OPEN eCLASS
COURSE MANAGEMENT SYSTEM

Open eClass

Asynchronous eLearning Platform

Platform Description

The **Open eClass** platform is a complete Course Management System. It is the solution offered by the Greek Academic Network GUnet to support Asynchronous eLearning Services. It is mainly designed, developed and supported by the GUnet Asynchronous eLearning Group and is distributed for free as open-source software.

Title: Platform Description (Open eClass 2.3)

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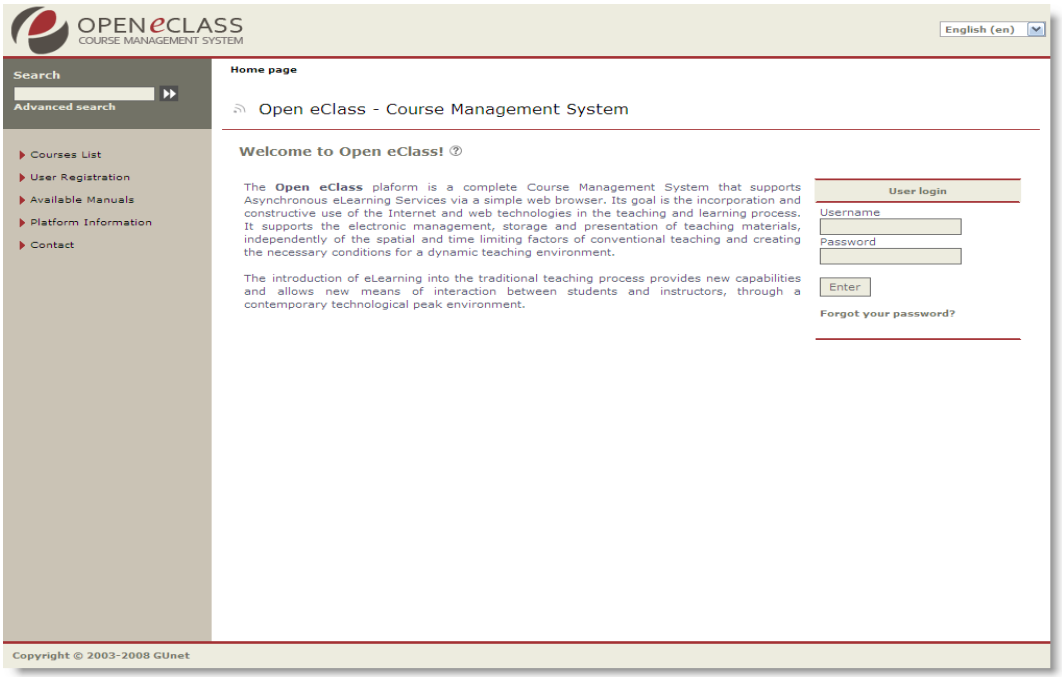
1. Introduction

Nowadays, exponential advancements in the new technologies area of Informatics and Telecommunication demand the adoption of new, flexible and operational eLearning systems which enhance and improve the educational services offered.

The Open eClass platform is a complete Course Management System and it is the solution offered by the Greek Academic Network GUnet to support asynchronous eLearning services. It has been designed with the intention to support the conventional educational process. It is actively supported by GUnet and is distributed for free as open-source software.



Pic.1. The Open eClass platform

The incorporation of asynchronous eLearning services offers new possibilities in education, providing interaction and constant teacher-student communication. It is said, at the same time, that electronic organization, storing and presentation of educational material, regardless the limiting factors of place and time of typical teaching, is supported, forming the conditions of a dynamic educational setting. The Open eClass platform is designed with the goal to bring new actions that promote its corporate utility in the already existing educational patterns into effect.

The user teacher can create practical and functional electronic courses easily and quickly, using the educational material provided (note, presentations, texts, pictures, etc). At the same time, students attain an alternative entry channel to the knowledge offered.

