SAP for Higher Education & Research

SAP® CAMPUS MANAGEMENT

THE STUDENT INFORMATION SYSTEM IN TODAY'S ENVIRONMENT

SAP has provided business solutions to higher education and commercial customers around the world for 30 years. Hundreds of organizations use solutions from the SAP for Higher Education & Research portfolio to integrate and manage their processes from finance and human resources to facilities management and procurement.

Now in use by our customers in the United States, the United Kingdom, Central Europe, Asia, and Latin America, the SAP® Campus Management application extends our portfolio to include student information and services management.

The traditional administrative tool for managing student records, the student information system, has become the centerpiece of any college or university business-application system. Changes in campus culture, especially the widespread use of the Internet, have raised student expectations of services provided by technology. At the same time, university leaders have become more accountable for the business aspects of campus life. As a result, the student information system has become an important management tool in the drive to become more effective and more competitive. Indeed, in many countries, this drive is encouraged by government initiatives to increase the education level of their citizens by modernizing universities and streamlining administrative processes. Today, a student information system is a crucial tool for supporting change in the global world of higher education and research.

SAP Campus Management has been built from the ground up with input from our customers across the globe. Through a rigorous requirement-gathering process, our designers have built a solution that supports the widely differing administrative processes as well as different educational models found around the world: a nonprogram-oriented model for commercial education offerings, a program-type model, which is most commonly used in the United States, and a program-oriented model, which is typical at many traditional universities in European countries.

Furthermore, SAP Campus Management draws on best business practices not only from our higher-education customers, but also from SAP experience in the public services and commercial worlds. We believe this makes ours the most powerful solution for your needs today and tomorrow.
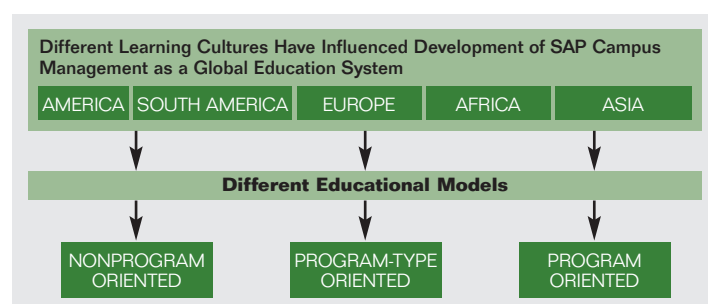

Figure 1: Various cultures have influenced development of SAP Campus Management.

PROVIDING SOLUTIONS TO YOUR PROBLEMS

SAP Campus Management provides the solutions/tools you need to respond effectively to the following:

Spending constraints – All institutions need to do more with less. Your investment in SAP Campus Management will generate a return in greater efficiency; measurable increases in productivity; and lower information technology (IT) costs for maintenance, interfaces, and upgrades.

Outdated systems – Replacing and consolidating inefficient heterogeneous systems will measurably reduce your IT costs. SAP Campus Management is built with the highest-quality software engineering, giving you all the advantages of modern, efficient, and integrated technology.

Competition for Students – SAP Campus Management will improve your responsiveness to prospective and current students. The system contributes to your overall strategy of raising levels of student service while lowering administrative costs. Academic competitiveness will be sharpened by the ability to react quickly to changing academic needs with new courses and programs of study designed for the student of today and of tomorrow.

Accountability – SAP Campus Management will help you respond quickly and cost-effectively to mandated changes and reporting requirements. Seamless integration with back-office financials solutions from SAP gives you increased financial control, better cash flow, and improved data for planning and reporting.

High expectations – Students and faculty have come to expect the sort of high performance from student information systems that administrators experience from back-office enterprise applications. SAP Campus Management, as an add-on to SAP R/3®, brings that level of responsiveness and functionality to the academic community.

Government Initiatives – Public as well as private institutions of higher education and research are increasingly subject to government regulation and requirements. As a provider of software solutions to the public sector, we understand this pressure on university customers around the world, from the "harmonization" policy of the Bologna Declaration in Europe, to the higher education and research (HER) structural reform movement in Japan. The flexibility and enterprise-wide integration capability of SAP Campus Management will help you respond quickly and cost-effectively to these pressures.

