Product Name	ATutor 1.5	Moodle 1.5.2
Developer Name	**University of Toronto (ATRC)**	**Moodle.com**
Communication Tools		
Discussion Forums	Discussions can be viewed by thread. Posts can include URLs, and can be either plain text or formatted text. Discussion threads are expandable and collapsible to view a list of topics or view an entire conversation on one screen. Threads can be sorted by author, topic, post date, and activity level. Students can enable or disable notification of new posts sent to their email. Threads can be locked by the instructor from reading and/or writing, or attached to the top of a thread list so important threads appear first. Active threads appear near the top of the thread list. An administrator can share discussions across courses, departments, or any institutional unit.	The discussion tool supports a social constructionist pedagogy model. Discussions can be viewed by date, by thread, by author. Instructors can split discussion branches from the main discussion into a new discussion. Instructors can determine the level of involvement (read, write, or post anonymously) for students. Posts can include attachments, an image or URL. The discussion tool includes a formatting text editor. Posts may be peer reviewed by other students. Students may receive posts to the dicussion forums as daily digests of subject lines or whole posts as email. Students can subscribe to forum RSS feeds.
File Exchange	Student and instructors can upload files in most document formats to a shared course library, or to a shared group library. Students can share content from their personal folder with other students, and with an instructor or teaching assistants. Students can submit assignments into a drop box.	Students can submit assignments using drop boxes.
Internal Email	Students can use the internal email feature or instant messaging tool to communicate with other enrolled students.	Students must have an external Internet email address.
Online Journal/Notes	Students can keep private or shared notes, associate notes with private or shared files, and print out compiled notes from within their personal work area. Students can make notes in a journal and can select to make them private or to share them with their instructor or with other students.	
Real-time Chat	There is a PHP-based chat tool for course or group level messaging. Students can see who else is online within their course, or group. Instructors may monitor chats. The system creates archive logs for all chat rooms. Instructors can schedule chats using the groups calendar. The chat tool supports multiple simultaneous group discussions.	The chat tool supports images. The system creates archive logs for all chat rooms. Instructors can view chat logs and share these with students. Instructors can schedule chats using the course calendar. Students can see who else is online within their course and send them an instant message.
Video Services		
Whiteboard	The software supports a instructor-controlled whiteboard that can have multiple instances in the same course using the Java/Jabber based AComm addon for ATutor.	
Productivity Tools		
Bookmarks		

Orientation/Help	The system includes an online course to help students, and instructors, learn how to use the system. Students can access context sensitive help for any tool, or for fields within tools.	Students can access context sensitive help.
Searching Within Course	Students can use keywords to search a single course, all of their courses, or all available courses.	Students can search all discussion threads in their course and all glossary entries.
Calendar/Progress Review	Calendering functionality is available through the ACollab addon for ATutor. Private, group, and course calendars can be used to keep track of assignments, deadlines, due dates, etc. RSS feeds are available for a number of resources that can notify people using aggregators of changes to materials.	Students can view their completed and pending course readings and activities. Students can view their grades on completed assignments. RSS feeds are available for a number of resources that can notify people using aggregators of changes to materials.
Work Offline/Synchronize	Students can compile seleted course content, or an entire course, into a downloadable content package for viewing offline in an accompanying content viewer. Upon re-entering a course, students have the option of resuming at the last page viewed. Instructors can record synchronous sessions so that students can review them asynchronously at a later time.	
Student Involvement Tools		
Groupwork	Group functionality is available through the ACollab addon for ATutor.Instructors can create group activities, and assign group leaders to create and manage groups. Each group has its own group home page, file exchange area, discussion forum, chat room, group email list, assessments and shared calendar. Students can collaboratively author a document using a version control tool, and can annotate their edits.	Instructors can assign students to groups or the system can randomly create groups. Groups can either be defined at the course level and apply across all activities that support them, or at the individual activity level. In addition, the system supports a workshop module aimed specifically at peer review of student work.