Finally, the Open eClass platform supports all asynchronous eLearning services without boundaries and limitations, and the platform access is achieved via a simple web browser without any demand of specialized technical knowledge.

2. Platform Philosophy

Open eClass is a mature open source e-learning platform. Its basic goal is to enhance and support educational activity, for both teachers and students, through a technological peak environment. The teacher, in particular, is offered a dynamic knowledge feeding environment, while the student is offered an alternative channel of autonomous learning, which is independent of place and time limitations. Finally the administrator is offered an open, secure and trustworthy system.

Moreover, adaptability, multilingual support, flexibility, ease in usage, enhancement and upgrade capability, free distribution without the need of usage and maintenance license, small operational requirements, independence of the server's Operating System, use of open models, incorporation with other network services, modular structure (user and course registration, access control, course creation, learning objects manipulation, administration, etc), as well as continuous technical support by GUnet, are the basic design principles for the Open eClass platform.

3. Goals - Benefits

The basic goal of the Open eClass platform is the development of educational infrastructures, independently of the spatial and time limiting factors of conventional teaching. Particularly, the main goals that are achieved through the design of the platform and the benefits they enjoy by using it are:

- Incorporation of new informatics and telecommunication technologies in educational activities for the provision of competitive high quality educational services, through a contemporary technological peak environment.
- Creation of a practical means of interaction and continuous communication between the teacher and the student.
- Exploitation of wide educational material and great educational experience.
- Constructive use of the Internet and the integral network infrastructure.
- Ease of teacher and student use for the support of people with different technical literacy and culture, still with the same high standards in the education provided.
- Provision of a low-cost, reliable, e-sight service for the asynchronous eLearning.
- Adaptability to special needs-requirements of the educational institutes.
- Ease at manipulation, enhancement and expansion.
- Free disposal and central support by the Greek Academic Network GUnet.

4. Basic Features

The basic platform features that compile its functional infrastructure are:

1. the distinct user roles
2. the distinct course categories
3. the structured presentation of the course
4. the ease at using and creating courses

4.1 User Roles

The basic platform supported user-roles are three: a) user-teacher, b) user-student and c) platform administrator.

The main role is that of the user - **teacher** who is responsible for the creation and manipulation of eCourses. His/her account is created by the platform administrators, after the teacher who is interested has applied for that. Teachers can create as many courses as they want, communicate with the students of their eCourses, introduce educational material of the eCourse (texts, pictures, presentations, videos, assignments, self-assessment exercises etc), as well as create working teams and forums.

The user **- students** can register to as many courses as they are allowed to. They can have access to the educational material contained, and take part in working teams, forums and self-evaluation exercises. Their account is created either automatically along with their registration to the platform or by the administrators, after having applied.

Finally, the platform **administrator** is the one who is in overall charge of the platform. They create and check user accounts, manage courses, attend and administer the Server and Database of the platform.

4.2 ECourse Categories

The distinguishing eCourse categories supported by the platform are three: a) open courses, b) registration open courses, and c) closed courses. The access pattern to an eCourse is defined by the teacher in charge during the creation of the course, while it can change dynamically through the interface of the eCourse administration tool. More analytically, the supported eCourse categories are the following:

Open courses are the free access courses, access to which belongs even to users with no account on the platform.