SAP CAMPUS MANAGEMENT CAN BENEFIT EVERY CONSTITUENT ON CAMPUS

The unique design of SAP Campus Management makes it the best solution available to solve the complex requirements of each member of the campus community from executives and administrators to students and faculty.

Executives Need Key Data and Flexible Reporting

With SAP Campus Management, SAP brings its traditional strength of enterprise-management support to the business of education. The software's reporting capabilities enable you to analyze data about anything from financial results to enrollment patterns to support the strategic planning process for the whole institution.

Senior Administrators Need Flexibility with Robustness

Senior staff members can seamlessly manage the processes of the student life cycle using their own individualized workplaces, beginning with streamlined admissions and registration processes and ending with graduation and alumni records.

Students and Applicants Are Your Customers and Prospects

They will definitely welcome an integrated Web-based solution to make their lives easier on campus. SAP Campus Management makes it possible to apply for admission, enroll for classes, register, make payments, check grades, monitor progress, simulate degree auditing, and get important information and documents online – without standing in long lines at multiple offices.
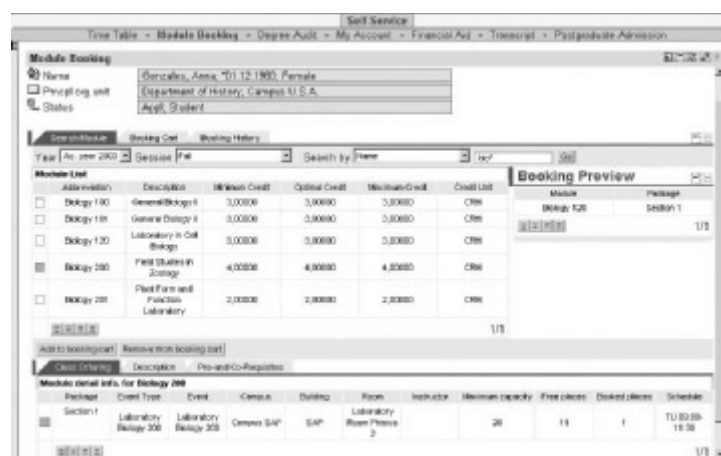

Figure 2: Sample Web page for online course registration.

Advisors Need Accurate, Real-Time Student Data

Advisors will provide better service with accessible student information about everything from transferred external work to internal credits and grades. We provide a Web-based degree audit to facilitate student advisement.

Faculty Members Need Less Administration

Faculty administration is minimized. Faculty members are interested in getting the student data and system functionality they need to provide a meaningful learning experience to their students and to fulfill their administrative tasks quickly and effectively.

IT Can Focus on Service

Robust SAP technology means that IT can focus on the customer, not the system. The high degree of self-service functionality means you get an empowered user, with less reliance on IT for routine transactions. Object-oriented design in SAP Campus Management, the reuse of many well-established SAP tools, and the flexibility of the application all reduce the time required for system configuration and maintenance, freeing IT staff to focus on service.

FEATURES AND FUNCTIONS OF SAP CAMPUS MANAGEMENT

SAP Campus Management is designed to support the management of teaching and studies in general, and the progress of each individual student. The application is flexible to adapt to changing institutional needs and new technology, while supporting the traditional core processes of the student life cycle. Its features and functions include the following:

- **Academic structure** – The back-end hierarchical data structure can be used for a Web display of the academic offerings of your institution such as degree programs, specializations, and all courses offered by schools and faculties. SAP Campus Management works seamlessly with SAP software for Organizational Management and Training and Event Management (TEM) to reduce maintenance effort and data redundancy. The approved curriculum can easily be published on the Web, so students can decide which programs or courses they would like to enroll in. Late changes or corrections are easily incorporated in a Web-based catalog, reducing the costs of producing a paper-based catalog.
- **Academic calendar** – You can set up academic years, sessions, class beginnings, and the duration of registration and exam periods. Time limits can be defined centrally or more flexibly depending on the campus, school, or other criteria. The processes of the student life cycle will follow this calendar.
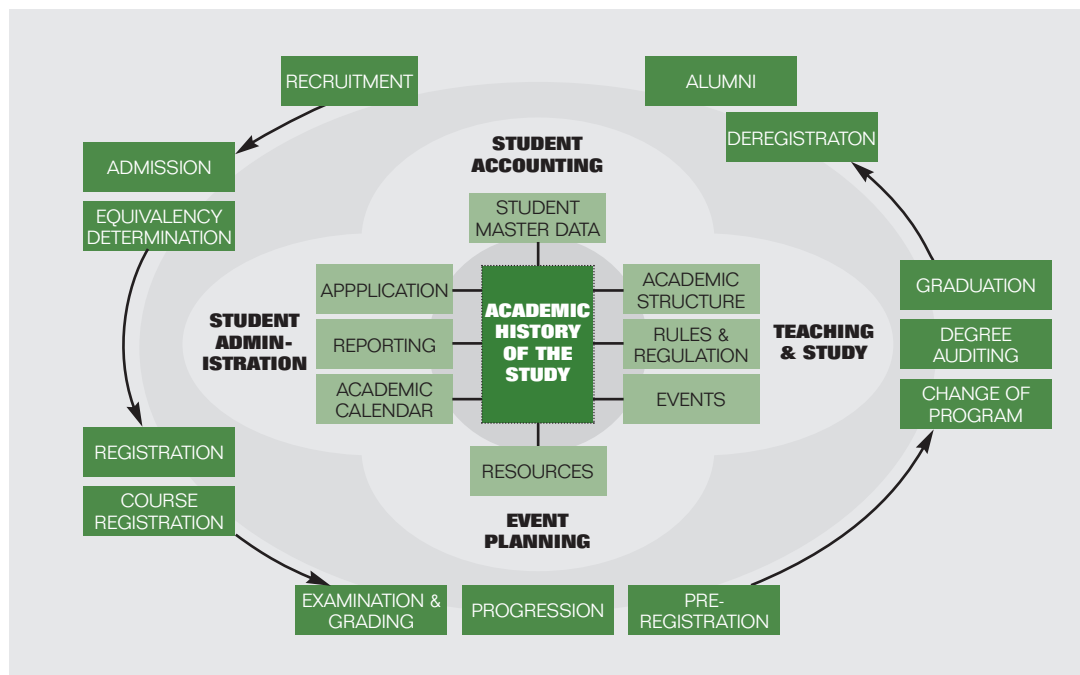

Figure 3: Student life cycle

- **Course scheduling** – SAP Campus Management complements the existing training and event management and resource planning capabilities of the mySAP™ Human Resources solution to meet the precise needs of higher-education institutions. This functionality allows customers to track and schedule a range of resources including teachers and technical support.

- **Equivalency determination** – In SAP Campus Management, you can define transfer agreements with other higher-education institutions. Once defined, the application will assess the student's external achievements and suggest internal equivalencies, transfer credits, and grades.

- **Admissions** – Easy-to-use online applications are included in the core processes of student administration to promote quick responses and efficient processing. The Internet applications are routed to the responsible admission officers. Application processing can be accelerated with customized workflows. Subprocesses such as rule checking or creation of student master records and account data from applications can be triggered in the background for automated processing. Finally, the system can send e-mail or letters to prospects, informing them of the final status of their applications. In the meantime, students can always check the current status of their applications on the Web.

- **Enrollment and registration** – SAP has taken ideas and processes from around the world to build the most flexible, forward-looking registration and enrollment system available today. A student can register for courses or for a degree program, and by doing so attain "active" student status for an academic year or an academic year and session. Financial holds can be set if fees have not been paid on time. Web-based priority registrations can be supported by "time windows" defined in the academic calendar. These time windows can be used to manage workload, to reduce performance risks during a registration period, or to give selected students first access to limited seats in classes. It is possible to have multiple sessions open for registration. During the registration procedure, the system can automatically check time conflicts in a student's schedule, custom-defined registration rules,

capacity limits of events, holds, and so on. Senior staff can be given the authority to override specific rules if necessary. SAP Campus Management also supports processes such as leave of absence, change of program, withdrawal, and dismissal.

- **Student file** – All student-centric data and processes can be handled in a "student file." It is the core repository for the most important student data and the central starting point of all student-related processes. The student file is flexibly designed and therefore customizable in a user-centric way. In the student file, you will find personnel data such as addresses, visa information, and information on related persons or the particular student's account. You can add and change individual notes, remove or set financial or academic holds, and check all kinds of status information. The student file provides access to the academic history of the student, to current course registration, and progression results. Access to data is, of course, protected by authorizations and confidentiality warnings per the Family Educational Rights and Privacy Act (FERPA).

