



the Comprehensive
e-Learning Platform for
the Higher-Education Community...



Integrated Technology Group

Empowering People through Technology...

www.itgsolutions.com



Education:} **ed·u·ca·tion**

a) the action or *process* of educating or of being educated; b) the *knowledge* or *skill* obtained or developed by a *learning process*; c) an instructive or enlightening *experience*; d) the gradual *process* of *acquiring knowledge*; e) *knowledge* acquired by *learning* and *instruction*;

Education involves teaching and learning. It is an intricate process and an experience engaging different parties and stakeholders. Students are learners with individual strengths and needs that must be realized. Instructors need the tools to support their role as educators. Administrators need resources and accurate information to assist them in making more effective decisions; and learning communities need to communicate and collaborate.

Learning today takes place in educational institutions, at homes and in the workplace. And as our human race becomes more and more competitive, knowledge becomes a vital tool for survival, and *the* base upon which societies must be built.

Different educational institutions follow different models, yet as our world grows smaller and more open, sharing knowledge becomes more of a requisite than an option for learning.

EduWave™ Higher-Ed is a comprehensive e-learning platform that encompasses these facts. Designed specifically for the use of higher-education institutions and bodies, EduWave™ Higher-Ed is a learning, content/course, instructional, and student management solution that caters for virtually every aspect of the educational cycle. It includes special tools and features that cater for content authoring, management and content delivery, distance learning, students' assessment and tracking, student registration, as well as special administrative tools.

Based on international standards, EduWave™ Higher-Ed is a flexible customizable solution that allows educational institutions to shape their teaching/learning process while sharing knowledge and resources. It is also a scalable solution that can handle large-scale universities at peak-hours, being a derivative of EduWave™ (K-12), the only e-learning platform worldwide that caters for countrywide deployment and is designed to handle millions of users.



A COMPREHENSIVE SOLUTION >>

EduWave™ Higher-Ed is a comprehensive user-friendly e-Learning Platform that includes a Learning Management System (LMS), a Content/Course Management System (CMS), an Instructional Management System (IMS), and a Student Registration and Information System (SIS)/(SMS) seamlessly integrated in one solution, allowing related educational elements to work together in the most effective manner.

EduWave™ Higher-Ed offers new and compelling ways in education, allowing stakeholders to engage in virtually every aspect of the teaching and learning process...

Students...

A number of comprehensive tools and features are provided in EduWave, to help students learn, track their progress, improve their performance, and enjoy their learning experience. With EduWave, students can access their learning material and textbooks -personalized and in rich media format-anytime and anywhere. Students can interact with their instructors and with each other through multiple communication and collaboration tools such as e-mail, discussion forums, groups, and EduSessions. EduWave also allows students to register online, access their study plans, schedules, courses, attendance records and any other related data. They can also perform assessments, and directly communicate with all parties, such as advisors, instructors, etc.

Instructors...

The administrative and instructional tools provided within EduWave help instructors and educators better manage and utilize their time allowing for higher efficiency, and more room for innovation and creativity. EduWave provides extensive instructional design and authoring tools to support the role of educators. In addition to accessing and managing learning content and curricula, instructors can easily create their own teaching material. They are able to quickly author and publish customized learning content, and communicate complex ideas and concepts. They are also able to teach across distances, and provide effective guidance and support through conducting online EduSessions. With the available assessment tools, instructors are able to measure individual student performance and progress. They can design and conduct online assessments, manage students' grades and attendance records. They also have the ability to communicate their views and concerns directly to their students, colleagues and administration through a variety of communication & collaboration tools.

Administrators & Registrars...

EduWave includes a comprehensive online registration system, which also covers student admission and financials. It also provides administrators & registrars with tools that help them develop and maintain complete and accurate information, monitor development & performance, plan and adjust resources, resulting in more effective decisions. Administrators are able to easily and securely develop and manage related administrative data files, build the organizational hierarchy, define all related resources, create users' profiles, authorize and control access to users, develop registration schedules, and communicate directly with related parties.

The Community...

By integrating technology, innovation, and advanced educational practices, EduWave provides comprehensive tools that help the educational sector enhance productivity, and set the ground to foster innovation, creativity and the building of a collaborative learning community.



COURSE MANAGEMENT & DELIVERY >>

Course/Content Management & Delivery:

EduWave™ Higher-Ed is SCORM compliant and is based on learning objects. Content delivered through EduWave is shareable, re-usable, and delivered to learners according to relevance and individual needs. The solution can deliver content in BookZero™ and in rich media formats. EduWave is also based on Learning Outcomes, an important element without which, effective application of e-learning cannot be achieved.