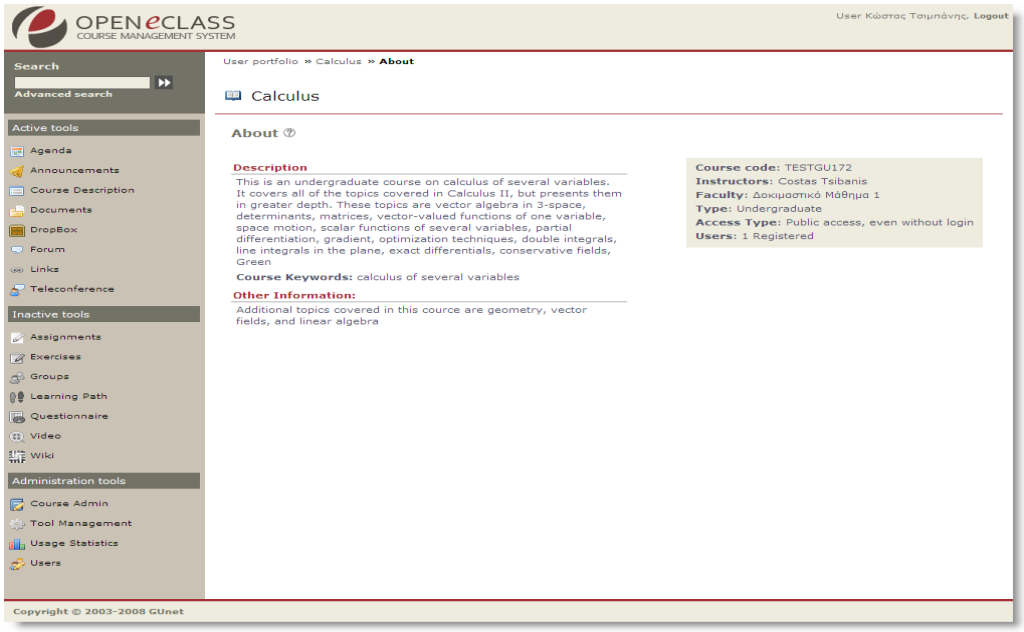
Registration open courses are the courses access to which is free to registered users both to the platform and to the specific course only.

Finally, **closed courses** are the courses access to which is offered to a registered to the platform user only if allowed by the responsible teacher.

4.3 The eCourse Structure

The eCourse is the core part of the Open eClass platform. Each eCourse in the platform is an autonomous entity which integrates a number of learning tools (modules). The eCourse is in fact a modular structure organised and manipulated by the teacher in charge, according to the invested educational material and the eLearning model it will adopt (from a simple informative webpage to a totally dynamic educational environment).

On the eCourse home screen, there is a short description, in which basic information (title, code, responsible teacher, department etc) are reposted. Also, there is an "email" hyperlink, which allows registered student-users, who have defined their email address in their profile, to communicate with the course teacher via email. For the course teacher there is also a useful "change role" link which allows him to easily examine the eCourse from the student view. Finally, on the left, there is a menu with all the eLearning tools (15 modules) provided by the platform and 4 administrative tools for the course and users management.



Pic.2. eCourse home– Teacher's view

The eCourse, as we already mentioned, is a modular infrastructure consisting of fifteen (15) learning modules (tools) and four (4) course management tools. The responsible teacher can activate and deactivate them according to the structure and the educational material of each course, so as to simplify the user environment, and allow appearance of the necessary educational units solely. More analytically, the supported elearning modules, which constitute the eCourse structure in the Open eClass platform, are the following:

1. An **agenda** in which basic course events (lectures, meetings, evaluations, etc) are presented in a chronological order.
2. **Documents,** in which the course material is stored, organized and presented. More precisely, this module provides a practical mechanism for managing, organizing and banding educational documents (texts, presentations, pictures, diagrams, etc) through a folder and sub-folder system.
3. **Announcements** which are about the course and inform the registered users.
4. **Forums** for exchange of opinions and ideas on issues about the course. It is a module of interaction between the teacher and the student.
5. **User Groups** (open or closed) are a selection of registered users (students and teachers) who share the same conversation forum as well as the file and assignment submission area, and promote cooperation and interaction among students.
6. **Links**, useful Internet resources concerning the course, grouped together.
7. **Assignments**, a useful tool allowing the electronic management, submission and evaluation of a course assignment.
8. Self-evaluation **exercises** created by the teacher aiming at students' practice on the course material. This module consolidates a multiple choice exercise generator, as well as gap filling and matching exercises.
9. **Course Description**, an area in which information on the course material is presented, as well as its goals, educational activities, evaluation methods, etc.
10. **Video,** an area used for the storage and disposal of audiovisual educational material. There are two choices: adding a video file and adding a video link which has been stored in a course relative Video On Demand (VOD) Server.
11. **Learning Path** allows teachers to organise their educational material and students to follow a series of steps as learning activities. (SCORM)
12. **Wiki**, a system for course participants to collaborate on documents, allowing everyone to edit document pages while maintaining full history of changes
13. **Teleconference** is a module which allows teacher and students to exchange text messages (chat module)

