



ΠΑΝΕΠΙΣΤΗΜΙΟ
ΠΑΤΡΩΝ
UNIVERSITY OF PATRAS



Best practices for using a campus LMS

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University of Patras, Greece, 20-24/11/2017



Erasmus+

About me

<https://blogs.upatras.gr/daskalou/>

Presentation scope

- Discuss methods for teaching with technology
- Highlight the importance of course design
- Present best practices for course implementation @ LMS
- Share experiences

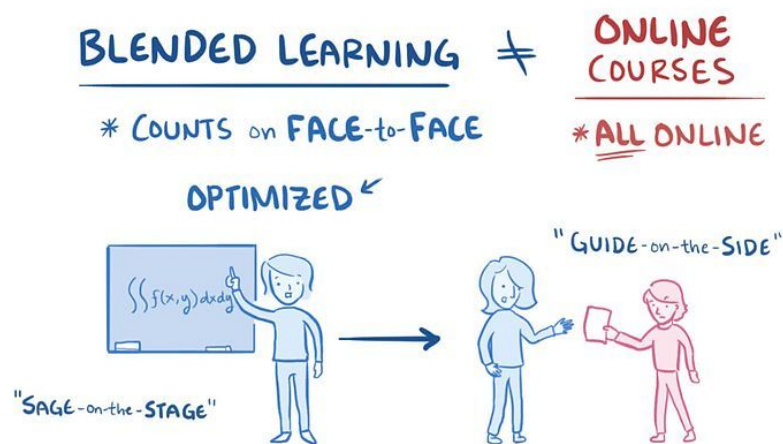
Teaching with technology

Gradients within 3 broad categories
(Siemens & Tittenberger, 2009):

1. **augmented**, where we use technology to extend a physical classroom,
 2. **blended**, where technology partly replaces in-classroom learning having one part of the course face-to-face and another part online
 3. **online** where technology entirely replaces face-to-face classroom teaching
- Upatras
standard
[under-graduate & graduate]
courses
- Upatras
special
courses

Blended learning in HE

- combines online digital media with traditional classroom methods
- requires the physical presence of both teacher and student, with some element of student control over time, place, path, or pace



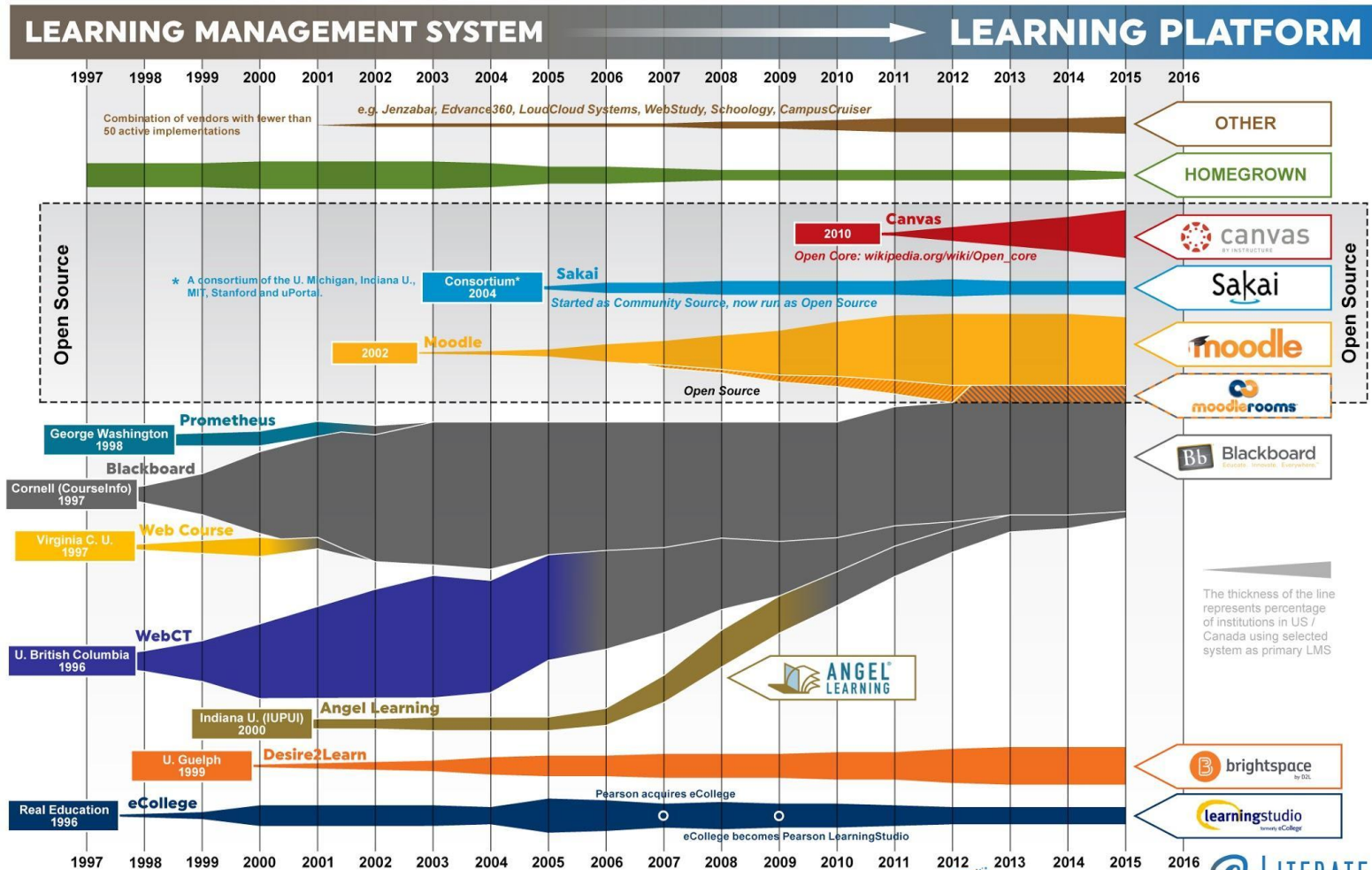
What is blended learning? By Osmosis under CC Attribution-Share Alike 4.0 International, source

