

**Proyecto/Guía docente de la asignatura***Project/Course Syllabus*

Se debe indicar de forma fiel cómo va a ser desarrollada la docencia. Esta guía debe ser elaborada teniendo en cuenta a todo el profesorado de la asignatura. Conocidos los espacios y profesorado disponible. Los detalles de la asignatura serán informados por el Campus Virtual.

Se recuerda la importancia que tienen los comités de título en su labor de verificar la coherencia de las guías docentes de acuerdo con lo recogido en la memoria de verificación del título y/o en sus planes de mejora. Por ello, **tanto la guía, como cualquier modificación** que sufra en aspectos “regulados” (competencias, metodologías, criterios de evaluación y planificación, etc..) deberá estar **informada favorablemente por el comité** de título **ANTES** de ser colgada en la aplicación web de la UVa. Se ha añadido una fila en la primera tabla para indicar la fecha en la que el comité revisó la guía.

The syllabus must accurately reflect how the course will be delivered. It should be prepared in coordination with all teaching staff involved in the course and once the available teaching spaces and instructors are confirmed. Specific details regarding the course will be communicated through the Virtual Campus.

It is important to recall the key role of the Degree Committees in verifying the coherence of course syllabi with the official degree verification report and/or any improvement plans. Therefore, the syllabus — as well as any changes affecting “regulated” aspects (such as learning outcomes, teaching methods, assessment criteria, and course schedule) — must receive prior approval from the Degree Committee BEFORE being published on the UVa web application. A new row has been added to the first table to indicate the date on which the Committee reviewed the syllabus.

Asignatura <i>Course</i>	Sustainable Forest Management of Forest Pest and Diseases: Case Studies		
Materia <i>Subject area</i>			
Módulo <i>Module</i>			
Titulación <i>Degree Programme</i>	Degree in Forest Engineering and Natural Environment International Semester on Forestry		
Plan <i>Curriculum</i>		Código <i>Code</i>	75034
Periodo de impartición <i>Teaching Period</i>	Segundo cuatrimestre	Tipo/Carácter <i>Type</i>	OP
Nivel/Ciclo <i>Level/Cycle</i>	GRADO	Curso <i>Course</i>	4
Créditos ECTS <i>ECTS credits</i>	3		
Lengua en que se imparte <i>Language of instruction</i>	English		
Profesor/es responsable/s <i>Responsible Teacher/s</i>	Julio J. Díez Casero https://orcid.org/0000-0003-0558-8141 Alba Díez Galán https://orcid.org/0000-0002-2721-0388		
Datos de contacto (E-mail, teléfono...) <i>Contact details (e-mail, telephone...)</i>	jdcasero@pvs.uva.es 979108420		
Departamento <i>Department</i>	Degree in Forest Engineering and Natural Environment International Semester on Forestry		
Fecha de revisión por el Comité de Título <i>Review date by the Degree</i>	28 de junio de 2026		



Committee

En caso de guías bilingües con discrepancias, la validez será para la versión en español.
In the case of bilingual guides with discrepancies, the Spanish version will prevail.

1. Situación / Sentido de la Asignatura

Course Context and Relevance

1.1 Contextualización

Course Context

The forest masses, which represent one of the most valuable ecosystems for our societies, are subject to numerous biotic and abiotic threats that put their evolution and survival. Unfortunately, new additions have been added in recent decades even more serious threats, derived from climate change and the introduction of species invasive aliens that are very destructive. To deal with all these problems, the Forest health requires the integrated application of tools and methods that minimize harm caused by these with the least possible alteration of forest ecosystems, promoting the natural mechanisms of pest control. The subject of *Sustainable Forest Management of Forest Pest and Diseases: Case Studies* is proposed that the student becomes familiar and with the practical application of the materials and methods available in the integrated management of specific phytosanitary problems, both native origin as foreign.

1.2 Relación con otras materias

Connection with other subjects

1.3 Prerrequisitos

Prerequisites

Plagas y Enfermedades Forestales, Manejo de Plagas y Enfermedades or other forests protection issues are welcome.