14. **Questionnaires** are a module which offers the capability of creating gallop polls and student profile surveys.
15. **Drop box area**, where feedback in educational action is supported with the exchange of files between the teachers in charge and the course registered students.

The active learning modules of the course are enlightened on top of the eCourse left menu, and are seen by the students. The inactive learning modules are presented in wan light and cannot be viewed by the students. What is worth mentioning is the fact that the inactive course elearning modules remain functional, storing the information that may have been imported. They are just not viewed by the students.

Finally, the **eCourse Management Tools** allow transition of information or access pattern of the course, course deletion and refreshment, management of registered users, as well as introduction of new modules into the course structure. Finally, the teacher in charge is offered the opportunity to monitor statistic elements concerning course participation.

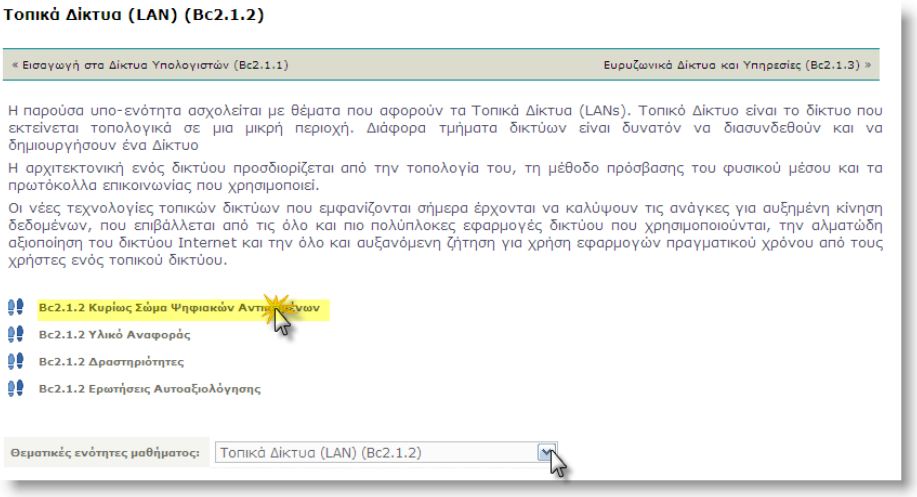
4.3.1 Course Units

Course units offer a flexible way to organize educational material that is stored in the course learning modules in an articulate structure.

Pic.3. Course Units topics on the course home (student view)

More specifically, teachers can organize their courses structure based on the existing educational material in a way that follows the real life educational process. Course unit contents are accessible through the course homepage by clicking on its title.

