

User manual

Medischonderwijs.nl

The screenshot shows the user interface of the Medischonderwijs.nl website. At the top left is a logo featuring a green snake and a computer mouse. The main header includes the text "medischonderwijs.nl" and "medicaleducation.nl". To the right, a tagline reads "Easy access to more than 350 medical e-learning applications". Below the header, a navigation bar contains links for "RSS", "Help", "Contact", and "About". A user greeting "Welcome Joost van Asten" is displayed. A sidebar on the left offers options to "Change your personal details", "Change your password", and "Log Out", along with a "History" section and a "Lesson language" dropdown menu. A search box on the right allows users to search by keyword through online lessons, with "GO" and "Advanced" buttons. Below the search box are dropdown menus for "Institution" and "Department". The main content area is titled "Overview" and "Main Department", listing various medical subjects such as Anatomy, Biochemistry, Clinical genetics, Cytology, Dermatology, Ear-Nose-Throat, Family Medicine, General, General -> Epidemiology, Gynaecology, Gynaecology -> Obstetrics, Histology, Internal Medicine, and various sub-specialties of Internal Medicine.

medischonderwijs.nl
medicaleducation.nl

Easy access to more than 350
medical e-learning applications

Welcome Joost van Asten

Change your personal details
Change your password
Log Out

Lessons you have used recently

History
Review the lesson done in the past
All lessons in an overview

Grouped by medical department
Grouped by body part

Lesson language: All Languages

Search by **keyword** through **online**
lessons you can start directly.

GO Advanced

Institution: Select an institution

Department: Select a department

Overview

Main Department

- [034] Anatomy
- [009] Anatomy -> Embryology
- [008] Biochemistry
- [002] Clinical genetics
- [004] Cytology
- [025] Dermatology
- [018] Ear-Nose-Throat
- [017] Family Medicine
- [018] General
- [002] General -> Epidemiology
- [010] Gynaecology
- [008] Gynaecology -> Obstetrics
- [009] Histology
- [028] Internal Medicine
- [016] Internal Medicine -> Cardiology
- [005] Internal Medicine -> Endocrinology
- [013] Internal Medicine -> Gastroenterology
- [002] Internal Medicine -> Hematology
- [017] Internal Medicine -> Infectiology
- [003] Internal Medicine -> Nephrology
- [002] Internal Medicine -> Oncology
- [011] Internal Medicine -> Pneumology
- [005] Internal Medicine -> Rheumatology

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Version

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Summery

Since 1996 Internet became a widespread used medium and in 2003 a project was started to make all Computer Based Training lessons of the LUMC available to students and teachers online.

The development of a new Lesson Registration System that could distribute and monitor lessons online was an essential product of this project. Since then the Lesson Registration System has become known as the website Medischonderwijs.nl. This manual will give you insight in all the functionalities of the new Medischonderwijs.nl (or Medicaleducation.nl) and how to use them.

This manual is meant for end users of Medischonderwijs.nl. A separate manual is available for administrators.

Introduction

In 1995 the section Education of the department of Surgery of the Leiden University Medical Center (LUMC) moved to a new location. At this new location all computers were connected to a Local Area Network, which made a central management of the Computer Based Training (CBT) Lessons possible.

For this purpose a Lesson Registration System (LRS) was developed and has been online since March 1996 in the LUMC. In 2003 the Lesson Registration System was rebuild for internet. In 2006 it got a completely new and up-to-date interface and was renamed to Medischonderwijs.nl (or Medicaleducation.nl). This is the website as it is today.

The follow institutes are participating In Medischonderwijs.nl:

- [Leids Universitair Medisch Centrum \(LUMC\)](#)
- [Academisch Medisch Centrum \(AMC\)](#)
- [Erasmus Medisch Centrum \(ErasmusMC\)](#)
- [Universitair Medisch Centrum St Radboud \(UMCN\)](#)
- [Universitair Medisch Centrum Utrecht \(UMCU\)](#)
- [Universiteit Maastricht \(UM\)](#)
- [Universitair Medisch Centrum Groningen \(UMCG\)](#)
- [VU Medisch Centrum \(VUMC\)](#)
- [Universiteit Gent \(UG\)](#)

The original objectives of the Lesson Registration System were:

- Central management of the lessons: CBT-lessons are distributed from a central server.
- Central management of the study results of medical students. All data of the students is logged in the central database of Medischonderwijs.nl and can be accessed for statistical analysis of lesson- and student performance.

