



## Higher Education Management Solution



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**CORDOBA™** is a highly-interactive (bi-lingual) web-based Education Management System that provides a complete market leading solution for the educational needs of your institution.

Offering enterprise-rich, flexible access to and delivery of education, open learning registration in **CORDOBA™** broadly expands your institution's flexibility in administering education programs. **CORDOBA™** includes a full array of Administrative tools for managing student information including registration for open learning along with significantly enhanced functionality for credit hours and GPA administration.

## **Modularity**

**CORDOBA™** is highly modular, which allows any educational institution to easily deploy the required functionality without compromising the system whilst maintaining the ability to easily expand in the future by adding extra modules.



## Application Features

**CORDOBA™** provides educational institutions with a comprehensive package to plan, control, and monitor all of the institutions educational activities. **CORDOBA™** is a highly-interactive web-based Education Management System that provides a complete market leading solution for the educational needs of your institution.

**CORDOBA™** is built on Microsoft's .NET technology and integrates with Microsoft server technologies. The use of Microsoft's technology provides the application with several advantages; namely:

- ⇒ Tighter integration with Microsoft products and technologies which enrich the application.
- ⇒ The ability to easily leverage features provided on the Windows platform.
- ⇒ Extend the application architecture by building web services accessible by the system.

The core features of any EMS such as grading, registration, student information, etc are preserved while other features such as collaboration and financial management are extended further making use of the technology platform.

**SANAtch** has also leveraged its experience in developing and implementing education management solutions to design the next generation of EMS. Using .NET Technology we are able to extend the product to provide added services and enhanced functionality. Amongst the services provided are:

1. Integration with Microsoft Share Point server. Microsoft Share Point server provides a number of features in support of the collaboration and community features such as:
  - Share Point products and technologies facilitate collaboration within an institution and with students. Using the combined collaboration features of Windows Share Point Services and Share Point Portal Server 2003, users in your institution can easily create, manage, and build their own collaborative Web sites and make them available throughout the organization.
2. Integration with Microsoft Great Plains server. Great Plains server is a financial tool which enhances the visibility and control of your business health, resulting in more confident and smarter decisions. Great Plains gives you the integrated tools you need to master your financial data and processes, taking full advantage of the information your financial system contains. With instant access to accurate, up-to-the-minute financial information, you are equipped to make informed operational and strategic decisions at a moment's notice, and map the course to your future.

NOTE: Integration with Share Point and/or Great Plains is optional. **CORDOBA** can be integrated with other equivalent systems.

## Easy To Use and Customize

1. Easy to understand and user friendly
2. Familiar Microsoft Windows environment with graphical user interface
3. Multi-Language capability that is user selectable
4. Easily configurable

## Student Administration Module (CORE module)

1. Student Application
2. Student Admission
3. Student Registration
4. Class Assignment
5. Student File Management
6. Tuition
7. Alumni Relationship Management (*future*)

The screenshot displays the Student Administration Module (CORE module) interface. On the left is a navigation menu with options: Home, Reports, Students (expanded), Student Records, Reports, Search for Stu..., Students' Grad..., and Students' Sche... The main content area features a red header with navigation icons for Personal, Assign courses, Financial, Transcript, Student file, and Qualifications. The student's name, Mostafa Mohamed Balbaa, is displayed at the top right, along with a dropdown menu for Student Status set to 'Enrolled'. The main form is titled 'Student Personal Info' and contains the following fields:

|                                    |                               |                                     |              |
|------------------------------------|-------------------------------|-------------------------------------|--------------|
| *First name                        | Mostafa                       | *Last Name                          | Balbaa       |
| *Full name                         | Mostafa Mohamed Balbaa        | *Gender                             | Male         |
| *Birth Date                        | August 17, 1984 (MM DD, YYYY) | *Birth Place                        | Assut        |
| *Home Address                      | 9 Kamel Amr St, Nasr City     | *Suburb                             | Giza         |
| *Home Phone - at least 7 digits.   | 67998722                      | *Mobile Phone - at least 12 digits. | 101967989898 |
| *Postal Code                       | 31554                         | *Nationality                        | Egyptian     |
| *National ID - at least 10 digits. | 7292947828                    | E-mail - ex. myname@domain.com      |              |
| Date Applied                       | August 17, 1984 Enter Date    | Change Password                     |              |
| Advisor ID:                        | Mohammad Azab                 |                                     |              |

A portrait photo of the student is displayed on the right side of the form.