>> Learning Object Management System

This system allows educators to import and compile learning objects into a collective pool for retrieval and use within the “virtual book” manuscript building process. Learning objects can be in Internet, multimedia, or plain text formats, supplying users with a rich collection of material to create valuable manuscripts in BookZero™ format.

>> Virtual Book Management System

This system allows administrators & instructors to create and compile “virtual books” or electronic books to be published for learners. Each book is represented through an easy-to-build hierarchical table of contents. Virtual Books can be developed using the EduWave special authoring tool; EduWave™ Author, and are only released after passing through a specific workflow based on the institution’s policy.

>> Content/Course Management System

This system allows instructors to manage courses and assign content to its respective category in terms of related subject, level and other details. Courses are automatically displayed on each user’s home page upon entry into EduWave, based on the user ID and specifics. EduWave promotes learning for all and life-long-learning. This is why special content areas are available to all EduWave users including instructors, administrators and others. In addition, students are not limited to their related learning material as they are also given the option to view other courses and content if permitted by the institution.

>> E-Content & “BookZero”

Through EduWave, users can access their content online, be it in simple pages or rich media in the form of movies, animations and simulations that enhance the learning experience.

SCORM conformant content can be developed using the EduWave™ Author, or purchased as needed from third party vendors and content providers. Accordingly, the solution makes available a library (pool) of content and related material which instructors can use to build their courses for delivery to students.

EduWave supports different types of content including BookZero™ and rich media formats. The BookZero™ concept developed by ITG is a phased approach towards content development. It is based on presenting textbooks in electronic formats, yet with added functionalities (third dimension) that allow linking to other supplementary content in various media including images, videos, animation and simulation. BookZero™ provides searchable text, in addition to other functionalities that are made available to further assist in the learning process. These include personal annotations and bookmarks, dictionary, and EduPedia™ which is designed to provide further info related to selected words and terms.



COMMUNICATION & COLLABORATION >>

Communication, Collaboration & Learning Community Building Tools:

EduWave™ Higher-Ed is a fully interactive solution where all users can interact, communicate and collaborate through different means including e-mail, discussion forums, online study sessions, and groups.

The following communication and collaboration tools are provided within EduWave:

>> EduMail™

A fully functional industry-standard e-mail system, which allows communication among all EduWave users including students, instructors, and administrators. Users can send and receive e-mails with attachments and enjoy other additional functionalities. The option to send and receive external e-mails is also available.

>> Discussion Forums

A multi-subject and multi-threaded discussion forum with access privileges, in which EduWave users can participate in discussing educational related topics online. This communication/collaboration tool is a main driver in building active learning communities. The forum engine also provides an administration console, word filter, and threads classification, among many other features.

>> EduSession™

EduSession play a major role in curricular and extra curricular development. Through this powerful tool, instructors have the ability to run online group study-sessions to enhance learning. Participants can navigate e-content, view, listen and interact with the instructor. Designed to work remotely, over the Internet/intranet, instructors and learners are able to enjoy powerful educational sessions with audio/video conferencing, regardless of their physical location. EduSession™ includes: chatting, whiteboard, collaborative browsing, live study sessions (sessions are also recordable), audio/video conferencing, content browsing, and online survey.

>> Groups

Through this powerful facility, students can learn and collaborate in the form of groups. Several features within the solution are also provided for these groups including private discussion forums, e-mails, EduSessions, among many others.



ASSESSMENT & TRACKING >>

Assessment, Monitoring and Tracking Tools:

EduWave™ Higher-Ed includes powerful, easy to use assessment, monitoring and tracking tools that allow instructors and learners to evaluate progress and enhance learning.

>> Test/Assessment Management System

This system includes an assessment creation wizard that allow instructors to easily create and publish assessments that are aligned to specific digital content or general purpose assessment that can provide necessary indicators for decision makers. The System is SmartTeacher™ compatible, and supports various question types including multiple-choice, true/false, matching, sorting, fill in the blanks, among others. Assessments can be randomly generated, categorized based on selected criteria, and presented in textual, graphical, and video formats, for use as official test and quizzes or even for self assessment. Assessment results can be automatically transferred to the student grade book as needed.

>> Assignments

This is an ideal tool for the creation, management, and online delivery of student assignments and essay type assessments. Assignments can be sent to either individuals or group of learners. The process covers the whole cycle of sending, receiving, reviewing and grading assignments with the possibility of adding necessary notes and remarks as required. Assignment results can be automatically registered in the GradeBook System.

>> GradeBook System

This system provides authorized instructors and administrators to enter, manage, analyze and publish grades online based on policies applied at the institution. Grades can be entered manually into the GradeBook System, or transferred automatically from the Assessments Management System.

>> Tracking Tools

Instructors can follow students' online activities and performance by tracking related statistics such as time spent online, navigation, and accessed content. This tool is extremely helpful in assessing individual and overall progress and performance in relation to navigational activities and learning habits.