English language skills for reading, speaking and writing are needed.

2. Resultados del proceso de formación y de aprendizaje (RD 822/2021) o competencias (RD 1393/2007)

Learning outcomes (RD 822/2021) or competences (RD 1393/2007)

Para los planes de estudio al amparo del RD 822/2021 deben completarse conocimientos o contenidos, habilidades o destrezas y las competencias.

Para los planes de estudio al amparo del RD 1393/2007 deben completarse las Competencias Generales y las Competencias Específicas.

For study programmes under RD 822/2021, it is necessary to specify knowledge or content, skills or abilities, and competences.

For study programmes under RD 1393/2007, General Competences and Specific Competences must be included.

2.1 (RD822/2021) Conocimientos o contenidos

Knowledge or content



2.2 (RD822/2021) Habilidades o destrezas

Skills or abilities

2.3 (RD822/2021) Competencias

Competences

2.1 (RD1393/2007) Competencias Generales

General Competences

2.2 (RD1393/2007) Competencias Específicas

Specific Competences



3. Objetivos

Course Objectives

By the end of the course, students should be able to:

Assess the suitability of appropriate sustainable methods of integrated management to solve problems specific forest phytosanitary measures currently relevant.

Practice the application of specific techniques for the prevention and sustainable protection against damage caused by harmful biotic and abiotic agents are especially important in our ecosystems forestry

4. Contenidos y/o bloques temáticos

Course Contents and/or Modules

Bloque 1: Sustainable Forest Management of Forest Pest and Diseases: Case Studies

Carga de trabajo en créditos ECTS: 3
Workload in ECTS credits:

a. Contextualización y justificación

a. Context and rationale

b. Objetivos de aprendizaje

b. Learning objectives

Described in section 3

c. Contenidos

c. Contents

* The above information is a guide and might be subject to little changes.

a. Topics:

1. Management of foliar diseases: *Dothistroma septosporum*.
2. Management of canker diseases: Biological Control of Chestnut Blight.
3. Management of canker diseases: Pine Pitch Canker.
4. Integrated Management of Oomycetal Diseases: *Phytophthora alni* and *P. cinnamomi*.
5. Integrated Management of Pine Wood Nematode.
6. Integrated Management of Bark Beetles,
7. Integrated Management of Pine Cone Pests.
8. Integrated Management of Invasive Alien Species.

d. Métodos docentes

d. Teaching and Learning methods

- Theoretical Lectures.
- Practical Lectures.



- Scientific Discussion by Seminars.
- Individual Work with Oral Presentation.
- Field Trips.
- Research and Diagnostic Center Visits.

e. Plan de trabajo

e. Work plan

f. Evaluación

f. Assessment

Individual assignments should be sent to Campus Virtual (lecturer will indicate the preferred method).

The mandatory laboratory reports must follow the indicated format (an example will be given in class) and its submission will be mandatory in order to pass the course. They must be printed for submission.

The final report is also mandatory (following the format that will be delivered in class), as well as its defense through an oral presentation of about 10 minutes with visual support in PowerPoint or similar software. Instructions will be provided throughout the course. Final report must also be printed for submission.

g Material docente

g Teaching material

*Es fundamental que las referencias suministradas este curso estén actualizadas y sean completas. El profesorado tiene acceso, a la **plataforma Leganto de la Biblioteca** para actualizar su bibliografía recomendada ("Listas de Lecturas"). Si ya lo ha hecho, puede poner tanto en la guía docente como en el Campus Virtual el enlace permanente a Leganto.*

La Biblioteca se basa en la bibliografía recomendada en la Guía docente para adaptar su colección a las necesidades de docencia y aprendizaje de las titulaciones.

