South Dakota Space Grant Consortium

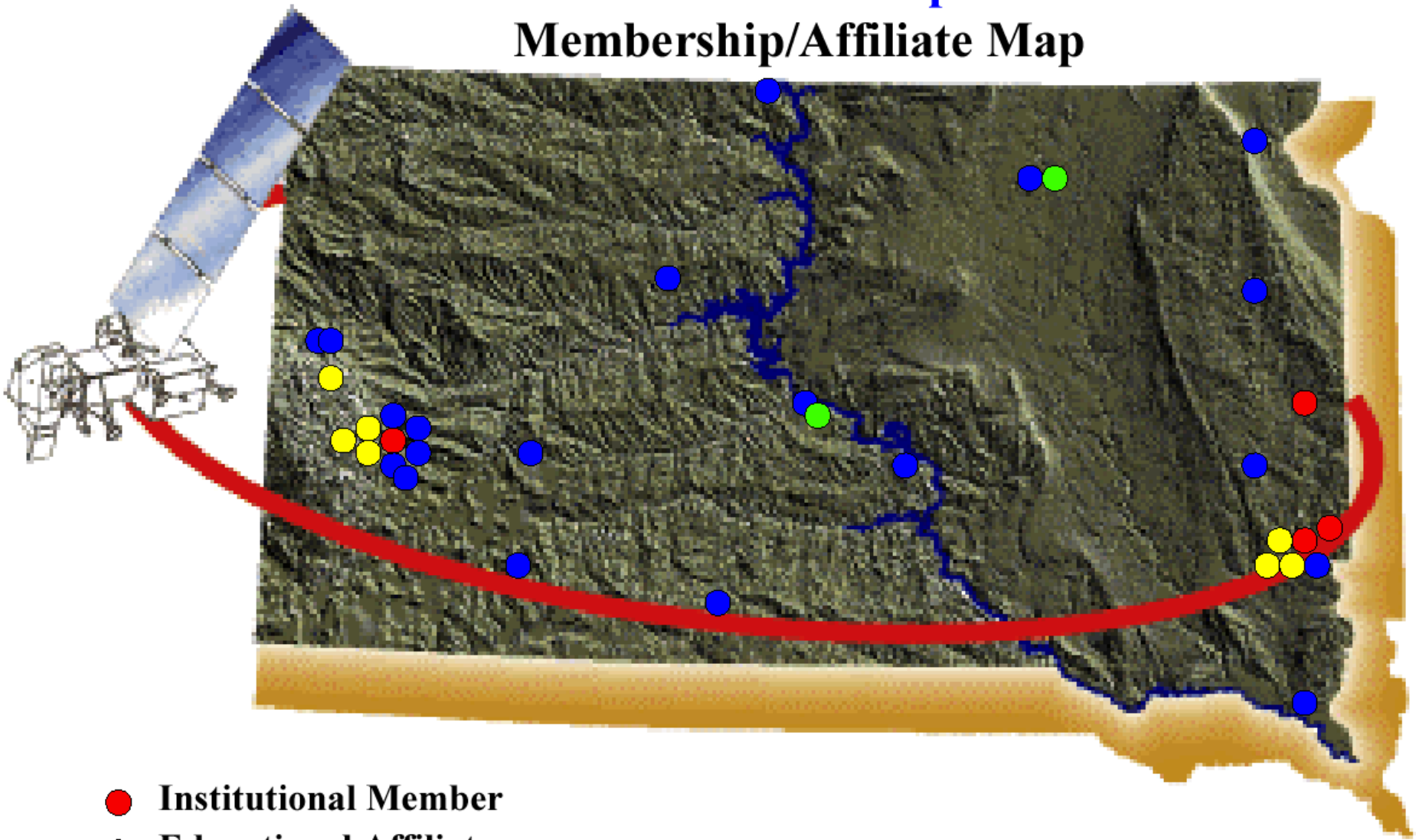
Working Together

Daniel Swets, Augustana College

South Dakota Space Grant Consortium

www.sdsmt.edu/space/

Membership/Affiliate Map



- Institutional Member
- Educational Affiliate
- Industrial Affiliate
- State & Federal Government Affiliate