Self-assessment	Instructors can create self-assessments that students can take multiple times. Automatically scored multiple choice and true/false, as well as random question tests are available.	Instructors can create timed or un-timed self-assessments that students can take multiple times. The system automatically scores multiple choice, true/false, and short answer type questions and can display instructor-created feedback, explanations and links to relevant course material.
Student Community Building	Students can create study groups. Students can send email to their groups, use a shared chat space and notice board, and share material privately within the group. Students from different courses can interact system wide using shared discussion forums.	
Student Portfolios	Students have personal and public folders that can be shared with other students, with group members, with a course instructor, or with teaching assistants.	Students can create a personal home page. Students' personal home pages may include a list of all discussion posts they have submitted, their photo, and personal information.
Administration Tools		

Authentication	Administrators and instructors can set courses to be publicly accessible, or can protect access to individual courses with a username and password. System has a password reminder option. User logins can be encrypted with SSL.	The system uses basic username and password authentication. The system can authenticate against a variety of sources, including external databases, LDAP directory servers, IMAP, POP3, secure NNTP and First Class servers, and Unix users through PAM. The system also supports Shibboleth and the Central Authentication Service (CAS).
Course Authorization	Instructors can assign students limited access to instructional tools based on pre-defined roles or permissions, and create teaching assistants or additional instructors, each with their own custom privileges. Administrators can be created with limited access to play various administrative roles. Administrators or instructors can customize roles, create new or custom roles, create an unlimited number of custom organizational units and roles, with specific access privileges to course or administrative tools. Instructors or students may be assigned different roles in different courses, or in different groups.	The software provides tools for Administrators to assign access privileges to different group roles: Administrators, Instructors, Students and Guests. Group role privileges can be further defined into subgroup privileges. Instructors or students may be assigned different roles in different courses. The system can access authorization information stored in other external directory services, including payment gateways.
Registration Integration	Students can self-register. Administrators or instructors can batch add students to a course using a delimited text file, and send a system generated email message to students inviting them to join courses. Student registration can be authenticated against a master list generated from a student information system or other directory system.	Instructors can batch add students to a course using a delimited text file or students can self-register. The software supports integration with external information systems through an event-driven API or through a tool that is based on scheduled system exports.
Hosted Services	The product provider offers: a free hosted systems for a small number of courses: hosting contracts vary from a set fee per course, to school, or board level and offer: a secure facility with environmental control, a direct T3 connection, with load balancing across all systems, 24x7x365 monitoring, and nightly backups.	The product provider and partner companies offer hosted systems that include: managed software installation, service level agreements on a network of fault-tolerant Unix servers in a secure facility with environmental control, redundant Tier 1 network connections and power, 10Gb bandwidth per month and nightly backups. Hosting contracts are fixed per month and allow unlimited courses.
Course Delivery Tools		
Course Management	Instructors can selectively release course content and assessments based on specific start and end dates.	Instructors can link discussions to specific dates or course events. The system can synchronize course dates defined by the institutional calendar.
Instructor Helpdesk	Instructors can access an online instructor manual, context sensitive help, and an instructor support forum hosted on the product provider's site.	Instructors can access the online instructor manual, context sensitive help, and an instructor support community hosted on the product provider's site.

Online Grading Tools	Instructors can assign partial credit for certain answers. Instructors can view grades, by student, and for all students on all tests. Instructors can delegate the responsibility for grading assignments and tests. Instructors can manually edit all grades. Instructors can create a comma-delimited version of test scores for export to an external spreadsheet program. Instructors can provide feedback on all assignments through links to the relevant course content, and through annotations.	Instructors can mark assignments and all assessments not automatically scored online. Instructors can assign partial credit for certain answers. Instructors can add the grades for offline assignments to the online gradebook. Instructors can view grades in the gradebook by assignment, by student, and for all students on all assignments. Instructors can export a comma-delimited version of the gradebook (or a real .xls spreadsheet) for use in an external spreadsheet program. Instructors can provide feedback on all assignments through links to the relevant course content, and through annotations. Instructors can search the gradebook to find all students who meet a specific performance criteria, mark, or status such as exam completion. Instructors can create a course grading scale that can employ either percentages, letter grades or pass/fail metrics. When an instructor adds an assignment to the course, the software automatically adds it to the gradebook. Instructors can delegate the responsibility for grading assignments.