## Course Management Module (CORE module)

1. Academic Program Development
2. Syllabus, Schedules and Pre-requisites
3. Classes
4. Examinations, Grades and Transcripts
5. Graduation and Degree Award
6. Timetable Scheduler
7. Premises Management

The screenshot displays the Cordoba Education Management System interface. The header includes the logo and the text "Education Management System". A navigation menu on the left lists various system functions. The main content area is titled "Sections" and features a form for filtering sections by Term, Department, and Course. Below the form is a table with columns for Section, Instructor, Periods/Week, Length, and Room(s). The table contains two rows of data for ECON 224-1 and ECON 224-2, both taught by Ibrahim Shalaby. There are "Add", "Delete", and "Save" buttons visible in the interface.

| Section    | Instructor      | Periods/Week | Length | Room(s)        |
|------------|-----------------|--------------|--------|----------------|
| ECON 224-1 | Ibrahim Shalaby | 3            | 1      | BLDG1-Room 103 |
| ECON 224-2 | Ibrahim Shalaby | 3            | 1      | BLDG2-Room 201 |

## Financial system (Optional module)

1. Create and maintain billing tables.
2. Specify the number of installments and their due date
3. Notify delinquent students of overdue fees
4. Research unpaid student accounts
5. Fixed Asset accounting
  - o Inventory management
  - o Inventory movements
  - o Tracking consumption
  - o Item Groupings
6. General ledger (Analysis, review, and adjustment of school's General Ledger.)
  - o Management of any other expenses (Library Bills, Purchase Orders, Telephone Bills, Utility Bills.....Etc).

7. Manage purchase orders and supplier payments
8. CORDOBA can also integrate with MS Great Plains to avail financial data (to appropriate personnel).

### **Library System (Optional module)**

1. Resource Management
2. Cataloging
3. Hold requests
4. Circulation, cataloguing, and serials
5. Online Public Access Catalogue
6. Bibliography Checkout Listing

### **Human Resource Management (Optional module)**

1. Manage Payroll for different worker categories.
2. Capabilities to define various allowances classes including monthly entered allowances, fixed amounts and any user define allowance calculation
3. Capability to calculate individual income tax
4. Capability to design a generate payrolls reports, salary slips and forms
5. Capability to calculate overtime and shift allowances.
6. Integrates with 3<sup>rd</sup> party HR systems – also supports MS Great Plains .

### **Community Collaboration (Optional module)**

1. Based on Microsoft Share Point server
2. Collaboration
3. Interaction
4. Students, lecturers and Administrators can exchange
5. Information Sharing
6. Share information, documents

### **Career Placement Module (Optional module)**

1. Facilitate student internships
2. Career development programs for students
3. Graduate career placement
4. Alumni relationship management
5. Workflow management

### **E-Learning Module (Optional module)**

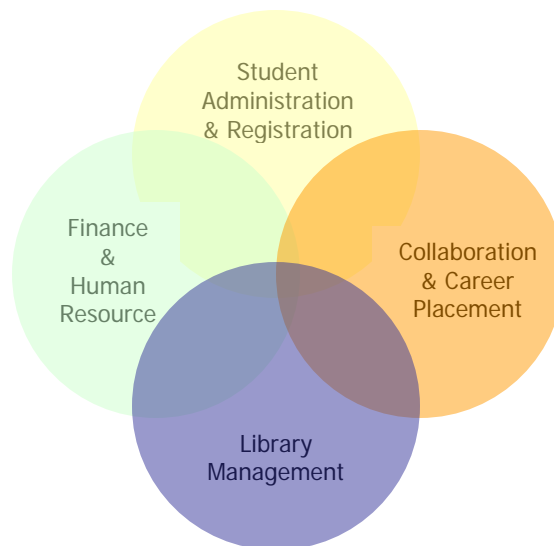
1. Integration with the likes of WEBCT and NetDimensions' EKP
2. Designed to accommodate the institutions spectrum of distance learning
3. Reach non-participating learners in a mode or location convenient for them
4. Accommodate expanded enrollment without major facilities investments

## An Integrated Solution

Traditional education management systems focus on managing student information and enrollment data only. Educational institutions have had to deal with separate islands of information as the data is spread out across multiple systems such as the financial system, the library system, etc.

