RESEARCH & ARTISTRY
VALLEY CITY STATE UNIVERSITY
PRESENTATION TO THE
NDUS SBHE RESEARCH AND GOVERNANCE COMMITTEE

NOVEMBER 18, 2020 1 PM
VIA TEAMS

DR. ALAN LAFAVE
PRESIDENT

These Slides can be viewed by following:
Overview

• Welcome and Introduction:
  • Dr. LaFave, President VCSU

• VCSU Macroinvertebrate Lab:
  • Dr. Andre Delorme, Chair, Science Department

• ND Game and Fish
  • Dr. Casey Williams, Associate Professor, Fisheries and Wildlife

• Research History at VCSU:
  • Dr. Hilde van Gijssel, Professor, EPSCoR & INBRE

• Student Opportunities for Academic Research
  • Dr. Emily Fenster, Associate Professor, Sociology, SOAR
Welcome Slide

• Slide content
VCSU Macroinvertebrate Lab

• Wanted to engage students in active participation projects to give them experience in doing science
  • Includes grant projects and contract work for government agencies
• Provides opportunities for students to gain hands on experience
• Builds relationships with VCSU and other entities
  • Major grants such as BRIN, INBRE, and EPSCoR provides collaboration possibilities at the North Dakota universities
  • Contract work builds relationships with government agencies
VCSU Macroinvertebrate Lab

• Provided student opportunities to present their work at regional and national conferences
  • Students have given over 45 presentations or posters in the last 20 years

• Provided funding to the University
  • Has brought in approximately $3 million to VCSU

• Has enabled us to buy equipment for the department we could not afford
ND Game and Fish

• Game and Fish
  • Concentrate on game fish management
• Dr. Casey Williams – native stream fish
• 2012 – began contracting with VCSU for stream fish survey
• Increased interest in aquatic resources due to oil boom
• As of 2020, statewide survey complete
• Funding allows for 3 summer student employees
  • Involved in all aspects of project
  • 5 presentations at professional meetings
Research History at VCSU

• In the 90’s Dr DeLorme received $500 grant to buy equipment for water quality research

• 2001 – BRIN: VCSU was awarded $70,000
  • Hired faculty member to expand Biomedical research knowledge

• 2004 – INBRE: Dr DeLorme and Dr van Gijsels supervised independent projects
  • Build research capacity by investing in equipment and lab technicians
  • Dramatically increased involvement of students
    • 8 students per summer
  • Involvement of VCSU faculty continued till 2018
Research History at VCSU cont.

• 2013 – EPSCoR: Dr DeLorme and Dr Dennhardt
  • Part of the INSPIRE-ND Track 1
  • Focus on material science and climate change
  • Provided our student with field experiences in their field of study

• 2020 – EPSCoR: Dr van Gijsssel and Dr Galt
  • Part of ND-ACES Track 1
  • Focus on creating materials to create models for cancer research and provide data for models and machine learning to move to personalized medicine

• Several smaller grants have created opportunities for research
Research impact

• More opportunities for students to be involved in research
  • Every semester 1-2 students are involved in projects
  • Every summer students do research; number depends on grant that are available
  • 30 students have been involved with the Toxicology lab since 2002
  • Increased admission in graduate and professional school: 50% of Health Science majors continue in professional and graduate school
Provided the support in faculty FTE to develop the Health Science, Fisheries and Wildlife Science, Environmental Science major

Science department grew from 4.5 FTE to 12 FTE between 2002 and 2020

Increased student enrollment in Science department programs 4-fold to over 160 students. Second largest program after education program

Inclusion of research experiences in courses
  - Equipment and space is available
  - Lab for cell biology is a research project
Student Opportunities for Academic Research

The SOAR program supports faculty-mentored research, artistry, and creativity projects for undergraduates at VCSU.

Proposals are solicited each semester and are scored by jurors based on a rubric, then ranked.

Successful projects are funded at $1,000 + $250, the work anticipated to be approximately 100 hours.

An ongoing goal is for each department to be represented in the list of funded projects.

www.soar.vcsu.edu

Dr. Emily Fenster
SOAR Metrics

A total of 9 academic departments have hosted 34 distinct undergraduate research projects for 34 students and 20 faculty mentors as a part of the VCSU SOAR program since its inaugural year in 2014.

www.soar.vcsu.edu

Dr. Emily Fenster
Examples of Funded SOAR Projects

Zander Dale – No REZervations: Creating Navajo Pop Art

Charlotte Huschka – A Student Approach to Retention on a Micro Level: What Do Students Say

Sarah Zacher – Uncovering the Silent Voices of the Past: A History of the Fort Totten Boarding School

Deborah Haley – The Study of Social Class in Dracula, The Picture of Dorian Gray, and Hard Times

Tanner Clark – Spirituality and Religiosity in University Students

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Dr. Emily Fenster
Performance Slides

- Performance as a scholarly activity
Summary

• Slide content