Student Tracking	nstructors can get reports showing the number of times, the time and date on which, and the frequency with which each student accessed course content. Instructors can get a report that shows number of attempts and time per attempt on each assessment for individual students. Instructors can share tracking information with students. Instructors can get a report showing the duration of time each student or all students spent on course content.	Instructors can get reports showing the number of times, time, date, frequency and IP address of each student who accessed course content, discussion forums, course assessments, and assignments. Instructors can get a report that shows number of attempts and time per attempt on each assessment for individual students. Instructors can maintain private notes about each student in a secure area. Instructors can get a report that summarizes individual student performance on assignments. Instructors can set a flag on individual course components to track the frequency with which students access those components. Instructors can monitor students who are currently logged in to the course. Instructors can summarize all discussion posts to date by a student.

Automated Testing and Scoring	Instructors can create automatically scored true/false and multiple choice questions, and randomize questions from a larger pool, with optional required questions that appear on all randomized tests. Instructors can set dates and times during which students can access tests. Instructors can provide individual feedback, override automated scoring, and create individual, unit specific, or course level tests. Instructors can also create survey questions. The system provides test analysis data for individual test items, for individual tests, and for surveys. Instructors can differentially weight tests.	Instructors can create automatically scored true/false, multiple choice, multiple answer, cloze, matching, numerical, calculated and short answer questions. Questions can contain images , video, other media files, and detailed feedback on each answer. Instructors can create mathematical equations. Custom question types can also be defined. Instructors can create personal, course specific or system wide test banks from questions can be chosen to create tests for students. Instructors can import questions from existing test banks. The system can randomize the questions in a test and the alternatives for multiple choice questions. Instructors can require a special password and set times for when students can or must access tests. Instructors can set a time limit on a test. Instructors can limit attempts to specific IP addresses. Instructors can differentially weight tests and create grading rules. Instructors can permit multiple attempts, and whether correct results are shown. Instructors can override the automated scoring. Instructors can also create survey questions. The system provides test analysis data for individual test items. The system also supports the Remote Quiz Protocol which allows questions to be rendered and scored externally to the system via
Curriculum Design		
Accessibility Compliance	The product provider self-reports that the software complies with the WAI WCAG 1.0 guidelines at the Double-A level and with Section 508 of the US Rehabilitation Act. Students can configure the system and save those settings for future visits. The system implements the following accessibility features: a. content optimized for use with screen readers, b. an HTML-based chat that is usable by assistive technologies, c. documentation to help assistive technology users configure the system, d. a content authoring tool with an accessibility checker, e. ability to provide alternatives to programmed, video, or graphic content, including a tool to add alt-text (a text alternative) to uploaded images, f. explicit labels for all form fields, g. content readable without style sheets,	To comply with Section 508 of the US Rehabilitation Act, the software implements the following features: alt tags on all system images, and data tables that are optimized for use with screen readers. The system can also filter all user supplied inputs through W3C Tidy program to convert it to valid XHTML code.

	h. XHTML 1.0 compliant templates and custom style sheets (CSS classes) to control the system appearance	
Course Templates	The software provides support for template-based content creation. Course content may be uploaded to a file manager, imported from, or exported to, a learning object repository, imported directly from the Web using a URL, or imported from an HTML editor. Instructors can clone and modify the default the templates, or create new templates. Instructors can add to, or remove course functions from course templates.	The software provides three default course templates: activities arranged by week, activities arranged by topic, or a discussion-focussed social format. Instructors can create new course or content templates. Instructors can use templates to create discussion forums, links, course content, and resources, and these templates include a WYSIWYG content editor with spell-checking.
Curriculum Management		
Customized Look and Feel	The system provides 2 default course look and feel templates, as well as others that can be downloaded and installed. Institutions can create their own look and feel templates. Institutions can apply their own institutional images, headers and footers, across all courses, or across categories of courses. Instructors can change the navigation tabs, tools icons available, and the number and order of menu items for a course.	The system provides 10 default course look and feel templates. Institutions can create their own look and feel templates across the entire system. Institutions can apply their own institutional images, headers and footers across all courses. Instructors can change the the navigation icons, color schemes, and order and name of menu items for a course.
