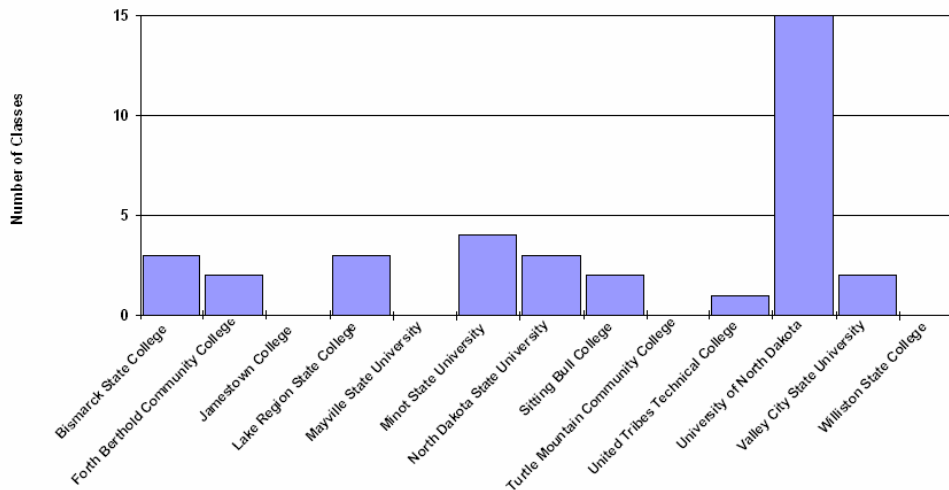
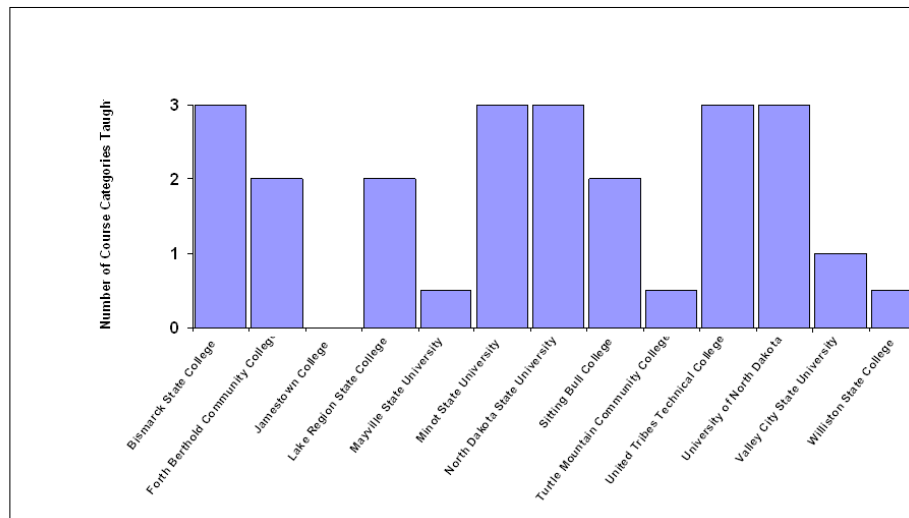


**“Needs Assessment” Survey Results
and
Winter Business Meeting**

Number of GIS/GPS/Remote Sensing Courses Taught by Each College/University



Categories of Geospatial/Remote Sensing Technologies Taught at North Dakota Schools



"0" - No classes taught. No technology currently available.
 "1" - At least 1 category (GIS or GPS or RS) is currently taught
 "2" - At least 2 categories are currently taught
 "3" - All 3 categories are currently taught
 "0.5" - Technology currently available, but no classes are taught

Technologies taught may be integrated with other curriculums rather than unique courses.