Si tiene que actualizar su bibliografía, el enlace es el siguiente,

<https://buc-uva.alma.exlibrisgroup.com/leganto/login?auth=SAML> (acceso mediante tus claves UVA). Este enlace te envía a la página de autenticación del directorio UVA, el cual te redirige a Leganto. Una vez allí, aparecerán, por defecto, las listas de lectura correspondientes a las distintas asignaturas que imparte ("instructor" en la terminología de Leganto / Alma). Desde aquí podría añadir nuevos títulos a las listas existentes, crear secciones dentro de ellas o, por otra parte, crear nuevas listas de bibliografía recomendada.

Puede consultar las listas de lectura existentes mediante el buscador situado en el menú de arriba a la izquierda, opción "búsqueda de listas".

En la parte superior derecha de cada lista de lectura se encuentra un botón con el signo de omisión "⋮" (puntos suspensivos), a través del cual se despliega un menú que, entre otras opciones, permite "Crear un enlace compartible" que puede dirigir o bien a la lista de lectura concreta o bien al "Curso" (asignatura). Este enlace se puede indicar tanto en el apartado "g.

It is essential that the references provided for this course are up to date and complete. Faculty members have access to the Library's Leganto platform to update their recommended reading lists. If they have already done so, they may include the permanent Leganto link both in the course syllabus and on the Virtual Campus.

The Library relies on the recommended bibliography listed in the course syllabus to adapt its collection to the teaching and learning needs of each degree programme.

To update your bibliography, please use the following link:

<https://buc-uva.alma.exlibrisgroup.com/leganto/login?auth=SAML> (access using your UVA credentials).

This link takes you to the UVA directory authentication page, which will then redirect you to Leganto. Once there, the reading lists associated with the courses you teach will appear by default ("instructor" in Leganto/Alma terminology). From this platform, you can add new titles to existing lists, create sections within them, or alternatively, create new recommended reading lists.

You can browse existing reading lists using the search bar located in the top left menu, under the "Find Lists" option.

In the top right corner of each reading list, you will find a button marked with an ellipsis "⋮" (three dots). Clicking it opens a menu that includes, among other options, the ability to "Create a shareable link", which can point either to a specific reading list or to the entire course. This link can be included in section "g. Teaching Materials" (and its subsections) of the Course Syllabus, as well as in the Bibliography



Materiales docentes" (y subapartados) de la Guía Docente como en la sección de Bibliografía correspondiente a la asignatura en el Campus Virtual Uva.

Para resolver cualquier duda puede consultar con la biblioteca de tu centro. [Guía de Ayuda al profesor](#)

section of the course page on the UVa Virtual Campus.

If you have any questions, please contact your faculty library. [Guía de Ayuda al profesor](#)

g.1 Bibliografía básica

Required Reading

- BELLOWS T.S, MEISAENBACHER C., Y REARDON R.C. (Eds). 1998. Biological control of arthropods of the Western United States: A Review and recommendations. USDA Forest Health Technology Team, FHTET-96-21, Morgantown WV.
- BENITEZ, T., RINCON, A.M., LIMON, M.C. & CODON, A.C. 2004. Biocontrol mechanisms of Trichoderma strains. International Microbiology 7(4): 249–260.
- BERRYMAN A. A. (ed.) (2002). Population cycles: evidence for trophic interactions. Oxford.
- CAMPANILE, G., RUSCELLI, A. & LUISI, N. 2007. Antagonistic activity of endophytic fungi towards Diplodia corticola assessed by in vitro and in planta tests. European Journal of Plant Pathology 117(3): 237–246.
- CAPIEU, K., STENLID, J. & STENSTROM, E. 2004. Potential for biological control of Botrytis cinerea in Pinus sylvestris seedlings. Scandinavian Journal of Forest Research 19(4): 312–319.
- CARDÉ R.T., MINKS A.K. (eds). (1997). Insect pheromone research. New directions. Chapman & Hall.
- PÉREZ, G.; DÍEZ J.J.; IBEAS, F.; PAJARES, J.A. (2008). Modelling Pine Wilt Disease Risk under a climate change scenario in North Western Spain. 269-282. En: Managing forest ecosystems: the challenge of climate change (Bravo F., LeMay V. and V Gadow K, eds.) Kluger Academic Publishers.
- PHILLIPS, DR., BURDEKIN, DA. 1982. Diseases of Forest and Ornamental trees. Mc Millan. London.
- Regulation of Microbial Pesticides in Representative Jurisdictions Worldwide. IOBC Global. Available online through www.IOBC-Global.org
- RIDWAY R. L., SILVERSTEIN R.M., INSCOE M.N. (eds.) (1990). Behavior modifying chemicals for insect management. Applications of pheromones and other attractants. Marcel Dekker.
- SMITH ET AL 1992. Manual de enfermedades de las plantas. Mundi-Prensa, Madrid.
- TATTAR T. 1989. Diseases of shade trees. Academic Press, New York.