Instructional Standards Compliance	The software supports the creation, importing and exporting of IMS 1.1.3 and SCORM 1.2 conformant content packages. The software has self-tested compliance with SCORM 1.2 Runtime Environment Specification (LMS-RTE3). The system includes tools to facilitate the migration of course content between different versions of the software, and to facilitate migration to, or from, other compliant learning management systems.	The software can import course content that is SCORM 1.2 or AICC compliant, and can export quiz content in IMS QTI 2.0 format. The system includes tools to facilitate the migration of course content between different versions of the software. The provider company supports migration from the following course management systems: BlackBoard.
Instructional Design Tools	Instructors can create both linear and nonlinear learning sequences, organized hierarchically by course, lesson, or topic. Instructors can organize learning objects into learning sequences, that are reusable.	Instructors can create both linear and nonlinear learning sequences using a content library. Instructors can organize larning objects into learning sequences. The software supports constructivist and problem-based learning approaches. Instructors can create relationships between assignments and required resources which can then serve as templates for future lessons.
Content Sharing/Reuse	Instructors can share content through a central learning objects repository where it can be shared by instructors and students. The system supports sharing content across course and institution boundaries. Instructors can designate their files to be publicly accessible.	
Hardware/Software		
Client Browser Required	The software supports any browser although Internet Explorer 4+, Netscape 6+, and Opera 5+ are recommended.	The software supports any browser supporting HTML 3 or higher and uses cascading style sheets (CSS) in browsers that support CSS.
Database Requirements	The system requires a MySQL database.	The system supports either MySQL or PostgreSQL databases. The system requires only one database and can coexist with tables from other applications.

Server Software	The software requires PHP, MySQL and web server software such as Apache or Microsoft IIS.	The software requires PHP 4.1.0 or later, MySQL(or PostgreSQL), and a web server. The software was developed using the Apache web server. The software includes: administration reports through a web browser, course archive and restore, installation setup wizard that includes database creation, backup and archiving, tools to backup and purge either course content or student data for individual courses and groups, rotated logs, notification services, a display of the last sessions in the system that can be filtered by either IP address or date, site configuration. Typically, local administrators install the software. The product provider offers for-fee installation consultation.
UNIX Server	The software is available for most versions of Linux or Unix.	The software is available for most variants of Linux or Unix.
Windows Server	The software is available for a variety of Windows web servers.	The software is available for a variety of Windows web servers.
Pricing/Licensing		
Company Profile	The software was originally developed at the Adaptive Technology Resource Centre at the University of Toronto.	Moodle.org is an open source community launched in 2001 that has grown out of a PhD research project by Martin Dougiamas. Version 1.0 was released on August 20, 2002. Moodle.com is a company launched in 2003 that sponsors Moodle development and provides commercial support, hosting, custom development and consulting. The Moodle Partners are a network of companies that work with Moodle.com to provide services around the world.
Costs	The software is free for most uses.	The software is free and distributed under the GNU Public License.
Open Source	The software is distributed under the terms of the GNU General Public License.	The software is distributed under the terms of the GNU General Public License.
Optional Extras	Administrators can download and import system languages, and create new language packs on the product web site. There are currently more than 25 language packs available. Using a PostNuke Module (pnATutor) or the Mambo Module (Mambo ATutor), the software can be integrated with a Portal/Content Management System. The ACollab addon provides group functionality. The AComm addon provides an accessible Java-based Instant Messaging and Whiteboard tool. The system can display RSS feeds. The system supports the creation of Wikis. The ATalker addon provides text to speech functionality and customization.	More than 45 language translations are available as plug-in packs. Each course can have its own glossary which can be maintained by the instructor or collaboratively by the students. Terms in the glossary that appear in the course can be auto-linked back to the glossary. The system has a module which accepts payments for course registrations via PayPal. The system supports the creation of Wikis. The system can display RSS feeds.
Software Version	The current software version number is 1.5	The current software version number is 1.5.2.