Purpose

Medischonderwijs.nl has two different ways of access, as a teacher/administrator of lessons, or as a student/user of lessons. Student accounts for <http://Medischonderwijs.nl> are given out automatically without any fee to anyone who registers. Anyone with a student account has free access to the majority of lessons that are available for all Internet users. A minor part of the lessons is put online for the students of the participating institutes only.

Administrator's accounts are given out on special request. Administrators can easily put their own CBT products online on Medischonderwijs.nl and can also access the system as a student to follow lessons. Administrators can judge the quality of lessons of other teachers and group them together with their own lessons to a practical for their students. All students' results are logged in the Medischonderwijs.nl database that teachers have access to. Teachers can check whether students have followed certain lessons online and how they have performed (provided a lesson has scoring implemented). Medischonderwijs.nl automatically checks if all lessons can still be accessed over the internet. Should a lesson be unavailable for any reason, the administrator is informed of this fact and the lesson is automatically put off line for the time it takes to solve the technical problem.

Technology

Medischonderwijs.nl is built with the latest technology of Microsoft Visual Studio 2005. The application stores all lesson data in a SQL Server database.

The lessons use several different technologies to run on the client computer or on the server. Some lessons run over the Remote Desktop Protocol (RDP) and require a RDP client to be installed on the client computer.

Other lessons make use of plug-ins on the client side, for example Quicktime or Flash. Medischonderwijs.nl can automatically check the client computer for the required installations before a lesson is started up. All installation programs required for the client can be downloaded on request.

Medischonderwijs.nl access

Medischonderwijs.nl can be approached with any web browser on <http://medischonderwijs.nl>. Student accounts are given out for free to anyone with interest in medical education, and can be requested by filling in the form behind the button **Create a new account** in the startup screen.

All new accounts are automatically added to the usergroup Internet users. Only Administrators can change the account settings.

Participating institutes have their own usergroups and rights and are automatically recognized by their email address. It is therefore recommended to use your institution email address to create an account in medischonderwijs.nl. LUMC, Erasmus MC, St Radboud, VUMC, UMCU and Unimaas students and Female Cancer Program participants can log on to Medischonderwijs.nl automatically through the Virtual Learning Environment (Blackboard/WebCT).

Create a new account

Create a new account

Your eMail address will only be used to access MedicalEducation.nl as identification for your account. Your password will be sent to this eMail address. Your eMail address will not be shared with third parties, nor will you ever receive any further eMail on this address by our organisation.

eMail address	*	<input type="text" value="M.J.Jansen@lumc.nl"/>
FirstName		<input type="text" value="Maria"/>
Prefix		<input type="text"/>
LastName	*	<input type="text" value="Jansen"/>
Gender		<input checked="" type="radio"/> Female <input type="radio"/> Male
Birthdate		<input type="text" value="29"/> <input type="text" value="Aug"/> <input type="text" value="1967"/>
Preferred lesson language		<input type="text" value="Nederlands"/>
Field of occupation		<input type="text" value="Medical"/>
Highest completed educational level		<input type="text" value="Bachelor degree"/>
Choose your password	*	<input type="password" value="••••••"/>
Retype your password	*	<input type="password" value="••••••"/>

After pressing the button **Create a new account**, the webform below opens. All accounts are based on a valid Email address. After filling in the requested fields, you can finish by pushing the button **Create account now**. The password for your account will be sent to your Email address. The account remains inactive until you activate it with the hyperlink that is sent in the password Email. Once the account is activated you can log on to Medischonderwijs.nl and change all your personal settings except for the Email address.

Log on

Once you have an activated account you can log on by providing your email address and password on the login page.

You won't need to retype your email address and password every time you log on. If you often visit Medischonderwijs.nl from the same computer you can check the box **Remember me** and unless you log off on purpose, your password will not be asked the next time you visit Medischonderwijs.nl.

Medischonderwijs.nl functionality

Main Menu

In the picture below is main menu is seen on the left. The main menu is self-explanatory, but the different options will be briefly described.



- **Change your personal details:** when clicked, a form appears with your personal details as provided during registration. These details can be changed at all times. Your email address can not be changed. When your old email address is no longer available or you want to use a different email address, you should create a new account.
- **Change your password:** click to change your password. In general it's a good idea to keep your password a secret.
- **Log out:** Click to log out. Next time you visit Medischonderwijs.nl you have to login again, even if you selected the **Remember me** box.
- **History:** history shows all the lessons you have used in the past, starting with the most recent. Under every lesson there are two options. "Which lesson should I do next?" shows which lessons other users have done after this one. "Give me more lessons on the same subject." shows a list of lessons on the same medical topic as this one.