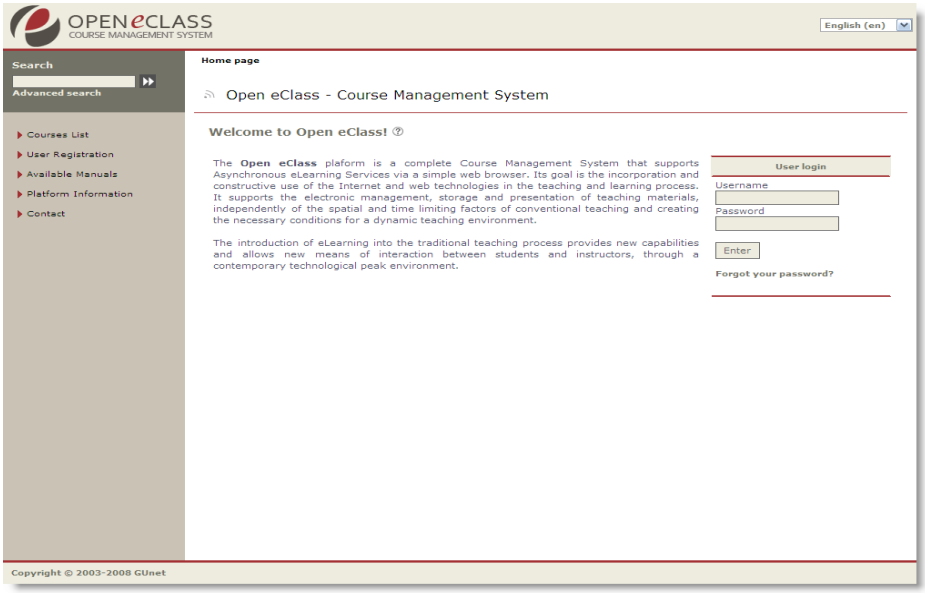
The student can click on the name of the module that wishes to enter the contents. The picture bellow shows the contents of the module we chose.



Pic.4. Educational Material on Course Units (student view)

4.4 Users Interface

All platform User Interfaces have been redesigned with the intention of becoming more functional and attaining consistency. The basic platform's User Interfaces are briefly described below. More information can be found in the particular teacher's, student's and administrator's manuals.



Pic.5. Open eClass Homepage

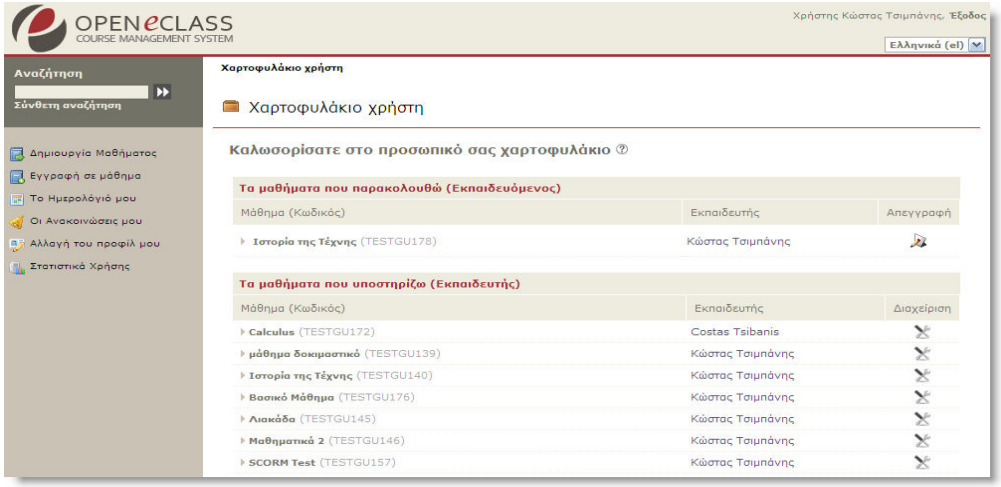
4.4.1 Platform's Homepage

The platform's homepage includes the course list, the user registration forms, the user manuals, the platform identity with useful statistics on the platform use, as well as contacting information with the responsible platform administrators.