<https://en.wikipedia.org/wiki/File:Blended-learning.webm>

Main tool: Campus LMS

LMS Market Share For US & Canadian Higher Ed Institutions

SPRING 2016
VERSION



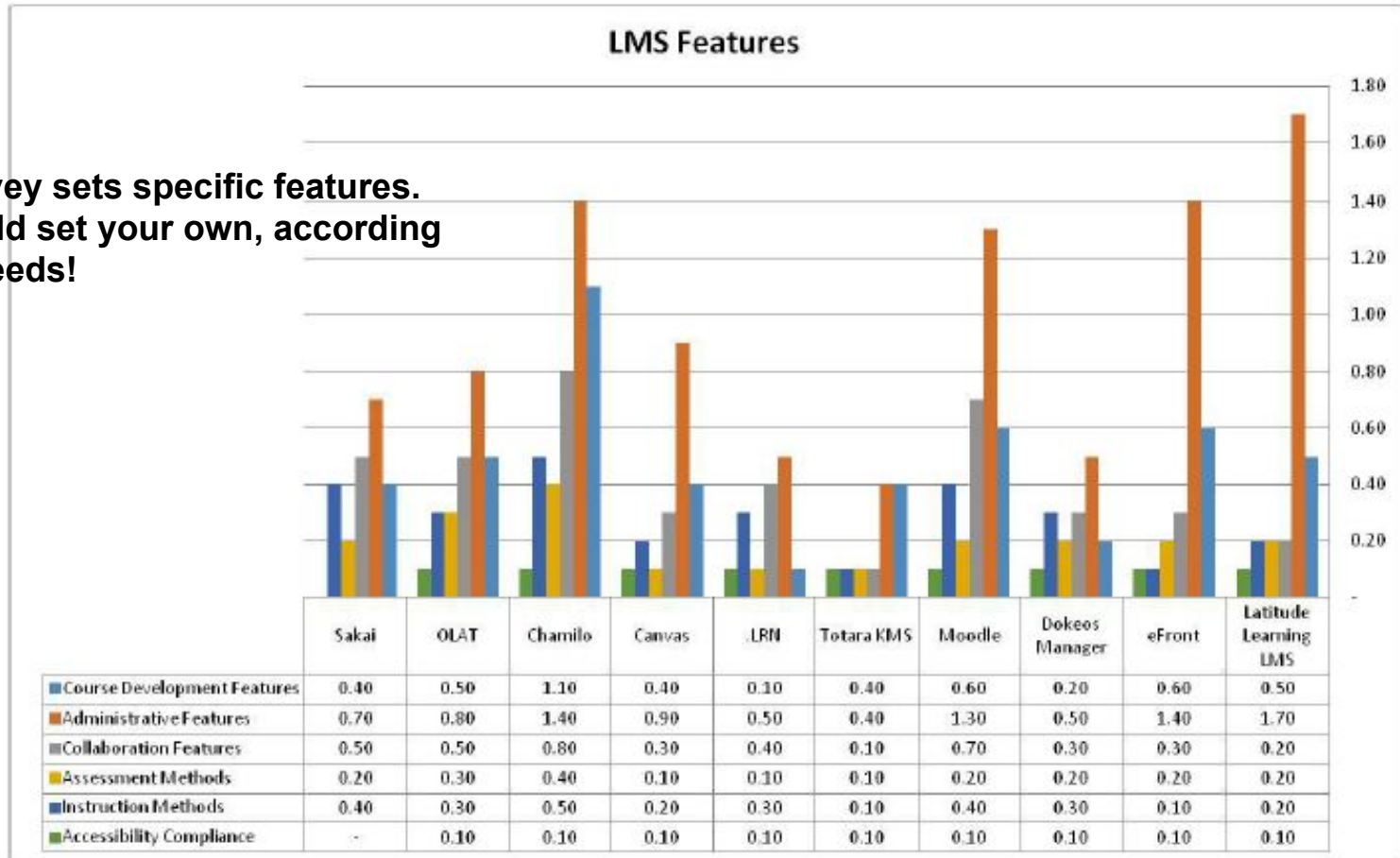
All data from LISTedTECH LMS database under agreement with MindWires Consulting

LISTedTECH delta initiative e-LITERATE
mfeldstein.com

By Phil Hill [CC BY 3.0 (<http://creativecommons.org/licenses/by/3.0>)], via Wikimedia Commons