CORDOBA is a fully integrated solution; which means that data is easily shared *real-time* between the various modules which provides much better insight to administrators and alleviates the burden of having to look up data in multiple systems.

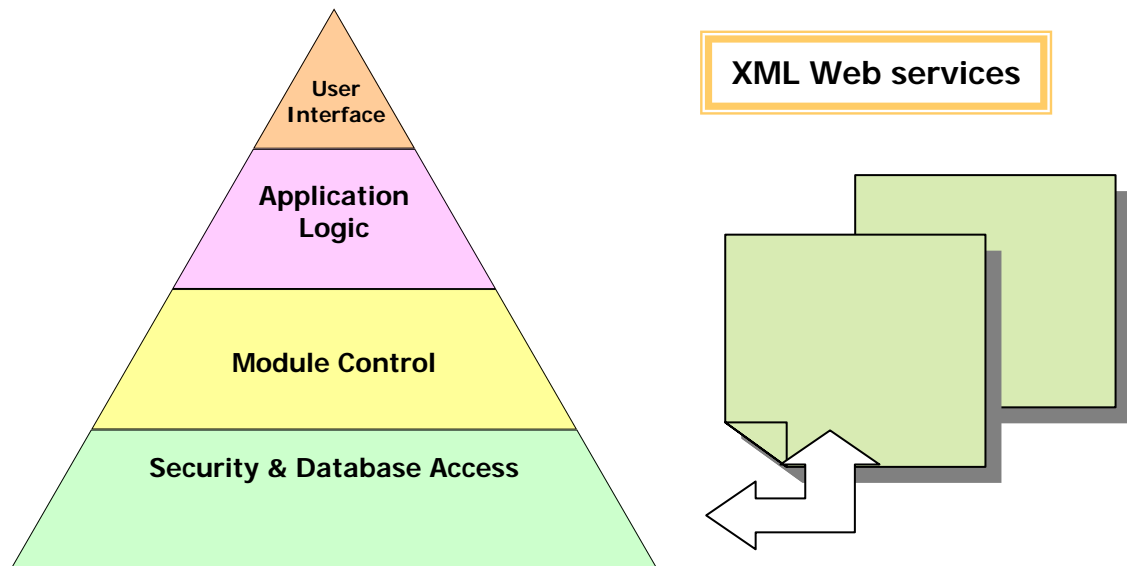
Business intelligence reports can also be generated to gauge the overall performance of the institution from various angles; for example, overall academic performance, student realized gain, average cost per student, etc.





## System Architecture

The system is architected around the Microsoft .NET framework. It is entirely web-based (with the exception of 3<sup>rd</sup> party applications which may integrate with it such as Great Plains and/or HR). Below is a diagram which outlines the architecture.



## CORODBA System Architecture

Being a web-based application, CORODBA is accessible on campus from any PC workstation with a web-browser. The user will be required to enter a user id and password which will in-turn determine what the user can and cannot access based on the security settings for this user.

Integration with 3<sup>rd</sup> party systems or external services is normally achieved via XML web services which facilitate the exchange of data and functions.

## System Requirements

|                       |   |
|-----------------------|---|
| <b>Server H/W</b>     |   |
| <b>No. of servers</b> | Two**   |
| <b>Processor</b>      | Pentium IV 1.7 or higher  |
| <b>RAM</b>            | 1 GB, 1.5GB is recommended  |
| <b>HD</b>             | Fast SCSI with 15GB of free space plus 0.5 GB/100 students/year                 |
| <b>OS</b>             | Windows 2000 Server or Windows 2000 Advanced Server (SV4). 2003 is recommended. |
| <b>Database</b>       | MS SQL Server 2K or higher.   |

\*\* **Note:** The recommendation is based on having one server as an application server running IIS and CORDOBA and the other running SQL Server. This is the min requirement. For better performance and higher scalability it may be recommended to distribute the load on multiple servers depending on which modules are deployed.