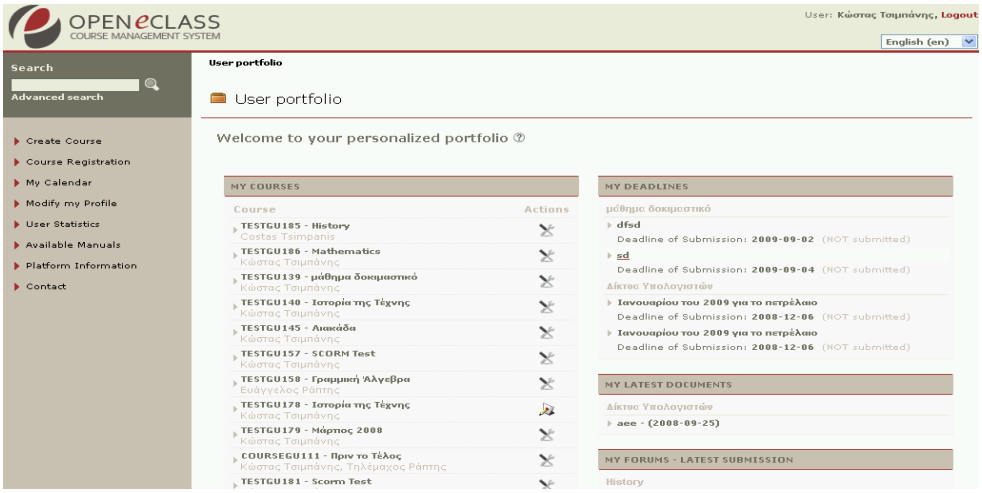
At the same time, there is a user login form for entering eCourses, as well as a link to remind users of their registration password.

4.4.2 User's Portfolio

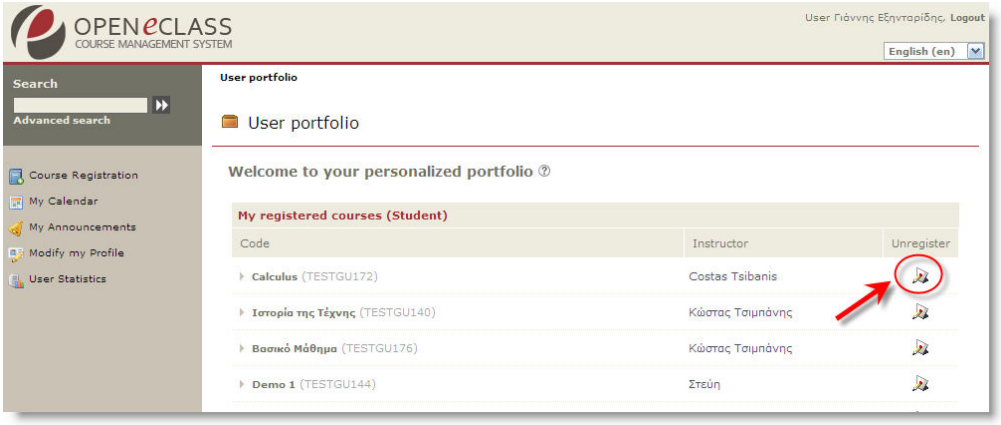
On entering the platform, registered users are transferred to their personal portfolio, which is an area allowing them to organize and control their participation in the platform eCourses. There are two different portfolio views, simple or personalised, for both registered teachers and students.