Dr. Sherry Farwell Director

Institutional Members

South Dakota School of Mines & Technology (HQ)
South Dakota State University
Augustana College
USGS EROS Data Center

Tom Durkin
Deputy Director &
Outreach Coordinator

Educational Affiliates

- Black Hills State University & NASA ERC
- Dakota State University
- Northern State University
- University of South Dakota
- Black Hills Astronomical Soc.
- Badlands Observatory
- Si Tanka College
- Lower Brule Community College
- Oglala Lakota College
- Sinte Gleska University
- Sisseton Wahpeton Community College
- Sitting Bull College
- SKILL (Scientific Knowledge for Indian Learning and Leadership)
- Children's Science Center
- Kirby Science Center & NASA ERC
- South Dakota Discovery Center & Aquarium
- Teaching SMART
- Lake Area Technical Institute
- Science Linkages in the Community (SLIC)

Industrial Affiliates

- Barrick Gold Corp.
- Cynetics Corp.
- Honeywell
- Horizons, Inc.
- QSS Group, Inc.
- Raytheon ITSS
- Raven Industries
- RESPEC
- SAIC

State & Federal Government Affiliates

-SD Office of Aeronautics
Dept. of Transportation
-National Weather Service Forecast Office
Aberdeen, SD

Augustana-USGS EDC logistics

- Meeting support
- Earth Science Conferences
- Hosting International and Domestic visitors
- Translation of Foreign Correspondence
- Meeting Facilitation Services
- Training and Workshop Support

FIRST Robotics

Augustana College Remote Sensing Program - Microsoft Internet Explorer

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Address http://faculty.augie.edu/~swets/RemoteSensing/ Go Links

AUGUSTANA COLLEGE

Augustana College is in a unique position to take advantage of existing long-term ties with the USGS EROS Data Center to offer a course of study in Remote Sensing. Remote sensing involves the use of airborne or spaceborne sensors to observe objects at a distance. Typical applications include studying areas of deforestation, determining the status of a growing crop or other land cover types, defining urban patterns and urban sprawl, and delineating the extent of flooding or fire. It is increasingly being used as a method for studying the Earth's land surfaces, oceans, and atmosphere. This interdisciplinary program flows from Augustana's mission for stewardship and scholarship. Students in the program participate in coursework that leads to hands-on participation in important real-world projects that are of current interest.

A minor in Remote Sensing provides students with a strong foundation in how and why remote sensing works in the context of its uses in contemporary scientific, political, and environmental communities. The minor will enrich study in scientific disciplines such as biology, chemistry, computer science, mathematics and physics.

Minor: A minor in remote sensing consists of a minimum of 16 credit hours:

- 8 credits from **Remote Sensing 210 (4 c.h.)**, **Remote Sensing 310 (4 c.h.)**
- 8 credits from Biology 180 (Environmental science-4 c.h.), Biology 348 (Ecology-4 c.h.), Biology 352 (Terrestrial plant ecology-4 c.h.), Computer Science 210 (CS1-4 c.h.), **Geography 130 (Physical geography/earth science-4 c.h.)**