- **Online account statements and bill payments** – Students can check the status of their student accounts at any time – online. They can pay open items either online, using functionality in the SAP Biller Direct application, or in person at the bursar's office using cash-desk functionality. SAP Biller Direct and cash-desk functionality support online payment-card verification and are fully integrated with the student receivable system. Depending on the university's policy, a student can select open items to be paid or just indicate a payment amount, which will be applied to open items based on clearing rules defined by the institution. The software supports partial payment and overpayment as well as installment plans.

- **Student receivables and student billing** – The application provides a highly flexible fee calculation including refunding, due dates, and account assignments for controlling and funds management. SAP Campus Management incorporates functionality for contract accounting that has been used by many SAP customers in the utilities and telecom industries for a long time.

This robust functionality allows for complete receivable processing including invoicing, payments, clearing, and dunning, and can easily handle high data volumes. The application supports financial-aid disbursements including loans and third-party sponsorship, for example, payment by employers to further their employees' education or skills. Aid in excess of fees can be transferred electronically to the student's bank account or paid out by check. Where required, SAP Campus Management can issue invoices to sponsors including lists of those students who were sponsored.

- **Grading** – With SAP Campus Management, authorized faculty and staff can access class rosters online. Examiners can enter results with grading scales that vary according to course level or individual students. When an examiner has entered and checked all results, he or she can complete the grading process by setting the "final" grading status. Only then can students see their grades in the student self-service area: Only then can follow-up processes like progression and degree audit make use of the results.

- **Progression** – Depending on your particular environment, you may want to measure the progress of your students in different ways. One option is to determine the academic standing (good standing, on probation, and so on) and class (freshman, sophomore, junior, or senior) based on grade point averages (GPA) and achieved credits of all undergraduate or graduate work of a student. Another option is to evaluate a student's progress against the requirements of a given stage of the student's degree program. SAP Campus Management supports several progression methods thanks to our global approach to solution design. The flexibility of this application allows an institution to change processes in the future without the need to install a new student information system.

- **Degree and stage auditing** – Degree and stage auditing is an Internet-based tool for various users to check the current status of a student's progress toward a degree. A student can use it to check his or her current status in progressing toward a degree. Faculty and staff can use it to run a degree audit during student advising or as part of the examination and

graduation process. Making use of the program data stored in the academic structure, the degree audit is the crown jewel among all SAP Campus Management functions. It allows you to set up all kinds of rules in an easy manner and to organize those rules in catalogs that support different catalog versions. For a degree audit run, the system will derive the appropriate requirements depending on degree program, specialization, and version chosen, and will compare those requirements with the student's internal and external achievements. This feature can be used to support counsel regarding courses, credits, or other requirements to be fulfilled before registration for examination or graduation procedures.

- **Graduation** – The core mission of each college and university is to confer qualifications and degrees after a course of approved study. SAP Campus Management can track applications for graduation and can evaluate results of degree audits to support the graduation process. A background report can automatically de-register students after their graduation.

- **Correspondence** – SAP Smart Forms provides an easy-to-use graphical user interface (GUI) for creating and adjusting forms for mass correspondence without any programming skills. With SAP Campus Management, we provide many predefined attributes such as a student's name and ID, the status of an admission application, or data regarding a student's academic history, for automated processing of your correspondence. Additionally, correspondence document templates based on Microsoft® Word or Microsoft Excel are available with SAP Workflow to facilitate individual correspondence with prospects or students, for example, during an admission process.

- **Multidimensional reporting** – Setup of several data dimensions and structures is standard, as is the option to generate key figures for strategic reporting. Web enhancements enable you to publish online reports via the Web.

- **Security and authorization** – Secure data and access are major concerns on campuses around the world. Information security is constantly under attack from sources both on- and off-campus. As the major enterprise-application software provider in the world, SAP supports the security requirements

not only of commercial customers such as Lockheed Martin and Coca-Cola, but also of research customers such as the National Aeronautics and Space Administration (NASA) and the Massachusetts Institute of Technology (MIT).

