NDSU Technology Action Plan Request

I. Action Plan Introduction and Authorizations

NDSU ORGANIZATION OR UNIT

College of Pharmacy, Nursing, and Allied Sciences

TITLE OF PROJECT

Incorporation of video technology in a large classroom

Project Duration (3 years maximum) From: May 2012 To: December 2012

Type of Project (Check one) New XX Previously Submitted Renewal

Total Technology Fee Request $18,435

Project Director (Must be NDSU faculty or staff)

Donald Miller, Pharm.D.

Campus Address: Sudro 118A

Phone: 1-7941
Fax: 1-7606
E-mail: Donald.miller@ndsu.edu

Name (Type or Print) Signature Date

Project Director
Donald Miller

Unit Head
Charles Peterson

IT Division Consultant
Melissa Stotz

Executive Summary (maximum of 175 words)

IVN technology is a very useful way for instructors and students in different locations to meet with each other but available IVN rooms are too small for most regular classes. By introducing a simplified video interface in a classroom, instructors living outside of outside of Fargo and guest lecturers will be able to teach from remote sites. This will enrich the learning experience for students, prevent classroom disruptions due to bad weather, and save money for travel expenses by the teachers and guest instructors. The incorporation of lecture capture technology within the project will substantially increase student satisfaction and ability to review lecture material.
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II. Project Overview

1. How does this project meet student needs?

Video technology will allow guest instructors to speak to classes in Sudro on a more regular basis. In addition, pharmacy and nursing instructors who have clinical sites out of Fargo can at least occasionally teach from a remote location instead of traveling to Fargo when poor weather conditions exist.

2. What audience does this project directly serve? What audience is indirectly served? How many students are affected?

Students from across campus use Sudro 22, although preference is given to students in our College. Students in pharmacy and nursing will be the primary beneficiaries.

3. For projects that target a subset of NDSU’s students, please describe the possibility for broader application in the future.

NDSU currently has just 2 or 3 IVN-equipped rooms but each has a small seating capacity and is not suited for large classes. If this technology works well in the pilot classroom, similar technology could be a viable solution for additional large classrooms across campus.

4. Describe both the immediate and long term impact of this project.

Addition of video technology will immediately assist students and instructors in the College of PNA&S and it will also serve as a pilot for additional classrooms across campus.

5. Who will pay for ongoing expenses following the technology fee funded portion of this project (e.g., who will replace hardware or software after it has reached its end of life)?

The College of Pharmacy, Nursing and Allied Science will work with ITS to maintain and update the system.

6. Describe how this project will follow NDSU’s best practices in information technology. (Please make sure the NDSU IT Division staff you consulted signs in Part I of this form.)

This project has been discussed with Melissa Stotz and Micah McGowen, and the equipment configuration is the one recommended by them.

7. What service on campus is most similar to the one proposed here? How does this project differ?

IVN is a similar service but is limited to small classes. This project will allow use of video technology in classes of up to 90 students.
IVN technology is a very useful method for allowing instructors and students in different locations to interact. However, the IVN classrooms are too small and too few for regular use by classes of any size. Classes in Sudro Hall sometimes desire to use guest speakers from Minneapolis, Rochester, MN, etc, but there is no way for such a guest to speak to our classes unless they travel to Fargo at considerable expense and inconvenience. In addition, the Department of Pharmacy Practice has 3 faculty who live in and have clinical practice sites at Bismarck, Oakes, and Fergus Falls. Again, these instructors must regularly commute to Fargo to teach even during bad winter weather.

When instructors are not able to travel to Fargo they may currently record their classes on Wimba or by PodCast, but this does not provide the classroom interaction that most students prefer. If a simple video technology could allow teachers to appear in the classroom in real time, it would have substantial advantages for both students and faculty.

If video technology is added to any classroom, it also makes sense to install a lecture capture system at the same time. Tegrity Lecture Capture has been piloted in Sudro 27 with excellent response by both faculty and students. Expanding access to lecture capture is an attractive addition to this proposal.

The applicant of this proposal has worked with Melissa Stotz and Micah McGowen to develop a system that permits the objectives described above. The result is an efficient and affordable proposal to introduce a new video technology to NDSU. If the system in Sudro 22 works well, a similar system should be very helpful to additional classrooms across campus.

I propose to purchase and install the needed equipment over the summer of 2012, with the technology used and tested in fall semester 2012. Troubleshooting and tweaks to the technology should allow wide use by spring 2013 and installation of similar equipment in other classrooms (as demand dictates) thereafter.

The technology will of direct benefit to 380 students in pharmacy and 200 students in nursing. In addition, the technology will be available for any class that wishes to use it in nonscheduled time periods.
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IV. Milestones

List the date for each project milestone. These milestones should represent the *significant* accomplishments that will be associated with the action plan. For each milestone, please indicate its expected outcome and the means for assessing that outcome. (The table may be extended as needed.)

