

Informática

Curso 2004-2005

Pedro Reina





Presentación

Objetivos del curso

El propósito de este curso es enseñar los conceptos fundamentales de la informática personal, presentándolos del modo más general posible, para que puedan ser aplicados a diversas situaciones. La audiencia a la que se orienta el curso va desde el principiante que parte de cero hasta la persona que ya conoce algo de informática y busca obtener una base más sólida y ganar amplitud de miras.

Otro propósito, tan importante como la simple transmisión de conocimientos, es la convicción del lector de que la libertad de elección y de pensamiento es más importante que la tecnología; para ello, se intentará ofrecer una visión completa del mundo de la informática personal, potenciando la utilización de software libre o gratuito.

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Orientaciones al estudiante

Aprender informática es un proceso en el que hay que conjuntar la teoría con la práctica, como en tantas otras cosas en la vida. No sirve de nada saber teoría si no se sabe cómo se lleva a la práctica y tampoco sirve de nada aprender a pulsar unas cuantas teclas si no se sabe en qué se basan esas pulsaciones. Se han plasmado por escrito las partes más teóricas para disponer de más tiempo para los contenidos prácticos; el curso consiste en la adecuada conjunción de estas dos facetas.

Se ha pretendido que estas hojas se puedan entender por sí solas. Cada una de ellas es independiente de las demás, por lo que pueden servir como referencia para consultar puntos concretos; no están numeradas, porque pueden ser modificadas en cualquier momento.

Un buen consejo a todos los principiantes: hay que leer la información que aparezca en la pantalla. Está pensada para ayudar a quien usa el ordenador, no para confundir. Si en una primera lectura algo no está claro, hay que volver a leerlo. Hay que usar la lógica y el sentido común. Las cosas están pensadas para que sean sencillas y funcionen bien; en general, esto ocurre así. Se aprende más cuando se piensa individualmente que cuando se pregunta sin más.

Es normal no comprender perfectamente todos los conceptos la primera vez que se leen; hay que practicarlos y volver a leerlos. El trabajo personal del alumno no se puede reemplazar por ningún otro método. El proceso de aprendizaje exige algo de tiempo para apreciar cómo encajan todas las partes, pero es muy gratificante llegar a apreciarlo, así como al final del curso llegar a tener la interna convicción de poder realizar más tareas informáticas y seguir avanzando en el conocimiento sin ayuda externa.

CD-ROM del curso

Este curso impreso se complementa con un CD-ROM que contiene programas y material de libre distribución, así como material didáctico adicional. El CD-ROM se puede usar y reproducir con total libertad. Para conocer su contenido hay que leer el archivo **leeme.txt** que se encuentra en el directorio raíz.

Bibliografía

Para realizar este libro se han consultado numerosos libros, revistas y material de Internet. Sin embargo, en esta bibliografía sólo se incluyen los principales libros utilizados.

- ♦ Título: **Open Sources, Voices from the Open Source Revolution.**
Autores: Varios, editado por Chris DiBona, Sam Ockman y Mark Stone.
Editorial: O'Reilly. ISBN: 1-56592-583-3
Este libro se puede obtener gratuitamente en versión electrónica.
- ♦ Título: **Linux: Instalación y primeros pasos.**
Autor: Matt Welsh.
Libro de distribución gratuita.
- ♦ Título: **Los secretos de Windows 95.**
Autores: Brian Livingston y David Straub.
Editorial: IDG Books, Anaya Multimedia. ISBN: 84-7614-802-X.
- ♦ Título: **Special Edition Using StarOffice.**
Autores: Michael Koch and Sarah Murray, with Werner Roth.
Editorial: Que. ISBN: 0-7897-1993-2
- ♦ Título: **HTML Creación de páginas Web.**
Autor: Alonso Álvarez García.
Editorial: Anaya Multimedia. ISBN: 84-415-0242-0.
- ♦ Título: **The C Programming Language.**
Autores: Brian W. Kernighan y Dennis M. Ritchie.
Editorial: Prentice Hall. ISBN: 0131103628.

Programas utilizados

Para la materialización del curso se han utilizado, principalmente, los siguientes programas:

- ♦ OpenOffice.org Writer. Procesador de textos.
- ♦ OpenOffice.org Draw. Creación y manipulación de imágenes vectoriales.
- ♦ The GIMP. Creación y manipulación de imágenes bitmap.
- ♦ Mozilla. Búsqueda de información en Internet.
- ♦ Gnome Transfer Manager. Descarga de archivos en Internet.

ClipArt

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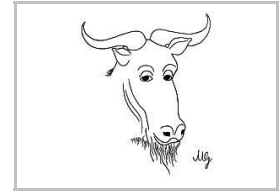
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Agradecimientos

- ♦ **Julia Rodríguez** ha corregido originales, ha aportado numerosas sugerencias para mejorar la legibilidad general y, sobre todo, es el constante apoyo sin el que el curso no existiría.
- ♦ **Carlos Palmero, Jesús García, Jesús González, César Casado y Fernando Lisón** han aportado rectificaciones técnicas y gramaticales e indicado modos de perfeccionar el curso.
- ♦ **José Usera** ha creado la ilustración principal del libro.
- ♦ **Marta Irimia, Eugenio Luján y José Usera** han colaborado con diversas traducciones.
- ♦ La asociación **Hispalinux**, especialmente **Roberto Santos**, ha apoyado con todas sus posibilidades la difusión y uso de este libro.
- ♦ Bastantes alumnos que han seguido los cursos han realizado valiosas sugerencias.