The authorization process in SAP Campus Management includes data security on the transaction, process, and activity level. In addition, a structural authorization method enables you to set up restrictions depending on the organizational structure of your institution. For example, you can limit the authorization of a user so that he or she can only change degree programs and courses offered by a specific faculty or school while he or she can still display all programs and courses offered by the university. An audit trail mechanism in SAP Campus Management tracks critical data changes in activity documents, access to which is usually highly restricted.

IMPLEMENTING SAP CAMPUS MANAGEMENT

We are proud of our record of on-time, on-budget implementations of solutions in the SAP for Higher Education & Research portfolio. SAP Campus Management continues this successful record with seven pilots and early adopters that went live with the application during the year 2002–2003.

SAP Campus Management is an add-on to SAP R/3 Enterprise. This means you can install SAP Campus Management on the same system on which the mySAP Financials and mySAP Human Resources solutions reside, without interfaces. This saves time and money not only during the implementation phase, but also for ongoing maintenance of the system.

SAP Campus Management makes use of many well-established SAP tools and applications such as workflow, Internet service requests (ISR), contract accounting, Organizational Management, Training and Event Management, print workbench and SAP Smart Forms, and the object-oriented personal development (PD) framework. This means you can make use of your staff's existing SAP expertise, and by doing so, keep implementation costs low.

During the design of SAP Campus Management, we clearly separated the user interface and the back-end functionality. This gives your institution the choice to either use standard user interfaces from SAP or to build your own, tailored to meet exactly the needs of your user community. This will help you bring optimal efficiency to your institution's administrative processes and provide better services to your students.

Work with an Integrated System

The SAP NetWeaver™ technology platform enables your institution to have a fully integrated Enterprise Services Architecture (ESA). SAP NetWeaver enables the integration of people, information, processes, and systems throughout your institution. SAP NetWeaver has an open, standards-based portal that provides collaboration, knowledge management, and role-based access to IT systems and Web services. SAP Web Application Server (SAP Web AS), an SAP NetWeaver product, provides the most current technology to build and run powerful Web transactions. SAP Exchange Infrastructure (SAP XI), an SAP NetWeaver offering, makes it easy to integrate SAP and non-SAP systems such as curriculum management systems (CMS). This technology will help you make the best out of your existing system landscape and integrate new applications such as SAP Campus Management.

Release Strategy

Most of our SAP Campus Management customers are currently using release IS-HER-CM 4.64, which has been available since April 2002 and is based on SAP R/3 4.6C. One university is already live with our next release, IS-HER-CM 4.71, which has been available since April 2003 and is based on SAP R/3 Enterprise 4.70 with Extension Set 1.10.

Development of SAP Campus Management is ongoing. We will add new functionality and extend existing functionality such as degree auditing and managing of examinations, and we will continue to make SAP Campus Management work seamlessly with other applications such as SAP Customer Relationship Management (SAP CRM) and SAP Business Intelligence (SAP BI), an SAP NetWeaver offering.

Our next release, IS-HER-CM 4.72, is scheduled to be shipped in May 2004, and will be based on SAP R/3 Enterprise 4.70 with Extension Set 2.00. Most current information on shipment dates is published in the Product Availability Matrix (PAM) on SAP Service Marketplace at **http://service.sap.com/pam**

Upgrade Strategy
One way to protect your investment in SAP technology is to take advantage of SAP's emphasis on research and development, focused on keeping our customers supplied with current and proven technology. We design upgrades with migration paths and tools (such as transport, modification assistant, and note manager) to reduce system downtime (often to a matter of hours) and with it the cost of ownership. Smooth and efficient upgrades are a mark of SAP technology.

RETURN ON INVESTMENT STRATEGIES USING SAP CAMPUS MANAGEMENT

The deployment of SAP Campus Management represents an investment in SAP as your strategic technology partner today and tomorrow. These are just some of the areas in which our customers have seen and expect to see measurable returns on that investment:
- Strategies for administrative savings
  – Deployment of self-service features
  – Streamlining and automation of essential tasks
  – Improved financial and resources management due to tight integration with finance and human resources processes
  – Electronic bill paying
  – Electronic course catalogs
- Strategies for information technology savings
  – Reduced time is spent on system maintenance and interfaces.
  – Platform consolidation lets you save on IT training.
  – System consolidation reduces interfaces.
  – Flexibility of SAP applications reduces customer-specific modifications.