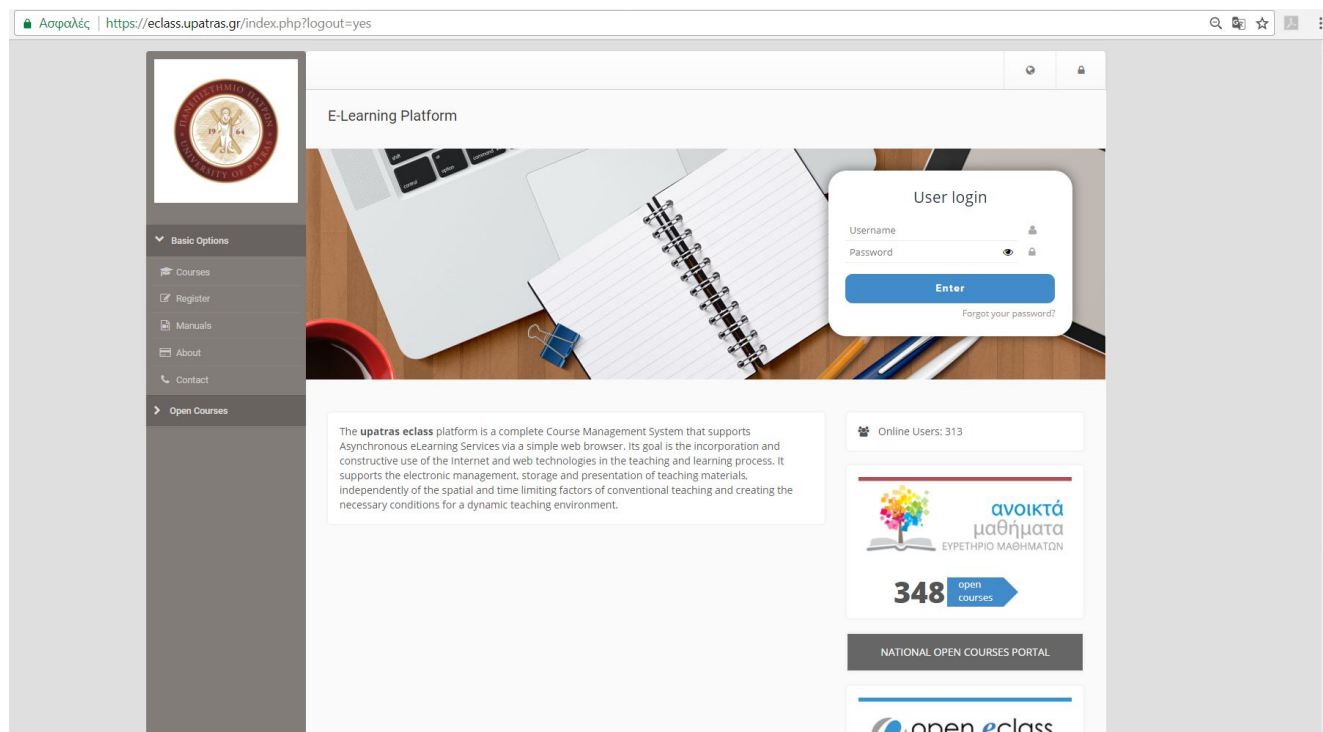
A Survey Of Top 10 Open Source Learning Management Systems

Each survey sets specific features.
You should set your own, according
to your needs!



Open LMS features comparison chart, Source: (Elabnody, 2015)

Upatras campus LMS: <http://eclass.upatras.gr/>



The screenshot displays the Upatras campus LMS interface. The browser address bar shows the URL <https://eclass.upatras.gr/index.php?logout=yes>. The page features a sidebar with navigation options: Basic Options, Courses, Register, Manuals, About, Contact, and Open Courses. The main content area is titled "E-Learning Platform" and includes a "User login" form with fields for Username and Password, an "Enter" button, and a "Forgot your password?" link. Below the login form, there is a section describing the platform as a complete Course Management System. To the right, a widget shows "Online Users: 313" and a banner for "Ανοικτά μαθήματα" (Open Courses) with "348 open courses" and the text "ΕΥΡΕΤΗΡΙΟ ΜΑΘΗΜΑΤΩΝ" (National Open Courses Portal). The "open eclass" logo is visible at the bottom right of the page.

Based on open-source platform:

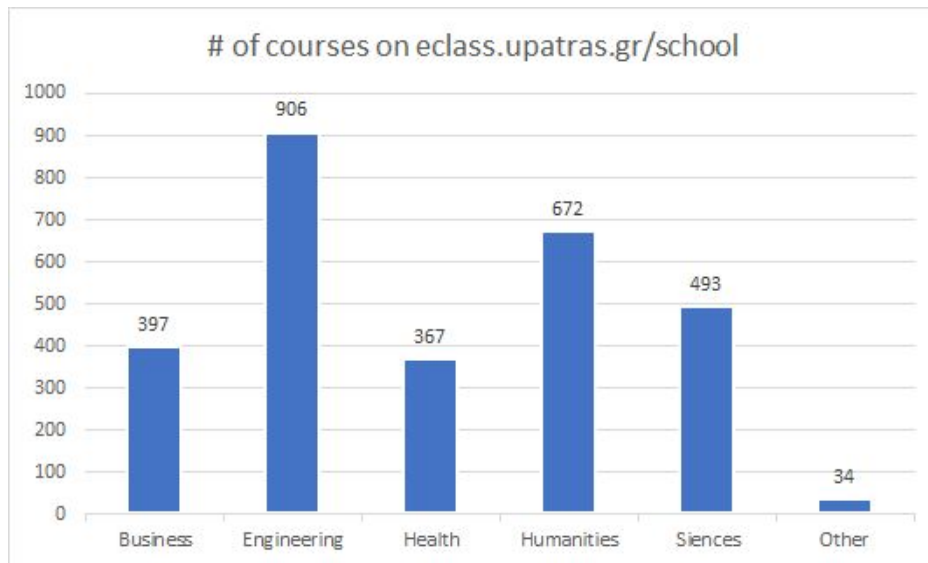


Upatras standard courses @ eclass

Only members of Upatras academic community (users having UPnet ID [username, password] in central LDAP) can become registered LMS users