>> SmartTeacher™

SmartTeacher™ is a unique concept and set of tools provided within EduWave. It is available to assist instructors and students cater for individual learning progress and requirements, ultimately enhancing learning and maximizing results. It allows users to build and release selective educational material, monitor performance, and adjust learning levels according to specific criteria and users needs. SmartTeacher™ functions within several EduWave modules including assessments and tracking, course and content management, and Professional Development.



STUDENT REGISTRATION & ADMINISTRATION >>

Registration, Admission and Student Financials:

The EduWave™ Higher-Ed registration component covers the complete admission and registration procedures. Registrars can set, manage and maintain registration activities including course catalogues and study plans, setting course fees, among other features. Students can access their registration information including their study plans and programs, tuition details, available courses, course sections and class schedules, receive advisory services, and register online through a user friendly environment, according to their specific requirements.

>> Online Registration:

EduWave makes the registration process an easy task. It allows students to view the courses they have completed, and the available ones for the current semester. Accordingly students can register their courses online, based on their preference and study plan requirements.

>> Study Plans:

Study plans can easily be created through EduWave. Department heads can create their faculties' study plans, specify faculty specializations and course requirements. Students are able to access their personal plans, including related details of requirements, credit hours, courses, pre-requisites, etc.

>> Student Advisory:

The Student Advisor's role can vary according to the university's policy. Advisors can have access to detailed academic information for students under their advisory such as study plans, transcripts, registration, progress and achievements, and provide advice accordingly.

>> Student Financials:

This module provides the means for students to keep track of their financial related information at the institute including records of tuition fees, and others that might apply such as dormitory fees, library fees, etc. Through this module, accountants are also provided with the facility to perform all types of student financials activities. The ability to integrate with ERP systems through this module is also available.

>> Admission:

Student admission functions are provided within EduWave. Students can apply into the university and track their applications online. Administrators & registrars are provided with the facility to set up and administer admission defined data as needed, manage applications, and set up students' profiles.

>> Buildings & Facilities:

Administrators and registrars can set up and manage data related to colleges, faculties and departments, buildings and lecture halls locations and facilities, to be utilized within the planning, administration, and registration processes as needed.

AUTHORING TOOL >>

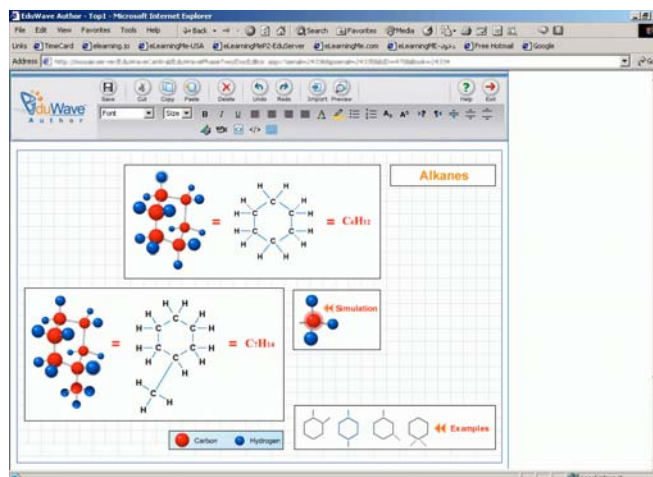
EduWave™ Author is a SCORM compliant authoring, auditing, and publishing tool. This distinct authoring tool is powerful, highly functional, yet easy to use, enabling users to create and publish learning content that will be later viewed on the portal.

“WYSIWYG” Editor

EduWave™ Author is a “WYSIWYG” editor (What You See Is What You Get) where no HTML or programming knowledge is required for use. The user simply drags and drops the desired object and links it to the desired learning object (text, image, multimedia, etc.). By repeating these simple drag and drop steps, a full manuscript can be authored and linked to the Virtual Book’s Table of Contents.

Web-Ready

EduWave™ Author generates web-ready files for electronic publishing on the portal.





OTHER FEATURES & BENEFITS >>

EduWave™ Higher-Ed is a multilingual, flexible and customizable solution, based on “Centralized Deployment with Localized Functionalities”. EduWave’s robust architecture allows for central administration, tracking, reporting and record keeping while allowing for flexible management and localization of functionalities, content and learning resources. Its effective hybrid model eliminates inefficiencies produced by multiple systems and provides the ability to produce and harness accurate data and impact learning at a larger scale.

>> User-friendly:

EduWave is a user-friendly product that requires only basic computer knowledge and minimal training to operate.

>> Dynamic User Interface:

Upon entry into the EduWave Portal, it automatically builds a personalized interface and navigation menu based on the user type and ID. User specifics including name, faculty, and related content, functions and navigation elements are displayed accordingly.