HISPA LINUX



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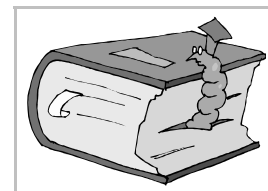
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Contenido del curso

Partes

El curso está dividido en trece partes, además de esta pequeña introducción.

Contenido

Se da a continuación una pequeña explicación para saber de qué trata cada parte.

Introducción

Breve presentación del curso y cómo se puede utilizar.

Fundamentos

Conceptos genéricos necesarios para comprender todo lo demás.

Tipografía

Tipos de letra y su utilización en informática.

GNU/Linux

Uso elemental de este sistema operativo, desde el punto de vista del usuario.

Microsoft Windows

Uso elemental de este sistema operativo, desde el punto de vista del usuario.

Internet

En qué consiste Internet, explicaciones de los distintos servicios a los que se puede acceder y cómo utilizar los programas que los aprovechan.

Suite ofimática

Concepto de suite ofimática y las primeras explicaciones generales de uso de una suite ofimática.

Diseño

Cómo utilizar una herramienta informática para trabajos de diseño vectorial.

Proceso de texto

El proceso de texto es una de las tareas para las que más se usa el ordenador.

Hoja de cálculo

Cómo usar los programas que permiten calcular y organizar información numérica que utilice fórmulas que relacionan distintos datos.

Base de datos

Los primeros conceptos necesarios para manejar bases de datos.

Multimedia

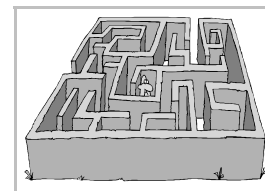
Explicaciones sobre audio y vídeo con el ordenador. Creación de presentaciones.

Creación Web

Cómo crear páginas web.

Programación

Primeros pasos para poder crear programas propios.



Itinerarios sugeridos

GNU/Linux o Microsoft Windows

Este curso de Informática puede ser seguido con pocas diferencias usando como sistema operativo tanto GNU/Linux como Microsoft Windows. Será decisión de quienes den el curso usar uno u otro. Incluso es posible utilizar ambos, para así tener un conocimiento más amplio de las herramientas informáticas. La recomendación del autor es utilizar GNU/Linux, por ser libre, gratuito, más seguro y más estable.

Niveles disponibles

El texto es lo suficientemente amplio como para poder ser aplicado en diferentes niveles de enseñanza. Como siempre, será el profesorado quien decida hasta dónde se debe profundizar en la materia; para ello puede hacer una selección de partes y de hojas así como reorganizar los contenidos.

Tecnología para la E.S.O.

Esta asignatura incluye algunos temas de informática en los cuatro cursos de la ESO. Como los temas se distribuyen de un modo diferente al de este curso, es necesario que el profesorado elija para cada curso unos contenidos diferentes. Puede servir como guía estas notas:

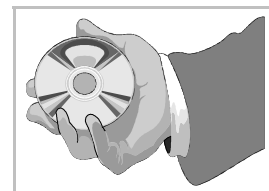
- ♦ **Primero.** Fundamentos (Componentes del ordenador personal), Suite ofimática (Aspecto general, Manejo de un documento), Proceso de texto (desde el principio hasta Impresión, más Tablas, Marcos e Imágenes), Internet (Navegación y Buscadores).
- ♦ **Segundo.** Fundamentos (Hardware), Diseño (excepto Curvas de Bézier, Transformaciones y Efectos), Hoja de cálculo, Internet (Correo electrónico y relacionadas), Creación Web (Fundamentos y Creación de páginas Web).
- ♦ **Tercero.** Fundamentos (Licencias de software y Sistemas operativos), Programación (Conceptos generales, Estilo de programación, Ciclo de vida), Base de datos, Multimedia, Creación Web.
- ♦ **Cuarto.** Fundamentos (Redes de ordenadores), Hojas de cálculo, Internet (Fundamentos técnicos, Conexión, Compresión, Tránsito de ficheros, Gestores de descargas).

Tecnologías de la Información para Bachillerato

- ♦ Introducción
- ♦ Fundamentos
- ♦ GNU/Linux
- ♦ Internet
- ♦ Suite ofimática
- ♦ Proceso de texto
- ♦ Hoja de cálculo
- ♦ Base de datos
- ♦ Creación Web
- ♦ Programación

Informática para docentes

- ♦ Introducción
- ♦ Fundamentos
- ♦ Tipografía
- ♦ GNU/Linux
- ♦ Suite ofimática
- ♦ Proceso de texto
- ♦ Internet
- ♦ Hoja de cálculo



Carátula del CD-ROM

Informática

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Informática

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Informática

Pedro Reina

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Resumen del contenido

- ♦ Programas libres para GNU/Linux y MS Windows
- ♦ Programas gratuitos para GNU/Linux y MS Windows
- ♦ Tipos de letras de libre distribución
- ♦ Muestras de audio, imágenes y vídeo
- ♦ Libro para la enseñanza de Informática
- ♦ Documentación adicional

Más información

Para ampliar información sobre el contenido del CD hay que abrir con cualquier editor de textos el archivo `leeme.txt` ubicado en el directorio raíz del CD-ROM.

Ilustración: José Usera

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