- 3 types of eclass courses:
 - a. **Open Access:** access without registration (open to everybody)
 - b. **Registration required:** access only to Upatras registered users
 - c. **Closed:** only the professor can permit to Upatras registered users to access the course

Some upatras eclass statistics



Courses: 2869*

- Open Access: 1375
- Registration required: 1160
- Closed: 334

*Eclass courses & users as of 11/2017, source:
<https://eclass.upatras.gr/info/about.php>

<https://eclass.upatras.gr>
eclass.upatras.gr

[GO TO REPORT](#)

Pages

All Users
100.00% Pageviews

Nov 22, 2012 - Nov 22, 2017

Explorer

Pageviews

4,000,000

2,000,000

Janua...

January 2014

January 2015

January 2016

January 2017

Users: 54630*

- Teachers: 1057
- Students: 53395
- Guest users: 178

Eclass Google analytics @ 22/11/2017

Before creating the course
@ LMS



Design your course (Fink, 2003)

INITIAL DESIGN PHASE: Build Strong Primary Components

- Step 1. Identify important situational factors
- Step 2. Identify important learning goals
- Step 3. Formulate appropriate feedback and assessment procedures
- Step 4. Select effective teaching/learning activities
- Step 5. Make sure the primary components are integrated

INTERMEDIATE DESIGN PHASE: Assemble the Components into a Coherent Whole

- Step 6. Create a thematic structure for the course
- Step 7. Select or create an instructional strategy
- Step 8. Integrate the course structure and the instructional strategy to create an overall scheme of learning activities

FINAL DESIGN PHASE: Finish Important Remaining Tasks

- Step 9. Develop the grading system
- Step 10. De-Bug possible problems
- Step 11. Write the course syllabus
- Step 12. Plan an evaluation of the course and of your teaching

Design interesting learning activities

Passive Learning

**Receiving
Information &
Ideas**



Active Learning

Experience

*Reflective
Dialogue*

with:

Doing

Self

Observing

Others

(Fink, 2003)

Ideas for active learning activities

	Getting Information & Ideas	Experience		Reflective Dialogue with	
		<i>Doing</i>	<i>Observing</i>	<i>Self</i>	<i>Others</i>
Direct	-Primary Data -Primary sources	Real doing in authentic setting	Direct observation of phenomena	- Reflective thinking - Journaling	Dialogue (in or out of class)
Indirect, Vicarious	-Secondary data & sources -Lecture, textbooks	-Case studies -Gaming, simulations -Role play	Stories (via film, oral history, literature)		
Online	-Course @LMS -Internet	-Teacher can assign students to “directly experience ____” - Students can engage in “indirect” kinds of experience online		Students can reflect using online tools and then engage in various kinds of dialogue online	

(Fink, 2003) [edited]

Guidelines for blended & online courses

- Designing Your Online Course:
 - Know Your Learner
 - Develop Learning Goals
 - Have Clear Expectations
- Organizing Course Content:
 - Provide an obvious path through the material, and make sure guideposts are clear to the student
 - Organize the content in logical units, or modules, in which each module is organized around a major topic and contains relevant objectives, material, and associated activities.
- Facilitating Online Learning:
 - Promote metacognitive awareness.
 - Maintain a Social Presence
 - Promote Collaboration
 - Promote Active Learning
 - Incorporate Multiple Media
 - Provide Adequate Technical Support
 - Respect Copyright Rules

Source: <https://cft.vanderbilt.edu/cft/guides-sub-pages/blended-and-online-learning/>

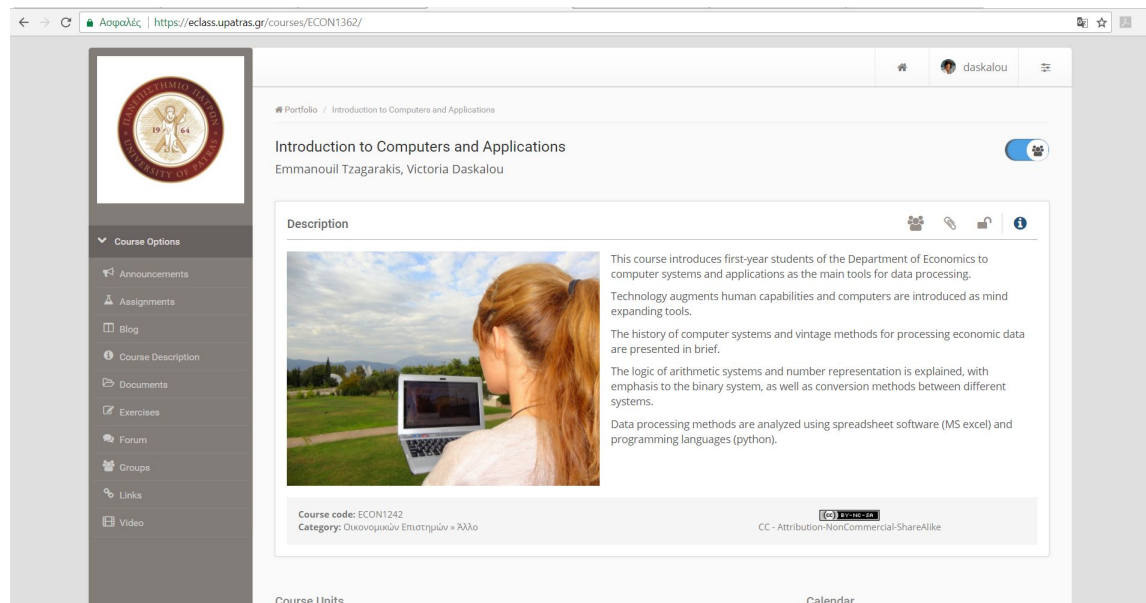
Best practices when creating course @ LMS