Pic.6. Simple Teacher's Portfolio



Pic.7. Personalised Teacher's Portfolio



Pic.8. Simple Student's Portfolio

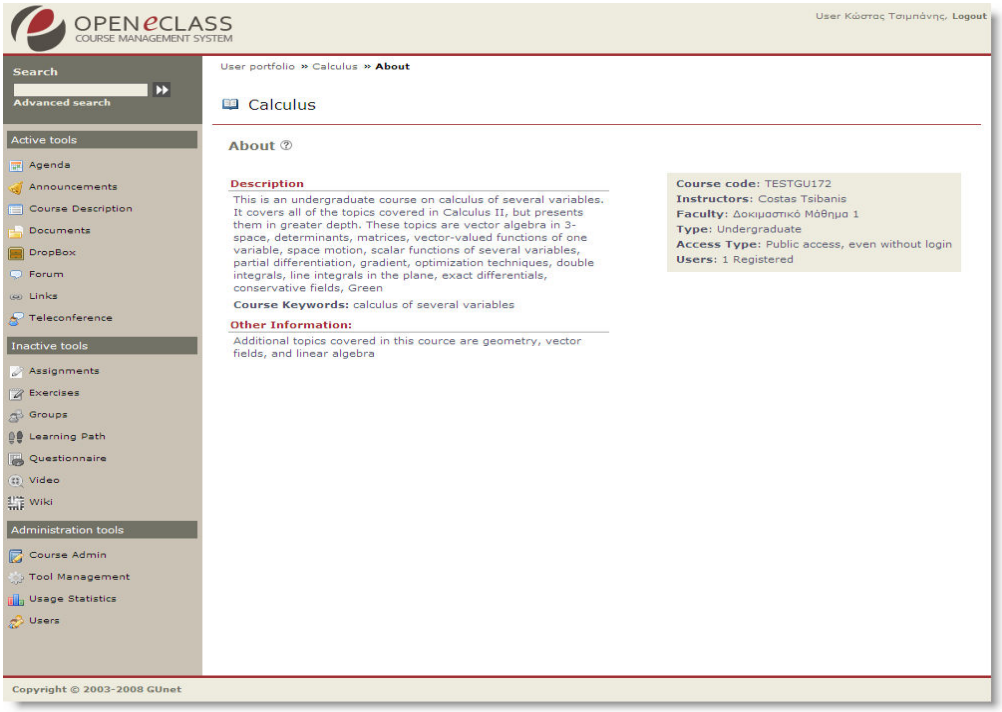
Pic.9. Personalised Student's Portfolio

In the left column menu there is a series of choices concerning the creation of the course, the registration to any course, the user's profile maintenance, the eCourse management, the calendar, the platform's identity, user manuals, etc.

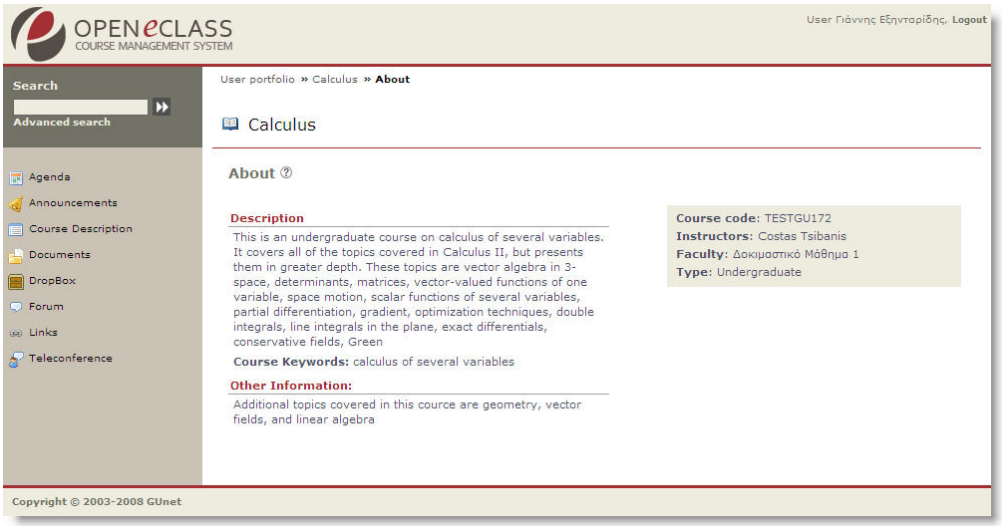
In the right column there is a list of supported courses (teacher-user) and a list of courses attended (student-user). In the courses you support as a teacher, there is an "Administration" selection on the right. If you click on the course title you enter the eCourse with the teacher's rights. Correspondingly, there is a "unregister" choice in the courses you attend as a student, so that you can delete it from the list. If you click on the title of the course you enter it with the rights of a student-user.

