



**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**



**VALLEY CITY  
STATE UNIVERSITY**

These Slides can be viewed by following:  
<https://bit.ly/ndus-sbhe-vcsu>



# 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



Dr. Alan LaFave

# 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 Gijssel 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 Gijssel 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

# Research impact secondary

- 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.

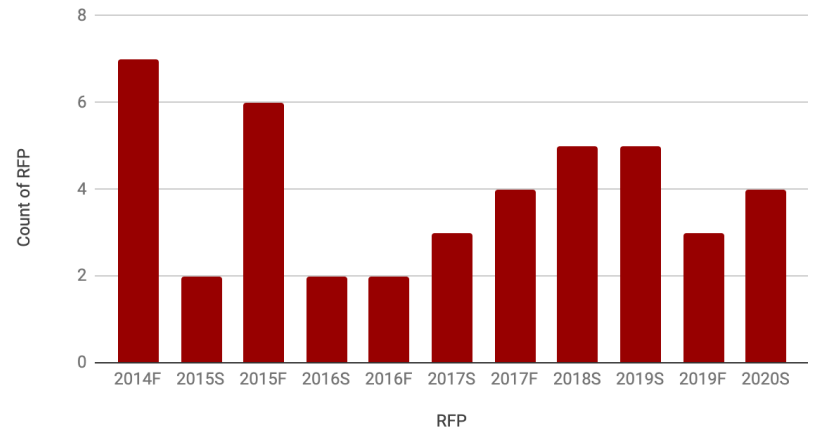
Successful projects are funded at \$1,000 + \$250, the work anticipated to be approximately 100 hours.

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

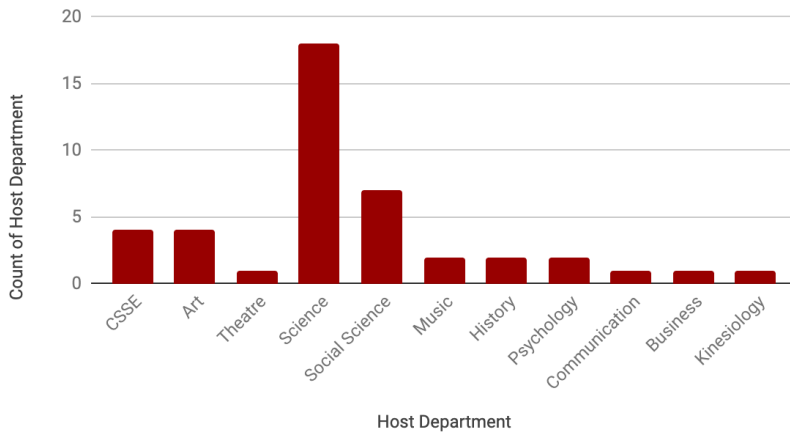
# SOAR Metrics

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.

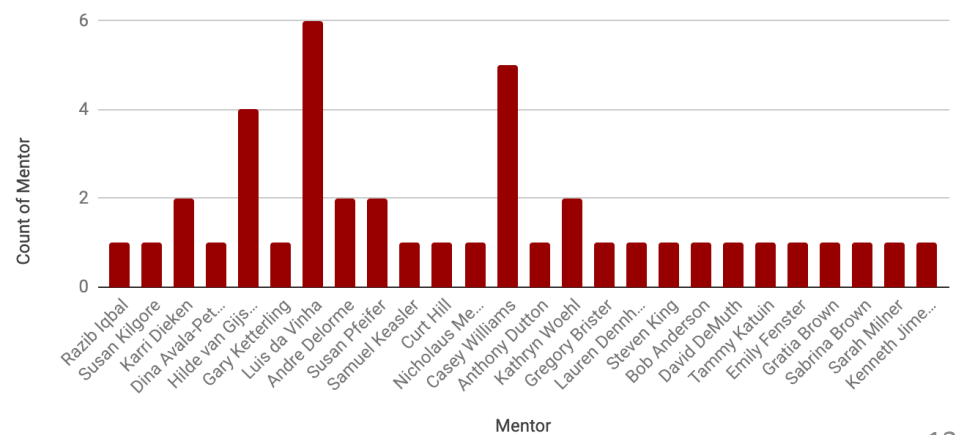
Awards by RFP Cycle



Count of Host Department



Count of Mentor



# 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

# Performance Slides

- Performance as a scholarly activity



# Summary

- Slide content