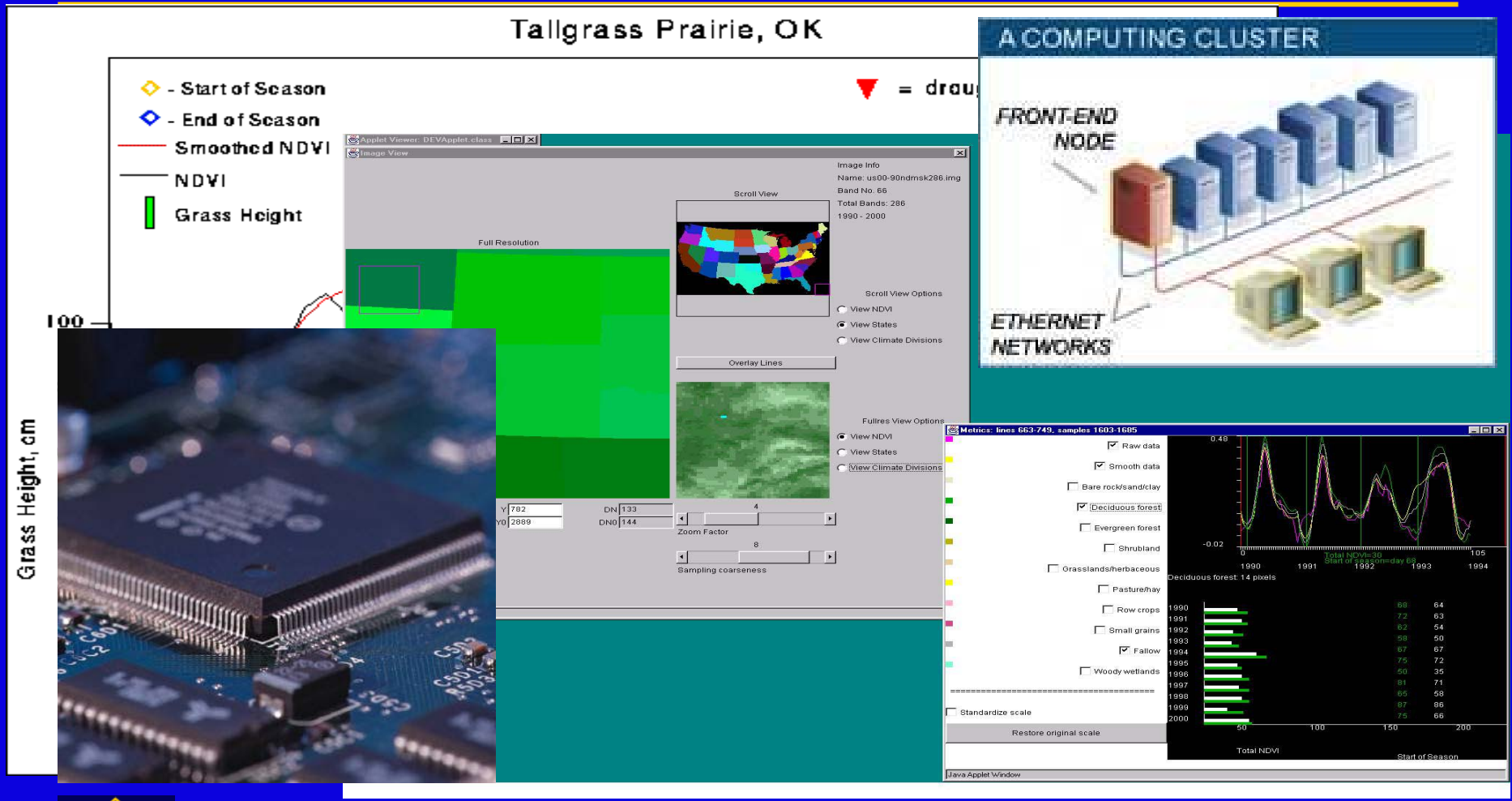
Classes in integral calculus (e.g., Math 252) and optics/electromagnetics (e.g., Physics 170 or 222) are strongly recommended.

Internet

Workforce Development

- Internship program - joint-funding at USGS EROS Data Center (EDC)
  - Trial internship at EDC
  - Committed to a full intern
  - Win-Win-Win-Win
    - Student: Invaluable experience, Job opportunities
    - EDC: Reduced-cost intern, trained personnel
    - Augustana: Tighter links with world-class scientists
    - NASA: Goodwill, trained personnel

Collaborative projects



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NASA EPSCoR

- TAC - meets regularly to make strategic decisions for where our State's NASA-related research ought to be going
- Steering Committee - meets semi-annually to make tactical decisions about our State-wide efforts
  - Program Initiation Grant reviews
  - Seminar and symposium recommendations
- Collaborative research projects