Interest in Curriculum Development Among North Dakota Schools

College/University	GIS Curriculum	GPS Curriculum	Remote Sensing Curriculum
Bismarck State College	N/A	N/A	Developing classes for GIS Technician (AAS degree) and proposed Remote Sensing course.
Fort Berthold Community College	Expansion / Upgrades	N/A	Upgrade / Expand current equipment.
Jamestown College	To be informed of the technology and to teach it to students.	To be informed and to teach students of its potential applications.	Not sure how it might be used at this time.
Lake Region State College	N/A	N/A	
Mayville State University	N/A	As the GIS program expands, GPS would be of value.	Interest is limited, with only about 2 days of material in the Social Science Composite and Geography degrees.
Minot State University	All help is welcome.		
North Dakota State University	N/A	N/A	N/A
Sitting Bull College	N/A	N/A	Expand research and educational programs.
Turtle Mountain Community College	Expertise (need instructor training). Already have computers in the math lab set up with GIS. License has expired and server is being repaired. Classes could be conducted with ArcView 9.1 and faculty expertise.	Already use GPS positioning for a number of environmental studies conducted for various grants.	Students are currently mapping environmental studies information using graphing programs to establish gridlines which are fitted to scanned soils maps. GIS would be much easier.
United Tribes Technical College	N/A	N/A	N/A
University of North Dakota	N/A	N/A	N/A
Valley City State University	Would be used in "Earth Science" and "Fish and Wildlife" courses currently taught.	For use in Geology and Fish Wildlife courses.	"Love" to have more remote sensing technology to use in several Earth Science courses.
Williston State College	WSC is very interested in starting GIS courses, with hopes of providing advanced classes in the future. WSC is targeting centers of excellence for the northwestern region of ND: Energy, Agriculture, and Entrepreneurship, with the goal of combining education and business for economic development and higher paying jobs.	WSC is very interested in starting/obtaining GPS technology. As part of the North Dakota Governor's Center of Excellence initiative, WSC will target the areas of energy, agriculture, and entrepreneurship to combine education and businesses for economic growth of this region. GPS has diverse applications for navigation and electronic mapping.	As part of the Governor's Center of Excellence initiative, WSC will target the areas of energy and oil field businesses, agriculture, and entrepreneurship to combine education and businesses for economic development in this region of the state. Remote Sensing can be used to build databases for numerous potential opportunities: improving quality of life, job enhancement, hazardous waste management, etc.

N/A - Not Applicable due to existing curriculum

- Develop AAS degrees in GIS

- Incorporate technologies into other Earth-science courses

- Expand/upgrade current programs

Obstructions to Establishing and Maintaining Remote Sensing and Geospatial Technologies Curriculums

- Funding for Software and Licenses**
- Faculty Expertise**
- Additional Faculty Needed
(current teaching loads are heavy)**

Potential Undesirable Results:

Graduating students may not be able to compete in the workforce!





to the Rescue!

Maybe?

**Survey results were presented
at the *AmericaView* Winter
Business Meeting.**

Potential Solutions

GIS



AmericaView has been negotiating with ESRI for group software/licensing purchase.

- Each *StateView* takes \$10,000 out of budget for software/licenses
- Software is installed at all *AmericaView* partner locations
- Licenses are managed at *StateView* headquarters

Potential Solutions

Remote Sensing

- ◆ **MultiSpec** Free Remote Sensing software available for download on the web. Tutorials also available.
<http://cobweb.ecn.purdue.edu/~biehl/MultiSpec/>



ERDAS Imagine

NorthDakotaView has been given permission to make software and licensing available to partners. Licenses managed at UND.

Potential Solutions

Faculty Expertise

- ***IVN* - North Dakota Interactive Video Network**
Video Cameras located in classrooms/labs of schools that currently have curriculums established. Monitors located in schools needing instructors.

www.ndivn.nodak.edu

- ***OhioView* faculty could take sabbaticals from current institutions in order to assist with establishing and teaching GIS/GPS/RS curriculums.**

Implementation Delays

- ***AmericaView* was eliminated from the USGS 2007 fiscal budget**
- **Unknown if efforts to restore the budget will be successful**
- **Everything is on hold until the future of *AmericaView* has been determined**

AmericaView's Future

- *AmericaView* is looking at the possibility of integrating with another government agency (NASA, FSA, NOAA)
- *AmericaView* may expand beyond LANDSAT to incorporate other satellites and forms of remote sensing that include atmospheric and oceanographic sciences