Best practices for standard courses @ eclass

Test drive with teacher & student role using

<https://eclass.upatras.gr/courses/ECON1362/>



The screenshot displays a web browser window with the URL <https://eclass.upatras.gr/courses/ECON1362/>. The page features the logo of the University of Patras on the left. The main content area is titled "Introduction to Computers and Applications" by Emmanouil Tzagarakis and Victoria Daskalou. A "Description" section includes an image of a student using a laptop and text describing the course content, such as "This course introduces first-year students of the Department of Economics to computer systems and applications as the main tools for data processing." and "Data processing methods are analyzed using spreadsheet software (MS excel) and programming languages (python)." The course code is listed as ECON1242 and the category as "Οικονομικών Επιστημών - Άλλο". A Creative Commons license (CC - Attribution-NonCommercial-ShareAlike) is also visible.

Introduction to Computers & Applications (student view), translated from the [Greek undergraduate open course](#) offered to 1st year students, Dept. of Economics

Include course description

- **Instructor (s)**
- **Course title**
- **Course language**
- **Target Group**
- **More about instructor**
Link to CV or short biography (up to 10 lines)
Photo of Instructor.
- **Course Overview / Description**
/Synopsis
- **Course Contents (Syllabus)**
- **Course Objectives/Goals**
Course outline and topics/ Overall Aims /Objectives Course Goals)/ Expectations (What We Will Learn to Do) /Learning Outcomes/Learning Objectives
- **Keywords**
- **Photo recommended for the course**
- **Bibliography**
Recommended verbal description that includes the following: Bibliography, Online readings, Sources on the Internet, Other relevant open courses, Articles, Films
- **Instructional methods**
Verbal description of teaching and learning methods used.
- **Assessment methods**
Verbal description of evaluation methods and evaluation criteria used.
- **Prerequisites/Prior knowledge**
Recommended verbal description that may include general prerequisites and possible preparation for completion of the course, prerequisite courses codes and links
- **Textbooks**

Organize your course in course-units

Course Units

Introduction

Course Guide and an introduction to online services of the University of Patras

Why computers?

The computer as an extension of the human mind. The historical retrospection in the processing of financial data shows the driving force that computers have provided in Economics.

Evolution of computing systems

Historical review of the evolution of computer systems and their architecture.

Number Systems and Arithmetic

The logic of number systems. Examples of conversion between different systems, with emphasis on the binary system used by computers.

Data processing with spreadsheets

Data processing techniques using MS Excel spreadsheet software.

Data processing with the programming language python

Introduction to python programming language for data processing.

Calendar

November 2017						
Sunday	Monday	Tuesday	Wedne...	Thursd...	Friday	Saturday
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	1	2

● Due day
● Course event
● System event
● Personal event

Announcements

Τελική Εργασία 1

Tuesday November 14, 2017

Άσκηση εμπέδωσης σε Λογιστικά Φύλλα I

Thu November 2, 2017

Πρώτη εργασία εμπέδωσης σε Λογιστικά Φύλλα

Friday October 27, 2017

Εργασία εμπέδωσης 2 και μάθημα για Τμήμα Α1

Friday October 20, 2017

Εβδομαδιαία άσκηση εμπέδωσης: Μετατροπές σε συστήματα αριθμη...

Friday October 13, 2017

More...

Data processing with spreadsheets

Data processing techniques using MS Excel spreadsheet software.

4.1 Basic Worksheet Functions

The basic concepts of the workbook and worksheet, cells and regions.
Types and functions.

4.1.Basic Concepts - Types and Functions MS Excel
Lecture slides

Exercises in Spreadsheets: Basics

The worksheet here shows the students' grade in a lesson. The file contains 2 columns: the semester of the student and the grade. In the grade column, the NS indicates the NOT exam. Process the data to answer the questions included in this exercise.

Exercises in Spreadsheets I

The data in the Workbook Scoreboard of the workbook here shows the student's grade in the five works of a lesson and the weight of each work in the final grade. Process the data to answer to the questions of this exercise.

4.2. Import text data - Manage tables and Searches in MS Excel

Cell reference
Importing data from text files (txt and CSV)
Manage table data and search with the INDEX () and MATCH ()

4.2. Cell References Cell-Data Import-Tables & Searches in MS Excel
Lecture Slides

Exercises in Spreadsheets II

The file here (xlsx file) and here (xls file) shows the staff of a project. For each person participating in the project, the following items are given in the columns (Name, Project Team to which he belongs, Job relationship with the project manager, Initial Contract amount and Final Contract amount in Euro). On the basis of these data, fill in the necessary columns and answer the questions.