- **Review the lesson done in the past:** All users are requested to review the lessons that they have accessed through Medischonderwijs.nl. Reviewing is only possible after the lesson has been started up and reviews can not be changed once submitted.
The review is clear and simple and consists of three parts, a numeric evaluation of the content, a numeric evaluation of the usability and a free text entry for recommendations for future users. The average of the two numbers is used as a personal grade for the lesson. The average of all reviews is shown in the selection list of the lessons, to give future users an indication of the appreciation of the lesson by others.
- **Grouped by medical department** and **Grouped by body part** can be used to switch between different grouping of all lessons available
- **Lesson language:** The Enduser screen automatically starts up in the preferred language of the user (this is part of your personal settings that you can change). The lessons shown in the list of lessons are in this language. You can search for lessons in another language by selecting this language in the dropdown box. The default value shows all languages.

Search

A search tool is available for Medischonderwijs.nl and is found on the right side of the screen. Endusers can search through the available lessons with a search string.

The string can consist of one or multiple words. Words can be separated with the logical operators “AND”, “OR” or “NOT”. These operators are case-sensitive. Two words separated by a space are considered to be separated by AND. The use of wildcards is also enabled. The characters “*” and “?” can be used when searching for only a part of a word. A combination of words in a specific order, a phrase, should be put between brackets “”.



Search by **keyword** through **online** lessons you can start directly.

Institution:
Department:

Some examples:

- appendicitis -> all lessons about appendicitis
- simulation -> all lessons presenting in the form of a simulation
- “acute appendicitis” -> all lessons about acute appendicitis, described with this specific combination of two words
- appendicitis NOT acute -> all lessons about appendicitis, except the ones about the acute form of appendicitis
- appendicitis AND acute -> all lessons about acute appendicitis, described with these two words in any order
- abdomen anatomy -> all lessons about anatomy and about the abdomen
- appendi* -> all lessons about appendicitis, but also about the appendix in general or any other word containing the letters “appendi” in this order.

Advanced search can be used to search only for lessons in a specific language, or to make sure your search string is interpreted in the right language.

The Institution selection box can be used to view all lessons from the selected institution.

The Department selection box can be used to view all lessons in the selected department.

Lessons

The main part of the screen is filled with a list of lessons on the bottom. The lessons are ordered by two different features, **Main Department** and **Body part / organic tract**. If a lesson is stored in the database with more than one feature, it is displayed under all these features. The list therefore contains duplicates, but this is done on purpose, to make the search for a lesson easier.

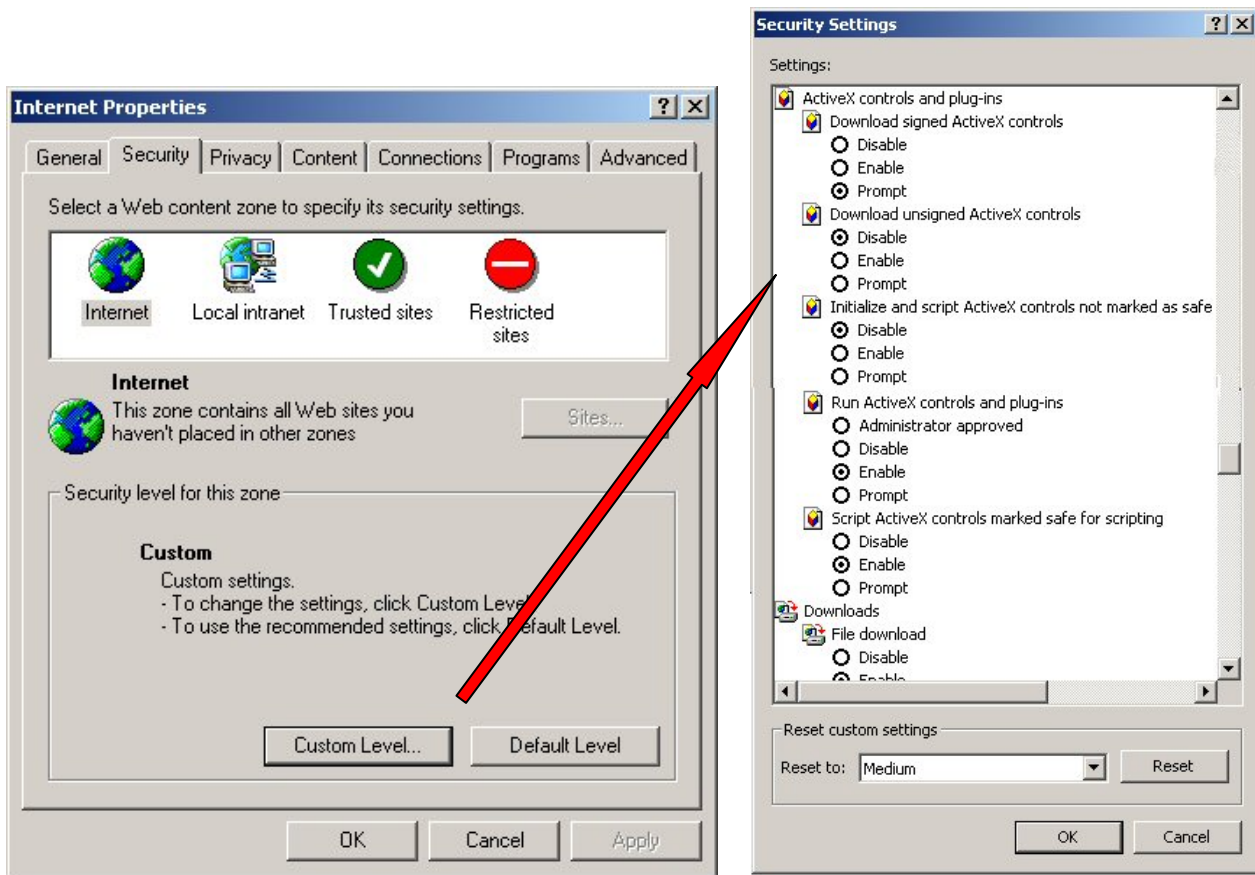
Clicking on the name of the feature opens it up and displays a list of lessons available. The user can start up a lesson by clicking on the name.

