

Natural Sciences and Mathematics Information Technology Vision 2006-2011

The College of Natural Sciences and Mathematics is committed to providing state-of-the-art information technology services and equipment for its students, faculty, and staff. To this end, the college proposes an ambitious IT plan based on four components:

1. VNet (Virtual Net)
2. VTC (Virtual Technology Center)
3. VStation (Virtual Station)
4. VClassroom (Virtual Classroom)

"We seek to revolutionize the learning environment for students, to provide faculty with the tools for dynamic teaching, and to assist staff in achieving greater work productivity."

- The VNet Team

Virtual Net

VNet is a modern Internet service portal for the College of Natural Sciences and Mathematics. It is changing the way the college community communicates and exchanges information. It includes a centralized information environment for administrative and academic services.



VNet is replacing obsolete and time-consuming paper forms with modern Web-based electronic forms. Faculty and administrative staff are able to access their financial accounts in real time and approve purchases in a secure environment accessible from any part of the world.

VNet also provides modern technology multimedia services such as streaming of course lectures. It is the premiere service portal for students, faculty, and staff.

Virtual Technology Center

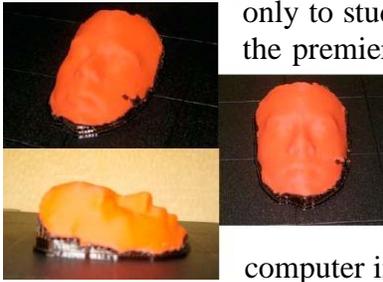
VTC is the second part on the NSMIT Vision. It is a professional multimedia service and development lab that includes:



1. Centralized IT customer support stations
2. Web data entry and updates stations
3. Desktop publishing, database, and multimedia development lab
4. Professional video, sound and 3D animation development lab

VTC provides IT professional multimedia development services such as professional-quality video editing, development of complex animations, and highly sophisticated three-dimensional simulations to help market research ideas, introduce course ideas, or develop new products.

At VTC, we are able to handle multiple multimedia needs with state-of-the-art capabilities for video, animations, data management, and DVD presentations. These services are available not only to students, faculty, and staff, but also to partnering companies. VTC is the premiere multimedia development center for the college. It provides the



necessary support and expertise to enable the college to maintain a highly dynamic and sophisticated presence on the Internet. It also provides specialized large-format, photo-quality color printing, and DVD recording. VTC includes a 3D printer where developers and researchers are able to watch their 3D computer images come alive by generating 3D plastic solids.

Virtual Station

The third part of NSMIT Vision is installation of VStations in central areas throughout the college. They are centralized hi-tech information and news stations. Each includes Internet and multimedia specialized access stations with wireless connectivity for students with laptops. LCD panels are included to display up-to-date information of interest to the academic community. They include printer, scanners and USB drive connectivity to enable students, professors, and staff to submit material in electronic form. It also includes videoconferencing capabilities so students, staff, and faculty can communicate with IT support staff and academic advisors in real time. The stations are the physical information portal between Web services and the academic community.



Virtual Classroom

VClassroom is the fourth part of the NSMIT vision plan. It is based on the following facts:

1. The more of a student's senses a professor can stimulate, the more effective his teaching will be.
2. Many students have difficulty with science and mathematic courses, not because the courses are inherently hard, but because the content is difficult to present.
3. Easy access to professor assistance is the key ingredient to easy learning.

VClassrooms focus on bringing to the classroom technology tools that help professors present science and mathematic concepts in a more effective way. VTC achieves this by implementing affordable 3D and animation technologies to help professors improve their science and mathematic presentations. Also, VTC applies sophisticated desktop videoconferencing capabilities to bring the classroom and learning tools to students.

As part of this stage, there will be 100 percent wireless coverage of all NSM buildings. NSMIT also will implement a laptop requirement program for all NSM students and course recording, and Web streaming capabilities will be available to all NSM professors.