<table>
<thead>
<tr>
<th>Date</th>
<th>Milestone</th>
<th>Expected Outcomes</th>
<th>Means of Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Spring 2012</td>
<td>Purchase of equipment</td>
<td>Equipment received</td>
<td>Equipment received</td>
</tr>
<tr>
<td>2. May 2012</td>
<td>Installation of equipment</td>
<td>Equipment installed</td>
<td>Equipment installed</td>
</tr>
<tr>
<td>3. Fall 2012</td>
<td>Use and troubleshooting of technology</td>
<td>Regular use of video technology</td>
<td>Student and faculty satisfaction surveys, usage statistics.</td>
</tr>
</tbody>
</table>

4. 

5. 
As the Classroom Technology Manager I give my full endorsement to this project request. Adding a desktop videoconference and lecture capture to Sudro 22 will provide the ability to conference with a class as large as 90 students. This resource currently is not easily available at NDSU. If the installation and use of the system yields a success for the students and instructors, we may use the experience to add more similar resources in other large classrooms across campus. Lecture capture is in its beginning stages at NDSU; we are striving to secure funding to install Lecture Capture in as many classrooms as instructors request. Lecture capture directly benefits students.
NDSU Technology Fee Action Plan Request
VI. Budget

1. NDSU ORGANIZATION OR UNIT
   College of Pharmacy, Nursing and Allied Sciences

2. PROJECT DIRECTOR(S)
   Donald Miller, Pharm.D., Chair, Pharmacy Practice Dept.

3. SALARIES AND WAGES

<table>
<thead>
<tr>
<th>Personnel description</th>
<th>Number employed</th>
<th>Number of months</th>
<th>Funds Requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Staff</td>
<td></td>
<td></td>
<td>$0.00</td>
</tr>
<tr>
<td>B. Graduate students</td>
<td></td>
<td></td>
<td>$0.00</td>
</tr>
<tr>
<td>C. Undergraduate students</td>
<td></td>
<td></td>
<td>$0.00</td>
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</table>

4. TOTAL SALARIES AND WAGES  $0.00

5. FRINGE BENEFITS

6. TOTAL SALARY, WAGES AND BENEFITS $0.00

7. EQUIPMENT

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
<th>Price</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaddio WallView Pan/Tilt/Zoom Camera System (Black)</td>
<td>2 x $1310</td>
<td>$2,620.00</td>
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</tr>
<tr>
<td>Composite Video Switcher</td>
<td></td>
<td>$300.00</td>
<td></td>
</tr>
<tr>
<td>Epiphane VGA2PCIe</td>
<td></td>
<td>$785.00</td>
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<tr>
<td>Viewcast Osprey 260e</td>
<td></td>
<td>$410.00</td>
<td></td>
</tr>
<tr>
<td>Ceiling Mic (6 at $300)</td>
<td></td>
<td>$2,400.00</td>
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<tr>
<td>Wireless Mic</td>
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<td>$600.00</td>
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<tr>
<td>Mic Mixer</td>
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<td>$5,000.00</td>
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<tr>
<td>Crestron TPMC-9 touch panel</td>
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8. TOTAL EQUIPMENT $14,115.00

9. MATERIALS AND SUPPLIES

<table>
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<th>Description</th>
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<tbody>
<tr>
<td>Creston Power Supply CNPWS-75</td>
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<tr>
<td>Creston HBBLOCK</td>
<td>$180.00</td>
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<tr>
<td>Creston c2N-VEQ4</td>
<td>$500.00</td>
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<tr>
<td>Creston ST-RMK</td>
<td>$90.00</td>
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<tr>
<td>Creston CNXRMK</td>
<td>$90.00</td>
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<tr>
<td>Cables</td>
<td>$500.00</td>
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<tr>
<td>Room Infrastructure Changes</td>
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</tr>
<tr>
<td>Pressure mats ($300) and rubber protective mats ($400)</td>
<td>$700.00</td>
</tr>
</tbody>
</table>

10. TOTAL MATERIALS AND SUPPLIES $4,320.00

11. TOTAL TECHNOLOGY FEE REQUEST $18,435.00

12. MATCH (Describe in Match Section)

13. TOTAL PROJECT EXPENDITURE $18,435.00
All “equipment” and “materials and supplies” listed above were provided by ITS as a complete list of the purchases required to transform Sudro 22 from an instrumented classroom into a desktop videoconference/lecture capture classroom. The entire system is required to be functional. (Additional information can be obtained from Melissa Stotz).

**Room infrastructure changes.** There will need to be work orders submitted to Network Engineering and Operations, and Facilities Management. This is the estimate of their labor and materials charges.
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VIII. Budget Match

There is no budget match available for this project.