The screenshot shows the Medischonderwijs.nl website interface. On the left is a navigation menu with two sections: 'Main Department' and 'Body part / organic tract'. The 'Main Department' section includes categories like [027] Anatomy, [007] Anatomy -> Embryology, [002] Biochemistry, [005] Dermatology, [004] Ear-Nose-Throat, [002] Family Medicine, [005] Physiology, [008] Radiology, [001] Social Medicine -> Environmental, [001] Surgery, [002] Surgery -> Gastroenterology, [003] Surgery -> Traumatology, and [001] Surgery -> Urology. The 'Body part / organic tract' section includes [020] Cardiac, [011] Gastrointestinal, [011] Head & neck, [010] Muscles & skeleton, [020] Nervous system, [003] Pulmonary, [007] Skin, [006] Urogenital, and [012] Vascular. The main content area is titled 'Main Department' and features a list of items. The selected item is 'Actin Myosin Crossbridge 3D Animation' under the [002] Biochemistry department. Below the title, it says 'Animation of Actin Myosin Crossbridge' and 'Educational Setting: Language: English - Duration: 1 minutes -'. There is a 'Show details' button. Below this, there are three thumbnails for 'Oxidative Phosphorylation' with a 'Show details' button. The main content area is partially obscured by a large window titled 'Actin Myosin Crossbridge 3D Animation'. This window has two panes: 'The Animation' showing a 3D model of the crossbridge and 'The Players' showing a diagram of the components: Myosin complex (with ATPase activation), Actin Helix, Tropomyosin, Troponin, ATP, ADP, P_i, Ca²⁺, and Mg²⁺. Below the panes, there is a note: '(To get a better idea how fast this process really is, hold down the Right Step button [] to speed up the animation)'. At the bottom of the window is a link: 'View a GIF Animation instead'.

Checks

Some programs need to have certain ActiveX controls installed on your PC as add-on for Internet Explorer. You will receive a warning if a control is missing. Medischonderwijs.nl will install the missing control automatically, but only if your Internet Explorer properties are set correctly.

To install for example the RDP client automatically the security settings of the locale PC have to be set as described here. In the part about ActiveX controls en plug-ins "Download signed ActiveX controls" have to be set on "Prompt", "Run ActiveX controls and plug-ins" on "Enable" and "Script ActiveX controls marked safe for scripting" on "Enable".



RSS channels

RSS channels are a way to distribute news over the internet. You can subscribe to channels with a RSS reader, of which many are freely available on the internet. On websites RSS channels are usually indicated with the following symbol: **RSS**.

There are two RSS channels for Medischonderwijs.nl: "What's hot on Medischonderwijs.nl" and "What's new on Medischonderwijs.nl". These channels provide information as indicated by the title: "What's hot on Medischonderwijs.nl" will provide you with a list of the lessons that have been used most, during the past month, "What's new on Medischonderwijs.nl" will provide you with a list of the lessons most recently added to the system. You can set the number of lessons shown in the list. If you add the RSS channels to your own RSS reader, you can configure your reader to get updated lists for both channels, without any action from you. From the lists in your reader, you can access the lessons directly, without having to search for them in Medischonderwijs.nl.

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