>> Personal Tools:

EduWave users are provided with a set of personal tools that allow for better organization, and be used to build their personal portfolios. These tools include:

- Users Profiles: Dynamic user profiles that contain personal data and user specifics including schedules, transcripts, reminders, notes, bookmarks, etc. The system also allows for role switching between user types as applicable.
- Personal Storage Area: Users are provided with personal storage space that allows them to store their files based on a specified quota. Users also have a set of tools that allows them to create, upload, save, organize, and share files and documents.
- Calendar: A calendar with full functionality that includes personal and shared scheduling, reminders, tasks, etc.

>> Search Engine:

EduWave includes a robust, multilevel and multilingual search engine that provides for rich search capabilities in various areas including content, learning objects, users, forums, etc.

>> Notification tools:

EduWave provides the ability to send notifications through multiple channels including instant messaging and SMS.

>> Reporting Tools:

EduWave provides the ability to generate statistical reports on multiple user levels based on real, live data. (Advanced features available through EduWave™ EMIS).

>> Total Cost of Ownership:

EduWave’s unique design allows for effective utilization of related S/W and H/W. It also includes a number of built-in applications that result in reduced “Total Cost of Ownership”.

EduWave™ Higher-Ed is a user-friendly web-based solution, and is based on international industry standards.



>> **Access:**

EduWave is a web-based solution. Universal browsers are used to access EduWave. MS IE5.5 and Netscape 7.0 and above are recommended.

>> **Languages:**

EduWave is a multilingual solution, developed using "Unicode". Currently available in Arabic and English interfaces, the solution however supports the concurrent usage of up to any seven languages as per the University's choice.

>> **Platforms:**

EduWave is platform independent, and is available on IBM Linux, Microsoft .NET and Sun Solaris.

>> **Database:**

EduWave is Database independent, and is available on IBM DB2, MS SQL 2000 Server, and Oracle 10g RDBMS.

>> **Scalability & Expandability:**

EduWave™ Higher-Ed is scalable and expandable. The solution is designed to handle large-scale universities at peak-hours, being a derivative of EduWave™ (K-12), the only e-learning solution worldwide that caters for countrywide deployment and can handle millions of users.

>> **Interoperability & Standards:**

EduWave is based on open-standards, it is XML-based, SCORM compliant, and integrates with third party SCORM conformant content. The solution can seamlessly integrate with ERP solutions, and other third party related systems.

>> **Security:**

EduWave utilizes advanced security measures to ensure security of data and content, with single-sign-on authentication, authorization, and auditing built into the system.



OTHER SOLUTIONS FROM ITG >>

OTHER RELATED SOLUTIONS PROVIDED BY ITG:

The following solutions -also available from ITG- integrate seamlessly with EduWave™ Higher-Ed:

>> **EduWave™ (EMIS):**

EduWave™ Educational Management Information System serves the management level of Educational Institutions, providing reports and online access to actual performance and historical records. It acts as the core for planning, control, and decision support systems. EduWave™ (EMIS) channels all the required data in its raw and aggregated forms for appropriate data mining to support the decision making process on various educational and administrative levels. EduWave™ (EMIS) efficiently facilitates the path to the EDSS buildup. Various level forms, fixed reports, and more dynamic “power query” reporting mechanisms are provided to produce the required statistical output and dynamic KPI's needed by EDSS.

>> **WaveERP™/WaveGRP™:**

A complete Enterprise/ Government Resource Planning solution that includes financial, HR, payroll, personnel, inventory and other administrative functions. This integration will serve to complete both educational and administrative aspects of the educational institution.

>> **e-Content Development Services:**

Integrated Technology Group offers extensive and exemplary e-content development services to its clients through its specialized subsidiary JAID Productions. Content produced by JAID is SCORM Compliant, and is developed in rich media formats, and built to the highest industry and instructional design standards.

>> **EduWave™ (K-12):**

Another edition of EduWave™ that is specifically addressed to K-12 users and school systems.

ABOUT INTEGRATED TECHNOLOGY GROUP:

Established in Jordan in 1989, Integrated Technology Group (ITG) operates through three subsidiaries; EPOCH Technologies, JAID Productions and TriAx Automation, each optimizing its resources and delivering technologies and solutions to the Global Markets in the areas of software development, new media and multimedia solutions, and process automation respectively. ITG's flagship areas are:

- E-Learning Solutions: EduWave™ K-12, EduWave™ Higher-Ed, and e-Content Development.
- ERP Solutions: for Government (GRP), Manufacturing, and Dealership Management.

The Firm's strength lies in its vision, which hinges on technological innovations, and the ability to identify potential business frontiers well ahead of competition.

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