– Investment in SAP skills supports ongoing improvement.
– Systems on expensive mainframe infrastructure are replaced.
– Extension to add SAP Campus Management users is inexpensive.
- Strategies for enhanced revenue
  – New courses are easily added to the catalog.
  – Improved service supports student and faculty recruitment.
  – Improved status is gained for your institution.
- Strategies for improved institutional status
  – Offering best services to your students and faculty members
  – Offering best services to your potential students
  – Offering best services to your alumni
  – Offering best integrated solution to your employees

SAP CAMPUS MANAGEMENT CASE STUDIES

Within one year (2002–2003), seven SAP customers went live with SAP Campus Management and further implementation projects are in progress. Live implementations are proceeding on four continents: Europe, North America, Latin America, and Asia.

The following are some highlights of SAP Campus Management projects at four very different institutions with similar goals. In each case, these SAP customers were looking for a low-cost, high-return extension of their existing SAP environment with integrated workflow and seamless processes. Teams of university subject experts worked for several months with external consultants in process reengineering, customizing, and go-live. After thorough training, each customer went successfully into production. User acceptance of the new technology has been high among both students and staff.

University of Basel, Switzerland
Founded in 1460, the University of Basel is Switzerland's oldest institution of higher education. In 2002, the University had a total of 8,000 students – 6,400 undergraduates and 1,600 doctoral candidates.

Implementation proceeded as follows:

- Go-live on SAP Campus Management with IS-HER-CM 4.64 in July, 2002
- Implementation time 12 months – supported by 300 days of external consulting
- Challenges addressed by SAP Campus Management
  – Modernization of the legacy system landscape
  – Replacement of an old system for administrative processes that was on the verge of breakdown.
  – More flexible structure and processes
  – Integration of "silos"
  – Improved reporting
- Implemented functions for:
  – Organizational structure
  – Academic structure
  – Student administration
  – Admissions
  – Reregistration
  – Student accounting
  – Integration with SAP Human Resources and mySAP Financials

For the University of Basel, SAP Campus Management means a new lease on life. Key administrative processes are automated. Long lines for registration no longer exist. Seamless integration and elimination of manual work have eliminated costly errors. And, staff members no longer need to spend hours of expensive overtime balancing the books at the end of the academic year. The accuracy and quality of data has increased dramatically. As a result, the institution can now fulfill reporting obligations, with minimum manual intervention, and can analyze all aspects of core operations as and when required. Most importantly, the solution provides the organization with a direct route to its goals and a strong, powerful, scalable foundation for the future.

For further Information, visit **www.sap.com/higher-ed** and choose *Customer Successes*. The University of Basel upgraded the production system to SAP R/3 Enterprise 4.70 with Extension Set 1.10 and IS-HER-CM 4.71 in July 2003.

University of Montevideo, Uruguay

With more than 15 years of academic activities, the University of Montevideo has become one of the most prestigious private universities of Uruguay. Each year more than 1,500 students participate in programs offered by six schools and other academic centers that cover the science, humanity, social and business areas. Implementation proceeded as follows:

- Go-live on SAP Campus Management with IS-HER-CM 4.64 in July, 2002
- Implementation time 12 months – supported by 250 days of external consulting
- Challenges addresses by SAP Campus Management
  – Supporting 20% annual institutional growth
  – Integration of academic and administrative support systems
  – Integration of all financial, accounting, and purchasing operations
  – Strategic decision making
- Implemented functions for:
  – Student administration
  – Academic rules
  – Course registration
  – Grading
  – Student self-service
  – Student accounting
  – Integration with mySAP Financials and SAP Human Resources

With an annual growth of 20%, the management council of the university decided that it was the right time to implement a management system that would service their educational processes, to reach the level of excellence proposed in their mission.

Quickly it was understood that the goals would be reached only by using a solution that is able to integrate the main administrative processes: economic and financial management; purchasing; and management of the most valuable resources of a university – its professors, students, and employees.

The most evident benefits come from substituting existing systems with integrated solutions from the SAP for Higher Education & Research portfolio, so that the information flow is secure, uniform, not duplicated, and opportune. The SAP software is open, allowing it to connect with other in-house systems or those of third parties. It is also flexible, as it is able to reflect organizational changes. In addition to implementation of SAP Campus Management and SAP R/3, there was an intense rationalization of the processes, which resulted in immediate benefits in terms of simplicity of operations and consistency of information available.