g.2 Bibliografía complementaria

Supplementary Reading

Sugerencias de bibliografía complementaria reciente (2021-2025):

Suggested recent (2021-2025) supplementary references, proposed for review by the responsible faculty before final inclusion:

Estay, S.A. (Ed.) (2020). Forest Pest and Disease Management in Latin America: Modern Perspectives in Natural Forests and Exotic Plantations. Springer.

Nyssen, B., den Ouden, J., Bindewald, A. et al. (2024). Established Invasive Tree Species Offer Opportunities for Forest Resilience to Climate Change. Current Forestry Reports, 10, 456-486.

g.3 Otros recursos telemáticos (píldoras de conocimiento, blogs, videos, revistas digitales, cursos masivos (MOOC), ...)

Additional Online Resources (microlearning units, blogs, videos, digital journals, massive online courses (MOOC), etc.)

**h. Recursos necesarios****Required Resources**

- Theoretical Lectures.
- Practical Lectures.
- Scientific Discussion by Seminars.
- Individual Work with Oral Presentation.
- Field Trips.
- Research and Diagnostic Center Visits.

i. Temporalización**Course Schedule**

CARGA ECTS ECTS LOAD	PERIODO PREVISTO DE DESARROLLO PLANNED TEACHING PERIOD
3	Second quarter

Añada tantas páginas como bloques temáticos considere realizar.

Add as many pages as modules you plan to include.

5. Métodos docentes y principios metodológicos**Instructional Methods and guiding methodological principles**

This course consists mainly on practical activities, with 14 h of theoretical lessons and seminars, and 16 h of different practical lessons.

- (1) Theoretical lessons (8h): 4 sessions of 2h each one.** These sessions include explanations by the lecturers, and more participatory activities such as discussions and debates about doubts and programmed readings.
- (2) Seminars (4h): 2 sessions of 2h.** In which students will solve problems and questions with the lecturers' help and will present individual and team activities.
- (3) Field work (4h): 1 session of 4h.**
- (4) Lab practices (12h):** In **6 sessions of 2h** students will follow lab protocols for soil analysis. They will determine analyze the presence of different pest and pathogens, and identify different alternatives for management. Finally, students will elaborate a report and will give an oral presentation as part of the subject grading.
- (5) Oral presentation (2h): 1 session of 2h.**

Different individual assignments will be requested throughout the course, as well as reports about the laboratory practices.

The Moodle platform in the electronic campus (UVa virtual campus) will be used to deliver documents, and to propose and deliver tasks, to carry out learning activities both individually and in teams, and as a communication channel between lecturers and students and among students.

Lecturers will offer the objectives, theoretical materials, questions, practical exercises and bibliography for each topic. Solutions to proposed questions will be considered for the subject final grade.

Teaching combines theoretical and practical lectures with scientific discussion in seminars, individual work with oral presentation, field trips and visits to research and diagnostic centres. This case-study-based approach favours active, applied learning: students engage directly with real phytosanitary problems and practise the technical and communication skills needed to report and defend their conclusions.