4.3. Random data and Charts

Create random data
Charts

4.3. Random Data-Charts MS Excel.pdf
Lecture Slides

Exercises in Spreadsheets III

The data file here (MS Excel) and here (OpenOffice calc) contains the students' score in a course. The file contains 3 columns: a serial number, the semester of the student and the grade. In the grade column, the NS indicates the NOT exam. Process the data to answer the questions of this exercise.

Final Project 1: Process data with spreadsheets
The project description is given in the attached file

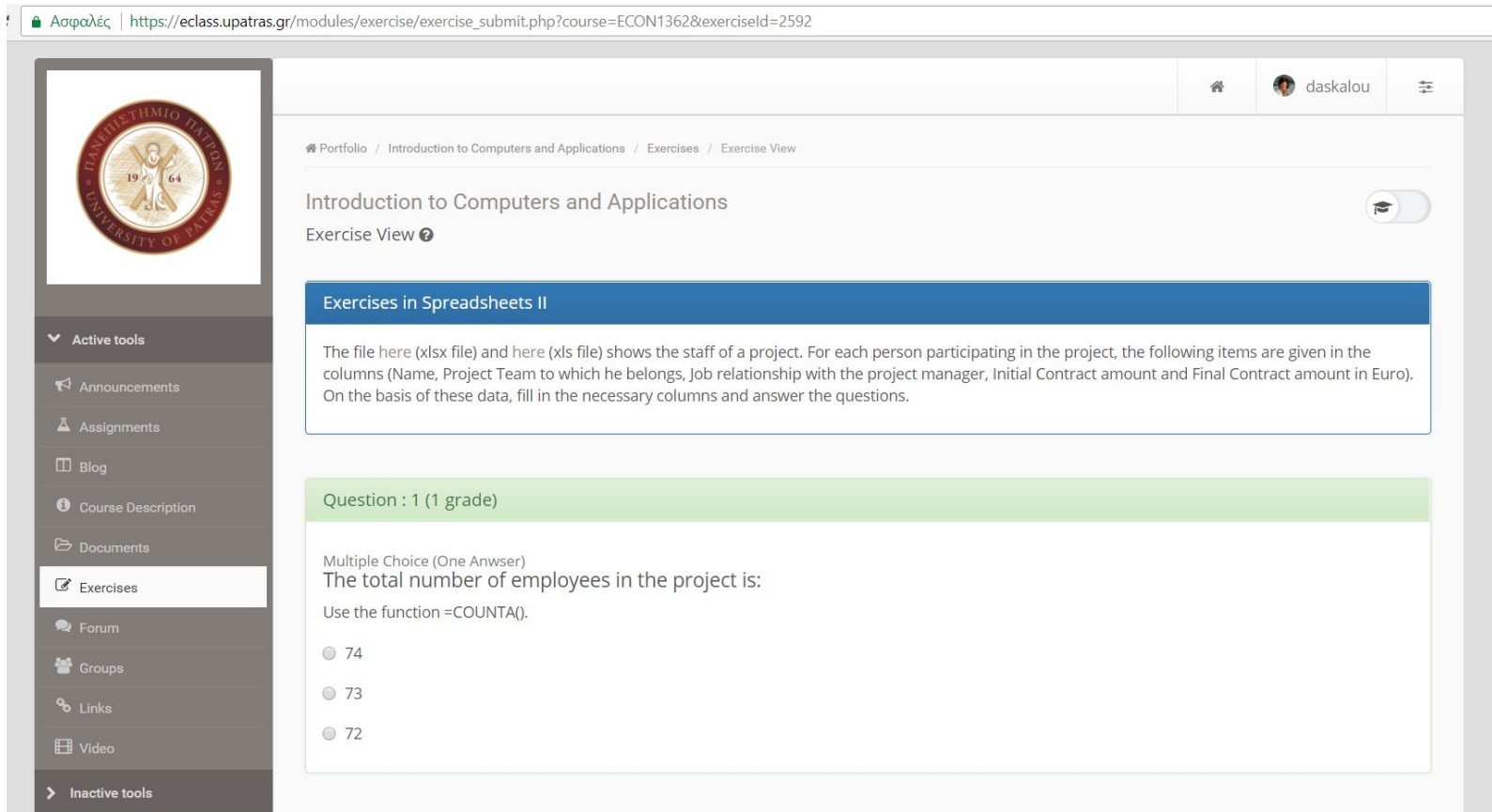
Advanced operations with Spreadsheets: Use OpenOffice Calc pivot table and chart

Mix training activities

In each course-unit mix different training activities with specific learning objectives:

- Lectures (slides, audio, video)
- Reading material
- Exercises (self-assessment quizzes)
- Assignments (projects)
- Links to additional info
- etc.

Online assessment tools for metacognitive awareness



The screenshot displays a web browser window with the URL https://eclass.upatras.gr/modules/exercise/exercise_submit.php?course=ECON1362&exerciseld=2592. The page header includes the University of Patras logo and the user name 'daskalou'. The breadcrumb trail is 'Portfolio / Introduction to Computers and Applications / Exercises / Exercise View'. The main content area is titled 'Introduction to Computers and Applications' and 'Exercise View'. A blue banner indicates 'Exercises in Spreadsheets II'. The text below the banner reads: 'The file here (xlsx file) and here (xls file) shows the staff of a project. For each person participating in the project, the following items are given in the columns (Name, Project Team to which he belongs, Job relationship with the project manager, Initial Contract amount and Final Contract amount in Euro). On the basis of these data, fill in the necessary columns and answer the questions.' A green banner indicates 'Question : 1 (1 grade)'. The question is a multiple-choice question: 'The total number of employees in the project is: Use the function =COUNTA()'. The options are 74, 73, and 72.

