forest fire. Risk and management – Level 1: Week 2/2

Courses located at the University of Montpellier

02/11/2026 to 06/11/2026	Monday 02	Tuesday 03	Wednesday 04	Thursday 05	Friday 06
09:00 am 12:30 pm	BROSSIER+HELY : <u>Field visits</u> Fires History - dendrochronology: 1989 and 2010 Montaud fires, landscape analysis with sampling	HELY : Participant presentations	HELY : Practical work Fire weather hazard indexes From theory to application using R	OLIVERAS MENOR + HELY Fire impacts on Fauna Biodiversity	DHERBECOURT : Gouvernance in forest fire management
02:00 pm 05:30 pm	BROSSIER+HELY : Fires History- dendrochronology: Sampling analysis, Experiments in Labs	HELY : <u>field trip near univ.</u> TD-TP on fuel sampling methodologies	HELY : Practical work Exercises with BehavePlus to test the effects of different factors on fire behavior	HELY : Practical work Exercises with BehavePlus to test the effects of factors and fire behavior on tree mortality (DBH, crown basis, bark thickness)	HELY : weekly Evaluation

Forest fire. Risk and management – Level 2: Week 1/2

Courses located at the University of Montpellier

09/11/2026 To 13/11/2026	Monday 09	Tuesday 10 Nîmes	Wednesday 11	Thursday 12	Friday 13
09:00 am 12:30 pm	LAHAYE & SAHARJO (visio in the classroom online from Indonesia): International networks and initiatives on forest fires (GWFN, ASEAN Initiative for FFM, NET-PEAT) European level Informal networks French network on Prescribed burns	BISCAY + HELY <u>Field visit in Nîmes</u> Visit of the air base Aerial coordination and air assets; aerial surveying by plane and drone applied to vegetation fires	Holiday... Suggestion... Reading selected scientific papers to prepare presentation for next Friday	REYMOND Methods and approaches to create and manage fire and fuel breaks (DFCI, prescribed burning, pastoralism)	SYAUFINA (visio in the classroom online from Indonesia): Peatland fires in Indonesia – Part 1: Peatlands Part 2: Fires causes & impacts Part 3: Fire management, from suppression to prevention
02:00 pm 05:30 pm	BARBERO (visio in the classroom) : climate, teleconnexions, projections, megafires, macroscale + distribution of selected scientific papers per group	GIROUD <u>Field visit in Nîmes</u> forest fire risk prevention plan (PPRIF) and its positioning in relation to the local urbanization plan (PLU) Drones	Holiday... Suggestion... Reading selected scientific papers to prepare presentation for next Friday	REYMOND Pre- and post-fire approaches in France : Spatialization of forest areas and fuels, restoration of burned areas	HELY : weekly Evaluation

Forest fire. Risk and management – Level 2: Week 2/2

Courses located at the University of Montpellier

16/11/2026 to 20/11/2026	Monday 16	Tuesday 17	Wednesday 18	Thursday 19 Perpignan	Friday 20
09:00 am 12:30 pm	SAHARJO (visio in the classroom online from Indonesia): Strengthening regional network on minimizing Haze problem ; GHG emissions from Indonesian peatland fires + work on group presentation	SAHARJO (visio in the classroom online from Indonesia): Sustainable forest management : is it mission impossible ? Use of fire by communities in Indonesia UYTTEWAAL (visio in the classroom online from Spain): Traditional Fire Knowledge from Mediterranean region	HELY Practical work Exercises with Flammap & Firesite for landscape fire analysis	HELY <u>Field visit near Perpignan</u> Landscape Management Prescribed burned areas maintenance Grazing contracts	HELY : Ecosystem dynamics, fires, forest : lessons from the past for sustainable forest management in Canadian boreal forest
02:00 pm 05:30 pm	SCHMIDT (visio in the classroom) Online from Brazil fire use in Brazilian cerrados and consequences on the emissions budget and burned areas	ANNESI-MAESAN Smoke & haze impacts on heath LEONELLI (visio in the classroom) Online from Corsica Fire potential toxicity for operational teams; biomarkers	LAHAYE extreme fire events: definition, drivers, behavior, impacts	HELY <u>Field visit near Perpignan</u> Landscape Management Prescribed burned areas maintenance Grazing contracts	HELY+ BARBERO : Exam

Forest fire. Risk and management – Level 3: Week 1/2

Courses located at Valabre (near Marseille) or Nîmes

Civil Protection officers

23/11/2026 to 27/11/2026	Monday 23	Tuesday 24	Wednesday 25	Thursday 26	Friday 27
09:00 am	Fire suppression strategy and doctrine	Data collection, intelligence Command System	Practical study #1: Lessons learned from a recent large scale fire	CEREN : Fire behaviour experiment	Field Visit Regional command centre
12:30 pm	Ground and aerial fire suppression means	Interagency coordination	chemical retardants	Practical study #3: Lessons learned from a recent large scale fire	
02:00 pm	Fire suppression tactics	Integrated fire management framework	Practical study #2: Lessons learned from a recent large scale fire	Practical study #4: Lessons learned from a recent large scale fire	Evaluation Forest fires analysis
05:30 pm		Training & education framework			

Forest fire. Risk and management – Level 3: Week 2/2

Courses located at Salles (near Bordeaux)

Civil Protection officers

30/11/2026 to 04/12/2026	Monday 30	Tuesday 01	Wednesday 02	Thursday 03	Friday 04
09:00 am	Production forests and coniferous massifs threatened by forest fires:	Ignition, development and behavior of fires in forests: an operational response adapted to the specific characteristics of the area and an essential inter-service dimension.	<u>Field visit:</u> Presentation of basic manoeuvres and basic equipment;	2022 RETEX (+ an introduction to the most important fires in history and historical landmarks)	<u>Field visit</u> CODIS : Massif Monitoring Centre
12:30 pm	From the French panorama to the example of the Landes de Gascogne		Continuation of doctrine presentation and OPS implementation		« La Teste » forest fire example Arcachon / Dune du Pilat / CIS Pyla visit
02:00 pm	Forest Fire Regulations and Climate Change	Types of fire	<u>Field visit:</u> Permanence of water; Use of aerial resources; Ground fires; Edge treatment ;	Tactical cuts; Tactical fires; Farmers and volunteers;	European / international Coordination
05:30 pm	Forest Management / Planning / Forecasting / Prevention → Future Forest Challenges	Stand dynamics and harvesting phases Soil type Seasonality	Introduction to tactical fires and tactical cutting	Reception of national and international reinforcements; Evacuations/containment; Ground fires; Lessons learned and avenues for development (organization, equipment, training)	Geomatics applied to forest fires Home work topic Distributed