6. Tabla de dedicación del estudiantado a la asignatura

Student Workload Table

ACTIVIDADES PRESENCIALES o PRESENCIALES o A DISTANCIA ⁽¹⁾ FACE-TO-FACE/ ON-SITE or ONLINE ACTIVITIES ⁽¹⁾	HORAS HOURS	ACTIVIDADES NO PRESENCIALES INDEPENDENT / OFF-CAMPUS WORK	HORAS HOURS
Theoretical lessons	8	Study and self-employment	35
Seminars	4	Documentation (bibliography)	10
Field work	4		
Lab practices	12		
Oral presentation	2		
Total presencial Total face-to-face	30	Total no presencial. Total non-face-to-face	45
TOTAL presencial + no presencial Total			

(6) Actividad presencial a distancia es cuando un grupo sentado en un aula del campus sigue una clase por videoconferencia de forma síncrona, impartida por el profesor. Distance face-to-face activity refers to a situation in which a group of students, seated in a classroom on campus, attends a class via live videoconference delivered by the instructor in real time.

7. Sistema y características de la evaluación

Assessment system and criteria

INSTRUMENTO/PROCEDIMIENTO ASSESSMENT METHOD/PROCEDURE	PESO EN LA NOTA FINAL WEIGHT IN FINAL GRADE	OBSERVACIONES REMARKS
Individual work with oral presentation	60%	Mandatory assignments
Assignments and participation in lessons	40%	

CRITERIOS DE CALIFICACIÓN ASSESSMENT CRITERIA

Convocatoria ordinaria. First Exam Session (Ordinary)

Students who do not reach the required minimum class attendance (**70% attendance**), who do not attend the field and laboratory practices, or who do not submit the compulsory assignments, must take an exam to pass the subject.

Convocatoria extraordinaria^(*) Second Exam Session (Extraordinary / Resit) ^(*):

Students who do not reach the required minimum class attendance (**70% attendance**), who do not attend the field and laboratory practices, or who do not submit the compulsory assignments, must take an exam to pass the subject.

(*) Se entiende por convocatoria extraordinaria la segunda convocatoria.

RECORDATORIO El estudiante debe poder puntuar sobre 10 en la convocatoria extraordinaria salvo en los casos especiales indicados en el Art 35.4 del ROA 35.4. "La participación en la convocatoria extraordinaria no quedará sujeta a la asistencia a clase ni a la presencia en pruebas anteriores, salvo en los casos de prácticas externas, laboratorios u otras actividades cuya evaluación no fuera posible sin la previa realización de las mencionadas pruebas."

<https://secretariageneral.uva.es/wp-content/uploads/>

[VII.2.-Reglamento-de-Ordenacion-Academica.pdf](#)

(*)The term "second exam session (extraordinary/resit)" refers to the second official examination opportunity.

REMINDER Students must be assessed on a scale of 0 to 10 in the extraordinary session, except in the special cases indicated in Article 35.4 of the ROA: "Participation in the extraordinary exam session shall not be subject to class attendance or participation in previous assessments, except in cases involving external internships, laboratory work, or other activities for which evaluation would not be possible without prior completion of the aforementioned components."

<https://secretariageneral.uva.es/wp-content/uploads/>

[VII.2.-Reglamento-de-Ordenacion-Academica.pdf](#)

8. Consideraciones finales**Final remarks****Attendance:**

Lessons and laboratory work are a core component of this course. Students must ensure that they are available to attend lessons and arrive punctually. They should pay close attention to the class schedule and read the material prior to each lesson. They are welcome to share new ideas during lessons and are encouraged to read related papers. **Attendance at 70% of teaching hours is mandatory to pass the subject.**

Technology in classroom:

Mobile phones are not allowed, as long as the lecturer does not indicate otherwise. Please turn off your cell phone before lessons begin. You will be asked to leave the lesson if you are using your phone.

Policy on Academic Ethics and Honesty:

The University of Valladolid (UVa) regards plagiarisms and cheating as a serious academic offense. Anyone caught cheating will automatically receive a 0/10 for the quiz/exam/assignment and will be reported to the dean. Your responsibility, besides maintaining a high standard of personal honesty, includes taking precautions to prevent others from copying your work. A student's assessed work may be reviewed with plagiarisms detection computer software. The use of other authors' work in your assignments must be properly referred and/or acknowledged.