Weekly self-assessment exercises, i.e. quizzes (e.g. multi-choice, etc.) help students' metacognitive awareness

Use online tools for reflective activities

The screenshot shows a Moodle blog page. The main content area displays a post titled "ΑΡΧΗ ΛΕΙΤΟΥΡΓΙΑΣ" (Principle of Operation) by user ΕΙΝΑΝΙ ΚΡΕΙΜΑΝΤΑ, dated 2015-12-21 17:59:49. The post text discusses the use of magnetic storage media in computers. A sidebar on the right lists "Popular posts" such as "Οθόνι CRT(Cathode Ray Tubes)", "Οθόνες LCD", and "Δείγμα ανάρτησης". Below that is a "Blog posts history" section for December 2015, listing "ΣΚΑΗΡΟΙ ΔΙΣΚΟΙ", "Οθόνες Ααής", and "ΔΙΣΚΕΤΑ".

The screenshot shows a Moodle forum page. The main content area displays a table of forum posts under the heading "General issues".

Subject	Answers	Sender	Seen	Last message
Ζητείται συνεργασία για το project του εαρινού εξμήνου	1	Anonymous User	154	Anonymous User 01 Nov 2010 13:21
Συζήτηση για την εργασία	5	Anonymous User	380	Anonymous User 01 Nov 2010 13:02
Ergasia	0	Anonymous User	105	Anonymous User 06 Oct 2010 20:40
anapirnsi ma8imatos	1	Anonymous User	101	Anonymous User 13 Jan 2010 21:23
αριθμος λεξεων ανα σελιδα	1	Anonymous User	127	Anonymous User 23 Dec 2009 19:14

Blog or wiki for:

- Reflective thinking
- Journaling

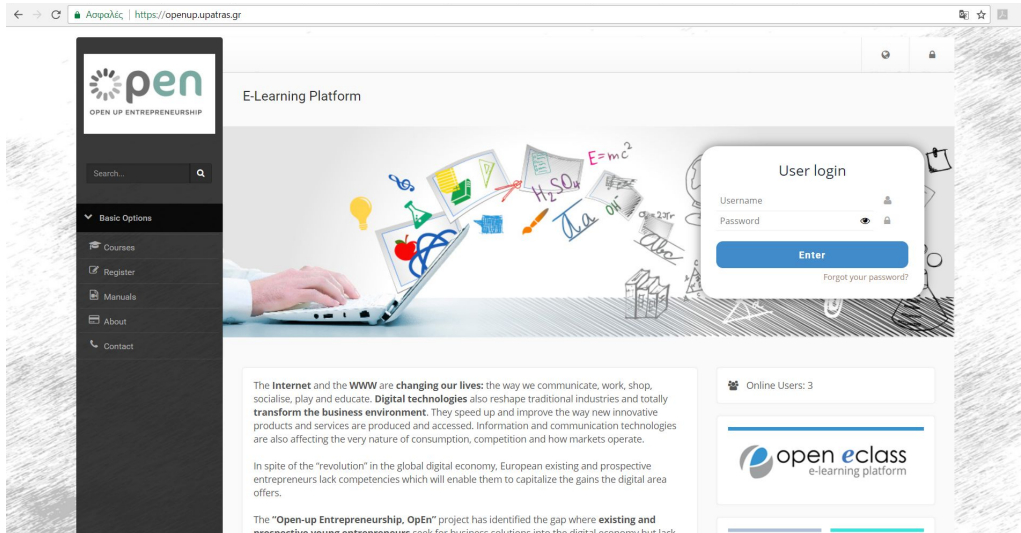
Forum or social media for:

- Reflective dialogue between (you and) your students

Best practices from Upatras special courses

Online on special platforms and for special purposes.
Different course design.

An example: Erasmus+ OpEn: [OPen-up ENtrepreneurship](https://openup.upatras.gr/)
<http://openup.upatras.gr/>



Test drive openup!

*Teacher role + student role
using the course-unit
<https://openup.upatras.gr/modules/units/?course=ENG102&id=12>*