4.4.3 Platform's eCourse

The eCourse is the basic learning entity in the Open eClass platform. Each eCourse entails a series of learning modules, which are organized and manipulated by the responsible teacher. More specifically, the eCourse home page depends on the platform role (student or teacher) and is presented in the pictures that follow.



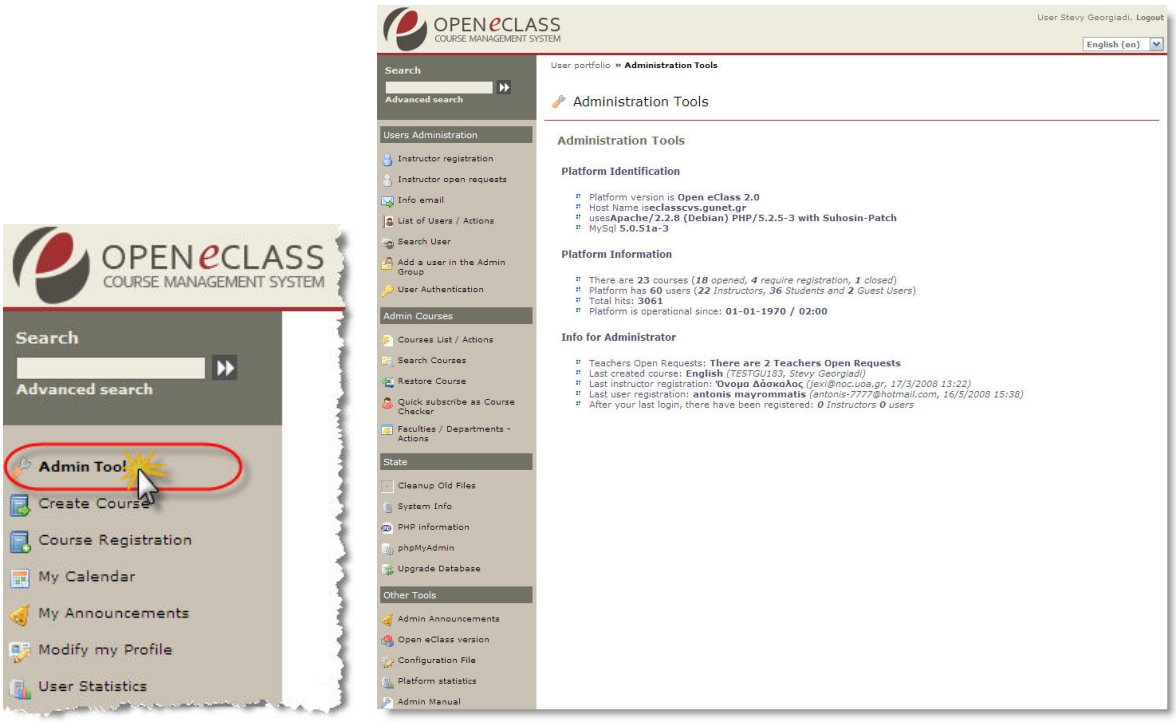
Pic.10. Course home page (teacher view)



Pic.11. Course home page (student view)

4.4.4 Platform Administration Area

Finally, the platform Administration area includes managing tools for the registered users, the platform eCourses, the Server, the Database, as well as a series of supportive tools which allow the administrators to have complete platform supervision.



Pic.12.Open eClass Admin Tool

5. Platform Support

The Open eClass platform is a complete Course Management System. It is distributed for free as open-source software. Every platform installation is supported by the local administrators who are responsible for the platform's operation, as well as the service of registered users' (teachers, students) requests.

The platform is actively supported by the GUnet Asynchronous eLearning Group, which is responsible for designing and development of new editions, incorporation of new characteristics, technical support in installation and function issues, as well as correction of mistakes, where detected.