Further information is available at
www2.um.edu.uy/sap/indexen.htm

The University of Mississippi, United States

The University of Mississippi (UM) is experiencing a renaissance unparalleled in the school's 155-year history. In 2003, enrollment is at a record high, with 14,500 undergraduate and graduate students spread across the institution's campuses. Implementation proceeded as follows:

- Go-live on SAP Campus Management with IS-HER-CM 4.64 in May 2003
- Implementation time 19 months – supported by 300 days of external consulting.
- Challenges solved by SAP Campus Management
  – Reduced maintenance costs of the legacy system
  – Flexibility to grow and change
  – Integration with the other SAP solutions in the SAP for Higher Education & Research portfolio
  – Modernization of the university's processes
  – Can offer better service to students, faculty, and administration
- Implemented functions for:
  – Academic structure (including publication on the Web)
  – Student administration
  – Admission via the Web with ISR applications
  – Course registration (including self-services via the Web)
  – Grading self-service for examiners on the Web

– Reports are now delivered as spreadsheets
– Student accounting
– Online student account statements
– Full integration with SAP Human Resources and mySAP Financials including controlling and funds management

"Perhaps the biggest advantage in the move to SAP is that it got us into a current, modern technology base, which makes possible many self-service applications geared toward the needs of our students, faculty, and staff. The solid tools that are part of the standard SAP product offering allow us to create applications customized to our needs, for example, reports to send e-mail in response to process triggers," says Kathryn Gates, assistant vice chancellor for information technology, University of Mississippi. "The beauty of SAP Campus Management is that everything from a student's contact information to course credits and grades to billing statements is in one system. Moreover, SAP Campus Management coexists with other SAP modules such as HR and financials. This leads to integrated processes and always up-to-date, consistent data. With the flexibility of the SAP validations, substitutions, and rules (VSR) tool, we can implement whatever administrative or academic rule we need to minimize the chances of errors during process execution. These rules, together with the ability to time-delimit all data, make SAP Campus Management a perfect solution for a living university environment in which courses, programs of study, academic rules, and even students constantly evolve."

Visit the University of Mississippi at
www.olemiss.edu/academics/index.html

The Katholieke Universiteit Leuven , Belgium

The Katholieke Universiteit Leuven is the oldest university of the Low Countries and the largest Flemish university with a total of 28,600 students for the Academic Year 2002–2003. Implementation proceeded as follows:

- Go-live on SAP Campus Management with IS-HER-CM 4.64 in July, 2003
- Implementation time 12 months – supported by 780 days of external consulting

- Components Implemented
  - Academic structure (including publication on the Web)
  - Planning of the academic year (including publication of schedules on the Web)
  - Student administration (including registration and reregistration via the Web)
  - Student accounting
  - Reporting using SAP Business Information Warehouse
  - Full integration to SAP Human Resources and mySAP Financials including Real Estate

"Gone are the long rows of eager new students, gone is the billboard telling how many students are still waiting in front of you. Registering never was this simple." (*Campuskrant K. U. Leuven,* September 4, 2003)

The project is going on. K. U. Leuven is planning to implement further SAP Campus Management functions throughout 2004 and 2005 with the aim of fully replacing the existing legacy systems by the academic year 2005-2006.

Visit K. U. Lueven at
www.kuleuven.ac.be/onderwijs/aanbod/opleidingen

WHY SAP FOR HIGHER EDUCATION & RESEARCH

SAP Campus Management is an important offering of the SAP for Higher Education & Research portfolio of industry-specific solutions, applications, and services, which cover the entire student life cycle and business operations of institutions.

SAP is the worldwide leader in enterprise application software and has an unparalleled commitment to research and development. When you select SAP as your partner, you benefit from the latest technological development as well as reliable support, maintenance, and enhancements.

SAP's vast experience translates not only into a high level of functionality, but also into a refined methodology (AcceleratedSAP™) for fast and efficient implementation.

Figure 4: Overview of the SAP for Higher Education & Research portfolio

Finally, SAP is the only enterprise application vendor committed to higher education that has a truly global approach. We understand not only what you need today, but also where you need to be tomorrow. With this in mind, we have developed in SAP Campus Management an application for the needs of students today and in the future.

For More Information
Visit us at **www.sap.com/higher-ed**

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