A constructivist pedagogical approach of learning

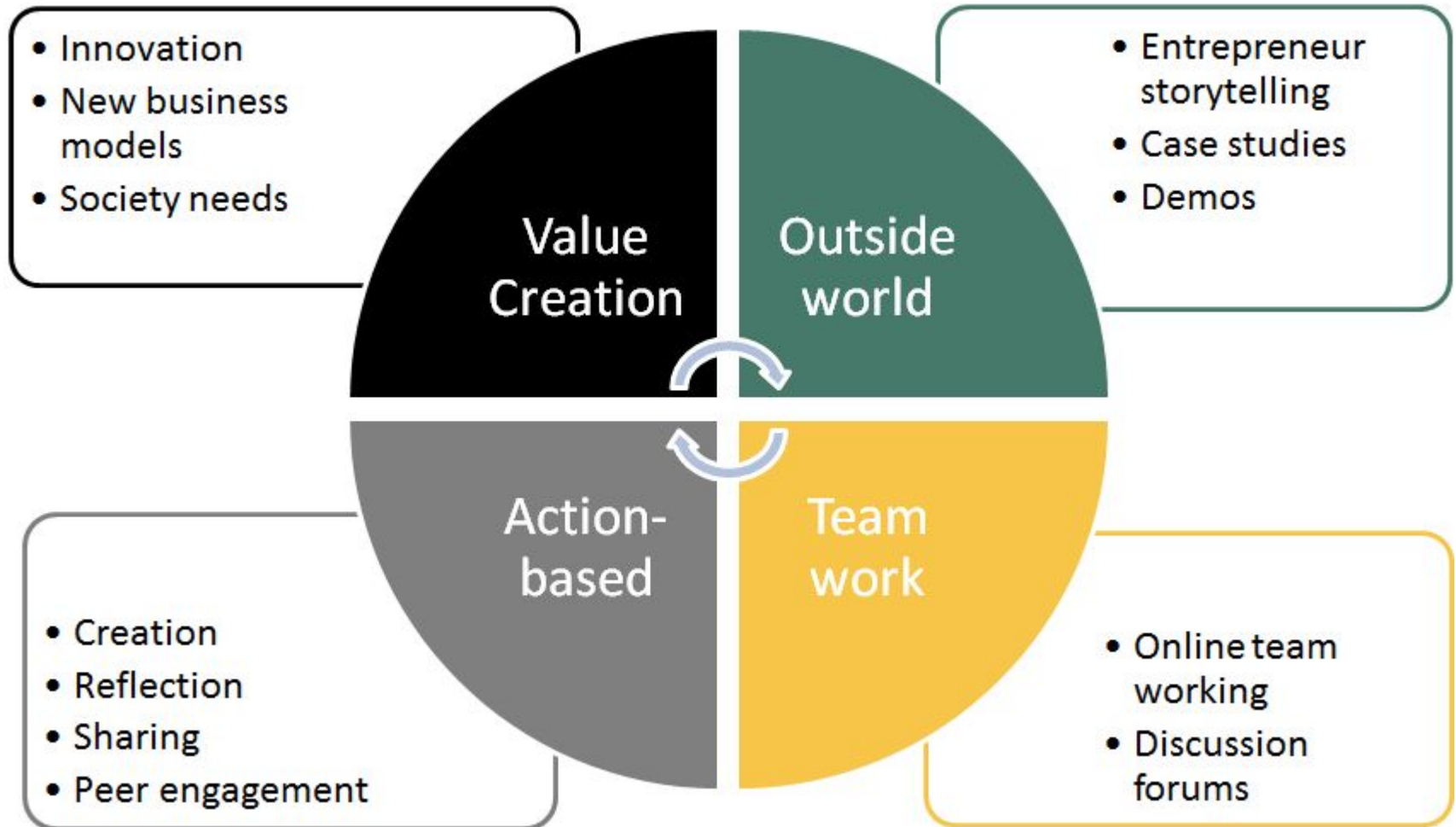
Constructivists consider learning as an active process; knowledge is not received from external sources, it is rather the outcome of the learner's interpretation and active participation in the learning process.

Constructivisms' implications for the **online learning**:

- Learning should be an active process
- Learners should construct their own knowledge, rather than accepting that given by the instructor
- Collaborative and cooperative learning should be encouraged
- Learners should be given control of the learning process
- Learners should be given time and the opportunity to reflect
- Learning should be made meaningful
- Learning should be interactive.

(Ally, 2004)

The OpEn “How”



Example of Course-unit plan for online course

3.3. Title: *Online sales*

3.3.1. Participant's Time: 1,5 h

3.3.2. Structure (list of activities):

Description of Participant's activity	Learning Objective	Technique	Eclass tool	Format of open material	Assessment	Preparation actions for educator	Original Language	Transcripts
Online sales Listen to stories of young entrepreneurs using online sales	Become familiar with online sales	Entrepreneur Storytelling	Video	Video, 1 x 3 mins	Quiz, 5 min	Arrange video interviews with young entrepreneurs or find CC video Prepare quiz	Greek	EN, ES, IT
Ways of selling online	Identify ways of using technology to sell online	Lecture Glossary	Video, Glossary	Animated slides podcasting, 5 min	Quiz, 5 min	Prepare material Prepare quiz	Greek	EN, ES, IT
Online sales in practice	View practical example of selling online	Demonstration	Video	Podcast & screen capture, 5 min	Quiz, 5 min	Prepare podcast based on existing case (shopify or jamjar)	Greek	EN, ES, IT
Online sales technology	Become familiar with technology for online sales	Team work	Documents for instructions & data Team tools (forums, etc) to discuss Blog (to share your experience)	Text to give instructions for work	Peer review through blog likes and comments	Prepare instructions Find sites of reference for technologies used in online sales	English	GR, ES, IT

Example plan for thematic unit "Online sales" of Erasmus+ "Open-up entrepreneurship" project.
Source: (Daskalou et al., 2017)

Thank you!

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Notes

Note on History of Published Version

The present work is the edition 1.0

Reference Notes

Ally, M. (2004). Foundations of educational theory for online learning. *Theory and practice of online learning*, 2, 15-44. Retrieved on 20/6/2016 from http://www.aupress.ca/books/120146/ebook/01_Anderson_2008-Theory_and_Practice_of_Online_Learning.pdf

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